

## GHC50 Product Guide

ASME B30.5  
Metric 75% and Imperial 75%



### Features

- 45 t (50 USt) capacity
- 9,4 m – 30,4 m (30 ft 10 in – 99 ft 9 in) four-section full power boom
- 13 m (42 ft 8 in) offsettable boom extension
- 100% pick and carry load charts
- Cummins QSB 4.5L Tier 4 final compliant engine

# GROVE GHC50

A compact powerhouse, the GHC50 transports to the jobsite on one truck, with low gross vehicle weight and ground-bearing pressure and a boom measuring 9,4 m – 30,4 m (30 ft 10 in – 99 ft 9 in).

## Features

### > Comfort redefined

Operator cab is designed to deliver maximum comfort while incorporating conveniently located joystick controls for precise operation. Cab comes equipped with an integrated rated capacity limiter, air suspension seat, color monitor for up to four cameras and precise climate control. The cab can tilt up to 15° providing the operator additional comfort when working at long boom and extension lengths.



### > Travel made easy

Transportation to the jobsite can easily be accomplished in one load. Once on the jobsite, the GHC50's narrow dimensions provide excellent maneuverability in confined areas. The strong undercarriage provides 100 percent pick and carry capability and work up to 4° of inclination. The hydraulically extendable tracks allow for three working gauges for maximum flexibility on the job.



### > Strong telescopic boom

The GHC50 comes equipped with a robust full-power four-section boom that allows for telescoping under load. The main boom offers 9,4 m – 30,4 m (30 ft 10 in – 99 ft 9 in) of reach. This paired with the standard 6,5 m (21 ft 4 in) offsettable swingaway extension provides a maximum tip height of 39,3 m (129 ft).



## GHC50 benefits

### More productive in more places on the jobsite

The GHC50 delivers unsurpassed maneuverability and versatility.

- Telescoping boom, plus heavy-duty crawler tracks for all-terrain productivity
- Superior gradeability
- High visibility cabs with up to 15° tilt
- Two-speed hydrostatic drive allows for skid steering and counter-rotation capability
- Compact design allows you to work in more places

### Rugged durability to tackle all terrain

The GHC50 comes equipped with a durable, powerful crawler system.

- Hydraulically extendable and retractable crawlers
- Heavy-duty, 900 mm (36 in) triple bar, maintenance-free track shoes
- Cummins QSB Tier 3 or Tier 4 final diesel engines power through terrain challenges

### Easy transport to the jobsite and quick assembly

The GHC50 helps you spend less time on the truck and more time on the job.

- Transports to the jobsite in one load
- Retracted gauge for transport width
- Excellent serviceability keeps you up and running



**What you need, when you need it.**

**Get right to work with the right equipment** — Manitowoc Finance gives you access to flexible, affordable financing you can use to seize profitable new opportunities as they arise.

**Feel confident in your investment** — rest easy with the assurance of the world's most advanced crane service and support network.

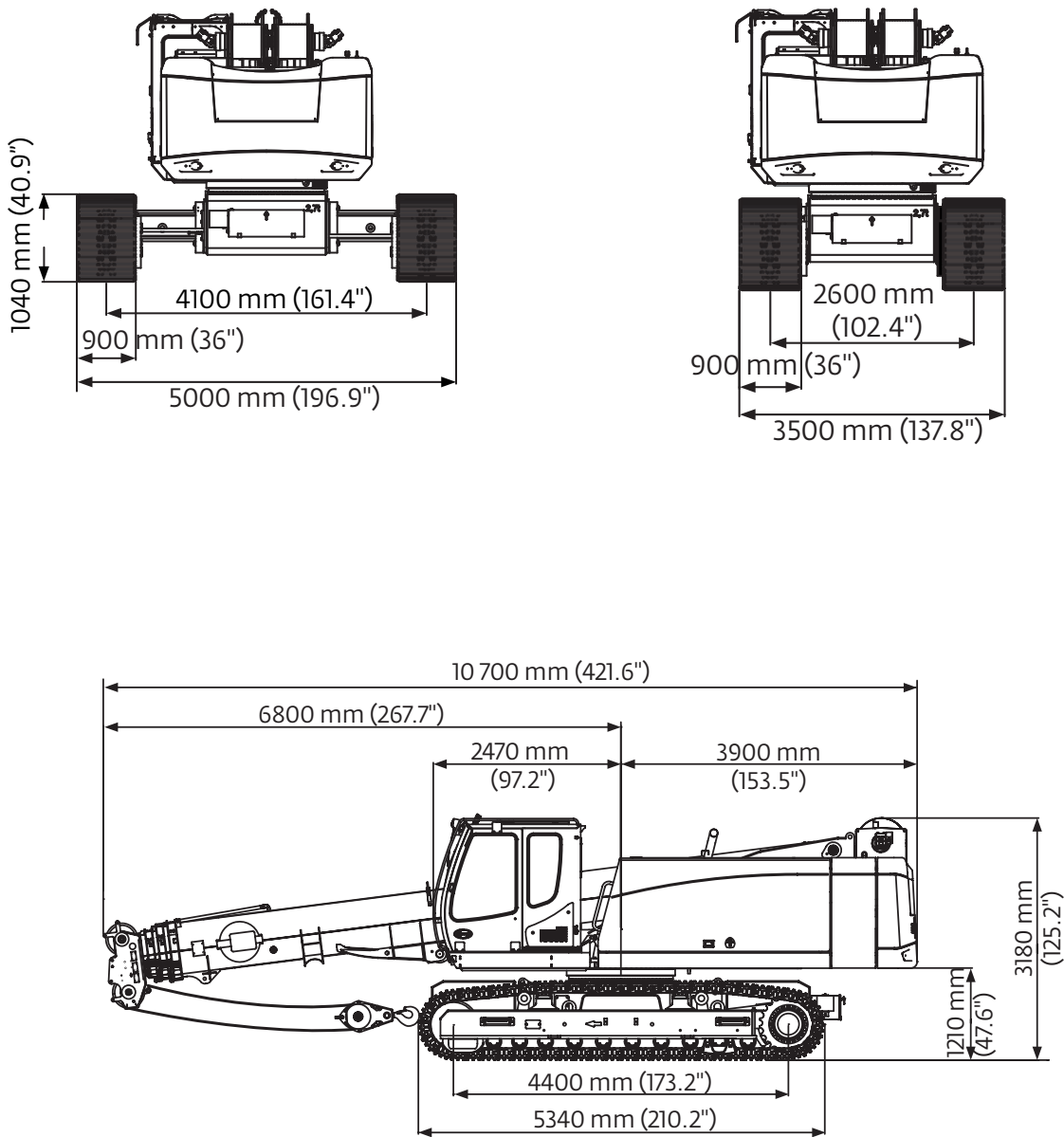
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# Dimensions

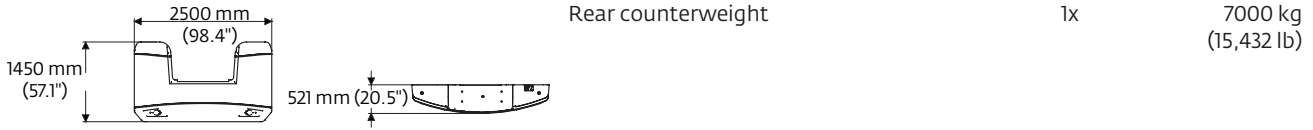
## Transport dimensions and weights

Operating / Transport weight:  
 Approximately 45 770 kg (100,905 lb) with 6,5 m (21 ft 4 in) boom extension, two hoists, 900 mm (36 in) triple bar shoes and 8900 kg (19,621 lb) counterweight.



# Dimensions

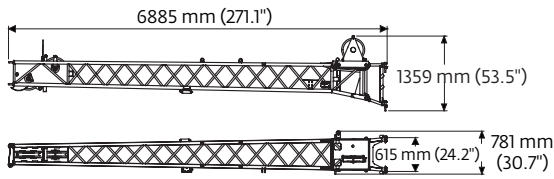
## Transport dimensions and weights



Rear counterweight

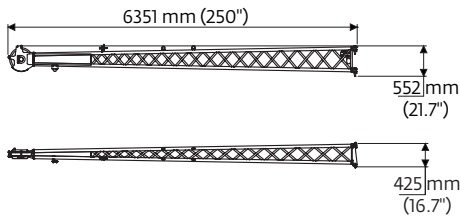
1x

7000 kg  
(15,432 lb)



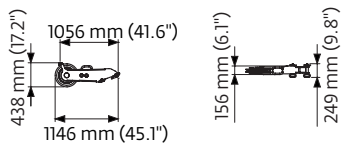
Boom extension - 6,5 m (21 ft 4 in)

600 kg  
(1323 lb)



Fly jib extension - 6,5 m (21 ft 4 in)

250 kg  
(551 lb)

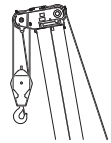
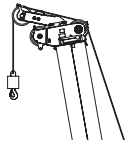





Auxiliary boom nose

50 kg  
(110 lb)

# Load programs

## Working load programs

|  | Main boom   |                 |               | Auxiliary boom nose   |                 |               | Boom extension 6,5 m (21 ft 4 in)   |                 |               | Boom extension with optional fly jib 13 m (42 ft 8 in)                              |                 |               |
|--|---|-----------------|---------------|---|-----------------|---------------|---|-----------------|---------------|---|-----------------|---------------|
|  |  |                 |               |  |                 |               |  |                 |               |  |                 |               |
| Counterweight  |   |                 |               |   |                 |               |   |                 |               |   |                 |               |
| Undercarriage track width (centerline to centerline of crawlers)                                       | 4,1 m (13' 6")  | 3,3 m (10' 10") | 2,6 m (8' 6") | 4,1 m (13' 6")  | 3,3 m (10' 10") | 2,6 m (8' 6") | 4,1 m (13' 6")  | 3,3 m (10' 10") | 2,6 m (8' 6") | 4,1 m (13' 6")  | 3,3 m (10' 10") | 2,6 m (8' 6") |
| <br>8,9 t (19,621 lb) | 360°  | 360°            | 360°          | 360°  | 360°            | 360°          | 360°  | —               | —             | 360°  | —               | —             |

### Note:

Additional safe working loads are also available for 2° and 4° inclines.

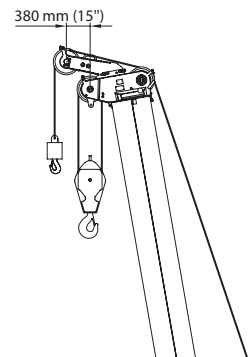
## Boom extension options



• **Boom extension 6,5 m (21 ft 4 in)**  
maximum 2-strand, possible offset angle 0° and 40°

• **Boom extension w/ optional fly jib 13 m (42 ft 8 in)**  
maximum 1-strand, possible offset angle 0° and 40°

• **Auxiliary boom nose**  
maximum 1-strand



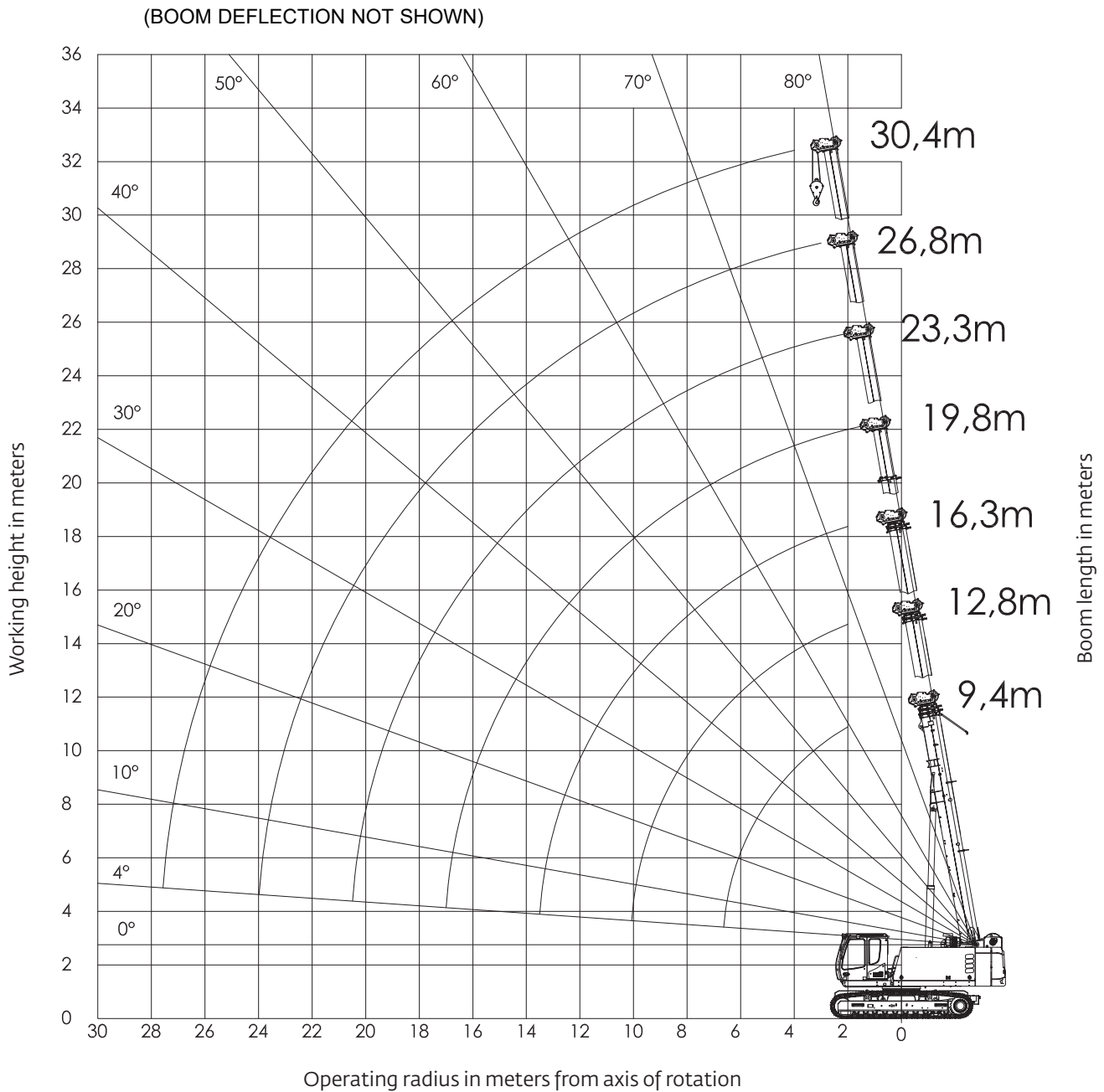
| Capacity                                 | Weight           | Cable reeving and maximum safe working load |                       |                       |                       |                       |                       |                       |                       |                       |                     |                     |
|--|------------------|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
|  |                  | 10  | 9                     | 8                     | 7                     | 6                     | 5                     | 4                     | 3                     | 2                     | 1                   |                     |
| 5 t (5.5 USt)                            | 80 kg (176 lb)   | —   | —                     | —                     | —                     | —                     | —                     | —                     | —                     | —                     | —                   | 5000 kg (11,000 lb) |
| 35 t (38.5 USt)<br>3-sheave              | 270 kg (595 lb)  | —   | —                     | —                     | 35 000 kg (77,000 lb) | 30 000 kg (66,000 lb) | 25 000 kg (55,000 lb) | 20 000 kg (44,000 lb) | 15 000 kg (33,000 lb) | 10 000 kg (22,000 lb) | 5000 kg (11,000 lb) | 5000 kg (11,000 lb) |
| 60 t (66.1 USt)<br>6-sheave<br>*optional | 850 kg (1874 lb) | 50 000 kg (110,000 lb)                      | 45 000 kg (99,000 lb) | 40 000 kg (88,000 lb) | 35 000 kg (77,000 lb) | 30 000 kg (66,000 lb) | 25 000 kg (55,000 lb) | 20 000 kg (44,000 lb) | 15 000 kg (33,000 lb) | 10 000 kg (22,000 lb) | 5000 kg (11,000 lb) | 5000 kg (11,000 lb) |

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# Working range

Main boom – metric 75%

## Main boom



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# Load chart

Main boom – metric 75%



30,4 m



8,9 t



100%



360°



Kilograms

| Radius in meters   | Main boom length in meters |               |                 |               |                 |               |               |
|--|----------------------------|---------------|-----------------|---------------|-----------------|---------------|---------------|
|  | 9.4                        | 12.8          | 16.3            | 19.8          | 23.3            | 26.8          | 30.4          |
| 2  | 45 000                     | 31 000        | 28 000          | 15 600        | 14 500          | —             | —             |
| 3  | 45 000                     | 31 000        | 25 000          | 15 600        | 14 500          | 12 700        | —             |
| 4  | 38 000                     | 31 000        | 22 000          | 15 600        | 14 500          | 12 600        | 9200          |
| 5  | 30 000                     | 28 000        | 19 300          | 15 600        | 14 200          | 12 400        | 9200          |
| 6  | 22 000                     | 22 500        | 16 900          | 14 900        | 13 600          | 11 900        | 9200          |
| 7  | —                          | 17 500        | 15 000          | 13 600        | 12 500          | 11 100        | 9100          |
| 8  | —                          | 14 200        | 13 500          | 12 200        | 11 200          | 10 300        | 8700          |
| 9  | —                          | 11 700        | 11 700          | 11 100        | 10 200          | 9 400         | 8200          |
| 10   | —                          | —             | 9 900           | 10 100        | 9 300           | 8 600         | 7 800         |
| 11   | —                          | —             | 8 500           | 8 900         | 8 500           | 8 000         | 7 300         |
| 12   | —                          | —             | 7 400           | 7 700         | 7 900           | 7 300         | 6 800         |
| 13   | —                          | —             | 6 400           | 6 800         | 7 100           | 6 800         | 6 400         |
| 14   | —                          | —             | —               | 6 000         | 6 200           | 6 300         | 5 900         |
| 15   | —                          | —             | —               | 5 400         | 5 600           | 5 800         | 5 600         |
| 16   | —                          | —             | —               | 4 800         | 5 000           | 5 200         | 5 200         |
| 17   | —                          | —             | —               | —             | 4 500           | 4 700         | 4 900         |
| 18   | —                          | —             | —               | —             | 4 100           | 4 300         | 4 400         |
| 19   | —                          | —             | —               | —             | 3 700           | 3 900         | 4 100         |
| 20   | —                          | —             | —               | —             | 3 300           | 3 600         | 3 700         |
| 21   | —                          | —             | —               | —             | —               | 3 300         | 3 400         |
| 22   | —                          | —             | —               | —             | —               | 3 000         | 3 100         |
| 23   | —                          | —             | —               | —             | —               | 2 700         | 2 900         |
| 24   | —                          | —             | —               | —             | —               | —             | 2 600         |
| 25   | —                          | —             | —               | —             | —               | —             | 2 400         |
| 26   | —                          | —             | —               | —             | —               | —             | 2 200         |
| <b>When 6.5 m extension is in stowed position, the rated loads must be reduced as follows:</b> |                            |               |                 |               |                 |               |               |
| Reduction of load (kg)   | 438                        | 323           | 258             | 216           | 186             | 165           | 148           |
| <b>When 13 m extension is in stowed position, the rated loads must be reduced as follows:</b>  |                            |               |                 |               |                 |               |               |
| Reduction of load (kg)   | 596                        | 437           | 347             | 289           | 249             | 218           | 196           |
| <b>Lifting capacities at 4° boom angle</b>   |                            |               |                 |               |                 |               |               |
| Boom angle   | Main boom length in meters |               |                 |               |                 |               |               |
|  | 9.4                        | 12.8          | 16.3            | 19.8          | 23.3            | 26.8          | 30.4          |
| 4°   | 18 900<br>(6.7)            | 9 900<br>(10) | 6 200<br>(13.5) | 4 500<br>(17) | 3 300<br>(20.5) | 2 600<br>(24) | 300<br>(27.5) |

NOTE: ( ) reference radii in meters.

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# Load chart

Auxiliary boom nose – metric 75%



30,4 m



With  
auxiliary  
boom nose



8,9 t



100%



360°



Kilograms

| Radius in meters   | Main boom length in meters |              |                |              |                |              |               |
|--|----------------------------|--------------|----------------|--------------|----------------|--------------|---------------|
|  | 9.4                        | 12.8         | 16.3           | 19.8         | 23.3           | 26.8         | 30.4          |
| 2  | 5000                       | 5000         | 5000           | 5000         | —              | —            | —             |
| 3  | 5000                       | 5000         | 5000           | 5000         | 5000           | —            | —             |
| 4  | 5000                       | 5000         | 5000           | 5000         | 5000           | 5000         | —             |
| 5  | 5000                       | 5000         | 5000           | 5000         | 5000           | 5000         | 5000          |
| 6  | 5000                       | 5000         | 5000           | 5000         | 5000           | 5000         | 5000          |
| 7  | 5000                       | 5000         | 5000           | 5000         | 5000           | 5000         | 5000          |
| 8  | 5000                       | 5000         | 5000           | 5000         | 5000           | 5000         | 5000          |
| 9  | —                          | 5000         | 5000           | 5000         | 5000           | 5000         | 5000          |
| 10   | —                          | 5000         | 5000           | 5000         | 5000           | 5000         | 5000          |
| 11   | —                          | 5000         | 5000           | 5000         | 5000           | 5000         | 5000          |
| 12   | —                          | —            | 5000           | 5000         | 5000           | 5000         | 5000          |
| 13   | —                          | —            | 5000           | 5000         | 5000           | 5000         | 5000          |
| 14   | —                          | —            | —              | 5000         | 5000           | 5000         | 5000          |
| 15   | —                          | —            | —              | 5000         | 5000           | 5000         | 4900          |
| 16   | —                          | —            | —              | 4700         | 4900           | 4900         | 4600          |
| 17   | —                          | —            | —              | 400          | 4400           | 4600         | 4400          |
| 18   | —                          | —            | —              | —            | 4000           | 4200         | 4300          |
| 19   | —                          | —            | —              | —            | 3600           | 3800         | 3900          |
| 20   | —                          | —            | —              | —            | 3200           | 3400         | 3600          |
| 21   | —                          | —            | —              | —            | —              | 3100         | 3200          |
| 22   | —                          | —            | —              | —            | —              | 2800         | 3000          |
| 23   | —                          | —            | —              | —            | —              | 2600         | 2700          |
| 24   | —                          | —            | —              | —            | —              | 2300         | 2500          |
| 25   | —                          | —            | —              | —            | —              | —            | 2200          |
| 26   | —                          | —            | —              | —            | —              | —            | 2000          |
| <b>When 6.5 m extension is in stowed position, the rated loads must be reduced as follows:</b> |                            |              |                |              |                |              |               |
| <b>Reduction of load (kg)</b>  | 438                        | 323          | 258            | 216          | 186            | 165          | 148           |
| <b>When 13 m extension is in stowed position, the rated loads must be reduced as follows:</b>  |                            |              |                |              |                |              |               |
| <b>Reduction of load (kg)</b>  | 596                        | 437          | 347            | 289          | 249            | 218          | 196           |
| <b>Lifting capacities at 4° boom angle</b>   |                            |              |                |              |                |              |               |
| Boom angle   | Main boom length in meters |              |                |              |                |              |               |
|  | 9.4                        | 12.8         | 16.3           | 19.8         | 23.3           | 26.8         | 30.4          |
| 4°   | 5000<br>(6.7)              | 5000<br>(10) | 5000<br>(13.5) | 4200<br>(17) | 3100<br>(20.5) | 2300<br>(24) | 300<br>(27.5) |

NOTE: ( ) reference radii in meters.

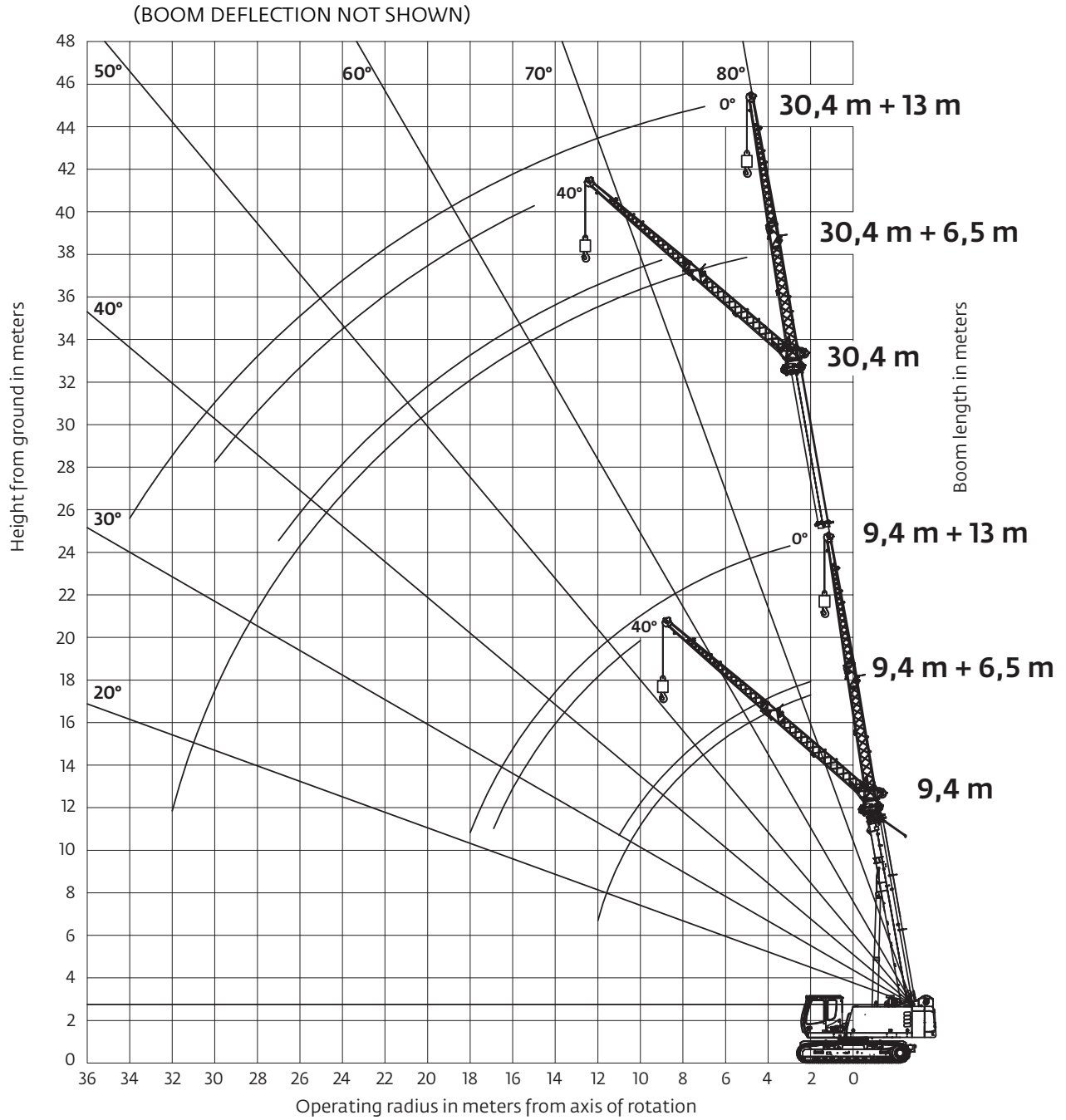
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# Working range

Extensions – metric 75%

## Main boom with extensions



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# Load chart

Extensions – metric 75%



30,4 m



6,5 m



8,9 t



100%



360°



Kilograms

| Radius in meters | Main boom length in meters |      |        |      |      |      |      |      |
|------------------|----------------------------|------|--------|------|------|------|------|------|
|                  | 9,4                        |      | 16,3   |      | 23,3 |      | 30,4 |      |
|                  | 0°                         | 40°  | 0°     | 40°  | 0°   | 40°  | 0°   | 40°  |
| 2                | 10 000                     | —    | —      | —    | —    | —    | —    | —    |
| 3                | 9900                       | —    | 10 000 | —    | 9900 | —    | —    | —    |
| 4                | 8600                       | —    | 9900   | —    | 9400 | —    | —    | —    |
| 5                | 7700                       | 4600 | 9400   | —    | 9000 | —    | 4900 | —    |
| 6                | 6900                       | 4400 | 8700   | 4600 | 8500 | —    | 4800 | —    |
| 7                | 6300                       | 4200 | 8000   | 4500 | 8000 | 4400 | 4800 | —    |
| 8                | 5700                       | 4000 | 7400   | 4300 | 7600 | 4300 | 4700 | —    |
| 9                | 5200                       | 3900 | 6900   | 4200 | 7200 | 4200 | 4700 | 4000 |
| 10               | 4800                       | 3800 | 6400   | 4100 | 6800 | 4100 | 4700 | 4000 |
| 11               | 4500                       | 3700 | 6000   | 4000 | 6500 | 4000 | 4700 | 3900 |
| 12               | 4100                       | —    | 5700   | 3900 | 6200 | 3900 | 4700 | 3800 |
| 13               | —                          | —    | 5300   | 3800 | 5900 | 3900 | 4600 | 3800 |
| 14               | —                          | —    | 5000   | 3800 | 5700 | 3800 | 4400 | 3700 |
| 15               | —                          | —    | 4800   | 3700 | 5400 | 3700 | 4200 | 3700 |
| 16               | —                          | —    | 4600   | 3700 | 5000 | 3700 | 4000 | 3600 |
| 17               | —                          | —    | 4200   | —    | 4600 | 3600 | 3800 | 3500 |
| 18               | —                          | —    | 4000   | —    | 4200 | 3600 | 3700 | 3400 |
| 19               | —                          | —    | —      | —    | 3700 | 3600 | 3500 | 3300 |
| 20               | —                          | —    | —      | —    | 3500 | 3500 | 3400 | 3200 |
| 21               | —                          | —    | —      | —    | 3200 | 3300 | 3200 | 3100 |
| 22               | —                          | —    | —      | —    | 2900 | —    | 3000 | 3000 |
| 23               | —                          | —    | —      | —    | 2600 | —    | 2700 | 2800 |
| 24               | —                          | —    | —      | —    | 2400 | —    | 2400 | 2600 |
| 25               | —                          | —    | —      | —    | —    | —    | 2200 | 2400 |
| 26               | —                          | —    | —      | —    | —    | —    | 2000 | 2200 |
| 27               | —                          | —    | —      | —    | —    | —    | 1800 | 2000 |
| 28               | —                          | —    | —      | —    | —    | —    | 1700 | —    |
| 29               | —                          | —    | —      | —    | —    | —    | 1500 | —    |
| 30               | —                          | —    | —      | —    | —    | —    | 1400 | —    |
| 31               | —                          | —    | —      | —    | —    | —    | 1200 | —    |
| 32               | —                          | —    | —      | —    | —    | —    | 1100 | —    |

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# Load chart

Extensions – metric 75%



30,4 m



13 m



8,9 t



100%



360°



Kilograms

| Radius in meters | Main boom length in meters |      |      |      |      |      |      |      |
|------------------|----------------------------|------|------|------|------|------|------|------|
|                  | 9,4                        |      | 16,3 |      | 23,3 |      | 30,4 |      |
|                  | 0°                         | 40°  | 0°   | 40°  | 0°   | 40°  | 0°   | 40°  |
| 3                | 4600                       | —    | —    | —    | —    | —    | —    | —    |
| 4                | 4400                       | —    | 4600 | —    | —    | —    | —    | —    |
| 5                | 4000                       | —    | 4400 | —    | 3800 | —    | —    | —    |
| 6                | 3700                       | —    | 4100 | —    | 3700 | —    | —    | —    |
| 7                | 3400                       | —    | 3800 | —    | 3600 | —    | 2100 | —    |
| 8                | 3100                       | —    | 3600 | —    | 3400 | —    | 2100 | —    |
| 9                | 2900                       | —    | 3400 | —    | 3300 | —    | 2100 | —    |
| 10               | 2700                       | 1800 | 3200 | —    | 3100 | —    | 2100 | —    |
| 11               | 2500                       | 1700 | 3000 | —    | 3000 | —    | 2100 | —    |
| 12               | 2300                       | 1700 | 2800 | 1700 | 2900 | —    | 2100 | —    |
| 13               | 2200                       | 1700 | 2600 | 1700 | 2700 | 1700 | 2100 | —    |
| 14               | 2000                       | 1600 | 2500 | 1700 | 2600 | 1600 | 2100 | —    |
| 15               | 1900                       | 1600 | 2400 | 1600 | 2500 | 1600 | 2100 | 1500 |
| 16               | 1800                       | 1500 | 2300 | 1600 | 2400 | 1600 | 2100 | 1500 |
| 17               | 1700                       | 1500 | 2100 | 1500 | 2300 | 1500 | 2100 | 1500 |
| 18               | 1600                       | —    | 2000 | 1500 | 2200 | 1500 | 2100 | 1500 |
| 19               | —                          | —    | 2000 | 1500 | 2100 | 1500 | 2000 | 1400 |
| 20               | —                          | —    | 1900 | 1500 | 2100 | 1500 | 2000 | 1400 |
| 21               | —                          | —    | 1800 | —    | 2000 | 1400 | 1900 | 1400 |
| 22               | —                          | —    | 1700 | —    | 1900 | 1400 | 1900 | 1400 |
| 23               | —                          | —    | 1600 | —    | 1800 | 1400 | 1800 | 1400 |
| 24               | —                          | —    | 1500 | —    | 1800 | 1400 | 1800 | 1300 |
| 25               | —                          | —    | —    | —    | 1700 | 1400 | 1700 | 1300 |
| 26               | —                          | —    | —    | —    | 1700 | 1400 | 1700 | 1300 |
| 27               | —                          | —    | —    | —    | 1600 | —    | 1600 | 1300 |
| 28               | —                          | —    | —    | —    | 1400 | —    | 1600 | 1300 |
| 29               | —                          | —    | —    | —    | 1300 | —    | 1500 | 1300 |
| 30               | —                          | —    | —    | —    | —    | —    | 1500 | 1100 |
| 31               | —                          | —    | —    | —    | —    | —    | 1400 | —    |
| 32               | —                          | —    | —    | —    | —    | —    | 1200 | —    |
| 34               | —                          | —    | —    | —    | —    | —    | 1000 | —    |
| 36               | —                          | —    | —    | —    | —    | —    | 800  | —    |

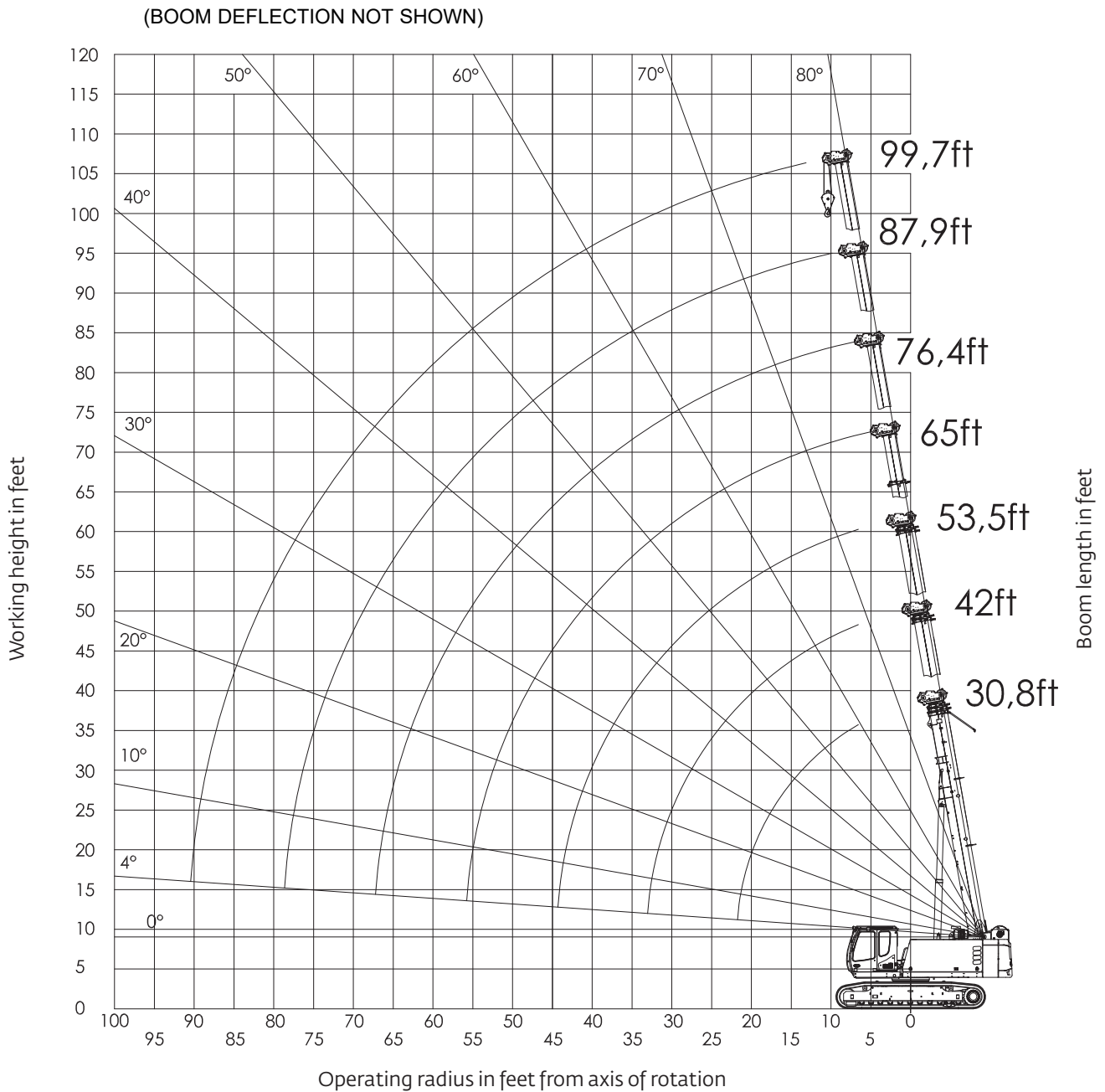
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# Working range

Main boom – imperial 75%

## Main boom



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# Load chart

Main boom – imperial 75%



99 ft 9 in



19,621 lb



100%



360°



Pounds

| Radius in feet   | Main boom length in feet |                  |                  |                 |                 |                 |               |
|--|--------------------------|------------------|------------------|-----------------|-----------------|-----------------|---------------|
|  | 30.8                     | 42.0             | 53.5             | 65.0            | 76.4            | 87.9            | 99.7          |
| 7  | 100,000                  | 68,400           | 61,800           | 34,400          | 32,000          | —               | —             |
| 10   | 98,500                   | 68,400           | 54,800           | 34,400          | 32,000          | 28,000          | —             |
| 15   | 73,700                   | 64,600           | 45,100           | 34,400          | 31,600          | 27,500          | 20,300        |
| 20   | —                        | 48,600           | 36,900           | 32,600          | 29,800          | 26,100          | 20,300        |
| 25   | —                        | 34,100           | 31,000           | 28,100          | 25,800          | 23,400          | 19,500        |
| 30   | —                        | —                | 25,200           | 24,200          | 22,200          | 20,500          | 18,000        |
| 35   | —                        | —                | 19,800           | 20,500          | 19,300          | 18,100          | 16,500        |
| 40   | —                        | —                | 15,900           | 16,600          | 17,100          | 15,900          | 14,800        |
| 45   | —                        | —                | —                | 13,700          | 14,200          | 14,200          | 13,300        |
| 50   | —                        | —                | —                | 11,600          | 12,000          | 12,500          | 12,100        |
| 55   | —                        | —                | —                | —               | 10,200          | 10,600          | 11,000        |
| 60   | —                        | —                | —                | —               | 8800            | 9200            | 9500          |
| 65   | —                        | —                | —                | —               | 7400            | 8100            | 8300          |
| 70   | —                        | —                | —                | —               | —               | 7100            | 7300          |
| 75   | —                        | —                | —                | —               | —               | 6000            | 6500          |
| 80   | —                        | —                | —                | —               | —               | —               | 5600          |
| 85   | —                        | —                | —                | —               | —               | —               | 4900          |
| <b>When 21.3' extension is in stowed position, the rated loads must be reduced as follows:</b> |                          |                  |                  |                 |                 |                 |               |
| Reduction of load (lb)   | 966                      | 711              | 568              | 476             | 411             | 363             | 326           |
| <b>When 42.7' extension is in stowed position, the rated loads must be reduced as follows:</b> |                          |                  |                  |                 |                 |                 |               |
| Reduction of load (lb)   | 1315                     | 963              | 766              | 638             | 549             | 481             | 433           |
| <b>Lifting capacities at 4° boom angle</b>   |                          |                  |                  |                 |                 |                 |               |
| Boom angle   | Main boom length in feet |                  |                  |                 |                 |                 |               |
|  | 30.8                     | 42.0             | 53.5             | 65.0            | 76.4            | 87.9            | 99.7          |
| 4°   | 41,700<br>(22.0)         | 21,800<br>(32.8) | 13,700<br>(44.3) | 9,900<br>(55.8) | 7,300<br>(67.3) | 5,700<br>(78.7) | 700<br>(90.2) |

NOTE: ( ) reference radii in feet.

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# Load chart

Auxiliary boom nose – imperial 75%



99 ft 9 in



With auxiliary boom nose



19,621 lb



100%



360°



Pounds

| Radius in feet   | Main boom length in feet |                  |                  |                 |                 |                 |               |
|--|--------------------------|------------------|------------------|-----------------|-----------------|-----------------|---------------|
|  | 30.8                     | 42.0             | 53.5             | 65.0            | 76.4            | 87.9            | 99.7          |
| 7  | 11,000                   | 11,000           | 11,000           | 11,000          | —               | —               | —             |
| 10   | 11,000                   | 11,000           | 11,000           | 11,000          | 11,000          | —               | —             |
| 15   | 11,000                   | 11,000           | 11,000           | 11,000          | 11,000          | 11,000          | —             |
| 20   | 11,000                   | 11,000           | 11,000           | 11,000          | 11,000          | 11,000          | 11,000        |
| 25   | 11,000                   | 11,000           | 11,000           | 11,000          | 11,000          | 11,000          | 11,000        |
| 30   | —                        | 11,000           | 11,000           | 11,000          | 11,000          | 11,000          | 11,000        |
| 35   | —                        | 11,000           | 11,000           | 11,000          | 11,000          | 11,000          | 11,000        |
| 40   | —                        | —                | 11,000           | 11,000          | 11,000          | 11,000          | 11,000        |
| 45   | —                        | —                | —                | 11,000          | 11,000          | 11,000          | 11,000        |
| 50   | —                        | —                | —                | 10,900          | 11,000          | 11,000          | 10,700        |
| 55   | —                        | —                | —                | 9500            | 10,000          | 10,300          | 9800          |
| 60   | —                        | —                | —                | —               | 8600            | 9000            | 9200          |
| 65   | —                        | —                | —                | —               | 7200            | 7700            | 8100          |
| 70   | —                        | —                | —                | —               | —               | 6600            | 6900          |
| 75   | —                        | —                | —                | —               | —               | 5800            | 6000          |
| 80   | —                        | —                | —                | —               | —               | —               | 5300          |
| 85   | —                        | —                | —                | —               | —               | —               | 4500          |
| <b>When 21.3' extension is in stowed position, the rated loads must be reduced as follows:</b> |                          |                  |                  |                 |                 |                 |               |
| Reduction of load (lb)   | 966                      | 711              | 568              | 476             | 411             | 363             | 326           |
| <b>When 42.7' extension is in stowed position, the rated loads must be reduced as follows:</b> |                          |                  |                  |                 |                 |                 |               |
| Reduction of load (lb)   | 1315                     | 963              | 766              | 638             | 549             | 481             | 433           |
| <b>Lifting capacities at 4° boom angle</b>   |                          |                  |                  |                 |                 |                 |               |
| Boom angle   | Main boom length in feet |                  |                  |                 |                 |                 |               |
|  | 30.8                     | 42.0             | 53.5             | 65.0            | 76.4            | 87.9            | 99.7          |
| 4°   | 11,000<br>(22.0)         | 11,000<br>(32.8) | 11,000<br>(44.3) | 9,300<br>(55.8) | 6,800<br>(67.3) | 5,100<br>(78.7) | 700<br>(90.2) |

NOTE: ( ) reference radii in feet.

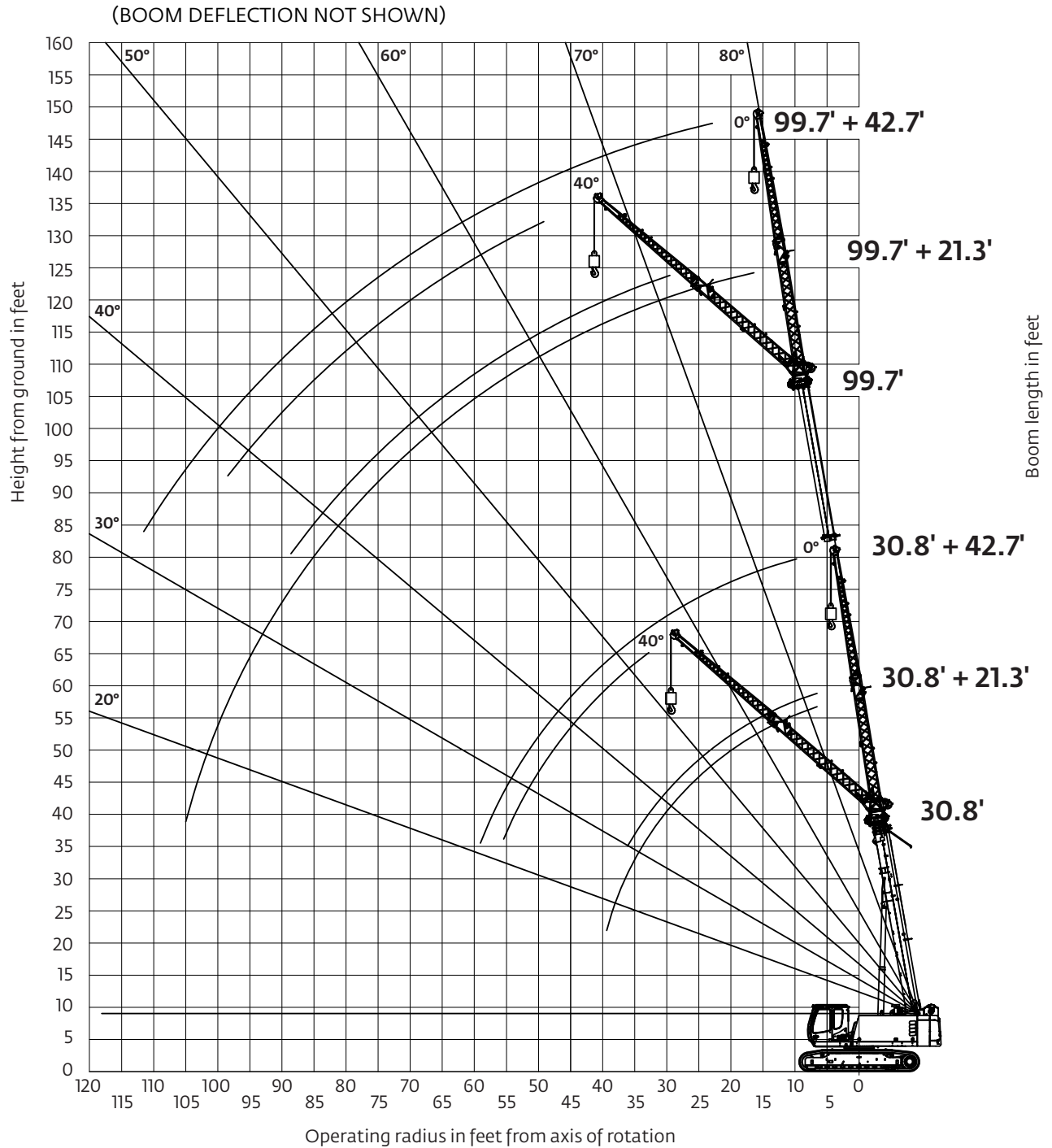
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# Working range

Extensions – imperial 75%

## Main boom with extensions



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# Load chart

Extensions – imperial 75%



99 ft 9 in



21 ft 4 in



19,621 lb



100%



360°



Pounds

| Radius<br>in feet | Main boom length in feet |      |        |        |        |      |        |      |
|-------------------|--------------------------|------|--------|--------|--------|------|--------|------|
|                   | 30.8                     |      | 53.5   |        | 76.4   |      | 99.7   |      |
|                   | 0°                       | 40°  | 0°     | 40°    | 0°     | 40°  | 0°     | 40°  |
| 7                 | 22,100                   | —    | —      | —      | —      | —    | —      | —    |
| 10                | 21,700                   | —    | 22,000 | —      | 21,800 | —    | —      | —    |
| 15                | 17,900                   | —    | 21,100 | —      | 20,200 | —    | —      | —    |
| 20                | 15,100                   | 9700 | 19,100 | 10,100 | 18,700 | —    | 10,700 | —    |
| 25                | 13,000                   | 9100 | 16,800 | 9700   | 17,100 | 9600 | 10,500 | —    |
| 30                | 11,400                   | 8600 | 15,000 | 9200   | 15,700 | 9300 | 10,400 | 8800 |
| 35                | 10,200                   | 8300 | 13,600 | 8900   | 14,600 | 9000 | 10,400 | 8700 |
| 40                | —                        | —    | 12,300 | 8600   | 13,500 | 8700 | 10,300 | 8400 |
| 45                | —                        | —    | 11,300 | 8300   | 12,700 | 8400 | 9800   | 8200 |
| 50                | —                        | —    | 10,400 | 8200   | 11,800 | 8200 | 9100   | 8000 |
| 55                | —                        | —    | 9500   | —      | 10,400 | 8100 | 8500   | 7700 |
| 60                | —                        | —    | —      | —      | 8900   | 7900 | 8000   | 7400 |
| 65                | —                        | —    | —      | —      | 7800   | 7800 | 7500   | 7100 |
| 70                | —                        | —    | —      | —      | 6800   | —    | 7000   | 6800 |
| 75                | —                        | —    | —      | —      | 5800   | —    | 6000   | 6200 |
| 80                | —                        | —    | —      | —      | —      | —    | 5100   | 5600 |
| 85                | —                        | —    | —      | —      | —      | —    | 4500   | 4900 |
| 90                | —                        | —    | —      | —      | —      | —    | 3900   | —    |
| 95                | —                        | —    | —      | —      | —      | —    | 3300   | —    |
| 100               | —                        | —    | —      | —      | —      | —    | 2900   | —    |

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# Load chart

Extensions – imperial 75%



99 ft 9 in



42 ft 8 in



19,621 lb



100%



360°



Pounds

| Radius<br>in feet | Main boom length in feet |      |      |      |      |      |      |      |
|-------------------|--------------------------|------|------|------|------|------|------|------|
|                   | 30.8                     |      | 53.5 |      | 76.4 |      | 99.7 |      |
|                   | 0°                       | 40°  | 0°   | 40°  | 0°   | 40°  | 0°   | 40°  |
| 10                | 10,200                   | —    | —    | —    | —    | —    | —    | —    |
| 15                | 9100                     | —    | 9900 | —    | —    | —    | —    | —    |
| 20                | 8000                     | —    | 9000 | —    | 8100 | —    | —    | —    |
| 25                | 7100                     | —    | 8100 | —    | 7700 | —    | 4600 | —    |
| 30                | 6300                     | —    | 7400 | —    | 7200 | —    | 4600 | —    |
| 35                | 5600                     | 3900 | 6700 | —    | 6700 | —    | 4600 | —    |
| 40                | 5000                     | 3700 | 6100 | 3800 | 6200 | —    | 4600 | —    |
| 45                | 4600                     | 3600 | 5600 | 3700 | 5800 | 3600 | 4600 | —    |
| 50                | 4200                     | 3400 | 5200 | 3500 | 5500 | 3500 | 4600 | 3300 |
| 55                | 3800                     | 3300 | 4800 | 3400 | 5100 | 3400 | 4600 | 3300 |
| 60                | —                        | —    | 4400 | 3300 | 4800 | 3300 | 4600 | 3200 |
| 65                | —                        | —    | 4100 | 3200 | 4600 | 3200 | 4400 | 3100 |
| 70                | —                        | —    | 3900 | 3100 | 4300 | 3200 | 4200 | 3100 |
| 75                | —                        | —    | 3600 | —    | 4100 | 3100 | 4000 | 3100 |
| 80                | —                        | —    | —    | —    | 3900 | 3000 | 3900 | 2900 |
| 85                | —                        | —    | —    | —    | 3800 | 3000 | 3800 | 2900 |
| 90                | —                        | —    | —    | —    | 3400 | —    | 3500 | 2900 |
| 95                | —                        | —    | —    | —    | 3200 | —    | 3400 | 2900 |
| 100               | —                        | —    | —    | —    | —    | —    | 3300 | 2900 |
| 105               | —                        | —    | —    | —    | —    | —    | 3100 | —    |
| 110               | —                        | —    | —    | —    | —    | —    | 2800 | —    |
| 115               | —                        | —    | —    | —    | —    | —    | 2400 | —    |
| 120               | —                        | —    | —    | —    | —    | —    | 2100 | —    |
| 125               | —                        | —    | —    | —    | —    | —    | 1900 | —    |

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# Load handling

| Weight reductions for load handling devices        |                       |                                   |
|--|-----------------------|-----------------------------------|
| 6,5 m - 13,0 m (21.3 ft - 42.7 ft) Boom extension: |                       |                                   |
|  | Without block or ball | With 80 kg (176 lb) headache ball |
| *6,5 m (21.3 ft) extension (erected)               | 800 kg (1764 lb)      | 942 kg (2077 lb)                  |
| *13,0 m (42.7 ft) extension (erected)              | 1332 kg (2936 lb)     | 1532 kg (3377 lb)                 |
| Hook blocks and Headache ball:                     |                       |                                   |
| 60 t (66 USt), 6-sheave                            |                       | 850 kg+ (1875 lb+)                |
| 35 t (38.5 USt), 3-sheave                          |                       | 270 kg+ (595 lb+)                 |
| 5 t (5.5 USt), headache ball                       |                       | 80 kg+ (176 lb+)                  |

\*Reduction of main boom capacities  
+Refer to rating plate for actual weight

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

**NOTE:** All load handling devices and boom attachments are considered part of the load and suitable allowances MUST BE MADE for their combined weights. Weights are for Grove furnished equipment.

| Line pulls and reeving information |  |                        |                      |
|------------------------------------|--|------------------------|----------------------|
| Hoists                             | Cable specs  | Permissible line pulls | Nominal cable length |
| Main and auxiliary                 | 16 mm (5/8")<br>Verotop Rotation Resistant (non-rotating)<br>Min. breaking strength 24 900 kg (54,895 lb)    | 5000 kg (11,000 lb*)   | 170 m (557 ft)       |
| Main and auxiliary                 | 16 mm (5/8")<br>35x7 Class Rotation Resistant (non-rotating)<br>Min. breaking strength 27 760 kg (61,200 lb) | 5000 kg (11,000 lb*)   | 170 m (557 ft)       |

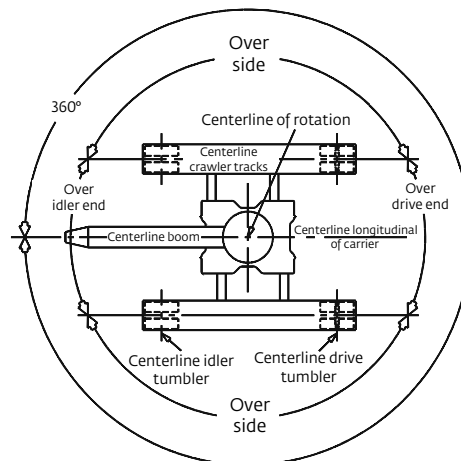
The approximate weight of Verotop 16 mm (5/8") wire rope is 1,25 kg/m (0.84 lb/ft).  
The approximate weight of 35x7 class 16 mm (5/8") wire rope is 1,5 kg/m (1.0 lb/ft).

\*With certain boom and hoist tackle combinations, the allowable line pull may be limited by hoist performance. Refer to Hoist Performance table for lift planning to ensure adequate hoist performance on drum rope layer required.

| Hoist performance |                                  |                   |                    |                    |
|-------------------|----------------------------------|-------------------|--------------------|--------------------|
| Wire rope layer   | Hoist line pulls two-speed hoist |                   | Drum rope capacity |                    |
|                   | Low available*                   | High available*   | Layer              | Total              |
| 1                 | 6455 kg (14,230 lb)              | 3742 kg (8250 lb) | 26,5 m (86.8 ft)   | 26,5 m (86.8 ft)   |
| 2                 | 6056 kg (13,352 lb)              | 3511 kg (7741 lb) | 28,2 m (92.5 ft)   | 54,7 m (179.3 ft)  |
| 3                 | 5704 kg (12,575 lb)              | 3307 kg (7291 lb) | 29,9 m (98.2 ft)   | 84,6 m (277.5 ft)  |
| 4                 | 5390 kg (11,884 lb)              | 3125 kg (6890 lb) | 31,7 m (103.9 ft)  | 116,3 m (381.4 ft) |
| 5                 | 5109 kg (11,264 lb)              | 2962 kg (6531 lb) | 33,4 m (109.7 ft)  | 149,7 m (491.1 ft) |
| 6                 | 4857 kg (10,707 lb)              | 2815 kg (6207 lb) | 35,1 m (115.3 ft)  | 184,8 m (606.4 ft) |
| 7                 | 4627 kg (10,201 lb)              | 2683 kg (5915 lb) | 36,9 m (121.1 ft)  | 221,7 m (727.5 ft) |

\*Max lifting capacity: Verotop and 35x7 class rope = 5000 kg (11,000 lb)

## Working area diagram



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

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# Specifications

## Upper carriage



### Standard boom

9,4 m – 30,4 m (30 ft 10 in – 99 ft 9 in) Four-section, full power, sequenced-synchronized telescopic boom.  
Maximum tip height: 32,6 m (107 ft)



### Boom extension

6,5 m (21 ft 4 in) offsettable, lattice, one piece swingaway extension. Extension can be offset at 0° and 40°.  
Maximum tip height: 39,3 m (129 ft)



### \*Optional boom extension

6,5 m (21 ft 4 in) offsettable, lattice, bi-fold swingaway extension that must be used in conjunction with standard 6,5 (21 ft 4 in) boom extension. This provides a total of 13 m (42 ft 8 in) of additional reach.  
Maximum tip height: 45,4 m (149 ft)  
Boom extension can be offset 0° and 40°



### Boom nose

Five nylatron sheaves on heavy-duty roller bearings with removable rope guards. Quick reeve type boom nose.  
Equipped with removable auxiliary boom nose.



### Boom elevation

One double-acting hydraulic cylinder with integral holding valves.  
Elevation: -6° to 80°



### Rated capacity limiter and anti-two block system

Load moment and independent anti-two block system with audio visual warning and control lever lock-out. These systems provide graphic display of boom angle, length, radius, tip height, relative load moment, maximum permissible load, load indication and warning of impending two-block condition with lock-out hoist function.



### Counterweight

8900 kg (19,621 lb) total (2 pieces)



### Cab

Large capacity operator's compartment that includes an air suspended operator's seat with lumbar support, heated seat, headrest, 3 inch safety belt, ergonomic control panels, load sensing electric dual axis joystick controls, travel pedals and levers, exceptional sound insulation, sliding door (includes sliding window), excellent all around visibility, tinted safety glass, front tilt window, large skylight w/ sun protection, windshield and roof wiper/washer system, radio w/ CD player, climate control (A/C, heat and defrost), fire extinguisher, and 15° tilt capability for improved overhead vision and ergonomic posture. Also equipped with a 7 inch monitor in cab for rear view, right side and hoist cameras.



### Swing

Two-speed, compact planetary gears with slant axis hydraulic motor and integrated brake valves. Sealed, externally geared slewing ring that allows for 360° of continuous rotation. Electronically applied service brake operated via foot pedal. Spring applied, hydraulically released parking brake. One position, manually pinned house lock.  
Swing speed: 0 – 2 rpm, variable



### Hydraulic system

Load sensing / LUDV hydraulic system with hydraulic and pilot controlled work functions, and load limit sensing control. Single variable-displacement piston pump with a two-section gear pump.  
Maximum output: 315 lpm (83.2 gpm)  
Maximum operating pressure: 330 bar (4,786 psi)  
510 L (134 gal) steel hydraulic reservoir with sight level gauge. High performance, 3 micron filtration system with water absorption contamination indicator for higher oil purity and extended oil service life.



### Hoist specifications (main and auxiliary)

Two-speed hoists driven via an axial piston hydraulic motor with compact planetary gear. Spring-loaded disc brake. Grooved drum with drum rotation indicator for both hoists that is located in the joystick controls.  
Maximum hoist pull (first layer): 6455 kg (14,230 lb)  
Maximum permissible single line pull: 4990 kg (11,000 lb)  
Maximum single line speed: 122 m/min (400 ft/min)  
Rope construction: 35 X 7 Rotation Resistant  
Rope diameter: 16 mm (5/8 in)  
Rope length: 170 m (557 ft)



### Engine (Tier 4)

Cummins QSB 4.5 L diesel, four cylinders, turbocharged with Cummins Diesel Oxidation Catalyst (DOC) exhaust and Selective Catalytic Reduction (SCR).  
Meets USEPA Tier 4 final requirements.  
129 kW (173 bhp) at 2500 rpm.  
Fuel requirements: Maximum of 15 ppm sulphur content (ultra-low diesel fuel). DEF (diesel exhaust fluid) required for SCR (selective catalytic reduction).  
NOTE: Tier 4 engine required for sale in North America.



### Engine (Tier 3)

Cummins QSB 4.5 L diesel, four cylinders, turbocharged rated at 119 kW (160 bhp) at 2200 rpm.  
NOTE: Required for sale outside of North America.



### Fuel tank capacity

Diesel Fuel: 360 L (95 gal)  
DEF (diesel exhaust fluid): 38 L (10 gal)

# Specifications

## Upper carriage *cont'd*



### Electrical system

24 volt with two 12-volt, maintenance-free batteries. Includes battery disconnect switch.



### Lights

Lighting package includes two halogen lights integrated into the front side of the cab roof and one LED headlight on the upper carriage, right side.

## Lower carriage



### Frame

Durable all steel welded construction with extendable cross members.



### Side frames

Four steel side frame beams that can be hydraulically extended or retracted via controls in the cab. 900 mm (36 in) triple bar maintenance free track shoes.

Retracted gauge: 2,60 m (8 ft 6 in)

Intermediate gauge: 3,30 m (10 ft 10 in)

Extended gauge: 4,10 m (13 ft 6 in)

\*Note: These widths are from centerline to centerline of crawlers.



### Travel

Two-speed hydrostatic drive operated via lever/pedal controls in cab. Allows for excellent maneuverability with skid steering and counter-rotation. Both side frames are hydraulically driven through a two-stage hydraulic traction motor. Spring-loaded, hydraulically venting disk brake.

Travel Speed: Max Low Range – 1,37 kmh (0.85 mph)

Max High Range – 2,49 kmh (1.55 mph)

Gradeability (theoretical): 70%

### Operating weight

45 770 kg (100,905 lb) base machine configuration that includes 30,4 m (99 ft 9 in) boom, 6,5 m (21 ft 4 in) extension, 35 t (38.5 USt) hook block, 900 mm (36 in) triple bar shoes, main and auxiliary hoist, and 8900 kg (19,621 lb) counterweight.

Ground bearing pressure (no load): 0,53 kg/cm<sup>2</sup> (7.47 psi)

### Miscellaneous standard equipment

- Central, easily accessible lubricating strip for slewing ring.
- Foldable grated platforms on the side of cab and both sides of the upper carriage.
- Storage box attached to the rear frame.
- Service friendly engine and hydraulic compartments with decoupled engine suspension, sound proofing and lighting.
- 35 t (38.5 USt) three-sheave, quick reeve hook block.
- External RCL light bar.
- CraneStar asset management system.

### \*Optional equipment

- Auger Ready Package: Includes hoses and pipes at the base boom, auger hydraulic circuit 150 L/min (39 gpm), 175 bar (2500 psi), controls and switches in the cab for auger operation.
- Auger Motor and Kelly Bar: Includes stowage brackets, hydraulic hoses to connect to the auger ready package plumbing, the auger motor and Kelly bar.
- Auger Flightings: 609 mm (24 in), 914 mm (36 in) and 1219 mm (48 in) available.
- Pole Claw Preparation / Tool Circuit: Provides 35 L/min (9 gpm), 175 bar (2500 psi) through a 32 m (105 ft) hose reel with quick disconnect fittings, switch for tilting and clamping function, controls and switches in the cab.
- Pole claw.
- Basket: Yoke style, 72 in x 36 in (1829 mm x 914 mm) steel basket, gravity hung with cylinder brake lock (does not side stow). Includes quick-attach boom attachments for the main boom and standard 6,5 m (21 ft 4 in) boom extension. Basket capacities: 544,3 kg (1200 lb) main boom and 226,7 kg (500 lb) on boom extension.
- Radio remote control package.
- Cold weather packages up to -40° C / -40° F.
- Maintenance-free flat track shoes.
- Swing barrier protection.
- Polyurethane clamp-on tack pads.

# Symbols glossary



Boom



Counterweight



Grade



Radius



Boom elevation



Electrical system



Hoist



Rotation



Boom extension



Engine



Hook block



Side Frames



Boom length



Extension



Hydraulic system



Speed



Boom nose



Frame



Lights



Swing



Cab



Fuel tank capacity



Oil

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