

# Grove GHC55

## Preliminary Product Guide

ASME B30.5  
Metric 75% and Imperial 75%



### Features

- 50 t (55 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 at 360°
- Cummins QSB 4.5L Tier 4 final compliant engine

# GROVE GHC55

A compact powerhouse, the GHC55 transports to the job site 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 job site can easily be accomplished in one load. Once on the job site, the GHC55's narrow dimensions provide excellent maneuverability in confined areas. The strong undercarriage provides 100% 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 GHC55 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).



## CraneSTAR

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

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

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



## Job site benefits

### More productive in more places on the job site

The GHC55 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 counterrotation capability
- Compact design allows you to work in more places

### Rugged durability to tackle all terrain

The GHC55 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 job site and quick assembly

The GHC55 helps you spend less time on the truck and more time on the job.

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



### Maniowoc Crane Care when you need it.

The assurance of the world's most advanced crane service and support to get you back to work fast.



### Maniowoc Finance helps you get right to work generating profits for your business.

Financial tools that help you capitalize on opportunity with solutions that fit your needs.

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## 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. 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 intervertebral disc support, heated seat, headrest, three 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 seven inch monitor in cab for rear view, right side, and hoist cameras.

### **Swing**

Three speed, compact planetary gear 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 three 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 aux.)**

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, six cylinders, turbocharged with Cummins Compact Catalytic exhaust and Selective Catalytic Reduction.  
Meets U.S.E.P.A 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.

# Specifications



## Engine (Tier 3)

Cummins QSB 4.5 L diesel, six 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)



## 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 axles.



## Side frames

Four steel frames 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 thru a two stage hydraulic traction motor. Spring-loaded, hydraulically venting disk brake activated via foot pedal in cab.

Travel Speed: 0-2,7kmh (0-1.68 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
- Grated platform on the side of the cab, as well as catwalks on 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

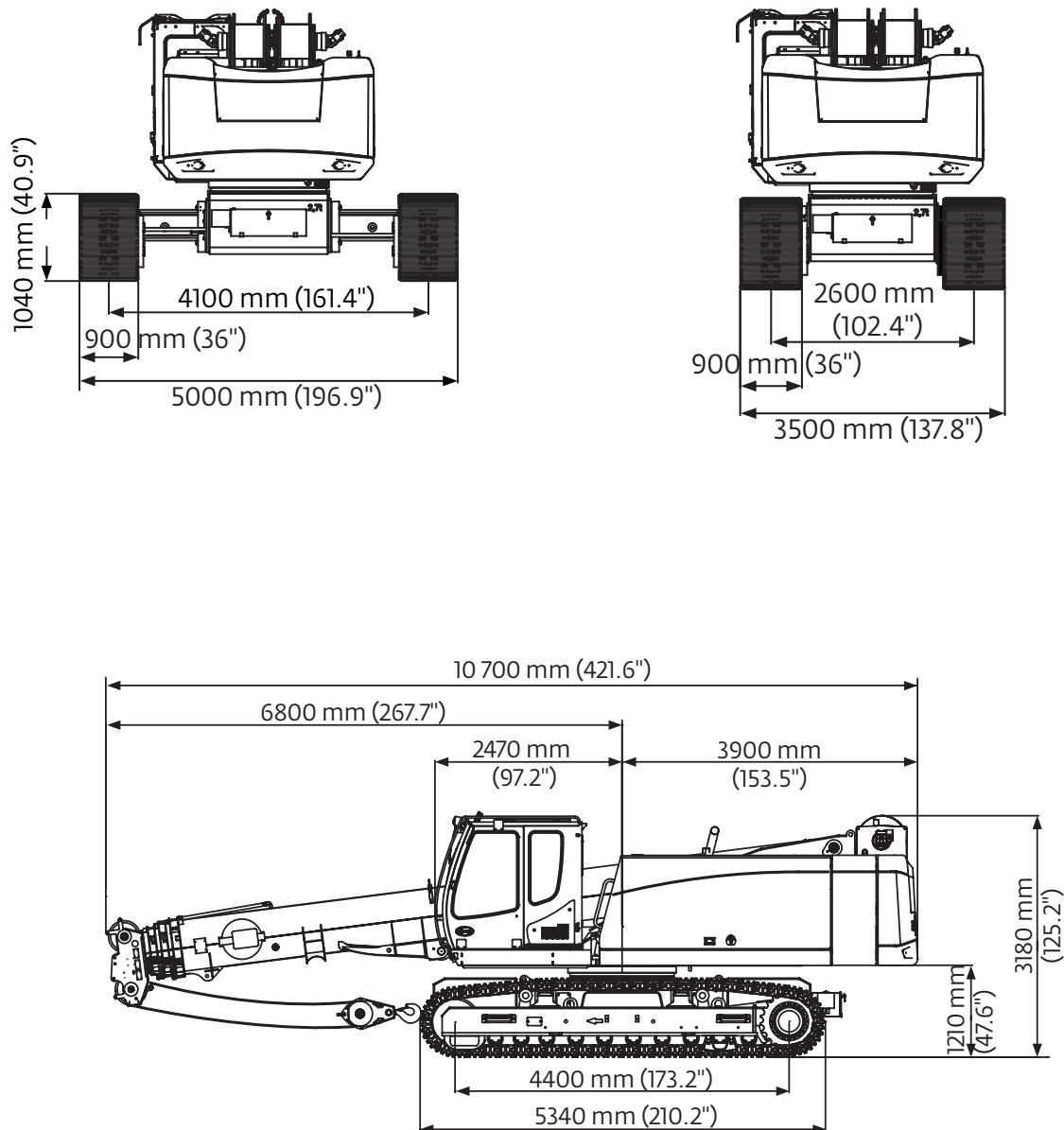
- Auger Ready Package: includes hoses and pipes at the base boom, auger hydraulic circuit 150 l/ min (39 gpm), 200 bar (2900 psi), controls and switches in the cab for auger operation.
- Auger Motor and Kelly Bar: includes stowage brackets, hydraulic hoses to connect to the auger ready package plumbing, 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), 176 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 attachment. Basket capacities: 544,3 kg (1200 lb) main boom and 226,7 kg (500 lb) on jib.
- Radio Remote Control Package
- Automatic Lube system
- Cold Weather Packages up to -40° C / 40° F
- Maintenance free flat track shoes
- Swing Barrier Protection

# Dimensions

## Transport dimensions and weights

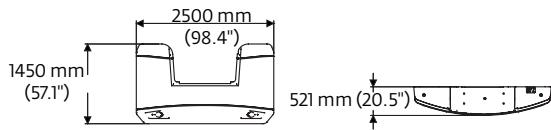
Operating / Transport weight:

Approximately 45 770 kg (100,905 lb) with 6,5 m (21 ft 4 in) boom extension, 2 hoists, 900 mm (36 in) triple bar shoes, and 8900 kg (19,621 lb) counterweight.



# Dimensions

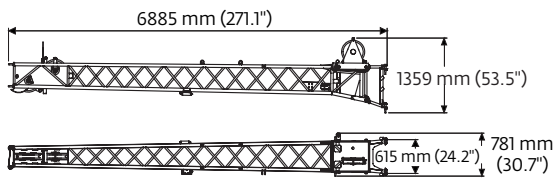
## Transport dimensions and weights



Rear counterweight

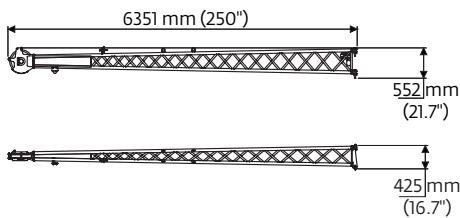
1x

7000 kg  
(15,432 lb)



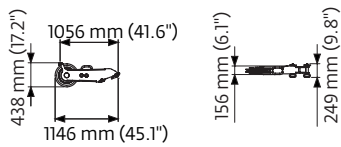
Boom extension - 6,5 m (21 ft 4 in)

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

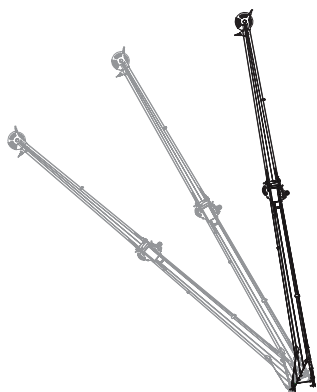
## Working load programs

Counterweight	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)		
	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")
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.

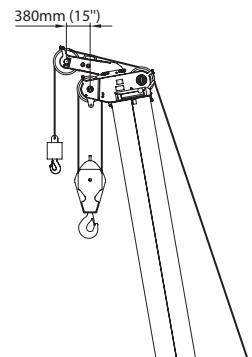
## Boom Extension options



• **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 jib**  
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) 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)	
60 t (66.1 USt) 6-sheave *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)	

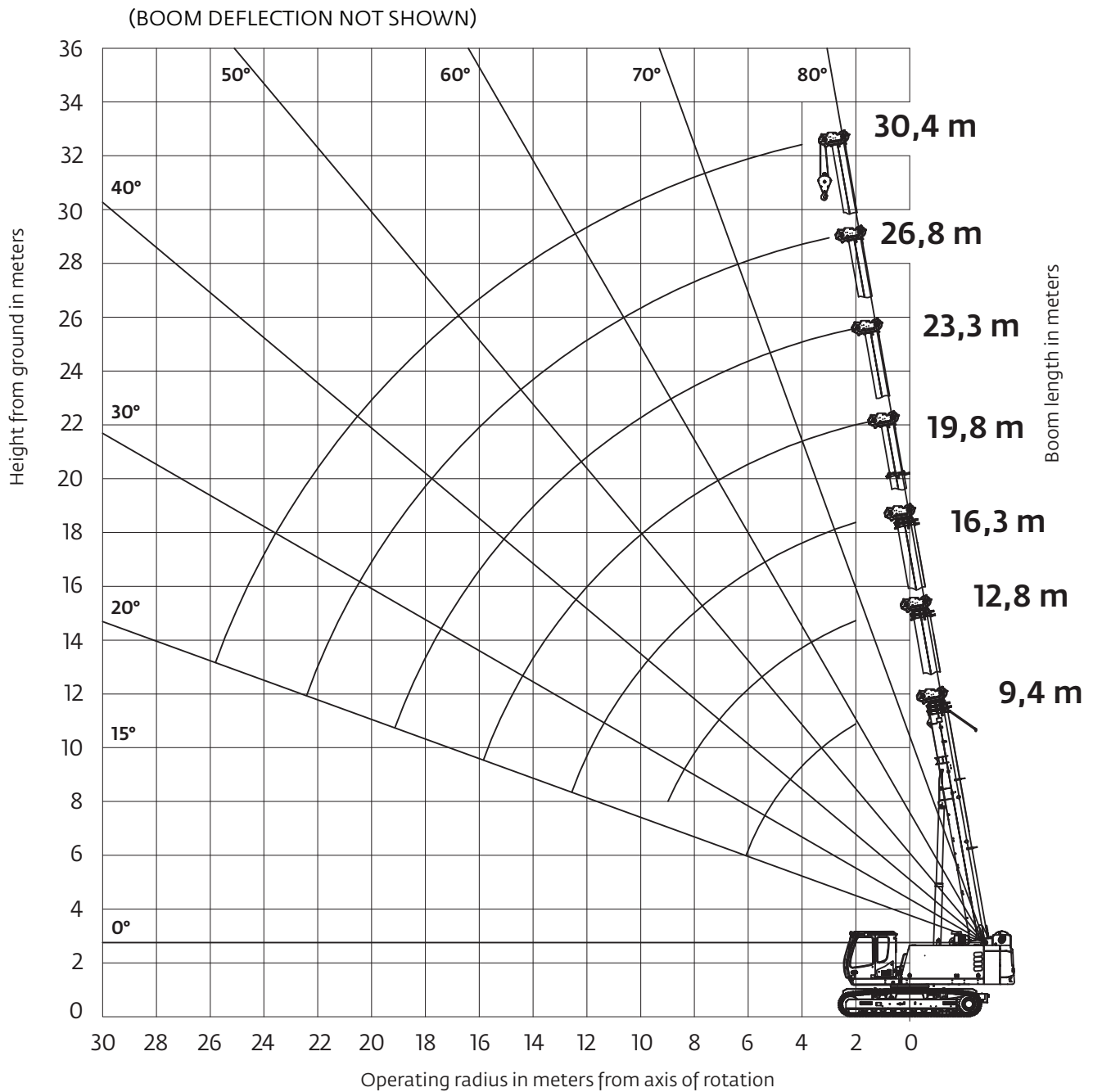
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# Working range

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 [m]	Main boom length [m]						
	9,4	12,8	16,3	19,8	23,3	26,8	30,4
2	50 000	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	9400	8200
10			9900	10 100	9300	8600	7800
11			8500	8900	8500	8000	7300
12			7400	7700	7900	7300	6800
13			6400	6800	7100	6800	6400
14				6000	6200	6300	5900
15				5400	5600	5800	5600
16				4800	5000	5200	5200
17					4500	4700	4900
18					4100	4300	4400
19					3700	3900	4100
20					3300	3600	3700
21						3300	3400
22						3000	3100
23						2700	2900
24							2600
25							2400
26							2200
Parts reeving	10	8	6	4	4	4	4
When 6,5 m extension is in stowed position, the rated loads must be reduced as follows:							
Reduction of load (kg)	438	323	258	216	186	165	148
When 13 m extension is in stowed position, the rated loads must be reduced as follows:							
Reduction of load (kg)	596	437	347	289	249	218	196

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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 [m]	Main boom length [m]						
	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				4200	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>Parts reeving</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
<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

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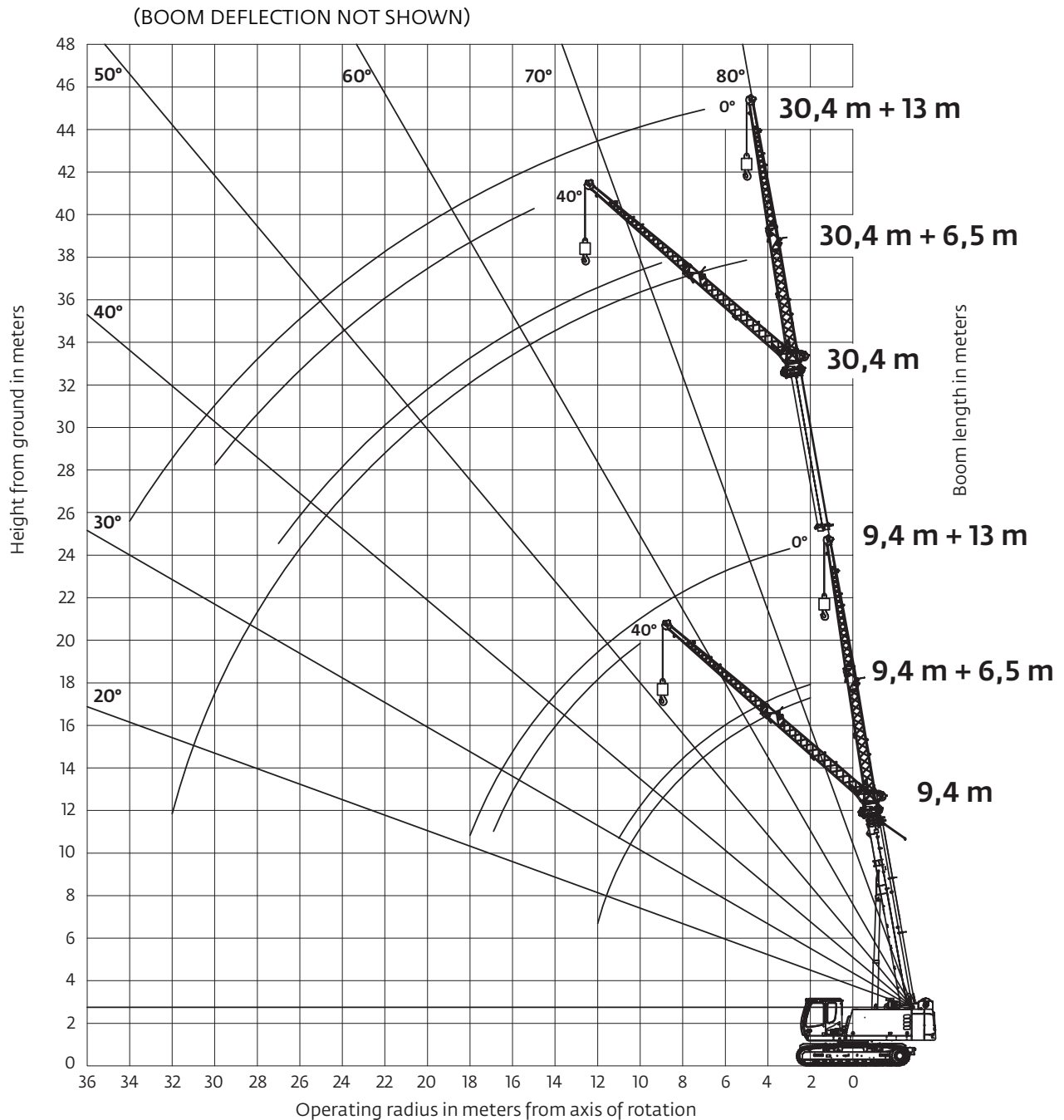
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# Working range

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 [m]	Mainboom length [m]							
	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	
Parts reeving	2	1	2	1	2	1	2	1

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# Load chart

Extensions - metric 75%



30,4 m



13 m



8,9 t



100%



360°



Kilograms

Radius [m]	Mainboom length [m]							
	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	
<b>Parts reeving</b>	1	1	1	1	1	1	1	1

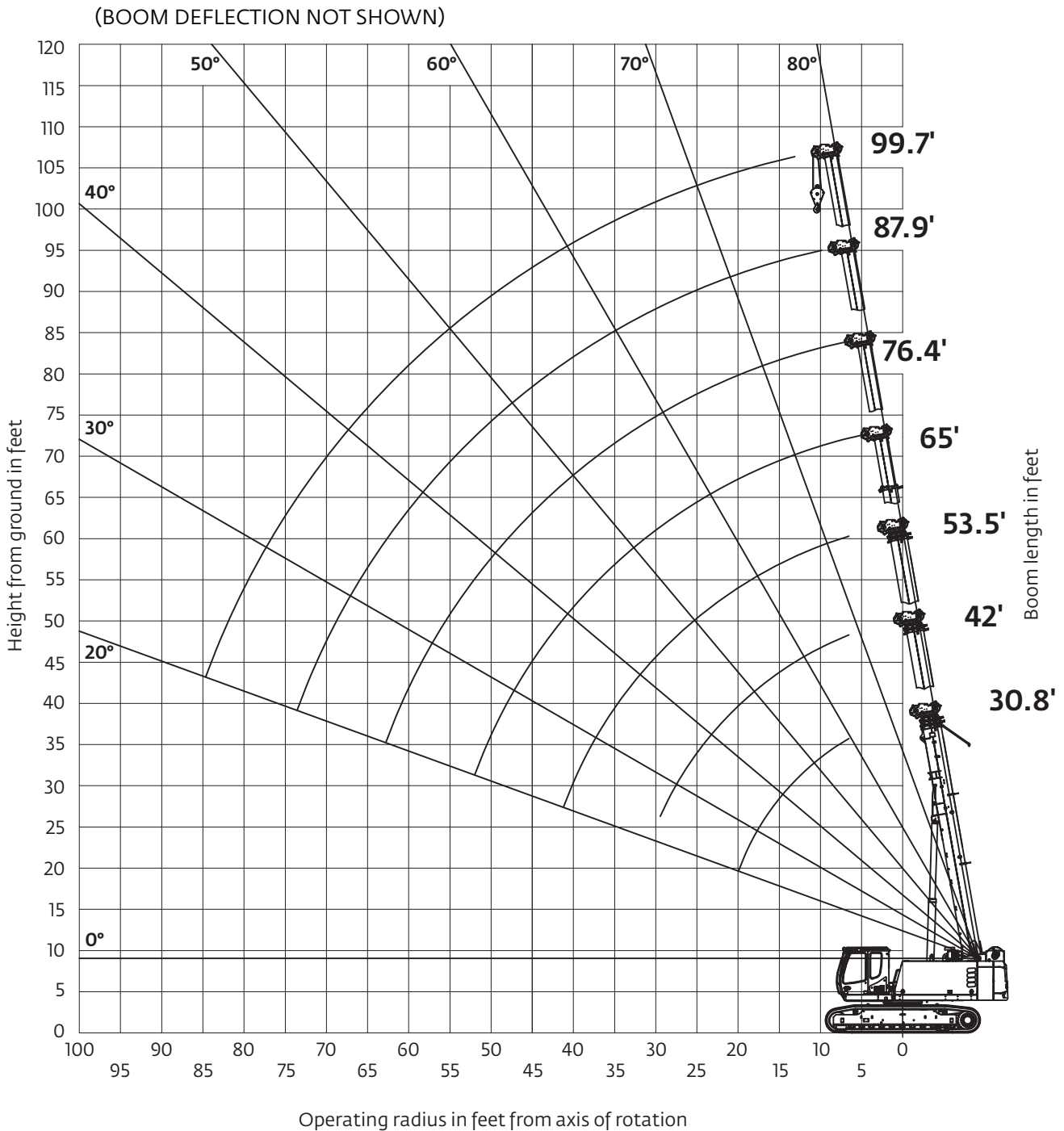
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# Working range

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 [ft]	Mainboom length [ft]						
	30.8	42.0	53.5	65.0	76.4	87.9	99.7
7	110,300	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
Parts reeving	10	8	6	4	4	4	4
When 21.3' extension is in stowed position, the rated loads must be reduced as follows:							
Reduction of load (lb)	966	711	568	476	411	363	326
When 42.7' extension is in stowed position, the rated loads must be reduced as follows:							
Reduction of load (lb)	1315	963	766	638	549	481	433

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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 [ft]	Mainboom length [ft]						
	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
Parts reeving	1	1	1	1	1	1	1
When 21.3' extension is in stowed position, the rated loads must be reduced as follows:							
Reduction of load (lb)	966	711	568	476	411	363	326
When 42.7' extension is in stowed position, the rated loads must be reduced as follows:							
Reduction of load (lb)	1315	963	766	638	549	481	433

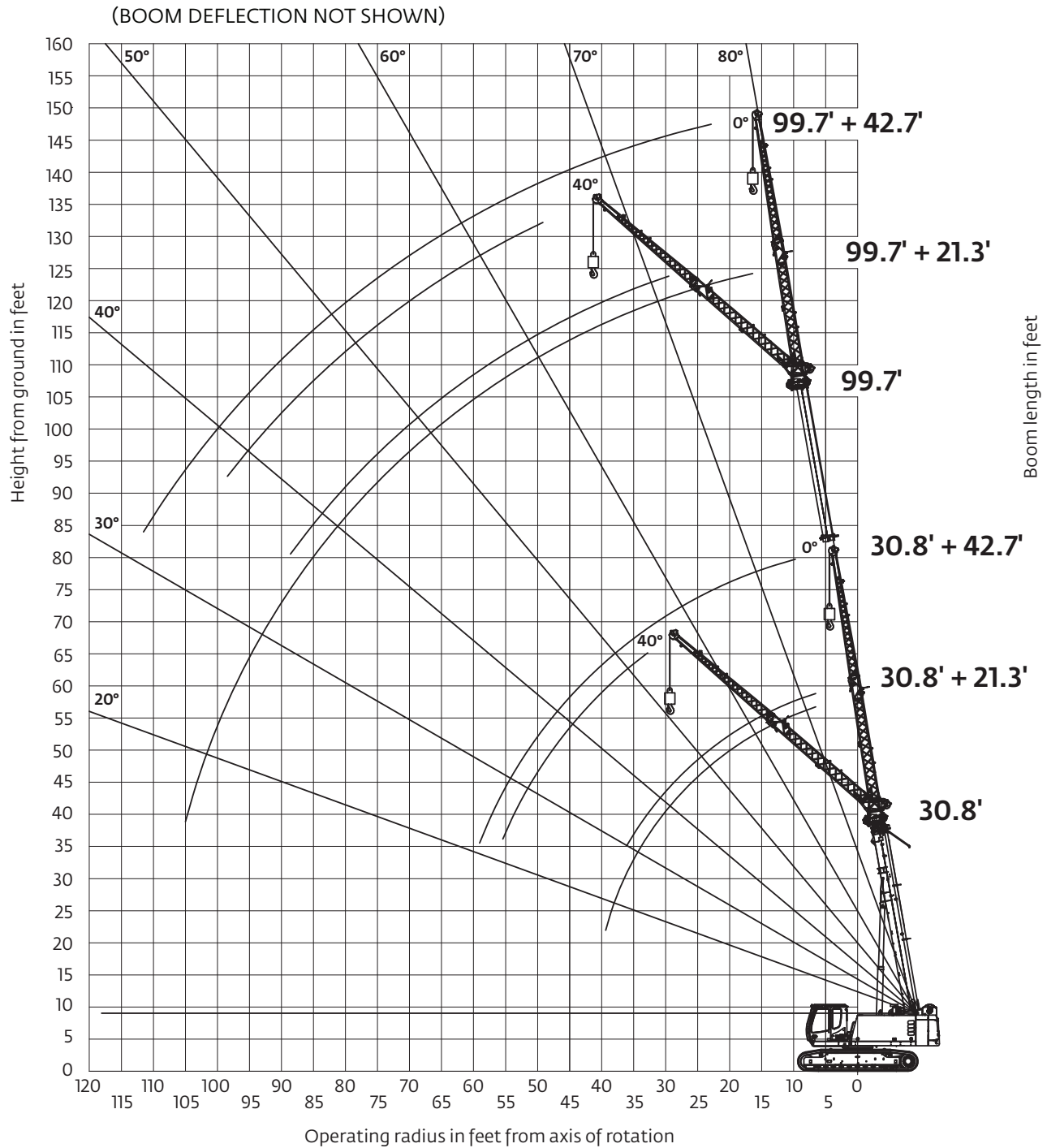
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

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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 [ft]	Mainboom length [ft]							
	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	
<b>Parts reeving</b>	2	2	2	2	2	2	2	2

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# Load chart

Extensions - imperial 75%



99 ft 9 in



42 ft 8 in



19,621 lb



100%



360°



Pounds

Radius [ft]	Mainboom length [ft]							
	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	
<b>Parts reeving</b>	1	1	1	1	1	1	1	1

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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") Verotop Rotation Resistant (non-rotating) 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") 35x7 Class Rotation Resistant (non-rotating) Min. breaking strength 27 760 kg (61,200 lb)	5000 kg (11,000 lb*)	170 m (557 ft)

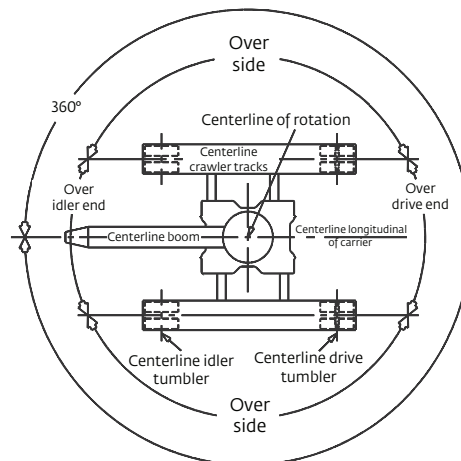
The approximate weight of Verotop 16 mm (5/8") wire rope is 1,25 kg/m (0.84 lb/ft). The approximate weight of 35x7 class 16 mm (5/8") wire rope is 1,5 kg/m (1.0 lb/ft).

\*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



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# Symbols glossary

 Axles	 Crawler	 Gear	 Radius
 Boom	 Counterweight	 Grade	 Rotation
 Boom elevation	 Drive	 Heavy duty jib	 Speed
 Boom extension	 Electrical system	 Hoist	 Steering
 Boom length	 Engine	 Hookblock	 Suspension
 Boom nose	 Extension	 Hydraulic system	 Swing
 Brakes	 Frame	 Lights	 Tires
 Cab	 Fuel tank capacity	 Oil	 Transmission
 Crawler	 Outriggers	 Outrigger controls	

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