

GHC110 Product Guide

ASME B30.5
Metric 75% and Imperial 75%



Features

- 110 USt (100 t)
- 40 – 153.4 ft (12,2 - 46,8 m) five-section pin boom
- 49.3 ft (15 m) offsettable bi-fold swingaway
- 100% pick and carry load charts at .6°, 1.5° and 4°
- Cummins QSB 6.7L Tier 4 final diesel engine
- Rear view, right side and hoist cameras
- High visibility cab with 20° tilt
- Asymmetrical track spans

GROVE GHC110

The GHC110 delivers heavy-duty lifting power and exceptional mid-range and maximum reach, with a boom length of 40 ft – 153.4 ft (12,2 m - 46,8 m).

Features

> Strong telescopic boom

The GHC110 comes equipped with a robust pin five-section boom that allows for telescoping under load. The main boom 12,2 - 46,8 m (40 – 153.4 ft) of reach. This paired with the standard 15 m (49.3 ft) offsettable bi-fold swingaway extension provides a maximum tip height of 65 m (212 ft).

> Travel made easy

Transportation to the job site can easily be accomplished in 4-5 loads. Set up time is minimal thanks to the GHC110's quick self-assembly system for both the counterweight and side frames. Once assembled 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.

> Asymmetrical track spans

Allowing asymmetrical track spans provides increased versatility on the jobsite. This makes it easier to work in congested jobsites with obstructions, and allows for increased capacities when comparing to the standard 360° load charts.

> 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

GHC110 benefits

More productive in more places on the jobsite

The GHC110 delivers unsurpassed maneuverability and versatility.

- Telescoping boom, plus heavy-duty crawler tracks for all-terrain productivity
- Superior gradeability
- High visibility cabs with up to 20° 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 GHC110 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 6.7L Tier 3 or Tier 4 final diesel engines power through terrain challenges
- Easy self-assembling crawlers



Easy transport to the jobsite and quick assembly

The GHC110 helps you spend less time on the truck and more time on the job.

- Transports to the jobsite in three to five loads
- Retracted gauge for transport width
- Self-assembly counterweight
- Undercarriage frame with jacks for easy self assembly of crawlers
- Excellent serviceability keeps you up and running



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 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.

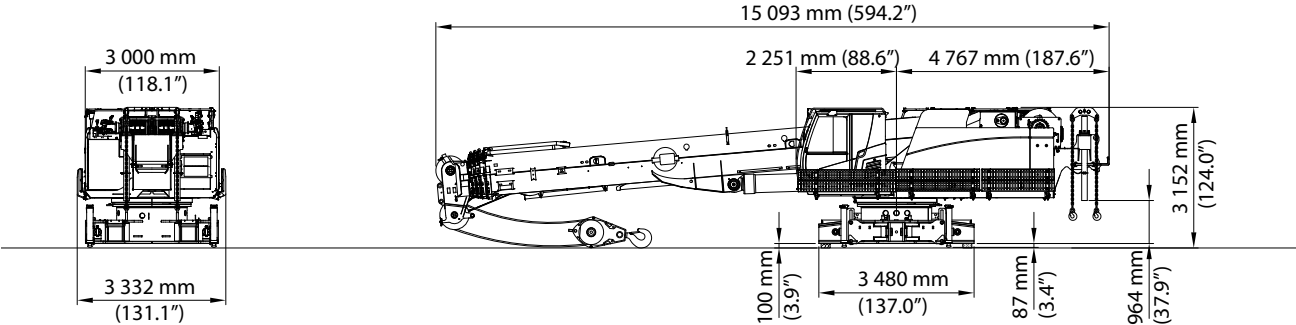
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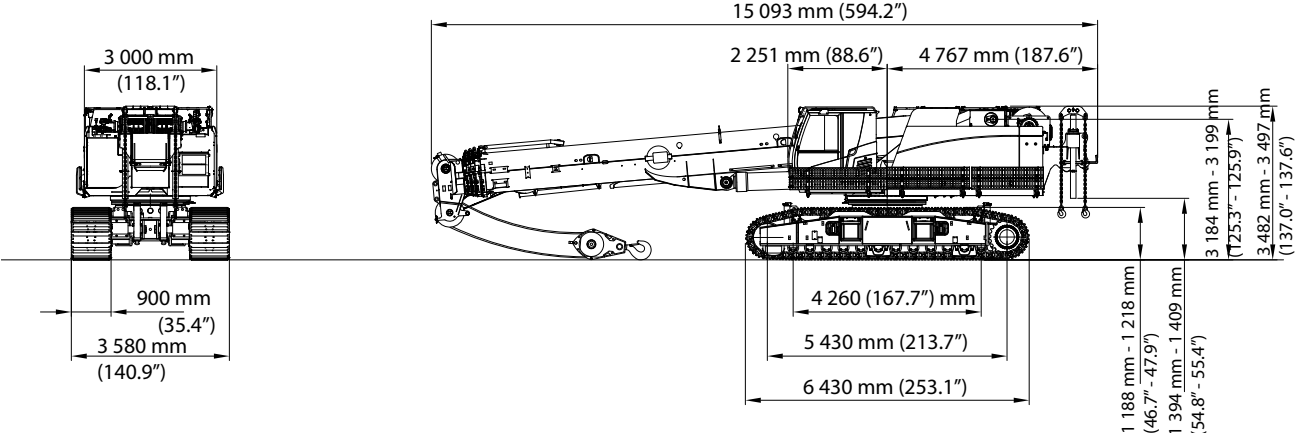
Dimensions

Transport dimensions and weights

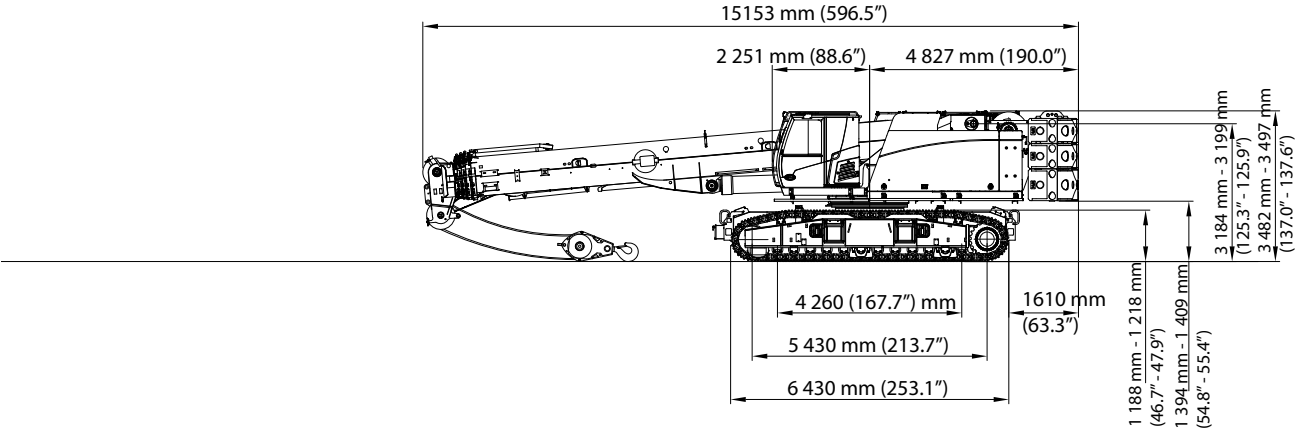
Weight: approx. 42,5 t = 93 700 lbs (two winches, with 15 m bi-fold jib, 63 t hook block, with walkway)



Weight: approx. 61,9 t = 136 500 lbs (two winches, with 15 m bi-fold jib, 63 t hook block, with walkway)

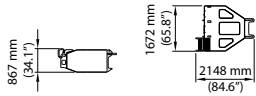


Weight: approx. 107,6 t = 237 200 lbs (two winches, with 15 m bi-fold jib, 63 t hook block, with 17 t carbody counterweight, with 28.3 t counterweight)



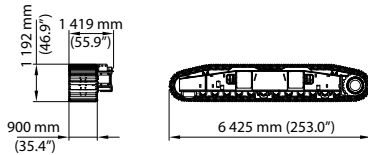
Dimensions

Transport dimensions and weights



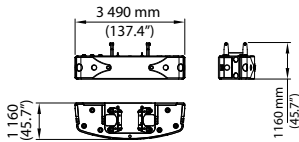
Carbody counterweight x 2

8 500 kg
(18,739 lb) each



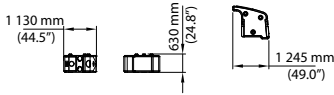
Crawler x 2

9 790 kg (21,583 lb) triple-bar
10 660 kg (23,501 lb) flat tracks
10 140 kg (22,355 lb) triple-bar
11 090 kg (24,449 lb) flat tracks



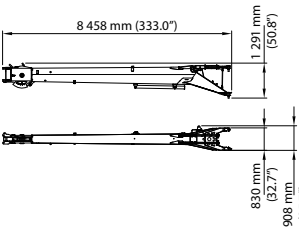
Base plate for counterweight x 1

14 150 kg
(31,195 lb)



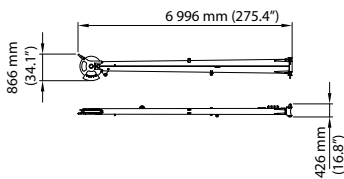
Counterweight x 4

3 500 kg
(7,716 lb)



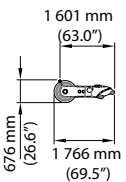
Fly jib - 8 m (26.3 ft)

920 kg
(2,028 lb)



Fly jib extension - 7 m (23 ft)

300 kg
(661 lb)



Auxiliary jib

160 kg
(353 lb)

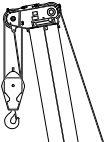
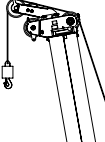














































Heavy duty jib

700 kg
(1,543 lb)

Load programs

Working load programs

	Main boom			Auxiliary boom nose			Heavy Duty jib 3 m (10 ft)		
									
Undercarriage track width (centerline to centerline of crawlers)	 2,7 m (8.8 ft)	 3,4 m (11.3 ft)	 4,2 m (13.8 ft)	 2,7 m (8.8 ft)	 3,4 m (11.3 ft)	 4,2 m (13.8 ft)	 2,7 m (8.8 ft)	 3,4 m (11.3 ft)	 4,2 m (13.8 ft)
Counterweight									
 28,2 t (62,181 lb) + 17,0 t (37,485 lb)	360° 	360° 	—	360° 	360° 	—	360° 	360° 	—
 14,3 t (31,526 lb) + 17,0 t (37,485 lb)	360° 	360° 	—	360° 	360° 	—	360° 	360° 	—
 0,0 t + 0,0 t	360° 	360° 	360° 	360° 	360° 	360° 	360° 	360° 	—

	Boom extension 8 m (26.2 ft)			Boom extension with fly jib 15 m (49.2 ft)		
						
Undercarriage track width (centerline to centerline of crawlers)	 2,7 m (8.8 ft)	 3,4 m (11.3 ft)	 4,2 m (13.8 ft)	 2,7 m (8.8 ft)	 3,4 m (11.3 ft)	 4,2 m (13.8 ft)
Counterweight						
 28,2 t (62,181 lb)	360° 	—	—	360° 	—	—

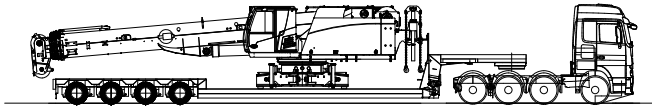
Note:

Safe working loads are available for 0.6°, 1.5° and 4° inclines.

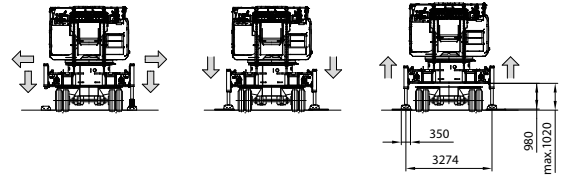
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Transportation / assembly

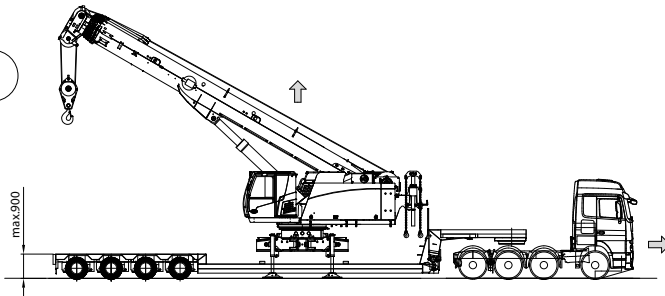
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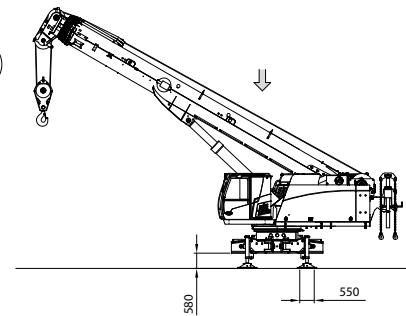
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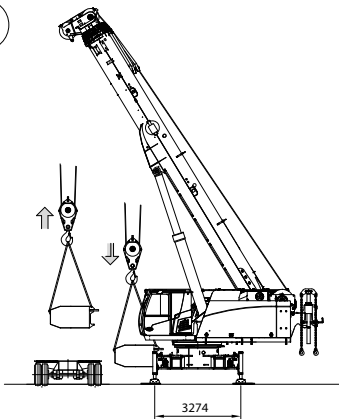
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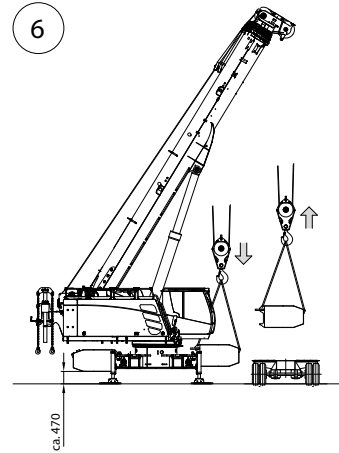
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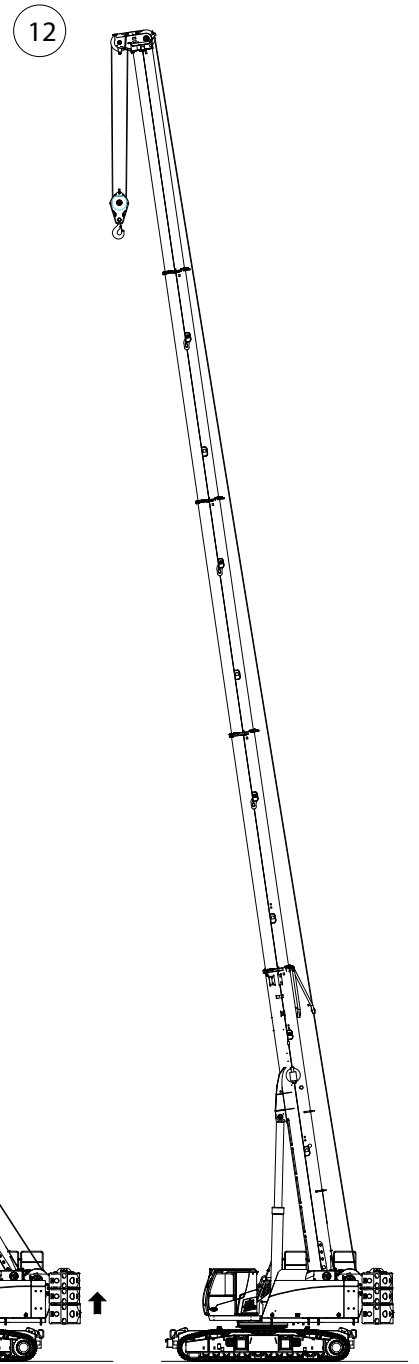
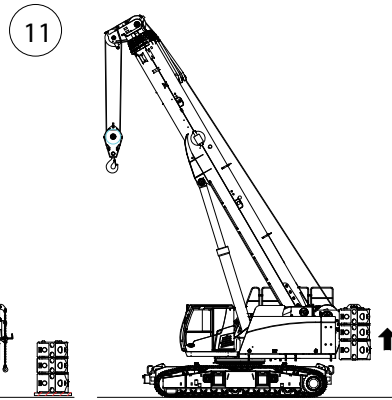
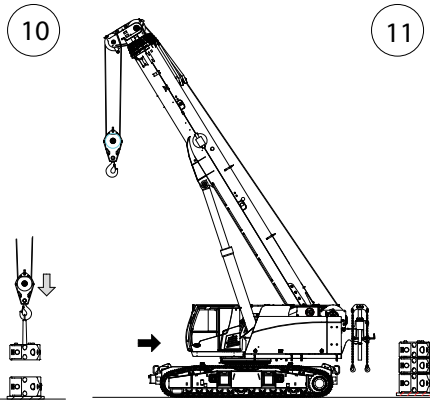
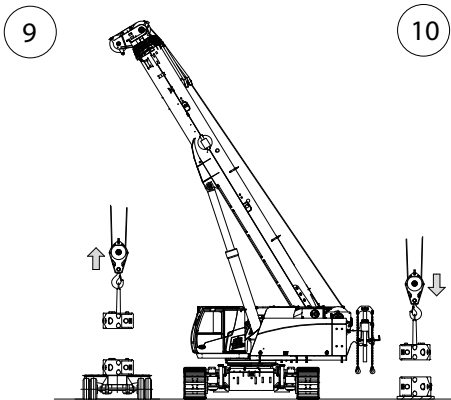
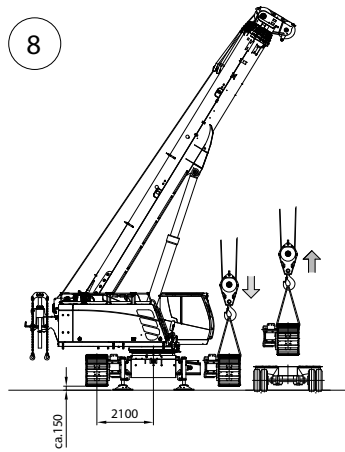
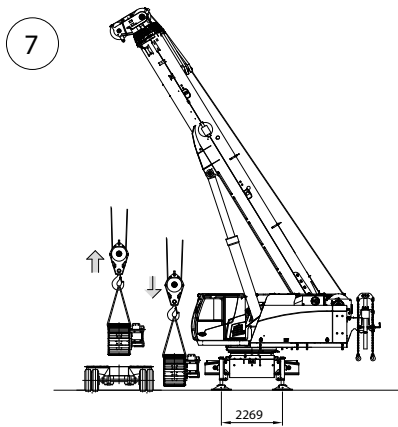
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6



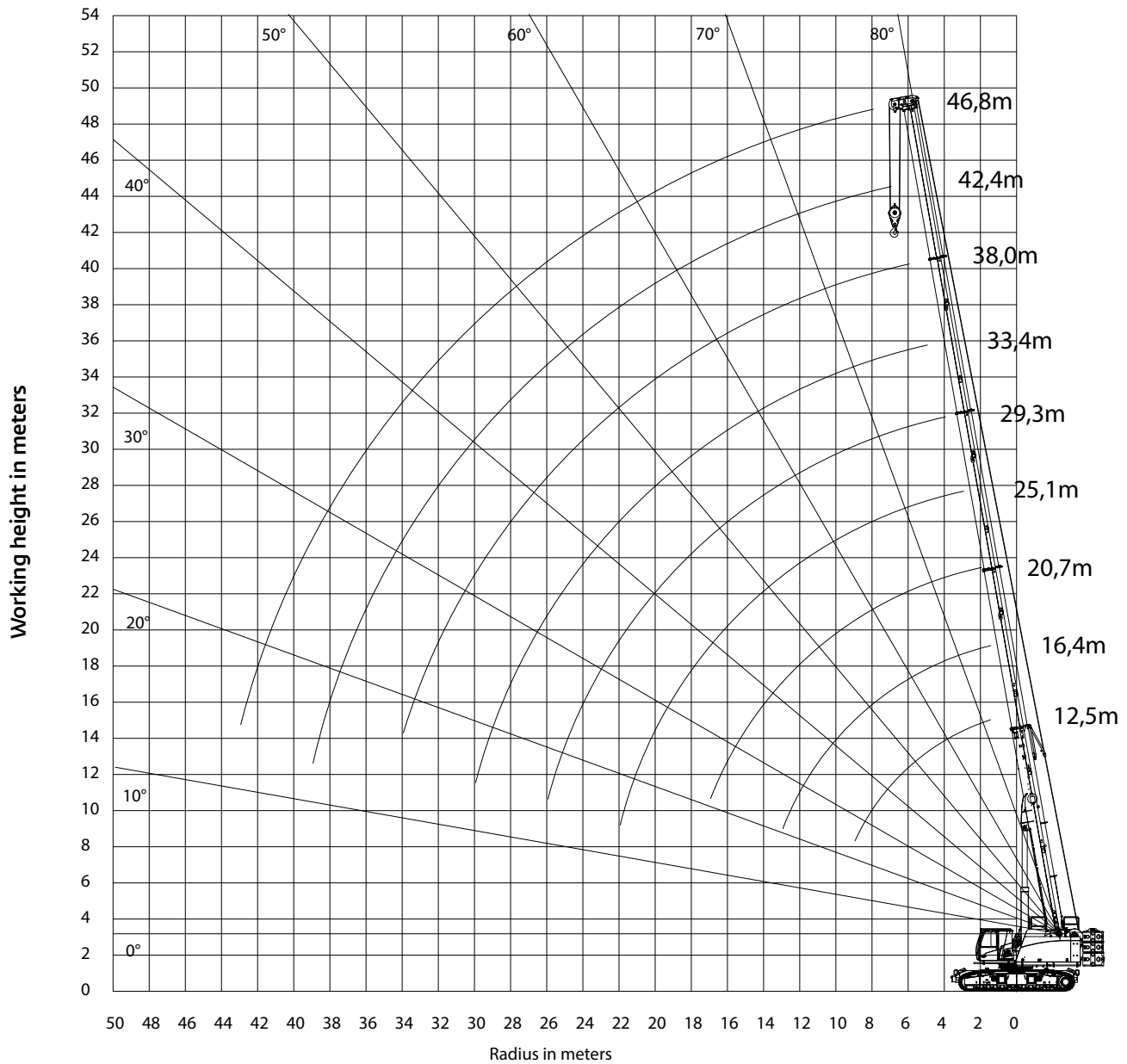
Transportation / assembly



Working range

Main boom - metric 75%

Main boom



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Load chart

Main boom - metric 75%



46,8 m



28,2 t



100%



360°



0.6°



Kilograms

Radius [m]	Main boom length [m]								
	12.5	16.5	20.8	25.1	29.3	33.5	38.0	42.4	46.8
2.5	100.0	65.0	41.5						
3.0	97.0	65.0	60.0	54.0					
4.0	85.0	65.0	58.0	50.0	40.5				
5.0	75.0	63.0	54.6	46.5	38.0	30.4			
6.0	65.0	58.9	50.2	43.5	35.7	28.7	23.0		
7.0	51.5	52.6	46.5	40.5	33.7	27.0	21.5	15.5	
8.0	41.5	42.8	42.9	38.0	31.8	25.5	20.1	15.5	12.0
9.0	35.0	35.9	36.0	34.7	30.1	24.5	18.9	15.2	12.0
10.0		31.3	31.6	30.2	28.0	23.3	17.9	14.8	12.0
12.0		24.1	24.3	23.8	22.5	20.7	16.0	13.4	11.8
14.0		18.6	19.7	19.4	18.4	17.0	14.4	12.0	11.2
16.0			16.0	16.0	15.4	14.0	12.5	10.9	10.6
18.0			12.8	13.4	13.2	11.9	10.7	9.9	9.7
20.0				11.8	11.4	10.2	9.3	9.0	9.0
22.0				10.7	9.8	9.4	8.4	8.0	8.3
24.0					9.0	8.7	7.6	7.0	7.7
26.0					7.9	8.0	7.0	6.2	7.1
28.0						7.1	6.4	5.6	6.5
30.0						6.3	5.9	5.1	5.7
32.0							5.5	4.6	5.0
34.0							5.0	4.3	4.4
36.0								4.0	3.8
38.0								3.7	3.3
40.0									2.9
42.0									2.4

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Load chart

Main boom - metric 75%



46,8 m



28,2 t



100%



360°



1.5°



Kilograms

Radius [m]	Main boom length [m]								
	12.5	16.5	20.8	25.1	29.3	33.5	38.0	42.4	46.8
2.5	80.0	47.0	39.0						
3.0	75.0	48.3	44.3	39.0					
4.0	65.0	47.0	42.2	36.8	28.9				
5.0	59.0	46.7	39.5	34.5	27.6	22.7			
6.0	55.0	46.0	37.0	32.8	26.4	21.8	17.3		
7.0	50.4	43.2	34.8	31.1	25.2	20.9	16.8	11.7	
8.0	41.0	40.2	32.8	29.5	23.8	20.2	16.2	11.7	8.6
9.0	34.1	35.3	31.0	28.1	22.8	19.4	15.7	11.7	8.6
10.0		30.5	29.1	26.8	21.8	18.7	15.2	11.5	8.6
12.0		23.4	23.2	22.3	20.1	16.4	14.3	10.9	8.6
14.0		17.5	19.1	18.5	17.3	14.7	13.0	10.4	8.5
16.0			15.7	15.1	14.5	12.2	10.9	10.0	8.1
18.0			12.5	13.2	12.4	10.5	9.6	9.0	7.8
20.0				11.3	10.8	9.3	8.4	8.0	7.4
22.0				10.2	9.6	8.4	7.4	6.9	7.1
24.0					8.7	7.7	6.7	6.1	6.7
26.0					7.6	7.1	6.1	5.5	6.3
28.0						6.8	5.7	5.0	6.0
30.0						6.1	5.4	4.5	5.6
32.0							5.0	4.2	4.9
34.0							4.6	3.9	4.2
36.0								3.7	3.7
38.0								3.5	3.2
40.0									2.7
42.0									2.3

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Load chart

Auxiliary boom nose - metric 75%



46,8 m



with auxiliary boom nose



28,2 t



100%



360°



1.5°



Kilograms

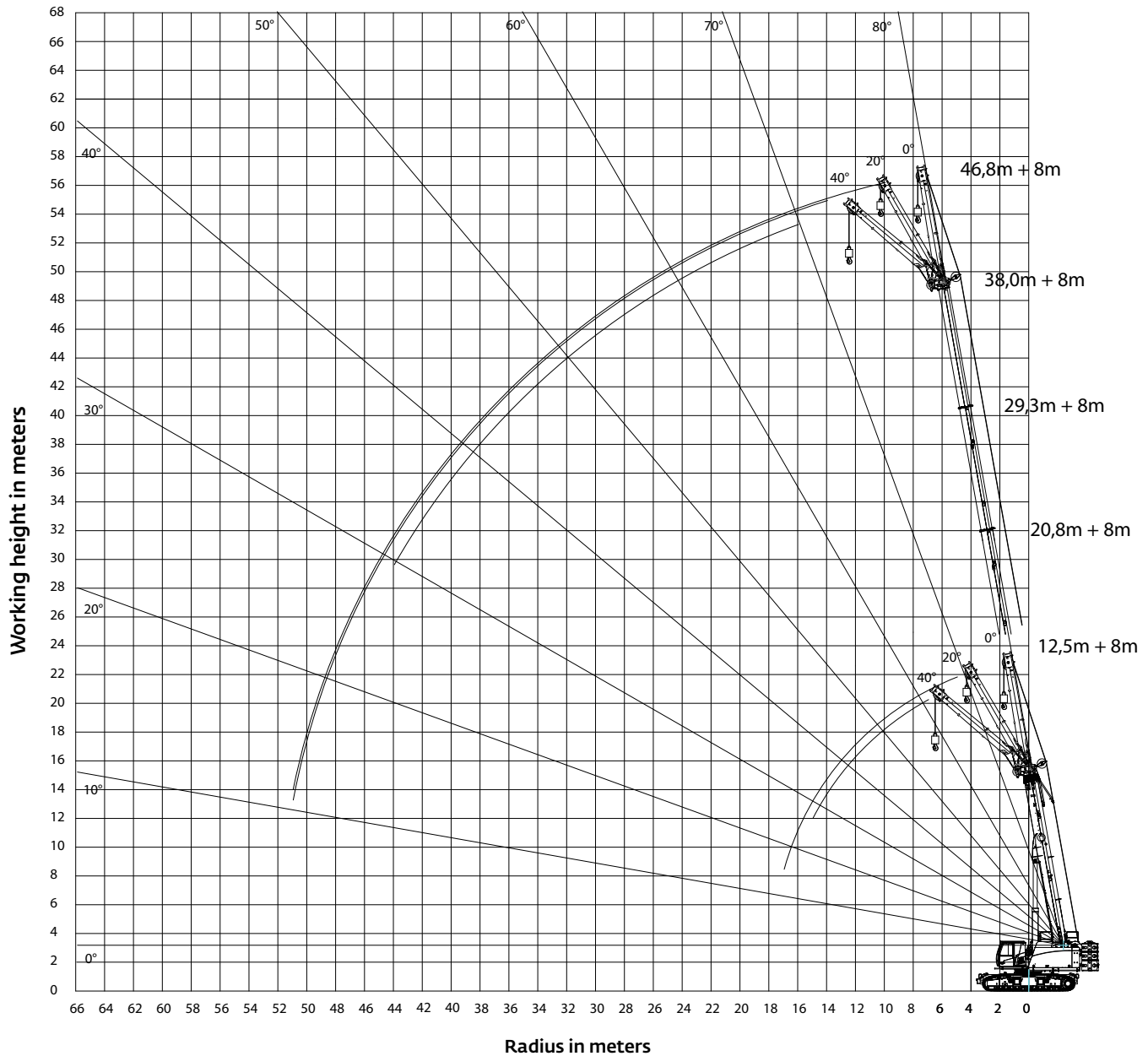
Radius [m]	Main boom length [m]								
	12.5	16.5	20.8	25.1	29.3	33.5	38.0	42.4	46.8
2.5	9.0	9.0	9.0						
3.0	9.0	9.0	9.0	9.0					
4.0	9.0	9.0	9.0	9.0	9.0				
5.0	9.0	9.0	9.0	9.0	9.0	9.0			
6.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0		
7.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	
8.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	8.6
9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	8.6
10.0		9.0	9.0	9.0	9.0	9.0	9.0	9.0	8.6
12.0		9.0	9.0	9.0	9.0	9.0	9.0	9.0	8.6
14.0		9.0	9.0	9.0	9.0	9.0	9.0	9.0	8.5
16.0			9.0	9.0	9.0	9.0	9.0	9.0	8.1
18.0			9.0	9.0	9.0	9.0	9.0	9.0	7.8
20.0				9.0	9.0	9.0	8.4	8.0	7.4
22.0				9.0	9.0	8.4	7.4	6.9	7.1
24.0					8.7	7.7	6.7	6.1	6.7
26.0					7.6	7.1	6.1	5.5	6.3
28.0						6.8	5.7	5.0	6.0
30.0						6.1	5.4	4.5	5.6
32.0							5.0	4.2	4.9
34.0							4.6	3.9	4.2
36.0								3.7	3.7
38.0								3.5	3.2
40.0									2.7
42.0									2.3

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Working range

Extensions - metric 75%

Main boom with extensions



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Load chart

Extensions - metric 75%



46,8 m



8 m



28,2 t



100%



360°



0.6°



Kilograms

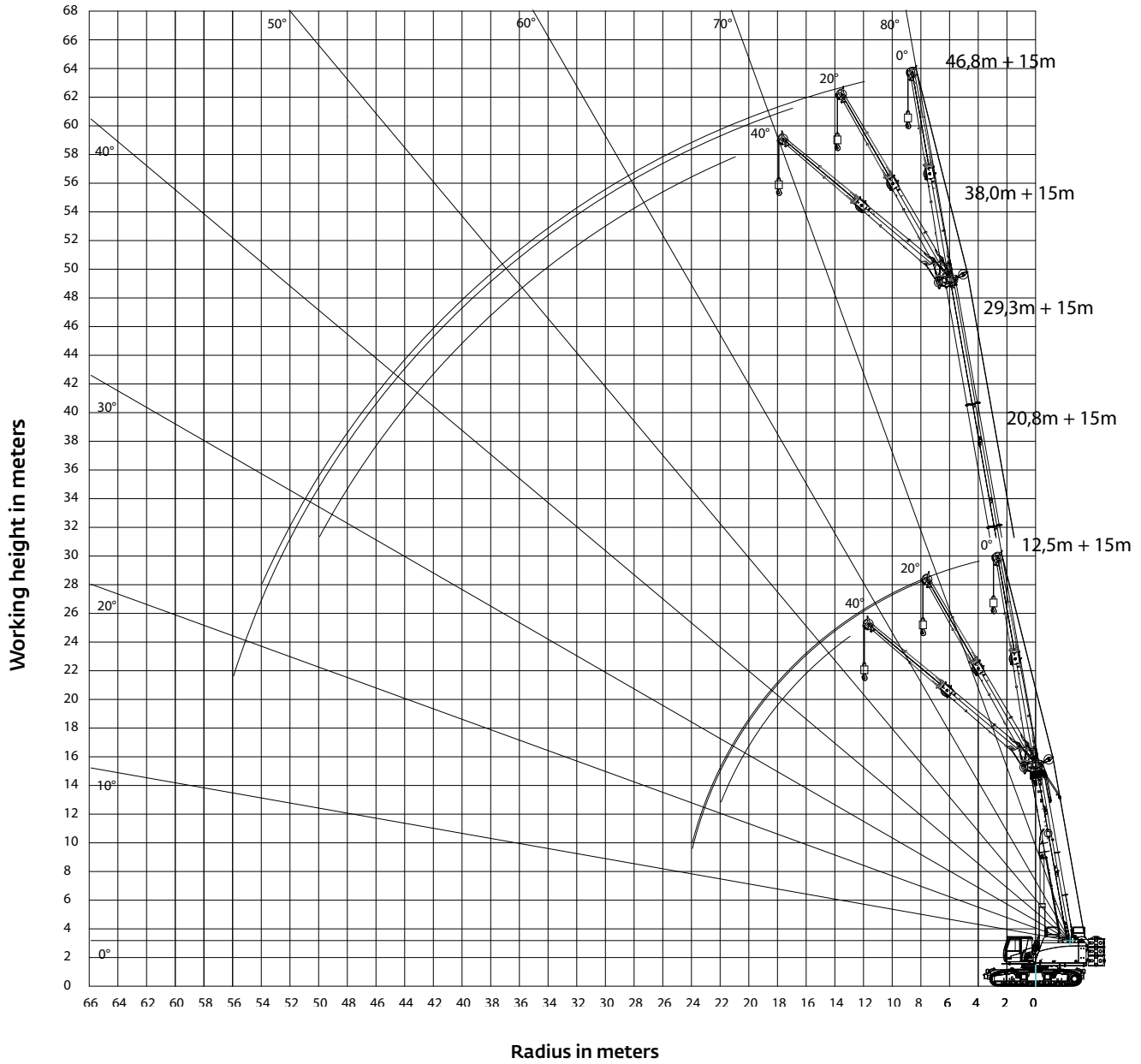
Radius [m]	Main boom length [m]														
	12.5			20.8			29.3			38.0			46.8		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
4.0	15.0			15.0											
5.0	14.0	10.2		14.5											
6.0	12.9	9.6		13.7	9.8		12.8								
7.0	11.9	9.0	7.2	12.9	9.4		12.3								
8.0	10.9	8.5	6.9	12.2	9.0	6.9	11.8			10.4					
9.0	10.2	8.0	6.7	11.5	8.6	6.7	11.3	8.6		10.2					
10.0	9.5	7.6	6.5	10.9	8.3	6.5	10.9	8.3		10.0			7.0		
12.0	8.2	6.9	6.1	9.9	7.7	6.2	10.1	7.9	6.4	9.5	7.7		7.0		
14.0	7.2	6.4	5.8	9.0	7.2	6.0	9.4	7.4	6.1	9.1	7.3	6.0	7.0	6.9	
16.0	6.4	6.1		8.2	6.7	5.8	8.8	7.0	5.9	8.6	7.0	5.8	7.0	6.7	5.6
18.0				7.5	6.4	5.6	8.0	6.7	5.7	8.1	6.7	5.7	7.0	6.5	5.5
20.0				6.9	6.1	5.4	7.3	6.4	5.5	7.4	6.5	5.5	7.0	6.3	5.4
22.0				6.4	5.9	5.2	6.7	6.1	5.4	6.7	6.2	5.4	6.7	6.1	5.2
24.0				6.0	5.7		6.2	5.9	5.2	6.1	6.0	5.2	6.2	5.9	5.1
26.0							5.7	5.6	5.1	5.6	5.6	5.1	5.8	5.7	5.0
28.0							5.3	5.2	5.1	5.2	5.2	5.0	5.5	5.4	4.9
30.0							4.9	4.8		4.8	4.8	4.8	5.1	5.1	4.8
32.0							4.2	4.5		4.4	4.4	4.5	4.8	4.7	4.7
34.0										4.0	4.1	4.1	4.5	4.5	4.5
36.0										3.4	3.8	3.7	3.8	4.2	4.2
38.0										2.8	3.0		3.3	3.5	3.9
40.0										2.4	2.5		2.9	3.0	3.2
42.0										2.0	2.1		2.5	2.6	2.7
44.0													2.1	2.2	2.3
46.0													1.8	1.9	
48.0													1.4	1.5	
50.0													1.2	1.2	

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Working range

Extensions - metric 75%

Main boom with extensions



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Load chart

Extensions - metric 75%



46,8 m



15 m



28,2 t



100%



360°



0.6°



Kilograms

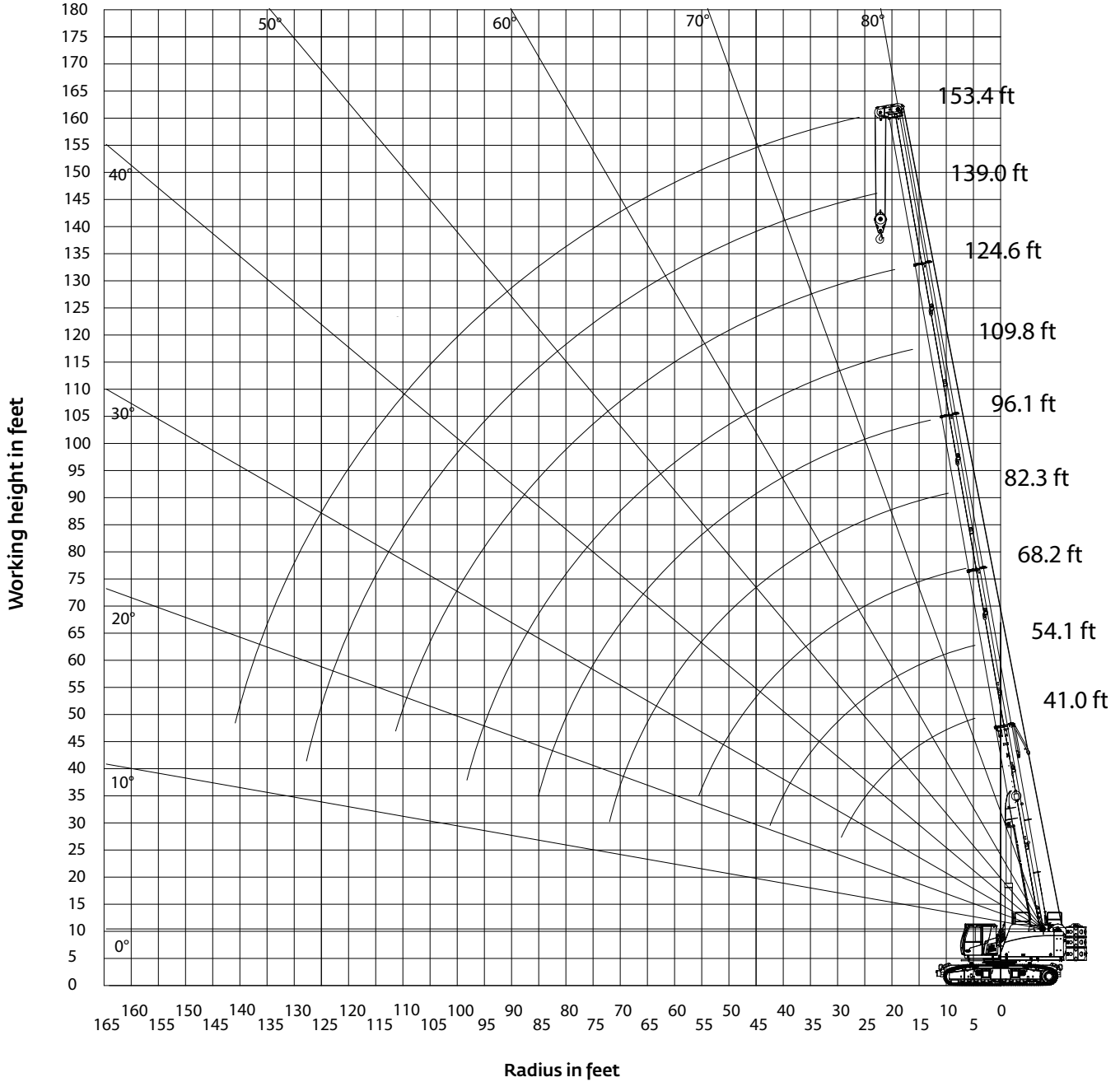
Radius [m]	Main boom length [m]														
	12.5			20.8			29.3			38.0			46.8		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
4.0	5.9														
5.0	5.7			5.3											
6.0	5.4			5.2											
7.0	5.1			5.1			4.7								
8.0	4.8	3.8		5.0			4.6								
9.0	4.5	3.7		4.8			4.5			4.0					
10.0	4.2	3.5		4.6	3.5		4.5			4.0					
12.0	3.7	3.2		4.2	3.3		4.3			4.0			3.1		
14.0	3.4	3.0	2.5	3.8	3.0	2.5	4.1	3.2		3.9			3.1		
16.0	3.1	2.8	2.4	3.5	2.9	2.4	3.8	3.0	2.5	3.8	3.0		3.1		
18.0	2.8	2.6	2.3	3.2	2.7	2.4	3.6	2.9	2.4	3.6	2.9	2.3	3.1	2.8	
20.0	2.6	2.5	2.2	3.0	2.6	2.3	3.3	2.8	2.3	3.5	2.7	2.3	3.1	2.7	
22.0	2.4	2.4	2.2	2.8	2.5	2.2	3.1	2.6	2.2	3.3	2.6	2.3	3.1	2.6	2.2
24.0	2.2	2.2		2.6	2.4	2.2	3.0	2.5	2.2	3.1	2.5	2.2	3.0	2.5	2.2
26.0				2.5	2.3	2.1	2.8	2.4	2.1	3.0	2.5	2.2	2.9	2.4	2.1
28.0				2.3	2.2	2.1	2.7	2.3	2.1	2.8	2.4	2.1	2.9	2.4	2.1
30.0				2.2	2.2		2.5	2.3	2.1	2.7	2.3	2.1	2.8	2.3	2.1
32.0					2.1		2.4	2.2	2.1	2.6	2.2	2.0	2.7	2.2	2.0
34.0							2.3	2.1	2.1	2.5	2.2	2.0	2.6	2.2	2.0
36.0							2.2	2.1	2.1	2.4	2.1	2.0	2.5	2.1	2.0
38.0							2.1	2.1		2.3	2.1	2.0	2.4	2.1	1.9
40.0							2.1	2.1		2.2	2.0	2.0	2.3	2.0	1.9
42.0										2.1	2.0	2.0	2.2	2.0	1.9
44.0										2.1	2.0		2.1	2.0	1.9
46.0										2.0	2.0		2.1	1.9	1.9
48.0										1.5	1.7		2.0	1.9	1.9
50.0													1.5	1.9	1.9
52.0													1.3	1.5	
54.0													1.0	1.2	
56.0														0.9	

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Working range

Main boom - imperial 75%

Main boom



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Load chart

Main boom - imperial 75%



153.4 ft



62,181 lb



100%



360°



0.6°



Pounds

Radius [ft]	Main boom length [ft]								
	41.0	54.1	68.2	82.3	96.1	109.9	124.7	139.1	153.5
10	212.6	143.3	132.1	118.6					
15	174.8	140.8	123.6	105.8	86.1				
20	140.4	128.6	109.8	95.3	78.3	63.0	50.4		
25	99.9	102.6	97.5	85.9	71.6	57.5	45.5	34.2	
30	66.1	77.6	78.0	75.1	65.7	53.7	41.4	33.4	26.5
35		63.2	63.6	61.4	57.3	49.5	37.8	31.6	26.5
40		52.0	52.5	51.5	48.7	44.9	34.9	29.1	25.9
45		42.8	44.7	44.0	41.7	38.6	32.2	26.9	24.9
50			38.0	38.0	36.2	33.2	29.4	24.9	23.8
55			33.1	32.9	32.0	29.0	26.2	23.1	22.5
60			20.0	28.9	28.5	25.7	23.1	21.5	21.1
65				26.2	25.4	22.8	20.8	20.0	19.9
70				24.5	22.7	21.3	19.0	18.4	18.7
75					20.7	20.0	17.7	16.9	17.7
80					19.3	18.8	16.5	15.1	16.7
85					17.5	17.7	15.4	13.7	15.8
90						16.2	14.5	12.8	14.8
95						14.8	13.6	11.7	13.5
100							12.8	11.0	12.2
105							12.0	10.1	11.0
110							11.3	9.7	10.0
115								9.0	9.0
120								8.6	8.0
125								8.1	7.2
130									6.6
135									5.7
140									5.1

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Load chart

Main boom - imperial 75%



153.4 ft



62,181 lb



100%



360°



1.5°



Pounds

Radius [ft]	Main boom length [ft]								
	41.0	54.1	68.2	82.3	96.1	109.9	124.7	139.1	153.5
10	164.3	106.3	97.3	85.7					
15	135.7	103.2	89.6	78.2	62.1				
20	120.3	100.8	81.1	72.0	57.9	47.9	38.1		
25	98.3	91.2	74.0	66.4	53.7	45.1	36.2	25.8	
30		76.3	67.7	61.5	49.9	42.6	34.4	25.7	19.0
35		61.5	60.1	55.1	46.7	38.7	32.8	24.9	18.9
40		50.5	50.3	48.5	43.9	35.9	31.3	24.0	18.9
45		40.6	43.4	42.1	39.3	33.2	29.2	23.2	18.8
50			37.3	35.4	34.1	28.9	25.6	22.4	18.3
55			32.6	31.6	30.1	25.3	22.5	21.4	17.6
60				28.4	26.8	22.7	20.7	19.5	17.0
65				25.3	24.2	20.7	18.7	17.8	16.5
70				23.5	22.0	19.0	17.0	16.0	15.8
75					20.1	17.7	15.7	14.5	15.2
80					18.7	16.6	14.5	13.2	14.5
85					16.9	15.8	13.6	12.2	13.9
90						15.1	12.8	11.2	13.3
95						14.5	12.2	10.4	12.8
100							11.7	9.8	11.9
105							11.0	9.2	10.8
110							10.4	8.8	9.6
115								8.4	8.8
120								8.2	7.8
125								7.7	7.0
130									6.2
135									5.4
140									4.8

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Load chart

Auxiliary boom nose - imperial 75%



153.4 ft



with auxiliary boom nose



62,181 lb



100%



360°



1.5°



Pounds

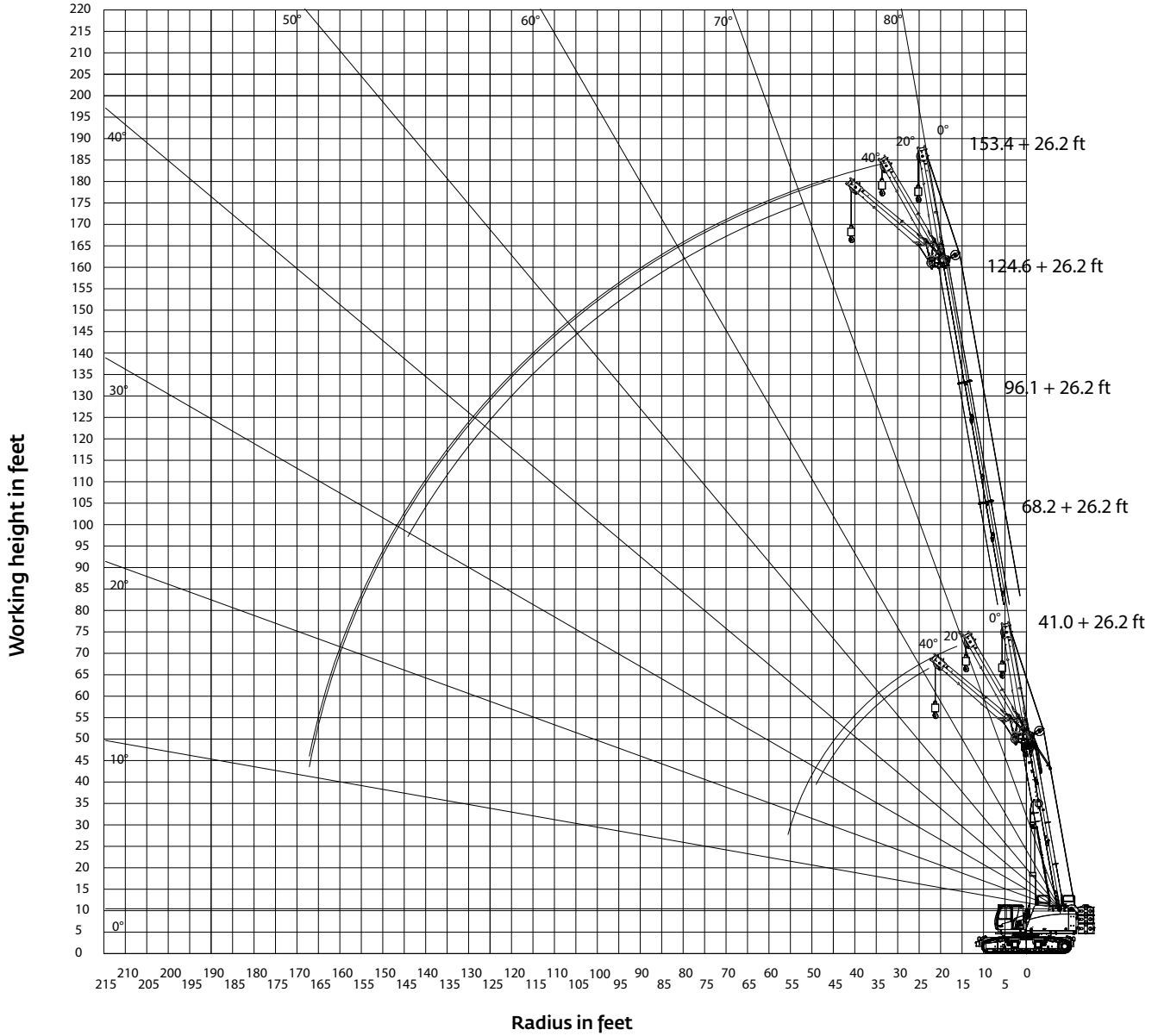
Radius [ft]	Main boom length [m]								
	41.0	54.1	68.2	82.3	96.1	109.9	124.7	139.1	153.5
10	19.8	19.8	19.8	19.8					
15	19.8	19.8	19.8	19.8	19.8				
20	19.8	19.8	19.8	19.8	19.8	19.8	19.8		
25	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	
30		19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.0
35		19.8	19.8	19.8	19.8	19.8	19.8	19.8	18.9
40		19.8	19.8	19.8	19.8	19.8	19.8	19.8	18.9
45		19.8	19.8	19.8	19.8	19.8	19.8	19.8	18.8
50			19.8	19.8	19.8	19.8	19.8	19.8	18.3
55			19.8	19.8	19.8	19.8	19.8	19.8	17.6
60				19.8	19.8	19.8	19.8	19.5	17.0
65				19.8	19.8	19.8	18.7	17.8	16.5
70				19.8	19.8	19.0	17.0	16.0	15.8
75					19.8	17.7	15.7	14.5	15.2
80					18.7	16.6	14.5	13.2	14.5
85					16.9	15.8	13.6	12.2	13.9
90						15.1	12.8	11.2	13.3
95						14.5	12.2	10.4	12.8
100							11.7	9.8	11.9
105							11.0	9.2	10.8
110							10.4	8.8	9.6
115								8.4	8.8
120								8.2	7.8
125								7.7	7.0
130									6.2
135									5.4
140									4.8

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Working range

Extensions - imperial 75%

Main boom with extensions



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Load chart

Extensions - imperial 75%



153.4 ft



26.2 ft



62,181 lb



100%



360°



0.6°



Pounds

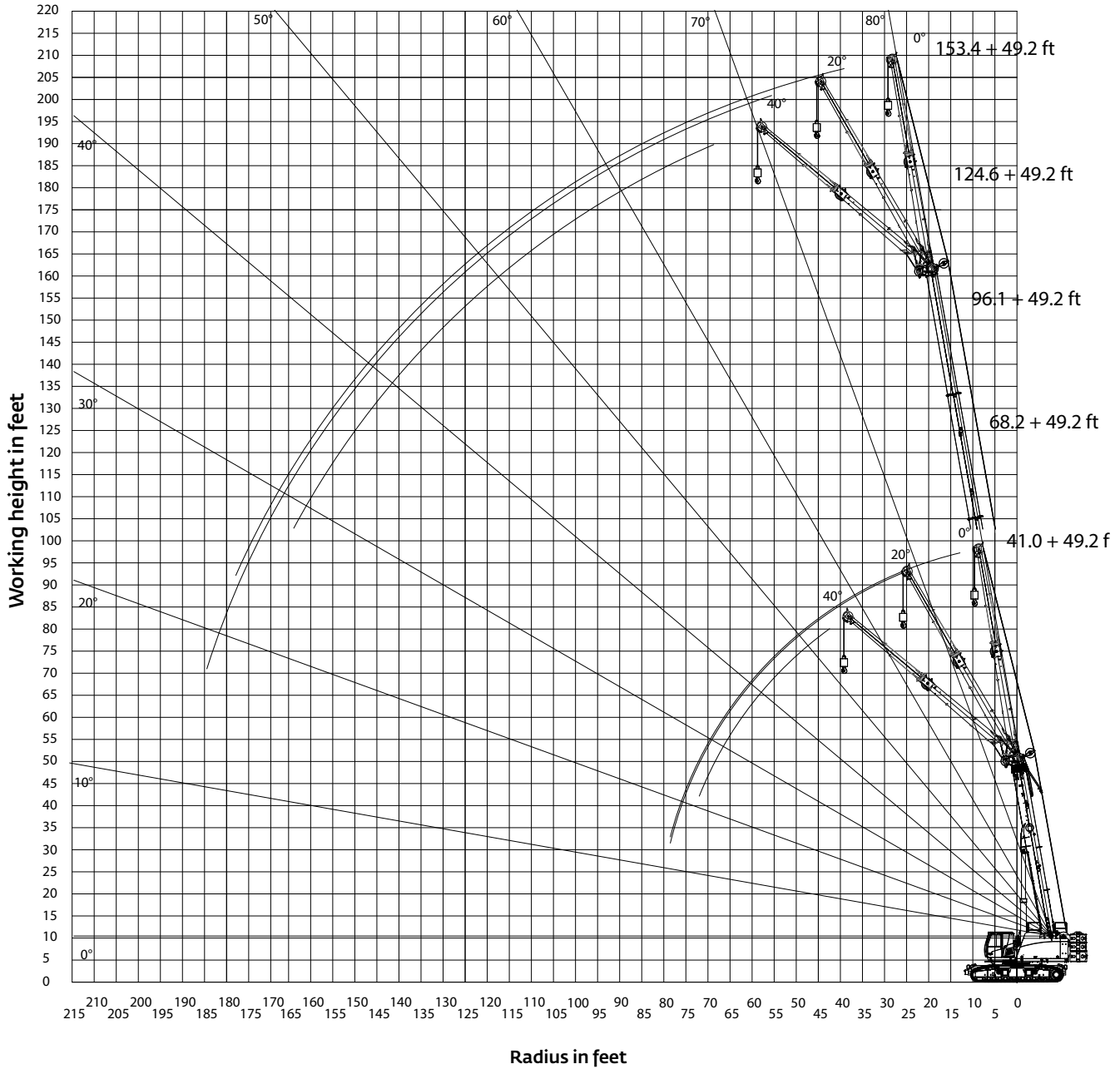
Radius [ft]	Main boom length [ft]														
	41.0			67.9			96.1			124.6			153.4		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
15	31.8			32.4											
20	28.3	21.0		30.0	21.5		28.0								
25	24.9	19.1	15.5	27.5	20.2		26.4								
30	22.3	17.5	14.7	25.2	19.0	14.7	24.9	18.9		22.3					
35	20.0	16.3	14.1	23.3	17.8	14.1	23.4	18.0		21.7			15.4		
40	17.9	15.2	13.4	21.6	16.8	13.6	22.1	17.3	14.0	21.0	16.9		15.4		
45	16.2	14.3	12.9	20.2	16.0	13.3	20.9	16.5	13.6	20.1	16.3	11.3	15.4	13.1	
50	14.8	13.7		18.8	15.2	13.0	19.8	15.8	13.2	19.3	15.8	13.0	15.4	15.0	
55				17.5	14.5	12.6	18.7	15.2	12.8	18.5	15.3	12.7	15.4	14.6	12.3
60				16.4	14.0	12.3	17.5	14.7	12.5	17.6	14.8	12.4	15.4	14.2	12.1
65				15.4	13.5	11.9	16.3	14.2	12.2	16.4	14.3	12.2	15.4	13.9	11.9
70				14.6	13.1	11.6	15.2	13.7	11.9	15.3	13.9	11.9	15.0	13.5	11.6
75				13.8	12.8		14.3	13.3	11.7	14.3	13.5	11.7	14.3	13.2	11.4
80				10.8	10.2		13.4	12.9	11.5	13.3	13.0	11.4	13.5	12.9	11.2
85							12.6	12.4	11.3	12.4	12.5	11.2	12.9	12.5	11.0
90							11.9	11.7	11.2	11.7	11.7	11.0	12.3	12.0	10.8
95							11.2	11.1		11.0	11.0	10.8	11.7	11.5	10.7
100							10.4	10.5		10.3	10.4	10.4	11.1	11.0	10.5
105							9.3	10.0		9.7	9.7	9.8	10.5	10.5	10.3
110										9.1	9.2	9.2	10.0	10.0	10.0
115										8.1	8.6	8.6	9.1	9.5	9.5
120										7.1	7.8	5.8	8.1	8.8	9.1
125										6.2	6.6		7.3	7.7	8.5
130										5.5	5.8		6.5	6.9	7.3
135										4.8	5.0		5.8	6.2	6.4
140													5.1	5.5	5.6
145													4.5	4.8	4.5
150													4.0	4.2	
155													3.4	3.7	

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Working range

Extensions - imperial 75%

Main boom with extensions



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Load chart

Extensions - imperial 75%



153.4 ft



49.2 ft



62,181 lb



100%



360°



0.6°



Pounds

Radius [ft]	Main boom length [ft]														
	41.0			67.9			96.1			124.6			153.4		
	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°
15	12.8														
20	11.9			11.5											
25	10.8			11.0			10.2								
30	9.8	8.1		10.6			10.0			8.8					
35	8.9	7.5		9.9	7.5		9.7			8.8			2.3		
40	8.2	7.0		9.2	7.1		9.4			8.7			6.8		
45	7.5	6.7		8.6	6.8		9.1			8.6			6.8		
50	7.0	6.3	5.4	8.0	6.5	5.4	8.7	6.8		8.4			6.8		
55	6.5	6.0	5.2	7.5	6.2	5.3	8.2	6.6	5.3	8.2	6.5		6.8		
60	6.1	5.7	5.0	7.1	5.9	5.3	7.8	6.3	5.2	7.9	6.3	5.1	6.8	6.2	
65	5.7	5.5	4.9	6.7	5.7	5.1	7.4	6.1	5.1	7.7	6.1	5.1	6.8	6.0	
70	5.4	5.4	4.9	6.3	5.5	4.9	7.1	5.9	5.0	7.4	5.9	5.0	6.8	5.9	
75	5.1	5.1	2.8	6.0	5.3	4.9	6.7	5.7	4.9	7.1	5.7	4.9	6.8	5.7	4.8
80	3.9	3.9		5.7	5.2	4.8	6.5	5.5	4.8	6.8	5.6	4.8	6.7	5.6	4.8
85				5.5	5.0	4.6	6.2	5.4	4.7	6.6	5.4	4.8	6.5	5.4	4.7
90				5.2	4.9	4.6	5.9	5.2	4.7	6.3	5.3	4.7	6.4	5.3	4.6
95				5.0	4.8		5.7	5.1	4.6	6.1	5.1	4.6	6.2	5.2	4.6
100				3.7	4.7		5.5	5.0	4.6	5.9	5.0	4.6	6.0	5.1	4.5
105					4.6		5.3	4.9	4.6	5.7	4.9	4.5	5.9	4.9	4.5
110							5.1	4.8	4.6	5.5	4.8	4.4	5.7	4.8	4.4
115							5.0	4.7	4.6	5.4	4.7	4.4	5.5	4.8	4.4
120							4.8	4.6	3.3	5.2	4.6	4.4	5.4	4.7	4.3
125							4.7	4.6		5.1	4.6	4.4	5.2	4.6	4.3
130							4.6	4.6		4.9	4.5	4.4	5.1	4.5	4.2
135							2.0	2.0		4.8	4.4	4.4	5.0	4.4	4.2
140										4.7	4.4		4.8	4.4	4.2
145										4.6	4.4		4.7	4.3	4.2
150										4.5	4.4		4.6	4.2	4.2
155										3.8	4.0		4.5	4.2	4.2
160													4.1	4.2	4.2
165													3.3	4.0	3.6
170													2.9	3.3	
175													2.5	2.8	
180														2.4	
185														1.6	

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Load handling

Weight reductions for load handling devices		
8 m - 15 m (26.2 ft - 49.2 ft) : Boom extension:		
	Without block or ball	With 300 kg (660 lb) headache ball
*8 m (26.2 ft) extension (erected)	10 60 kg (2,335 lb)	1 575 kg (3,474 lb)
*15 m (49.2 ft) extension (erected)	1688 kg (3,721 lb)	2 195 kg (4,840 lb)
Hook blocks and Headache ball:		
100 t (110 USt), 5-sheave		1 000 kg+ (2,205 lb+)
63 t (69 USt), 3-sheave		900 kg+ (1,985 lb+)
627 t (30 USt), 1-sheave		700 kg+ (1,544 lb+)
10 t (11 USt) headache ball		300 kg+ (660 lb+)

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

When lifting over boom extension, deduct total weight of all load handling devices reeved over main boom nose from boom extension 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	22 mm Verotop Rotation Resistant (non-rotating) Min. breaking strength 47 085 kg (103,800 lb)	9 000 kg* (19,845 lb*)	210 m (689 ft)

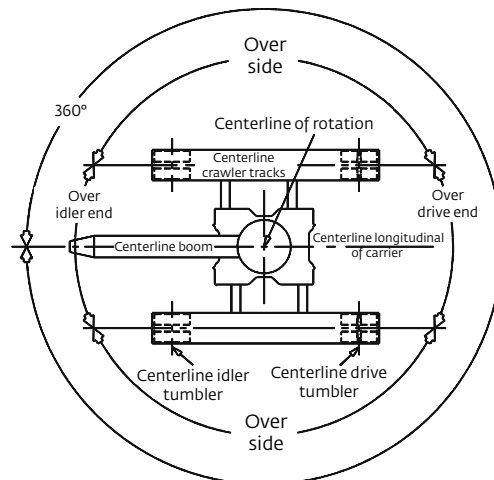
The approximate weight of Verotop 22 mm wire rope is 2,4 kg/m (1.6 lb/ft).

*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	13 165 kg (29,023 lb)	6 649 kg (14,658 lb)	27,3 m (89.7 ft)	27,3 m (89.7 ft)
2	12 253 kg (27,013 lb)	6 188 kg (13,642 lb)	29,4 m (96.4 ft)	56,7 m (186.1 ft)
3	11 459 kg (25,263 lb)	5 787 kg (12,759 lb)	31,4 m (103.1 ft)	88,1 m (289.2 ft)
4	10 762 kg (23,726 lb)	5 435 kg (11,982 lb)	33,5 m (109.8 ft)	121,6 m (399.0 ft)
5	10 145 kg (22,365 lb)	5 123 kg (11,295 lb)	35,5 m (116.4 ft)	157,1 m (515.4 ft)
6	9 594 kg (21,152 lb)	4 845 kg (10,682 lb)	37,5 m (123.1 ft)	194,6 m (638.5 ft)

*Max lifting capacity: Verotop & 35x7 class rope = 9 000 kg (19,845 lb)

Working area diagram



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Specifications

Upper carriage



Standard Boom

12,2 - 46,8 m (40 – 153.4 ft) five-section telescopic pin boom with maximum tip height of 50 m (162 ft).



Boom extension

15 m (49.3 ft) offsettable bi-fold swingaway extension; extension can be offset at 0°, 20° and 40°. Maximum tip height of 65 m (212 ft).



Heavy duty jib extension

3 m (10 ft) heavy duty jib extension that is offset at 10° and stowable on left side of boom.



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: -4.9° to 80.5°



Counterweight

Upper: 28 200 kg (62,181 lbs.) total (5 pieces)
Carbody: 17 000 kg (37,485 lbs.) total (2 pieces)



Rated Capacity Limiter and anti-two block system

Graphical display of load moment and anti-two block system with audio-visual warning and control lever lockout. These systems provide electronic display of crane configuration, boom angle, length, radius, tip height, maximum permissible load, momentary load and warning of impending two-block condition. Includes advanced diagnostics system that increases the performance of the machine, simplifies and accelerates troubleshooting, and lowers operating costs. Equipped with event recorder.



Cab

Large-capacity operator's compartment that includes air suspended, heated operator's seat with lumbar support, headrest, 3" 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 tiltable window, large skylight w/ sun protection, windshield and roof wiper/washer system, Bluetooth/AM/FM/USB/MP3 radio, climate control (A/C, heat, and defrost), fire extinguisher, and 20° tilt capability for improved overhead vision and ergonomic posture. Also equipped with a 7" monitor in cab for rear view, right side and hoist cameras.



Swing

Two-speed, compact planetary gear with axial piston 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. Two position, hydraulically 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: 500 lpm (132 gpm)

Maximum operating pressure: 330 bar (4786 psi)
900 L (238 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

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): 13 165 kg (29,023 lb)
- Maximum permissible single line pull: 9000 kg (19,845 lb)
- Maximum single line speed: 117 m/min (384 ft/min)
- Rope construction: 35 X 7 Rotation Resistant
- Rope diameter: 22 mm
- Rope length: 205 m (672 ft)



Engine (Tier 4)

Cummins QSB 6.7 L diesel, six cylinders, turbocharged with Cummins Diesel Oxidation (DOC) Catalyst and Selective Catalytic Reduction (SCR). Meets USEPA Tier 4 final requirements.

186kW (249 bhp) at 2000 rpm

Fuel requirements: Maximum of 15 ppm Sulphur content (ultra-low diesel fuel). DEF (diesel exhaust fluid) required for SCR (selective catalytic reduction).



Engine (Tier 3)

Cummins QSB 6,7 L diesel, six cylinders, turbocharged rated at 164 kW (220 bhp) at 2000 rpm.

Specifications



Fuel tank capacity

Diesel Fuel: 530 L (140 gal)
DEF (Diesel Exhaust Fluid): 45 L (12 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.



Cameras

Back-up, right-side and hoist cameras.

Lower carriage



Frame

Durable all steel welded construction with extendable side frame beams and hydraulic jacks for side frame installation and removal. Frame mounted hydraulic jacks also used for track extension and retraction.



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: 2,7 m (8.8 ft)
- Intermediate gauge: 3,4 m (11.3 ft)
- Extended gauge: 4,2 m (13.8 ft)

**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 release multi-disk brake.

- Travel Speed: Max Low Range – 0,80 kmh (0.50 mph)
- Max High Range – 2,49 kmh (1.55 mph)
- Gradeability (theoretical): 57%

Operating weight

107 500 kg (237,000 lb) base machine configuration that includes 46,8 m (153.4 ft) boom, 15 m (49.3 ft) extension, 63 t (69 USt) hook block, 900 mm (36 in) triple bar crawlers, main and auxiliary hoist, 28 300 kg (62,391 lb) upper counterweight and carbody weight: 17 000 kg (37,478 lb).

Ground bearing pressure (no load): 1,09 kg/cm² (15.5 psi)

Miscellaneous standard equipment

- Central, easily accessible lubricating strip.
- Grated platform in front of cab, and foldable grated platforms on side of cab and both sides of the upper carriage. Foldable handrails included for upper carriage.
- Service friendly engine and hydraulic compartment with decoupled engine suspension, sound proofing and lighting.
- 63 t (69 USt) 3-sheave quick reeve hook block.
- External RCL light bar.
- Storage box attached to crawler side frame.

*Optional equipment

- 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 boom extension.
- Radio remote control package.
- Cold weather packages up to -40° C / 40° F.
- Maintenance-free flat track shoes.
- Polyurethane clamp-on track pads.
- Two additional LED lights mounted on base boom
- Wind speed indicator (hardwired) displayed thru RCL.
- Work area definition system.
- Swing barrier protection. Provides a swing perimeter when used with caution tape.
- Pinion lubrication for slewing gear with lubrication pump, operated from cab, with special lubricant.
- CraneStar asset management system.

Notes

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