

GRT9165

Preliminary Product Guide

ANSI B30.5
Imperial 85%



Features

- 150 t (165 USt) capacity
- 13,7 m – 62,5 m (44.9 ft – 205 ft) six-section MEGAFORM™ boom
- TWIN-LOCK™ boom pinning system
- 11,2 m – 17,8 m (36.7 ft – 58.4 ft) manual or hydraulic bi-fold lattice swingaway extension with offsets up to 50°
- Crane Control System (CCS)
- New wider full vision cab with 20° cab tilt

GROVE GRT9165

The GRT9165 was designed after gathering feedback from crane owners and operators to ensure that it is loaded with the features and reliability you demand.

Features

> New wider full vision cab

The new wider full vision cab was designed with operator comfort, visibility and productivity in mind. Additional width, redesigned armrests and 20° cab tilt maximize the operator experience. Standard features include tilt/telescoping steering wheel, USB charging port, electronic seat adjustments, high-output heating and air conditioning system, large pivoting cup holder, windshield sun visor, and added storage behind the seat. Additional optional equipment includes radio with Bluetooth, heated seat and three camera package.

> Innovative control system

The Crane Control System (CCS) offers a user-friendly interface, two full graphic adjustable displays mounted vertically for easier viewing and a jog dial for easier navigation and data input. The system allows the electronic controllers to be programmed by the operator for specific speed and reaction. Parts commonality across Grove, Manitowoc and Potain product lines enhances operator familiarization and serviceability. Additional features include ECO mode, Working Range Limiter (WRL) and Boom Configurator telescoping mode.

> Superior strength and reach

Class-leading lifting performance is enhanced by the 13,7 m to 62,5 m (44.9 ft to 205 ft) six-section MEGAFORM™ boom with TWIN-LOCK™ boom pinning system. The MEGAFORM™ boom design provides exceptional strength-to-weight ratio. Boosting overall reach is the 17,8 m (58.4 ft) manual or hydraulic swingaway jib, which can be further extended by adding an 8 m (26.2 ft) lattice insert for a total extension length of 25,8 m (84.6 ft). Either swingaway jib can be offset up to 50°, which is unmatched in its class and provides additional reach and versatility.

> Backing up our promise

Our new GRT line of Rough Terrain cranes have been designed from the ground up to provide class-leading specifications. And they have undergone extensive testing to ensure they provide industry-leading quality and reliability. We stand behind our new line of GRT cranes, and we are willing to prove it. With new three-, four- or five-year extended warranty programs as well as a new two-year standard warranty, our GRT line of cranes are built to be GROVE. REAL. TOUGH.



**THE ONLY FIVE-YEAR
WARRANTY PROGRAM
AVAILABLE IN THE INDUSTRY**

GRT9165 benefits

- > Class-leading boom length and capacities maximize utilization.
- > Compact transport height and self-rigging, removable components allow for efficient and easy transportation to the job.
- > Wireless rigging remote enables fast and convenient setup.
- > TWIN-LOCK™ boom pinning system maximizes capacities by reducing weight inside the extended boom.
- > Boom Configurator mode increases efficiency and simplifies telescoping operation.
- > Manual or hydraulic bi-fold swingaway with offset capability to 50° increases ability to reach over obstacles and increases jobsite versatility.
- > Innovative smart-sensing outrigger monitoring system offers reliable accuracy.
- > ECO mode supports intelligent power management and decreased fuel consumption.
- > New wider cab with 20° cab tilt and high-output heating and air conditioning system maximizes operator comfort.
- > Four modes of steering increase jobsite maneuverability and make crane positioning easier.



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.

Contents

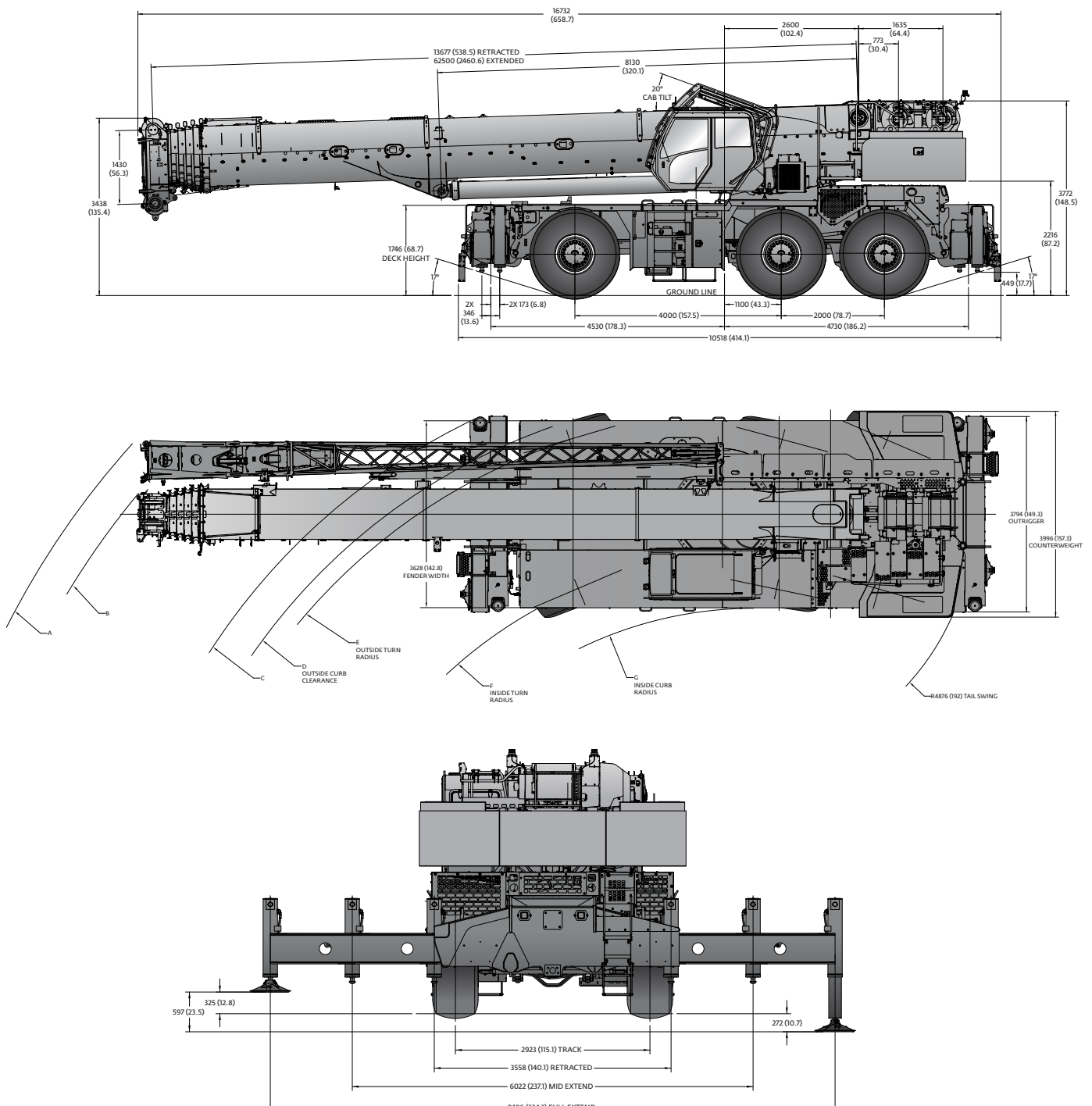
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Dimensions

Tire size: 26.5 x 25

A	B	C	D	E	F	G	A	B	C	D	E	F	G
19,7 m (64' 8")	19,0 m (62' 4")	16,4 m (53' 10")	15,6 m (51' 2")	15,2 m (49' 10")	12,5 m (41' 0")	11,2 m (36' 9")	15,0 m (49' 3")	14,4 m (47' 3")	11,3 m (37' 1")	10,6 m (34' 9")	10,2 m (33' 6")	7,4 m (24' 3")	6,5 m (21' 4")
Two-wheel steer							Six-wheel steer						

Dimensions in mm (in) unless otherwise specified.



Weights

Weights						
	Gross		Axle 1		Axles 2 & 3	
	kg	lb	kg	lb	kg	lb
Basic crane with Cummins T4F/Stage V engine, 62,5 m (205 ft) main boom, main and auxiliary hoist with wire rope, 17,8 m (58.4 ft) manually offset bi-fold swingaway, 100 t (110 USt) hook block, 11 t (12 USt) overhaul weight, auxiliary boom nose, front and rear outrigger box installed and 25,764 kg (56 800 lb) counterweight	86 580	190,877	29 032	64,004	57 549	126,873
Substitute 11,2 m – 17,8 m (36.7 ft – 58.4 ft) hydraulically offset bi-fold swingaway and stowage brackets ILO standard manual bi-fold swingaway	287	633	616	1357	-328	-724
Remove 18 799 kg (41,400 lb) counterweight base and two 3485 kg (7700 lb) counterweight inserts	-25 764	-56,800	8483	18,703	-34 247	-75,503
Remove front outrigger box	-3955	-8720	-5245	-11,563	1290	2843
Remove rear outrigger box	-3955	-8720	2081	4587	-6036	-13,307
Remove auxiliary boom nose	-195	-430	-534	-1177	339	747
Remove 17,8 m (58.4 ft) manual offset bi-fold swingaway	-1658	-3655	-2786	-6142	1128	2487
Remove 11 t (12 USt) overhaul weight	-294	-648	-463	-1020	169	372
Remove 100 t (110 USt) hook block	-1140	-2513	-1071	-2362	-68	-151
Remove 62,5 m (205 ft) main boom and manually offsettable swingaway extension brackets	-15 816	-34,868	-19 340	-42,637	3524	7769

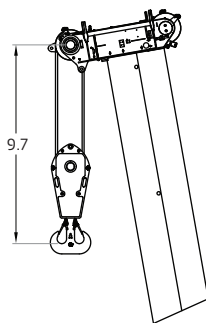
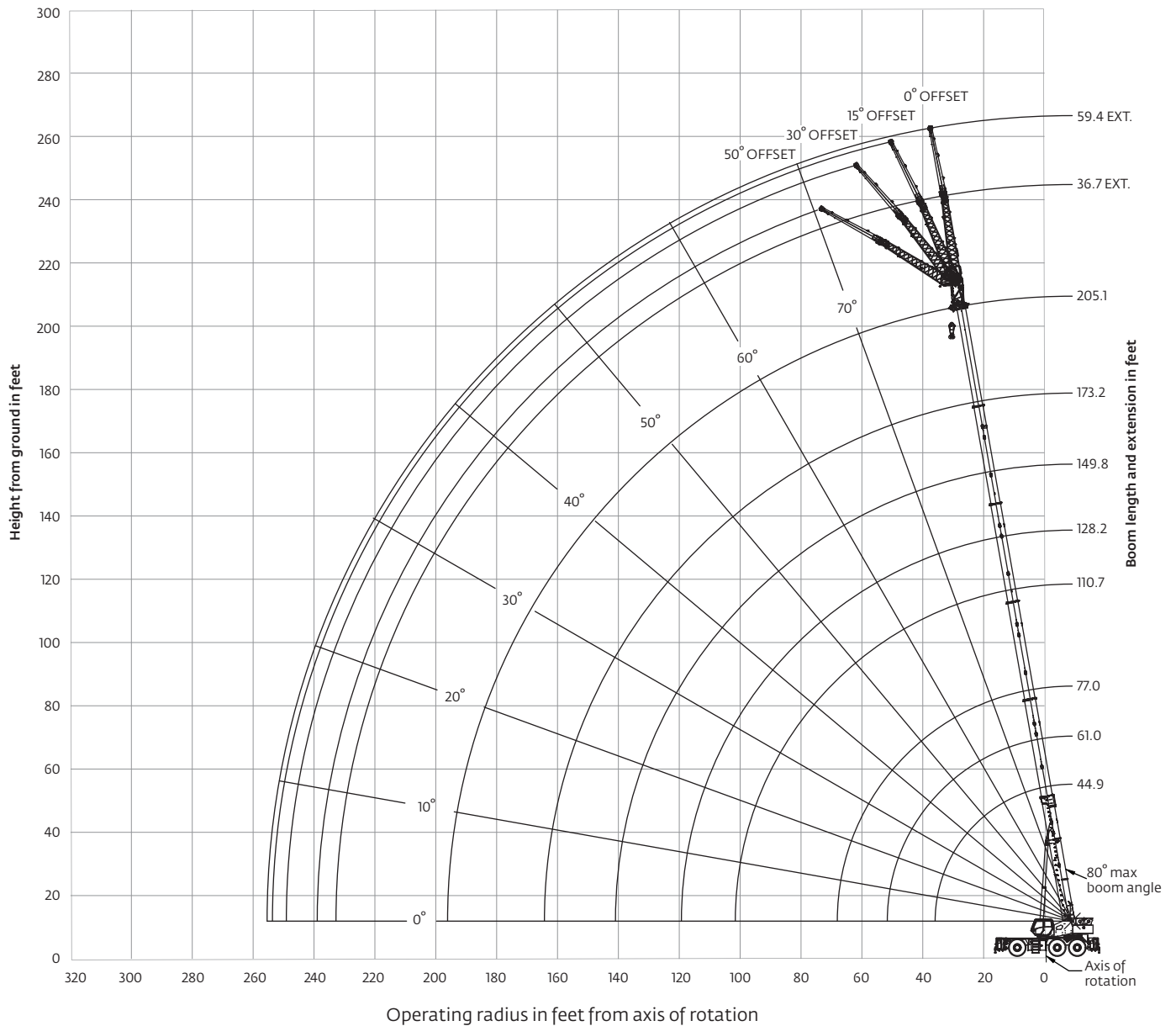
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

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

Working range

Working range diagram with bi-fold extension

(Boom deflection not shown)



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

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Load chart — Preliminary

Main boom



44.9 ft – 205.1 ft



56,800 lb



100%



360°



Pounds

Radius in feet	Main boom length in feet												
	44.9	60.9–62.4	73.5–78.6	79.9–94.6	96.1–110.7	112.1–125.2	128.2–139	140.7–153.2	158.9–162.4	165.8–174.9	176.6–190.7	198	205.1
8	330,000*												
9	235,500												
10	228,500	201,500	168,000	175,000									
12	217,000	188,000	168,000	173,000									
15	200,000	172,500	159,000	156,000	133,000								
20	164,500	159,000	139,500	136,500	128,000	103,000	103,000						
25	136,500	137,000	125,000	124,000	114,500	103,000	103,000	64,700	45,250				
30	111,000	116,500	109,000	113,500	105,000	98,750	98,750	64,700	45,250	41,100	35,200		
35	77,100	97,950	97,050	95,850	97,450	91,300	91,300	60,150	45,250	41,100	35,200	26,250	23,950
40		83,800	84,250	81,700	83,250	85,150	85,150	55,750	45,250	41,100	35,200	26,250	23,950
45		70,800	69,050	70,400	67,500	69,150	70,550	54,450	45,250	40,950	35,200	26,250	23,950
50		55,800	60,150	59,450	58,500	57,750	59,650	51,700	45,250	38,250	35,200	26,250	23,950
55			51,400	50,750	52,500	49,150	51,000	47,900	44,200	36,350	35,200	26,250	23,950
60			44,350	45,600	45,650	42,250	44,000	42,850	41,350	36,350	34,000	26,250	23,950
65			39,400	40,950	40,050	36,700	38,450	39,500	38,250	34,650	31,850	26,250	23,950
70			18,650	36,300	35,400	34,100	34,100	34,850	33,900	32,550	30,550	26,000	23,950
75				32,400	31,700	32,200	32,200	31,200	30,050	29,950	28,850	24,450	23,950
80				29,100	28,400	29,400	29,400	28,450	26,800	26,700	27,150	23,050	23,450
85				20,500	25,550	26,600	26,600	25,600	24,000	24,300	24,650	21,750	22,200
90					24,100	24,100	24,100	23,150	21,550	23,000	22,950	20,600	21,050
95					22,650	21,950	22,200	21,000	19,450	21,050	20,800	19,500	19,950
100					19,000	20,000	20,500	19,100	18,100	19,150	18,900	18,450	18,200
105						18,300	18,800	17,600	17,000	17,500	17,200	17,050	16,750
110						16,850	17,250	16,700	16,000	16,150	15,900	15,500	15,250
115						13,450	15,950	15,850	15,100	14,800	14,750	14,150	13,900
120							14,650	14,700	14,250	13,550	13,500	12,900	12,650
125							13,350	13,550	13,100	12,400	12,350	11,800	11,550
130							4,590	12,500	12,050	11,400	11,350	10,750	10,500
135								11,550	11,100	10,400	10,400	9840	9590
140								9450	10,200	9630	9560	8980	8720
145									9420	9070	8760	8180	7930
150									6470	8540	8020	7450	7190
155										8040	7310	6760	6510
160										7470	6660	6110	5870
165										2640	6050	5500	5260
170											5490	4940	4700
175											4960	4410	4170
180											3670	3910	3670
185												3460	3210
190													2770

*Requires special equipment

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Load chart — Preliminary

Bi-fold extension



44.9 ft – 205.1 ft



37 ft



56,800 lb



100%



360°



Pounds

Radius in feet	37 ft boom extension															
	176.6 ft boom length				187.4 ft boom length				198 ft boom length				205.1 ft boom length			
	0° offset	15° offset	30° offset	50° offset	0° offset	15° offset	30° offset	50° offset	0° offset	15° offset	30° offset	50° offset	0° offset	15° offset	30° offset	50° offset
35	19,650				17,550				15,050				13,800			
40	19,650	20,000			17,550	17,700			15,050				13,800			
45	19,650	20,000	20,050		17,550	17,700			15,050	15,200			13,800	13,900		
50	19,650	20,000	20,050	21,000	17,550	17,700	17,850		15,050	15,200	15,100		13,800	13,900	13,750	
55	19,650	20,000	20,050	21,000	17,550	17,700	17,850	18,500	15,050	15,200	15,100	15,500	13,800	13,900	13,750	14,000
60	19,650	20,000	20,050	21,000	17,550	17,700	17,850	18,500	15,050	15,200	15,100	15,500	13,800	13,900	13,750	14,000
65	19,650	20,000	20,050	21,000	17,550	17,700	17,850	18,500	15,050	15,200	15,100	15,500	13,800	13,900	13,750	14,000
70	19,650	20,000	20,050	21,000	17,550	17,700	17,850	18,500	15,050	15,200	15,100	15,500	13,800	13,900	13,750	14,000
75	19,650	20,000	20,050	20,350	17,550	17,700	17,850	18,500	15,050	15,200	15,100	15,500	13,800	13,900	13,750	14,000
80	19,650	20,000	19,600	19,500	17,550	17,700	17,850	18,500	15,050	15,200	15,100	15,500	13,800	13,900	13,750	14,000
85	19,650	19,300	18,800	18,700	17,550	17,700	17,850	18,500	15,050	15,200	15,100	15,500	13,800	13,900	13,750	14,000
90	18,750	18,450	18,000	17,950	17,550	17,700	17,850	18,250	15,050	15,200	15,100	15,500	13,800	13,900	13,750	14,000
95	17,750	17,500	17,250	17,250	17,550	17,700	17,550	17,550	15,050	15,000	15,000	15,300	13,800	13,900	13,750	14,000
100	16,850	16,600	16,550	16,600	16,900	17,100	16,900	16,950	14,350	14,200	14,200	14,500	13,800	13,900	13,750	14,000
105	15,950	15,800	15,800	16,000	15,550	16,300	16,250	16,350	13,550	13,450	13,450	13,750	13,800	13,700	13,650	13,950
110	14,850	15,050	15,050	15,350	14,150	14,850	15,400	15,750	12,850	12,750	12,750	13,050	13,100	13,000	13,000	13,250
115	13,550	14,150	14,350	14,650	12,850	13,500	14,000	14,400	12,150	12,100	12,100	12,400	12,450	12,350	12,350	12,600
120	12,350	12,900	13,350	13,650	11,650	12,250	12,750	13,100	11,500	11,450	11,500	11,750	11,500	11,750	11,750	12,000
125	11,300	11,800	12,200	12,450	10,600	11,150	11,600	11,900	10,750	10,900	10,950	11,200	10,450	11,050	11,200	11,450
130	10,300	10,800	11,150	11,350	9,650	10,150	10,550	10,800	9,780	10,300	10,400	10,650	9,490	10,050	10,450	10,750
135	9,440	9,870	10,150	10,350	8,760	9,240	9,600	9,820	8,890	9,380	9,760	10,000	8,600	9,120	9,510	9,790
140	8,620	9,020	9,300		7,940	8,390	8,710	8,890	8,060	8,530	8,870	9,090	7,780	8,270	8,630	8,870
145	7,860	8,230	8,480		7,180	7,600	7,890	8,040	7,310	7,740	8,050	8,230	7,030	7,480	7,810	8,020
150	7,160	7,490	7,720		6,480	6,870	7,130		6,610	7,010	7,290	7,440	6,320	6,750	7,050	7,230
155	6,510	6,810	7,010		5,840	6,190	6,420		5,960	6,330	6,590		5,680	6,070	6,350	6,490
160	5,900	6,180	6,350		5,230	5,560	5,770		5,350	5,700	5,930		5,070	5,440	5,690	
165	5,340	5,590	5,730		4,670	4,970	5,150		4,790	5,110	5,320		4,510	4,850	5,080	
170	4,810	5,040	5,150		4,150	4,420	4,570		4,260	4,550	4,740		3,980	4,300	4,500	
175	4,320	4,520	4,600		3,660	3,900	4,030		3,770	4,040	4,200		3,490	3,780	3,960	
180	3,870	4,030			3,200	3,410	3,520		3,310	3,550	3,690		3,030	3,300	3,460	
185	3,440	3,570			2,770	2,960	3,030		2,870	3,100	3,210		2,590	2,840	2,980	
190	3,040	3,140			2,360	2,530			2,470	2,660	2,760		2,190	2,410	2,530	
195	2,670	2,740			1,990	2,120			2,080	2,260	2,330		1,800	2,000	2,100	
200	2,330				1,630	1,740			1,730	1,870			1,440	1,620	1,690	
205					1,300	1,370			1,390	1,510			1,100	1,260		
210					1,300				1,390	1,170						
215					1,300				1,390							
220					1,300				1,390							

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Load chart — Preliminary

Bi-fold extension



44.9 ft – 205.1 ft



59 ft



56,800 lb



100%



360°



Pounds

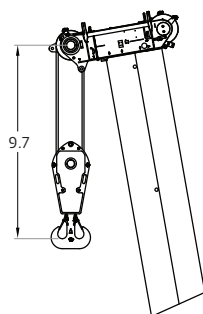
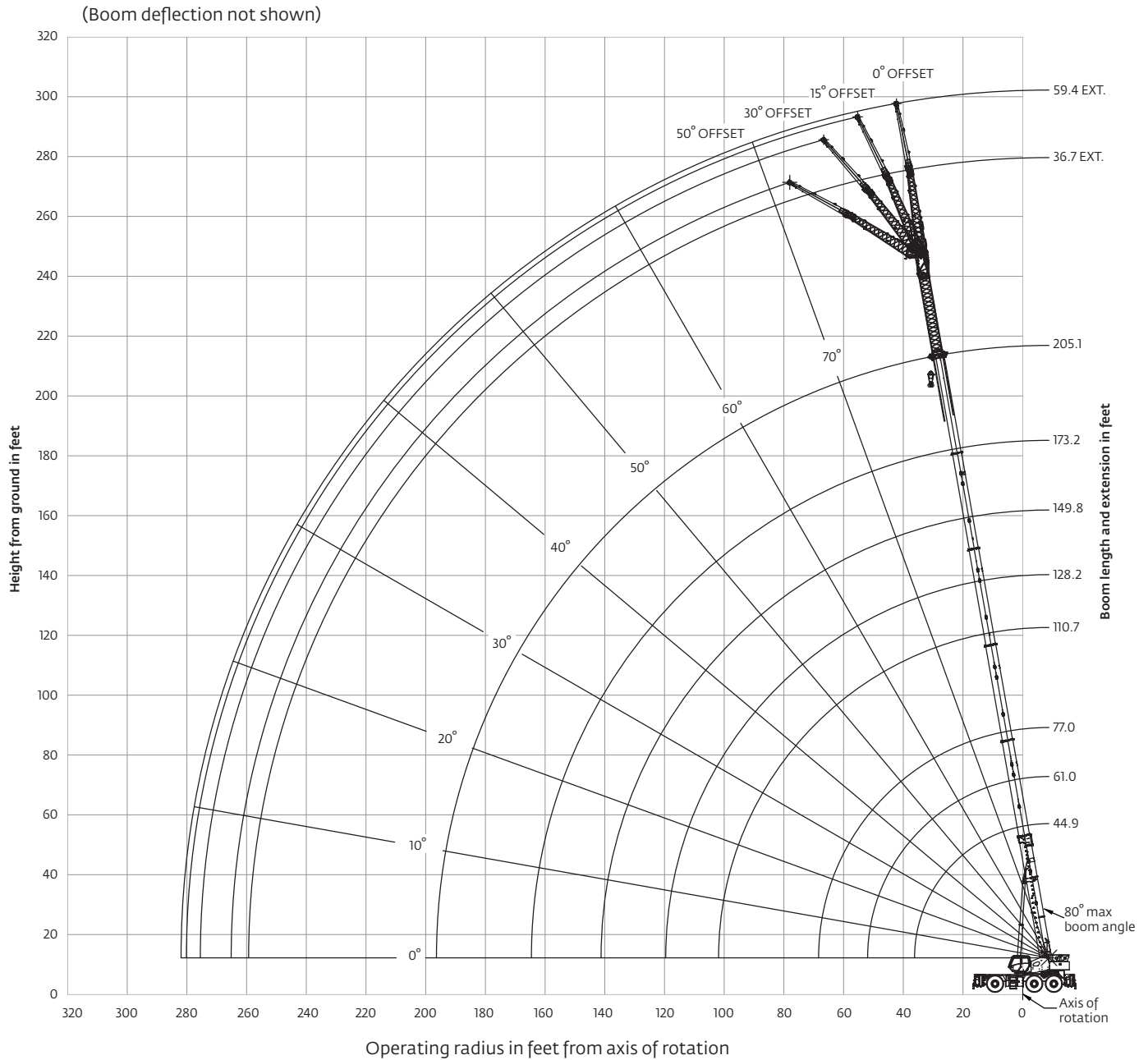
Radius in feet	59 ft boom extension															
	176.6 ft boom length				187.4 ft boom length				198 ft boom length				205.1 ft boom length			
	0° offset	15° offset	30° offset	50° offset	0° offset	15° offset	30° offset	50° offset	0° offset	15° offset	30° offset	50° offset	0° offset	15° offset	30° offset	50° offset
35	12,600															
40	12,600				11,650				10,200				9540			
45	12,600				11,650				10,200				9540			
50	12,600	13,400			11,650	12,200			10,200				9540			
55	12,600	13,400			11,650	12,200			10,200	10,750			9540	10,000		
60	12,600	13,400	12,850		11,650	12,200	12,700		10,200	10,750			9540	10,000		
65	12,600	13,400	12,700		11,650	12,200	12,550		10,200	10,750	11,550		9540	10,000	10,650	
70	12,600	13,400	12,550	11,150	11,650	12,200	12,400		10,200	10,750	11,550		9540	10,000	10,650	
75	12,600	13,400	12,400	11,050	11,650	12,200	12,300	11,050	10,200	10,750	11,550	11,000	9540	10,000	10,650	11,000
80	12,600	13,400	12,250	10,900	11,650	12,200	12,150	10,950	10,200	10,750	11,550	10,900	9540	10,000	10,650	10,900
85	12,600	13,200	12,100	10,850	11,650	12,200	12,050	10,850	10,200	10,750	11,550	10,800	9540	10,000	10,650	10,800
90	12,600	13,050	12,000	10,750	11,650	12,200	11,900	10,750	10,200	10,750	11,550	10,750	9540	10,000	10,650	10,750
95	12,600	12,900	11,850	10,650	11,650	12,200	11,800	10,700	10,200	10,750	11,550	10,650	9540	10,000	10,650	10,650
100	12,600	12,700	11,750	10,600	11,650	12,200	11,700	10,600	10,200	10,750	11,500	10,600	9540	10,000	10,650	10,600
105	12,600	12,550	11,600	10,550	11,650	12,200	11,600	10,550	10,200	10,750	11,400	10,550	9540	10,000	10,650	10,550
110	12,600	12,400	11,400	10,500	11,650	12,200	11,500	10,500	10,200	10,750	11,350	10,500	9540	10,000	10,650	10,500
115	12,600	12,250	11,250	10,450	11,650	12,200	11,350	10,450	10,200	10,750	11,250	10,450	9540	10,000	10,650	10,450
120	12,500	12,100	11,150	10,400	11,650	12,050	11,200	10,400	10,200	10,550	10,700	10,400	9540	10,000	10,650	10,400
125	11,900	11,650	11,000	10,400	11,300	11,900	11,100	10,400	10,000	10,050	10,200	10,350	9540	10,000	10,350	10,350
130	11,000	11,200	10,900	10,350	10,300	11,250	10,950	10,350	9520	9560	9740	10,200	9540	9740	9900	10,350
135	10,050	10,800	10,700	10,350	9420	10,300	10,850	10,350	9040	9100	9280	9750	9190	9280	9440	9910
140	9260	10,000	10,350	10,350	8590	9420	10,100	10,350	8590	8660	8840	9280	8360	8850	9010	9460
145	8490	9210	9780	10,150	7820	8610	9240	9730	7880	8240	8420	8840	7590	8430	8600	9020
150	7780	8450	8970	9330	7120	7850	8430	8870	7180	7850	8020	8410	6890	7670	8210	8610
155	7120	7740	8220	8530	6460	7150	7690	8060	6520	7230	7650	8010	6230	6970	7560	8020
160	6510	7090	7520	7770	5850	6490	6990	7310	5910	6570	7090	7460	5620	6320	6870	7270
165	5940	6480	6870		5280	5880	6330	6600	5340	5960	6440	6760	5050	5700	6220	6570
170	5400	5900	6260		4750	5310	5720		4800	5390	5830	6100	4520	5130	5610	5910
175	4910	5360	5680		4250	4770	5150		4300	4850	5260	5480	4020	4600	5030	5300
180	4440	4860	5130		3780	4270	4600		3830	4350	4720		3550	4090	4500	
185	4000	4380	4620		3340	3790	4090		3390	3870	4210		3110	3620	3990	
190	3590	3930	4130		2930	3340	3610		2980	3420	3730		2700	3170	3510	
195	3200	3510	3670		2540	2920	3150		2590	3000	3270		2310	2750	3050	
200	2830	3100	3220		2180	2520	2710		2220	2600	2840		1940	2350	2620	
205	2490	2720			1830	2130	2290		1880	2220	2430		1590	1970	2210	
210	2170	2360			1510	1770	1890		1550	1860	2030		1260	1610	1820	
215	1870	2010			1200	1430			1240	1520	1660			1270	1440	
220	1590	1670				1100				1190	1290				1080	

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Working range

Working range diagram with bi-fold extension and insert



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

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Load chart — Preliminary

Insert and bi-fold extension



44.9 ft – 205.1 ft



85 ft



26 ft



56,800 lb



100%



360°



Pounds

Radius in feet	85 ft boom extension															
	176.6 ft boom length				187.4 ft boom length				198 ft boom length				205.1 ft boom length			
	0° offset	15° offset	30° offset	50° offset	0° offset	15° offset	30° offset	50° offset	0° offset	15° offset	30° offset	50° offset	0° offset	15° offset	30° offset	50° offset
40	8840				8080											
45	8840				8080				7040				6530			
50	8840				8080				7040				6530			
55	8840	8800			8080	8050			7040	7000			6530			
60	8840	8800			8080	8050			7040	7000			6530	6780		
65	8840	8800	8840		8080	8050	8080		7040	7000			6530	6780		
70	8840	8800	8840		8080	8050	8080		7040	7000	7040		6530	6780	7080	
75	8840	8800	8840	8840	8080	8050	8080		7040	7000	7040		6530	6780	7080	
80	8840	8800	8840	8840	8080	8050	8080	8080	7040	7000	7040	7040	6530	6780	7080	6530
85	8840	8800	8840	8840	8080	8050	8080	8080	7040	7000	7040	7040	6530	6780	7080	6530
90	8840	8800	8840	8840	8080	8050	8080	8080	7040	7000	7040	7040	6530	6780	7080	6530
95	8840	8800	8840	8840	8080	8050	8080	8080	7040	7000	7040	7040	6530	6780	7080	6530
100	8840	8800	8840	8840	8080	8050	8080	8080	7040	7000	7040	7040	6530	6780	7080	6530
105	8840	8800	8840	8840	8080	8050	8080	8080	7040	7000	7040	7040	6530	6780	7080	6530
110	8840	8800	8840	8840	8080	8050	8080	8080	7040	7000	7040	7040	6530	6780	7080	6530
115	8840	8800	8840	8840	8080	8050	8080	8080	7040	7000	7040	7040	6530	6780	7080	6530
120	8840	8800	8840	8840	8080	8050	8080	8080	7040	7000	7040	7040	6530	6780	7080	6530
125	8840	8800	8840	8840	8080	8050	8080	8080	7040	7000	7040	7040	6530	6780	7080	6530
130	8840	8800	8840	8840	8080	8050	8080	8080	7040	7000	7040	7040	6530	6780	7080	6530
135	8840	8800	8670	8770	8080	8050	8080	8080	7040	7000	7040	7040	6530	6780	7080	6530
140	8600	8510	8400	8530	8080	8050	8080	8080	7040	7000	7040	7040	6530	6780	7080	6530
145	8250	8180	8150	8290	7920	8050	8080	8080	6860	7000	7040	7040	6530	6780	7080	6530
150	7850	7860	7910	8060	7200	7990	8070	8080	6480	6690	6960	7040	6530	6780	7080	6530
155	7190	7560	7640	7850	6540	7290	7840	8000	6130	6330	6600	7040	6250	6480	6740	6530
160	6570	7220	7350	7640	5920	6630	7190	7620	5790	5990	6250	6700	5640	6140	6390	6530
165	5990	6600	7070	7400	5350	6010	6540	6920	5350	5670	5910	6330	5060	5770	6060	6490
170	5450	6020	6460	6740	4810	5440	5920	6260	4810	5360	5590	5980	4520	5200	5730	6140
175	4940	5480	5880	6120	4300	4900	5350	5640	4310	4920	5290	5640	4020	4660	5160	5520
180	4470	4970	5340		3830	4390	4810	5060	3830	4410	4860	5150	3550	4150	4620	4950
185	4020	4490	4830		3390	3910	4300	4510	3390	3930	4350	4600	3100	3670	4110	4400
190	3600	4040	4350		2970	3460	3820		2970	3480	3870	4080	2680	3220	3630	3880
195	3210	3620	3890		2570	3030	3360		2570	3060	3410		2290	2800	3180	3390
200	2830	3210	3460		2200	2630	2930		2200	2660	2980		1910	2400	2750	
205	2480	2830	3050		1850	2250	2510		1850	2270	2570		1560	2020	2340	
210	2150	2470	2650		1520	1890	2120		1510	1910	2180		1230	1650	1950	
215	1830	2120	2280		1200	1540	1750		1200	1570	1810			1310	1580	
220	1540	1790	1920			1210	1390			1240	1460				1230	
225	1250	1480	1570				1050				1120					
230		1180														

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Load handling

Weight reductions for load handling devices

Auxiliary boom nose	195 kg (430 lb)
Hook blocks and overhaul weights:	
134 USt (120 t), 8-sheave	1180 kg (2601 lb)*
112 USt (100 t), 7-sheave	1140 kg (2513 lb)*
83 USt (75 t), 5-sheave	1070 kg (2359 lb)*
50 USt (45 t), 3-sheave	770 kg (1698 lb)*
29 USt (26 t), 1-sheave	323 kg (712 lb)*
12 USt (11 t) overhaul weight	294 kg (648 lb)*
10 USt (9 t) overhaul ball	330 kg (727 lb)*

*Refer to rating plate for actual weight.

Tire inflation — bar (psi)

Size (front and rear)	TRA Code	Lifting service, general travel and extended travel
		Static, creep and 4.0 km/h (2.5 mph)
26.5 x 25 — 44 PR	E-3 / L-3	6.48 bar (94 psi)

Line pulls and reeving information

Hoists	Cable specs.	Permissible line pulls	Nominal cable length
Main	19 mm (3/4 in) 35x7 Class rotation resistant (non-rotating) Min. breaking strength 38 918 kg (85,800 lb)	7784 kg (17,160 lb)*	294 m (964.5 ft)
Auxiliary	19 mm (3/4 in) 35x7 Class rotation resistant (non-rotating) Min. breaking strength 38 918 kg (85,800 lb)	7784 kg (17,160 lb)*	233 m (764.4 ft)

The approximate weight of 3/4-in wire rope is 1.5 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.

11,2 m — 17,8 m (37 ft — 59 ft) folding boom extension (manual or hydraulic)

	Without overhaul weight	With 294 kg (648 lb) overhaul weight
11,2 m (37 ft) extension (erected)*	2042 kg (4500 lb)	3720 kg (8200 lb)
17,8 m (59 ft) extension (erected)*	3357 kg (7400 lb)	6033 kg (13,300 lb)

*Reduction of main boom capacities
(no deduct required for stowed boom extension)

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.

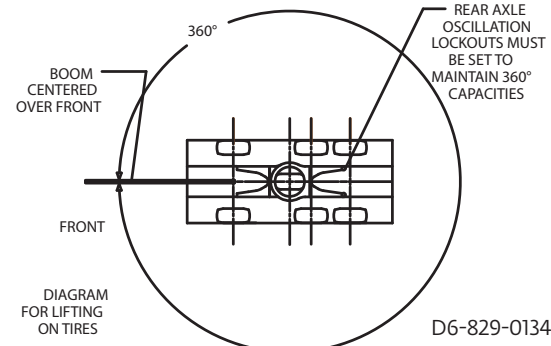
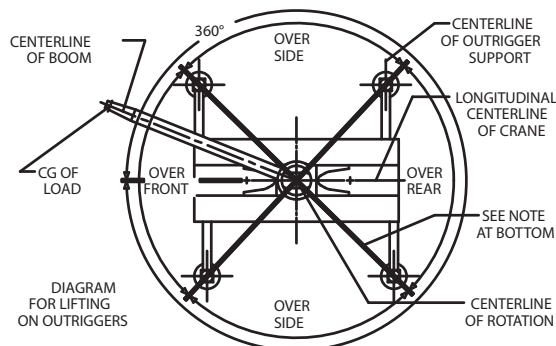
NOTE: When operating at temperatures below -40°F, capacities shall be derated 3.6% of rated load for each degree Fahrenheit below -40°F without shock load.

Hoist performance

Wire rope layer	Hoist line pulls	Layer capacity	Total drum capacity
1	10 614 kg (23,400 lb)	33,1 m (108.7 ft)	33,1 m (108.7 ft)
2	9752 kg (21,500 lb)	36 m (118.4 ft)	69,2 m (227.1 ft)
3	9026 kg (19,900 lb)	39 m (128.1 ft)	108,2 m (355.2 ft)
4	8391 kg (18,500 lb)	41,9 m (137.7 ft)	150,2 m (492.9 ft)
5	7847 kg (17,300 lb)	44,9 m (147.4 ft)	195,1 m (640.3 ft)
6	7348 kg (16,200 lb)	47,8 m (157.1 ft)	243 m (797.4 ft)
7	6895 kg (15,200 lb)	50,8 m (166.7 ft)	293,8 m (964.1 ft)

*Refer to Line pulls and reeving information table for max. lifting capacity of wire rope.

Working area diagram



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

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Specifications

Superstructure



Boom

BOOM: 13,7 m to 62,5 m (44.9 ft to 205 ft) six-section MEGAFORM™ boom with TWIN-LOCK™ boom pinning system.
Maximum tip height: 214 ft (65.2 m)



Boom nose

Seven nylon sheaves mounted on heavy-duty tapered roller bearings with removable pin type guards. Quick reeve boom nose. Removable single sheave auxiliary boom nose with removable pin-type rope guard.



Boom elevation

Single hydraulic cylinder with integral holding valve provides boom elevation from -2° to +80°.



Manual bi-fold swingaway extension

11,2 m – 17,8 m (36.7 ft – 58.4 ft) bi-fold lattice swingaway extension. Offsets at 0°, 15°, 30° and 50°. Stows alongside base boom section.
Maximum tip height: 83,2 m (273 ft)



Hydraulic bi-fold swingaway extension*

11,2 m – 17,8 m (36.7 ft – 58.4 ft) bi-fold lattice swingaway extension. Hydraulically offsets from 0° to 50°. Controlled from crane cab. Stows alongside base boom section.
Maximum tip height: 83,2 m (273 ft)



Lattice insert*

One 8 m (26.2 ft) lattice insert. Provides a total extension length of 25.8 m (84.6 ft) when paired with the bi-fold swingaway extension.
Maximum tip height: 91,1 m (299 ft)



Crane Control System (CCS)

Rated Capacity Limiter (RCL) with graphical display. Load moment and anti-two block system with audio-visual warning and control lever lockout. This system provides electronic display of boom angle, boom length, load radius, boom tip height, maximum permissible load, actual load and warning of impending two-block condition. Also includes an Operating display which shows the crane operating indicators, levels, warnings and faults. Other features include a Working Range Limiter (WRL) which allows the operator to preselect and define working areas. If the crane approaches the operator preset limits, audio-visual warnings aid the operator in avoiding obstructions. ECO mode system to control engine rpm to lower noise and improve fuel consumption. Operator-programmable function speeds and ramps.



Cab

Operator-controlled 20° hydraulic cab tilt, full vision, all steel fabricated with acoustical lining and tinted safety glass throughout. Deluxe seat with headrest, incorporates armrest-mounted electronic programmable single-axis or dual-axis controllers and a jog dial for easy data input. Tilt/telescoping steering wheel with controls incorporated into the steering column. Other standard features include heater (hot water), circulating air fan, high-output air conditioning system, sliding skylight with sunscreen, windshield and skylight washer/wiper, windshield sun visor, fire extinguisher, seat belt, USB charging port, pivoting cup holder, and dual cab-mounted work lights.



Swing

Variable speed, 360° continuous rotation. Planetary swing drive with foot actuated multi-disc brake. Spring-applied, hydraulically released swing brake. Two-position mechanical swing lock pin, operated from cab.
Maximum speed: 1.1 rpm



Counterweight

25 764 kg (56,800 lb) hydraulically installed and removed. Controlled via CCS operating display in cab or via wireless rigging remote.



Hoist

Main and auxiliary hoists with grooved drums, axial piston motors, planetary gears and multiple disc brakes. Electronic hoist drum rotation indicator alerts operator of hoist movement. Third wrap indicator with hoist function cut-out and hoist mirrors is standard.

Hoist line pull:

First layer: 10 614 kg (23,400 lb)

Maximum line speed:

140 m/min (458 ft/min)

Maximum permissible line pull:

7784 kg (17,160 lb)

Rope construction:

35 x 7 rotation-resistant

Rope diameter:

19 mm (3/4 in)

Rope length:

Main hoist: 294 m (964.5 ft)

Auxiliary hoist: 233 m (764.4 ft)

* Denotes optional equipment

Carrier

Chassis

Parallel box section fabricated from high-strength, low-alloy steel.
Removable outrigger boxes. Front and rear lift, towing and tie-down lugs.

Outrigger system

Four hydraulic telescoping, single-stage, double box beam outriggers with inverted jack cylinders and integral holding valves. Three position settings: 0%, 50% and 100% (fully extended). Outrigger Monitoring System (OMS) with in-cylinder sensors. Outrigger beam position shown on RCL display. Outrigger boxes are removable for ease of transportation, with pinning controls on the carrier.
Steel outrigger floats 610 mm (24 in) diameter.
Maximum outrigger pad load: 75 296 kg (166,000 lb)

Outrigger controls

Main controls and crane level indicator located in cab. Extension and retraction are through the CCS system as well as the wireless rigging remote.

Hydraulic system

Two piston pumps and two gear pumps with a combined capacity of 573 l/min (151.5 gpm)
Maximum operating pressure: 4350 psi (300 bar)
Return line in-tank filter with full flow by-pass protection and service indicator. Replaceable cartridge with 4-micron filtration rating per ISO cleanliness level of 17/15/12. Superstructure-mounted oil cooler with thermostatically controlled electric motor driven fan/air to oil. System pressure test ports.
738 l (195 gal) hydraulic reservoir.

Engine (Tier 4 Final/Stage V)

Cummins B6.7L diesel engine with after-treatment system. Six-cylinder, turbo-charged and after-cooled engine. 224 kw (300 HP) at 2,500 rpm. Maximum torque: 1288 Nm (950 lb-ft) at 1500 rpm.
Meets emissions per U.S. EPA Tier 4 Final and E.U. Stage V.
Fuel requirement: Maximum of 15 ppm sulfur content (ultra low sulfur diesel). Diesel exhaust fluid required.
Please review your country's appropriate engine emissions standards before selecting an engine.

Engine (non-certified)

Cummins B6.7L diesel engine without aftertreatment system. Six-cylinder, turbo-charged and after-cooled engine. 224 kw (300 HP) at 2,500 rpm. Maximum torque: 1288 Nm (950 lb-ft) at 1500 rpm.
Fuel requirement: Maximum of 5000 ppm sulfur diesel fuel.
Please review your country's appropriate engine emissions standards before selecting an engine.

Fuel tank capacity

312 l (82 gal)

Transmission

Rangeshift with torque convertor. Six forward and six reverse speeds. (Three speeds high and three speeds low). Rear axle disconnect for two-wheel drive.

Axles

Axle 1: Drive/steer with differential and planetary reduction hubs rigid mounted to frame.
Axle 2: Steer only. Automatic full hydraulic lockouts on rear axle permits 152 mm (6 in) of oscillation for jobsite travel.
Axle 3: Drive/steer with differential and planetary reduction hubs. Automatic full hydraulic lockouts on rear axle permits 152 mm (6 in) of oscillation for jobsite travel.

Brakes

Full hydraulic split (dual) circuit dry disc operating on all wheels with dual calipers. High-pressure parking brake is spring applied/hydraulically released, mounted on the front axle.

Steering

Fully independent hydraulic power steering. Front axle controlled via steering wheel. Rear axles are mechanically linked and are controlled via separate momentary switch in cab. Rear steer alignment indicator included.
Four steering modes: two-wheel front, four-wheel rear, six-wheel coordinated and six-wheel crab
Outside six-wheel coordinated steer radius: 10,2 m (33.5 ft)
Inside six-wheel coordinated steer radius: 7,4 m (24.2 ft)

Suspension

Front axle: Rigid mounted to frame.
Rear axles: Hydro-gas suspension that provides +/- 76,2 mm (3 in) of travel from ride height for reduced transportation height.

Tires

26.5 x 25 – 44 bias ply rating

Lights

Full lighting package, including turn indicators; head, tail, brake and hazard warning lights; and work lights mounted on cab front.

Specifications

Carrier



Electrical system

Two 12 V maintenance-free batteries provide 24 V electrical system.
Lockable battery disconnect located on carrier.



Maximum drive speed

24 km/h (15 mph) with no counterweight
(boom over rear w/ boom angle between 0° and 20°)
16 km/h (10 mph) with full counterweight
(boom over front w/ boom angle between 0° and 20°)
4 km/h (2.5 mph) with no counterweight
(boom over front w/ boom angle between 0° and 20°)



Gradeability (theoretical)

93% to drivetrain stall based on 86 580 kg (190,877 lb) GVW with
26.5 x 25 tires, 25 764 kg (56,800 lb) counterweight, main and
auxiliary hoist, manual bi-fold extension, 100 t (110 USt) hook block
and 11 t (12 USt) overhaul weight.

Miscellaneous standard equipment

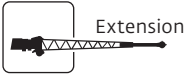
Full-length aluminum decking, dual rear-view mirrors, hoist mirrors,
hook block tie-down, electronic back-up alarm, carrier storage boxes, cab
heat and air conditioning system, Operating hour display, A/V warning
system, combination lift/tie-down/towing lugs, hoist access platform,
sling assemblies for self-rigging of removable components, cab-controlled
differential locks, and wireless rigging remote.

Optional equipment*

- Auxiliary Lighting and Convenience Package: Includes superstructure-mounted amber flashing beacon, dual base boom mounted floodlights controlled from cab, in-cab RCL light bar and rubber mat for storage trough.
- 11,2 m to 17,8 m (36.7 ft to 58.4 ft) bi-fold swingaway, hydraulically offset from 0° to 50° in lieu of the standard manually offsettable swingaway
- 1 x 8 m (26.2 ft) lattice boom insert
- Boom nose-mounted, boom position indicator light
- Wind speed indicator
- Three-camera package (back-up, right side and hoists)
- Bluetooth/AM/FM radio
- Vertical RCL light tower (external)
- Heated seat
- Emergency stop buttons on each side of carrier
- Rear pintle hitch
- 360° NYC-style mechanical swing lock
- -29°C/-20°F cold weather package
- -40°C/-40°F arctic weather package
- CraneSTAR telematic system

* Denotes optional equipment

Symbols glossary

	Axles		Counterweight		Hydraulic system		Steering
	Boom		Crane control system		Insert		Suspension
	Boom elevation		Electrical system		Lights		Swing
	Boom extension		Engine		Outrigger controls		Tires
	Boom nose		Extension		Outriggers		Transmission
	Brakes		Fuel tank capacity		Radius		
	Cab		Grade		Rotation		
	Chassis		Hoist		Speed		

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