GROVE® by Manitowoc

TMS9000-2
Product Guide

ASME B30.5
Imperial 85%

Features

- 100 t (115 USt)
- 11,2 m - 51,6 m (36 ft -169 ft) six-section MEGAFORM™ boom
- TWIN-LOCK™ boom pinning system
- Several 10,5 m - 17,6 m (34.5 ft - 57.6 ft) bi-fold swingaway extension options and an 8 m (26 ft) insert
- Crane Control System (CCS)
- Tilt superstructure cab
- Up to 22 000 kg (48,500 lb) counterweight with hydraulic removal system

GROVE TMS9000-2

The TMS9000-2 sets a new standard for truck mounted cranes; strong load charts, long boom and a low gross vehicle weight.

Features

MEGAFORM™ boom

The Grove MEGAFORM™ boom shape eliminates weight and increases capacity compared to conventional shapes. The simplified TWIN-LOCK™ boom pinning system automatically pins the sections in position using two horizontal large diameter pins. A single cylinder inside the boom reduces weight which has been used elsewhere to strengthen the machine.

Counterweight

Up to 22 000 kg (48,500 lb) of counterweight can be power installed and removed from the superstructure cab — allowing for easy transport to and from the job site. Wing weights are interchangeable with previous model.

Control system

Crane functions are controlled by Crane Control System (CCS). CCS offers a user-friendly interface, two full graphic displays mounted vertically for easier viewing and a jog dial for easier navigation and data input. The system allows the electronic controllers to be reprogrammed by the operator for specific speed and reaction. Parts commonality across Grove, Manitowoc and Potain product lines enhances operator familiarization and serviceability.

Outriggers

Two-stage outriggers provide four position settings - 0%, 57%, 79%, and 100%.

Optional power luffing extension

For improved up-and-over reach, a power luffing extension is available on the TMS9000-2. It is hydraulically offsettable from the superstructure cab, 0° to 45°. Additional extensions are also available including integrated heavy duty and manually offsettable options.

CraneSTAR is an exclusive and innovative crane asset management system

that helps improve your profitability and reduce costs by remotely monitoring critical crane data. Visit www.cranestar.com for more information.

CraneSTAR®

Job site benefits

- Multiple ladders on the carrier make accessing the crane easy
- Standard hydraulic tilt cab 0°- 20° for exceptional visibility and operator comfort while working with long boom, inserts, and swingaway
- TWINLOCK™ boom pinning system helps maximize the crane's load chart capacity by eliminating weight inside the extended boom
- Four position outriggers provide more flexibility for setup in congested work environments
- Traction control provides improved traction on the job site
- Available hydraulically offsettable 10,5 m - 17,6 m (34.5 ft - 57.6 ft) bi-fold 0°- 45° offset capability swingaway. This option is conveniently operated inside the cab and is easily stowed and erected using hydraulics
- Available hydraulically offsettable 10,5 m - 17,6 m (34.5 ft - 57.6 ft) bi-fold lattice swingaway extension with integrated 3,5 m (11.4 ft) heavy duty jib for tilt- up work.
- Standard wireless rigging remote enables convenient setup

Manitowoc Crane Care

Manitowoc Crane Care when you need it.
The assurance of the world's most advanced crane service and support to get you back to work fast.

Manitowoc Finance

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

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Dimensions

Dimensions shown in mm (ft)

Counterweight

Counterweight configurations

1. 1361 kg (3000 lb) baseplate
2. 4536 kg (10,000 lb) stackable
3. 2268 kg (5000 lb) pinned or stackable
4. 1361 kg (3000 lb) pinned or stackable
5. 2835 kg (6250 lb) wing

Load chart configurations					
	1	2	3	4	5
0					
2722 kg (6000 lb)	X			X	
*3629 kg (8000 lb)			X	X	
4990 kg (11,000 lb)	X		X	X	
7258 kg (16,000 lb)	X		2X	X	
9525 kg (21,000 lb)	X	X	X	X	
11 793 kg (26,000 lb)	X	X	2X	X	
16 329 kg (36,000 lb)	X	2X	2X	X	
22 000 kg (48,500 lb)	X	2X	2X	X	2X

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

Travel proposals

Boom over front

Dimensions shown in mm (ft)

Unit configuration

	Front		Rear		G.V.W.	
Basic machine: Includes ISX12 on-highway engine, main and auxiliary hoists with wire rope, air conditioning chassis and superstructure cabs, no counterweight and includes driver.	18 596 kg	40,998 lb	17 832 kg	39,313 lb lb	36 428 kg	80,311 lb
Add: 3000 lb counterweight on carrier deck and 3000 lb counterweight on superstructure. Total counterweight 6000 lb.	19 171 kg	42,264 lb	19 997 kg	44,085 lb	39 167 kg	86,349 lb
Add: 3000 lb counterweight on carrier deck and 5000 lb counterweight on superstructure. Total counterweight 8000 lb.	18 524 kg	41,389 lb	21 301 kg	46,960 lb	39 825 kg	88,349 lb
Add: 8000 lb counterweight on carrier deck and 8000 lb counterweight on superstructure. Total counterweight 16,000 lb.	20 476 kg	44,370 lb	23 594 kg	52,017 lb	44 070 kg	96,387 lb
Add: 8000 lb counterweight on carrier deck and 13,000 lb counterweight on superstructure. Total counterweight 21,000 lb.	19 480 kg	42,174 lb	26 867 kg	59,232 lb	46 347 kg	101,406 lb
Auxiliary boom nose 21 000 kg	155 kg	356 lb	-75 kg	-166 lb	80 kg	190 lb
Manual 10,5 m to 17,6 m (34.5 ft - 57.6 ft) bi-fold swingaway (includes brackets)	1 713 kg	3,838 lb	5 kg	12 lb	1 718 kg	3,850 lb
Hydraulic 10,5 m to 17,6 m (34.5 ft - 57.6 ft) bi-fold swingaway (includes brackets and hose reel)	2 130 kg	4,703 lb	-100 kg	-220 lb	2 030 kg	4,483 lb
Hydraulic 10,5 m to 17,6 m (34.5 ft-57.6 ft) bifold swingaway with integrated 3,6 m (11,4 ft) heavy duty jib (includes stowage brackets and hose reel)	2 284 kg	4,464 lb	-75 kg	-166 lb	2 209 kg	4,298 lb
11,0 t (12.1 USt) top-swiveling overhaul weight stowed	434 kg	958 lb	-140 kg	-309 lb	294 kg	649 lb
45 t (50 USt), three-sheave quick-reeving hook block at bumper	764 kg	2,098 lb	-391 kg	-863 lb	373 kg	1,235 lb
Maximum Allowable	23 224 kg	51,200 lb	27 216 kg	60,000 lb	50 440 kg	111,200 lb

Travel proposals

Dimensions shown in mm (ft)

Unit configuration

	Front		Rear		Boom Dolly		G.V.W.	
Typical machine: Includes ISX12 on-highway engine, main and auxiliary hoists with wire rope, auxiliary boom nose, manual bifold swingaway, stowed overhaul weight, 45 t (50 USt) hook block hanging at boom nose, no counterweight, includes driver and 6800 lb boom dolly.	15 601 kg	34,395 lb	14 426 kg	31,803 lb	12 293 kg	27,101 lb	42 320 kg	93,299 lb
Add: 6000 lb counterweight on front carrier deck or pinned to the superstructure, 5000 lb counterweight on rear chassis counterweight carrier, 15,000 lb on boom dolly. Total counterweight 26,000 lb.	17 269 kg	38,071 lb	17 813 kg	39,271 lb	19 105 kg	42,120 lb	54 187 kg	119,462 lb
Add: 6000 lb counterweight on the front carrier deck or pinned to superstructure, 5000 lb counterweight on rear chassis counterweight carrier, 25,000 lb on three-axle 9000 lb boom dolly. Total counterweight 36,000 lb.	18 524 kg	38,071 lb	17 813 kg	39,271 lb	24 639 kg	54,320 lb	60 976 kg	131,662 lb
Substitute: Hydraulic 10,5 m to 17,6 m (34.5 ft - 57.6 ft) bifold swingaway (includes brackets and hose reel) in lieu of the manual swingaway	20 476 kg	14 lb	4 kg	9 lb	277 kg	610 lb	20 757 kg	633 lb
Substitute: Hydraulic 10,5 m to 17,6 m (34.5 ft-57.6 ft) bifold swingaway with integrated 3 m (10 ft) heavy duty jib (includes stowage brackets and hose reel) in lieu of the manual swingaway	19 480 kg	24 lb	7 kg	16 lb	380 kg	838 lb	19 867 kg	878 lb

Load handling

Auxiliary boom nose	86 kg (190 lb)

Hook blocks and overhaul weights:	
100 t (110 USt), seven-sheave	1140 kg (2513 lb) +
75 t (83 USt), five-sheave	722 kg (1592 lb) +
45 t (50 USt), three-sheave	560 kg (1235 lb) +
26 t (28 USt), one-sheave	323 kg (712 lb) +
11 t (12 USt) overhaul weight	294 kg (648 lb) +

+ Refer to rating plate for actual weight.

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

Hoists	Cable specs	Permissible line pulls	Nominal cable length
Main	19 mm (3/4 in) 35x7 Class Rotation Resistant Min. Breaking Strength 38 918 kg (85,800 lb)	7784 kg (17,160 lb)	250 m (820 ft)
Auxiliary	19 mm (3/4 in) 35x7 Class Rotation Resistant Min. Breaking Strength 38 918 kg (85,800 lb)	7784 kg (17,160 lb)	177 m (581 ft)

The approximate weight of 19 mm (3/4 in) wire rope is 2.2 kg/m (1.5 lb/ft)

Hoist performance

Wire rope layer	Hoist line pull	Drum rope capacity m (ft)	
	Available*	Layer	Total
1	10 900 kg (24,000 lb)	33,5 m (110 ft)	33,5 m (110 ft)
2	10 000 kg (22,100 lb)	36,6 m (120 ft)	70,1 m (230 ft)
3	9250 kg (20,400 lb)	39,7 m (130 ft)	109,9 m (360 ft)
4	8700 kg (19,100 lb)	42,8 m (141 ft)	152,7 m (501 ft)
5	8000 kg (17,700 lb)	45,9 m (151 ft)	198,6 m (652 ft)
6	7550 kg (16,600 lb)	49,0 m (161 ft)	247,6 m (812 ft)

*Max lifting capacity

19 mm 35x7 Class: 7784 kg (17,160 lb)

Working area diagram

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

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

Working range
Main boom

36.6 ft - 169.3 ft main boom

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

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Load chart

Main boom

36.6 ft - 169.3 ft
Fixed lengths

48,500 lb

100%
23 ft

360°

Pounds

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

*Requires special equipment.

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Load chart
Main boom

36.6 ft - 169.3 ft
Fixed lengths

36,000 lb

100%
23 ft

360°

Pounds

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

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Load chart

Main boom

36.6 ft - 169.3 ft
Fixed lengths

26,000 lb

100%
23 ft

360°

Pounds

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

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Load chart
Main boom

36.6 ft - 169.3 ft
Fixed lengths

21,000 lb

100%
23 ft

360°

Pounds

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

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Load chart
Main boom

36.6 ft - 169.3 ft
Fixed lengths

16,000 lb

100%
23 ft

360°

Pounds

Feet	37	49-50	62-64	75-77	88-90	100-103	111-114	122-126	136-140	147-154	159-165	169
8.0	179,500											
9.0	168,500	164,000										
10.0	159,000	158,000	146,000	128,500								
12.0	142,000	143,500	135,500	124,000	94,600							
15.0	122,500	123,500	123,000	114,000	94,600	74,950						
20.0	92,000	93,550	94,150	93,650	93,900	73,500	58,050	45,800				
25.0	67,450	69,850	68,950	70,650	69,350	70,900	58,050	45,800	37,900	30,000		
30.0		49,850	50,950	50,700	52,150	51,100	50,850	45,800	37,900	30,000	25,250	21,200
35.0		37,950	39,650	40,000	39,450	38,800	39,700	38,950	37,900	30,000	25,250	21,200
40.0		29,750	31,350	31,700	31,250	32,150	31,550	31,600	31,700	30,000	25,250	21,200
45.0			25,500	25,800	25,800	26,400	26,650	26,500	25,950	25,700	24,750	21,200
50.0			21,150	21,450	22,500	22,000	22,250	22,300	21,850	21,350	20,650	20,450
55.0			17,800	18,600	19,150	18,650	19,200	18,900	18,550	18,000	17,300	17,150
60.0				16,450	16,550	16,850	16,750	16,350	16,050	15,550	14,900	14,750
65.0				14,300	14,350	14,750	14,550	14,200	13,850	13,350	12,750	12,600
70.0				8100	12,279	12,950	12,700	12,350	12,050	11,550	10,950	10,800
75.0					11,100	11,400	11,150	10,850	10,550	10,050	9460	9320
80.0					9850	10,100	9890	9560	9250	8780	8170	8040
85.0						9000	8760	8430	8130	7660	7060	6930
90.0						8020	7780	7450	7150	6690	6090	5960
95.0						6250	6920	6590	6290	5830	5240	5110
100.0							6160	5830	5520	5070	4480	4360
105.0							5490	5150	4840	4390	3810	3680
110.0								4550	4240	3790	3210	3080
115.0								4020	3690	3240	2660	2540
120.0									3190	2740	2170	2040
125.0									2750	2290	1720	1590
130.0									2340	1880	1310	1180
135.0										1510		
140.0										1170		

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Load chart
Main boom

36.6 ft - 169.3 ft
Fixed lengths

8000 lb

100%
23 ft

360°

Pounds

Feet	37	49-50	62-64	75-77	88-90	100-103	111-114	122-126	136-140	147-154	159-165	169
8.0	175,000											
9.0	164,500	164,000										
10.0	155,000	156,000	146,000	128,500								
12.0	139,000	140,000	135,500	124,000	94,600							
15.0	119,500	121,000	121,500	114,000	94,600	74,950						
20.0	86,500	87,900	88,250	89,100	89,050	73,500	58,050	45,800				
25.0	57,450	60,100	61,350	61,000	62,750	61,350	58,050	45,800	37,900	30,000		
30.0		42,200	44,000	44,400	43,850	43,100	44,100	43,250	37,900	30,000	25,250	21,200
35.0		31,350	33,050	33,400	32,950	34,050	33,700	33,300	33,400	30,000	25,250	21,200
40.0		24,250	25,850	26,200	27,350	26,800	27,100	27,100	26,500	26,050	25,100	21,200
45.0			20,800	22,150	22,200	21,850	22,400	22,000	21,600	21,000	20,250	20,100
50.0			17,100	18,400	18,450	18,850	18,600	18,200	17,800	17,250	16,800	16,650
55.0			14,200	15,550	14,703	16,050	15,800	15,450	15,100	14,600	13,950	13,800
60.0				13,200	13,400	13,750	13,500	13,150	12,800	12,300	11,650	11,500
65.0				11,350	11,500	11,850	11,600	11,250	10,900	10,450	9810	9670
70.0				5410	9980	10,250	10,000	9700	9380	8900	8270	8140
75.0					8660	8960	8720	8380	8070	7590	6980	6840
80.0					7550	7830	7590	7260	6950	6480	5870	5740
85.0						6860	6620	6290	5980	5520	4920	4790
90.0						6020	5770	5450	5140	4680	4090	3960
95.0						4370	5030	4710	4400	3950	3350	3230
100.0							4380	4050	3750	3290	2710	2580
105.0							3810	3470	3160	2710	2130	2000
110.0								2950	2640	2190	1610	1480
115.0								2500	2170	1720	1140	1020
120.0									1740	1290		
125.0									1360			
130.0									1010			

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Working range

Main boom and hydraulic or manual extension

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

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

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Working range

Main boom, extension and insert

36.6 ft - 169.3 ft main boom and 34.5 ft - 57.6 hydraulic or manual offsettable extension with 26.2 ft insert

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

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Load chart

Main boom, extension and insert

169.3 ft
Fixed lengths

34.5 ft - 57.6 ft
Manual offsettable swingaway

26.2 ft
Insert

48,500 lb

100%
23 ft

360°

Pounds

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

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Load chart

Main boom, extension and insert

169.3 ft
Fixed lengths

34.5 ft - 57.6 ft
Manual offsettable swingaway

26.2 ft
Insert

36,000 lb

100%
23 ft

360°

Pounds

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

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Load chart

Main boom, extension and insert

169.3 ft
Fixed lengths

34.5 ft - 57.6 ft
Hydraulic offsettable swingaway

26.2 ft
Insert

48,500 lb

100%
23 ft

360°

Pounds

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

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Load chart

Main boom, extension and insert

169.3 ft
Fixed lengths

34.5 ft - 57.6 ft
Hydraulic offsettable swingaway

26.2 ft
Insert

36,000 lb

100%
23 ft

360°

Pounds

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

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Load chart

Main boom, extension and insert

169.3 ft
Fixed lengths

34.5 ft - 57.6 ft
Heavy duty hydraulic offsettable swingaway

26.2 ft
Insert

48,500 lb

100%
23 ft

360°

Pounds

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

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Load chart

Main boom, extension and insert

169.3 ft
Fixed lengths

34.5 ft - 57.6 ft
Heavy duty hydraulic offsettable swingaway

26.2 ft
Insert

36,000 lb

100%
23 ft

360°

Pounds

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

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

Working range

Integrated heavy duty jib

36.6 ft - 169.3 ft main boom and 11.4 ft hydraulic or manual offsettable integrated heavy duty jib

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

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Load chart

Integrated heavy duty jib

36.6 ft - 169.3 ft
Fixed lengths

11.4 ft
Hydraulic integrated heavy duty jib

48,500 lb

100%
23 ft

360°

Pounds

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

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Load chart

Integrated Heavy duty jib

36.6 ft - 169.3 ft
Fixed lengths

11.4 ft
Hydraulic
integrated
heavy duty jib

36,000 lb

100%
23 ft

360°

Pounds

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

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Specifications

Super Structure

Boom
11,2 m - 51,6 m (36.6 ft - 169.3 ft) six-section MEGAFORM™ boom with TWIN-LOCK™ pinning system. Maximum tip height: 54,8 m (179.8 ft).

Boom nose
Five nylatron sheaves, mounted with removable pin-type rope guards. Quick reeve boom nose. Removable auxiliary boom nose with removable pin type rope guard.

Boom elevation
Single lift cylinder with integrated valve provides boom angle from -3° to +82°.

*Optional offsettable lattice extensions
10,5 m - 17,6 m (34.5 ft - 57.6 ft) bi-fold lattice swingaway extension manually offset at 0°, 20°, and 45°. Maximum tip height: 72,3 m (237.3 ft).

10,5 m - 17,6 m (34.5 ft - 57.6 ft) bi-fold lattice swingaway extension hydraulically offset from 0° - 45°. Controlled from the crane cab. Maximum tip height: 72,3 m (237.3 ft).

10,5 m - 17,6 m (34.5 ft - 57.6 ft) bi-fold lattice swingaway extension with integrated 3,5 m (11.4 ft) heavy duty jib, manually offset at 0°, 20°, and 45°. Maximum tip height: 72,3 m (237.3 ft).

10,5 m - 17,6 m (34.5 ft - 57.6 ft) bi-fold lattice swingaway extension with integrated 3,5 m (11.4 ft) heavy duty jib, hydraulically offset from 0° - 45°. Controlled from the crane cab. Maximum tip height: 72,3 m (237.3 ft).

* Optional lattice insert
One 8 m (26.2 ft) insert for use with lattice swingaway extension to increase the total extension length up to 25,6 m (83.8 ft). Maximum tip height: 80,3 m (263.4 ft)

Rated Capacity Limiter and anti-two block system
Load moment and anti-two block system with audio/visual warning and control lever lockout provides electronic display of boom angle, length, radius, tip height, relative load moment, maximum permissible load, load indication, slew angle and warning of impending two-block condition.

Crane Control System (CCS)
Full electronic control of all crane movements using electrical control allowing user customization of levels and response. Integrated with the RCL and engine management system by CAN-BUS. Full-color high resolution graphic display.

Cab
All aluminum construction cab with acoustical lining tilts hydraulically to +20° and includes tinted safety glass, air conditioning, adjustable operator's seat with hydraulic suspension, hinged front (with wiper) and rear windows, sun visor and window shade. Other features include diesel heater/defroster, stereo radio/disc player, armrest integrated crane controls, and ergonomically arranged instrumentation.

Swing
Two planetary gearboxes with axial piston fixed displacement motors. Infinitely variable to 1.9 rpm. Spring-applied park brakes and hydraulic service brakes.

Counterweight
7258 kg (16,000 lb) consisting of multiple sections with hydraulic installation/removal system operated from the cab.

*Optional "Heavy Lift" counterweight package consisting of (2) 4636 kg (10,000 lb) sections in addition to standard, for a total of 16 329 kg (36,000 lb).

*Optional "XL" counterweight package consisting of (2) 1814 kg (4000 lb) and (2) 1021 kg (2250 lb) wing sections in addition to standard and "Heavy Lift" package, for a total of 22 000 kg (48,500 lb).

*Optional "Special XL" counterweight package consisting of two 1814 kg (4000 lb) and two 1021 kg (2250 lb) wing sections in addition to modified standard counterweight package (a 907 kg (2000 lb) slab and a 1360 kg (3,000lb) slab in lieu of one 2268 kg (5000 lb) slab and "Heavy Lift" package, for a total of 22 000 kg (48,500 lb).

Optional Heavy Roadable "XL" counterweight package consisting of (1) 2,000 lb. (907 kg.) slab, (2) 3,000 lb. (1361 kg.) slabs, (1) 3,000 lb. (1361 kg.) base plate, (3) 5,000 lb. (2268 kg.) slabs, (1) 10,000 lb. (4536 kg.) slab, (2) 6,250 lb. (2835 kg.) wing weights for a total of 48,500 lbs. (22000 kg.).

Hydraulic system
Two load-sensing axial piston variable displacement pump (load sensing) with power limiting control and one gear pump for slewing and steering. Dual fan electric oil cooler. On screen display of hydraulic oil temperature. Tank capacity 556 liters (147 gallons).

Hoist
Main and auxiliary hoists are powered by axial piston motors with planetary gears and brakes. "Thumb-thumper" hoist drum rotation indicator alerts operator of hoist movement. Standard minimum wrap indication with lock-out.

Hoist line pull:
- 1st Layer: 10 900 kg (24,000 lb)
- 3rd Layer: 9250 kg (20,400 lb)
- 5th Layer: 8000 kg (17,700 lb)

Maximum line speed:
- 113 m/min (370 fpm)

Maximum permissible line pull:
- 7784 kg (17,160 lb) 35X7 Class

Rope diameter: 19 mm (3/4 in)
Rope length main hoist : 250 m (820 ft)
Rope length auxiliary hoist : 177 m (581 ft)
Maximum rope storage: 292 m (960 ft)

Cameras
Standard back-up, right-side and hoist cameras.

**Denotes optional equipment*

Specifications

Carrier

Chassis
Torsionally rigid frame, four-axle carrier, fabricated from high strength, low alloy steel with towing and tie-down lugs.

Outrigger system
Four hydraulic telescoping, two-stage, double box beam outriggers and integral holding valves.

Quick release type outrigger floats 610 mm (24 in) diameter.

Four position setting with fully extended, 79%, 57%, and fully retracted capacities. Fifth (5th) front jack with sliding self-storing pad and automatic first-retract.

Outrigger Monitoring System standard (required for North America and Canada).

Maximum outrigger pad load: 49,900 kg (110,000 lb)

Outrigger controls
Located in the superstructure cab and on either side of carrier. Crane level indicators located at all stations.

Auto leveling and wireless remote control standard.

Engine
Cummins X 12 six-cylinder, turbo charged and after cooled diesel engine. 12 L 354 kW (475 bhp) at 1800 rpm. Maximum torque 2102 Nm (1550 lb-ft) at 1400 rpm. "On Highway" EPA, CARB compliant.

Equipped with engine compression brake, ether start aid and 110 volt block heater.

Fuel Requirement: Maximum of 15 ppm sulfur content (Ultra Low Sulfur Diesel). Diesel exhaust fluid required.

Fuel tank capacity
376 L (100 gal)

Transmission
Roadranger 11 speeds forward, 3 reverse, manual.
Optional automated Eaton Fuller Ultrashift® PLUS Transmission

Steering
Front axles, single circuit, mechanical steering with hydraulic power assist. Turning radius: 13,8 m (45.4 ft).

Axles
Front: (2) tube-type steering axles, 2,12 m (83.4 in) track.
Rear: (2) single reduction drive axles, 1,89 m (74.5 in) track. Inter-axle differential locks. Drive: 8 x 4 x 4.

Brakes
S-cam, dual air split system operating on all wheels. Spring-applied, air released parking brake acting on rear axles. Air dryer. ABS with traction control.

Suspension
Front: Walking beam with air bags and shock absorbers.
Rear: Walking beam with air bags and shock absorbers.

Tires
Front: 445/65R 22.5 tubeless, mounted on aluminum disc wheels.
Rear: 315/80R 22.5 tubeless, mounted on aluminum disc wheels.

Lights
Lighting package including turn indicators, head, tail, brake, and hazard warning lights.

Cab
Single-driver design, aluminum fabricated with acoustical lining and tinted safety glass. Air conditioning. Fabric covered seat with air adjustment. Driving controls and engine instrumentation including tilt telescope multifunction steering wheel, tachometer, speedometer, trip meter, voltmeter, water temp., oil, fuel level, air pressure gauge, engine high temp./low oil pressure A/V warning. Other standard items include display for back-up and passenger side cameras, hot water heater/defroster, electric windshield wash/wipe, fire extinguisher, wireless rigging remote with battery charging station, seat belt and door lock.

Electrical system
Four maintenance-free batteries provide 24 V electrical system. Standard lockable battery disconnect.

Maximum speed
105 kph (65 mph)

Gradeability (theoretical)
70%, 1st gear

Miscellaneous standard equipment
Aluminum fenders with rear storage compartments; dual rear view mirrors; electronic back-up alarm; sling/tool box; tire inflation kit; air cleaner restriction indicator; headache ball stowage tray; air conditioning; air horn; hoist access platform

*Optional equipment
- Auxiliary Lighting and Convenience Package: Includes amber strobe light for superstructure and carrier cab, and boom nose mounted, boom position indicator light (fully wired)
- Dual boom base mounted floodlights (manual or power-adjusted)
- Hook blocks
- Pintle hook (rear)
- Trailing Boom Package
- Aluminum outrigger pads
- Counterweight packages
- Tow cable
- Wind speed indicator
- Winterfront radiator cover
- Counterweight slings
- Cross axle differential locks
- Electric controlled 360° lock
- Rear counterweight stowage
- Single axis joysticks
- Boom dolly camera
- CraneSTAR asset management system

**Denotes optional equipment*

Notes

Notes

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Manitowoc Crane Care™

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