GROVE®
by Manitowoc

TMS500-2

Provisional Product Guide

ASME B30.5
Imperial 85%

Features

- 36,3 t (40 USt) capacity
- 8,8 m - 29 m (29 ft - 95 ft) four-section full-power boom
- 9,8 m - 31 m (32 ft - 102 ft) four-section full-power boom
- 7,9 m - 13,7 m (26 ft - 45 ft) offsettable telescopic swingaway extension
- Crane Control System (CCS)
- 261 kW (350 bhp) Cummins ISL9 engine

GROVE TMS500-2

The TMS500-2 is designed for superior roadability and fast setup.

Features

Two four-section boom options for flexibility

- 8,8 m - 29,0 m (29 ft - 95 ft) four-section, synchronized, full-power boom
- 9,8 m - 31,0 m (32 ft - 102 ft) four-section, synchronized, full-power boom

Optional extension

- 7,9 m - 13,7m (26 ft - 45 ft) telescoping swingaway lattice extension with manual offsets at 0°, 15° and 30°
- Maximum tip height: 39,1 m (128.2 ft) with 29 m (95 ft) boom
- Maximum tip height: 42,0 m (134.8 ft) with 31 m (102 ft) boom

Outriggers

- Three outrigger position settings (0%, 50% and 100%)
- Inverted outrigger jacks
- Removable aluminum outrigger floats
- Standard auto leveling system
- Equipped with smart length sensing outrigger extension cylinders. This replaces traditional string pots measuring system to improve serviceability and increase accuracy.

Counterweight

- Removable counterweight inserts for a lightweight travel configuration
- Two counterweight packages available: 8000 lb and 5500 lb

Crane Control System (CCS)

- Hardware and software that integrates the Crane Control with the Rated Capacity Limiter (RCL) to create one system
- Tilting, full-color, high-resolution Operating and RCL displays for improved visibility
- Designed for maximum operator comfort
- Parts commonality across Grove, Manitowoc and Potain product lines to enhance operator familiarization and serviceability
- Working range limiter
- Programmable function speeds and ramps

CraneSTAR®

CraneSTAR is an exclusive and innovative crane asset management system

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

Operator comfort

- Electronic dual axis crane controls standard
- Improved A/C with higher output and better air flow
- Adjustable seat with hydraulic suspension
- Ergonomically arranged instrumentation
- Cummins ISL9 (2017 on-highway, EPA certified), six-cylinder turbocharged and after-cooled diesel engine, 350 hp at 2000 rpm
- Eaton Ultrashift Plus automated transmission, 11 speeds forward and 3 reverse
- Travel speeds up to 70 mph
- ECO Mode for reduced fuel consumption and lower engine noise

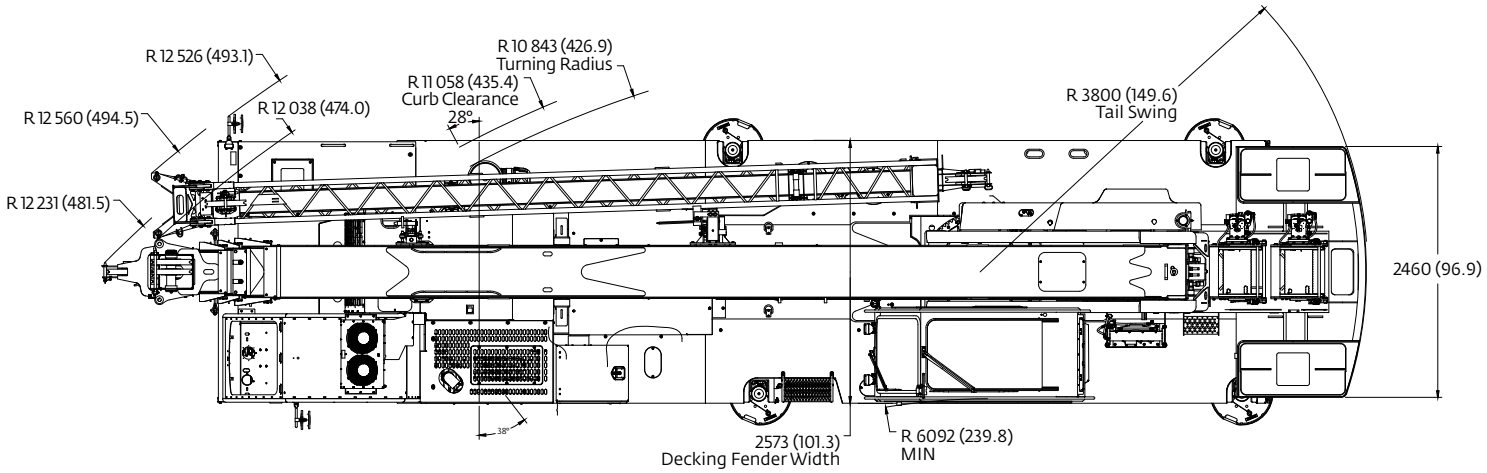
Manitowoc Crane Care

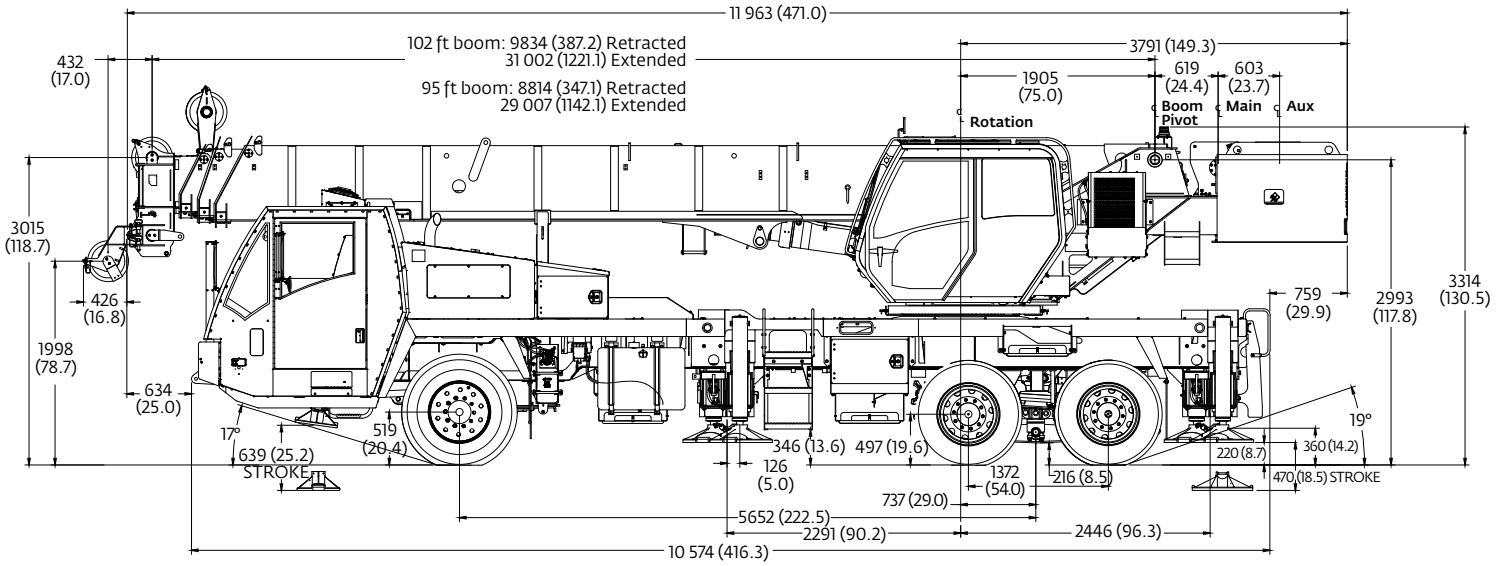
Manitowoc Crane Care when you need it.
The assurance of the world's most advanced crane service and support to get you back to work fast.

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.

Contents

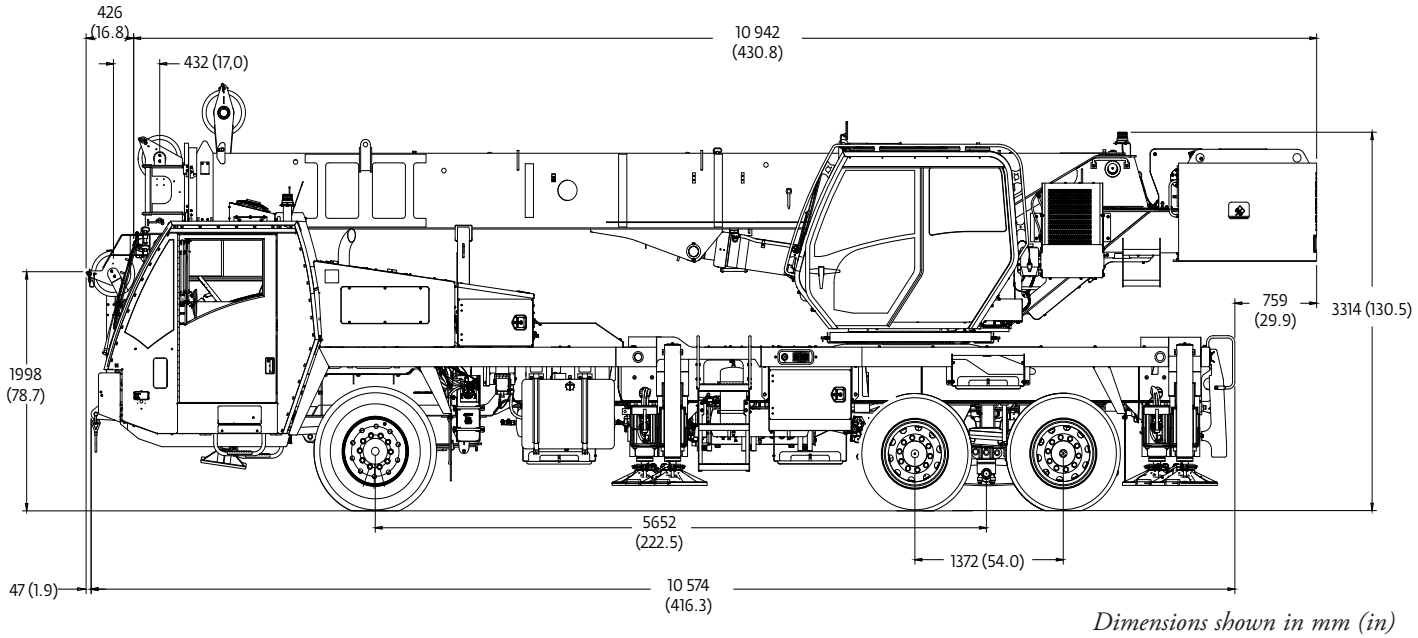




Dimensions shown in mm (in)

Travel proposals

95 ft - boom over front

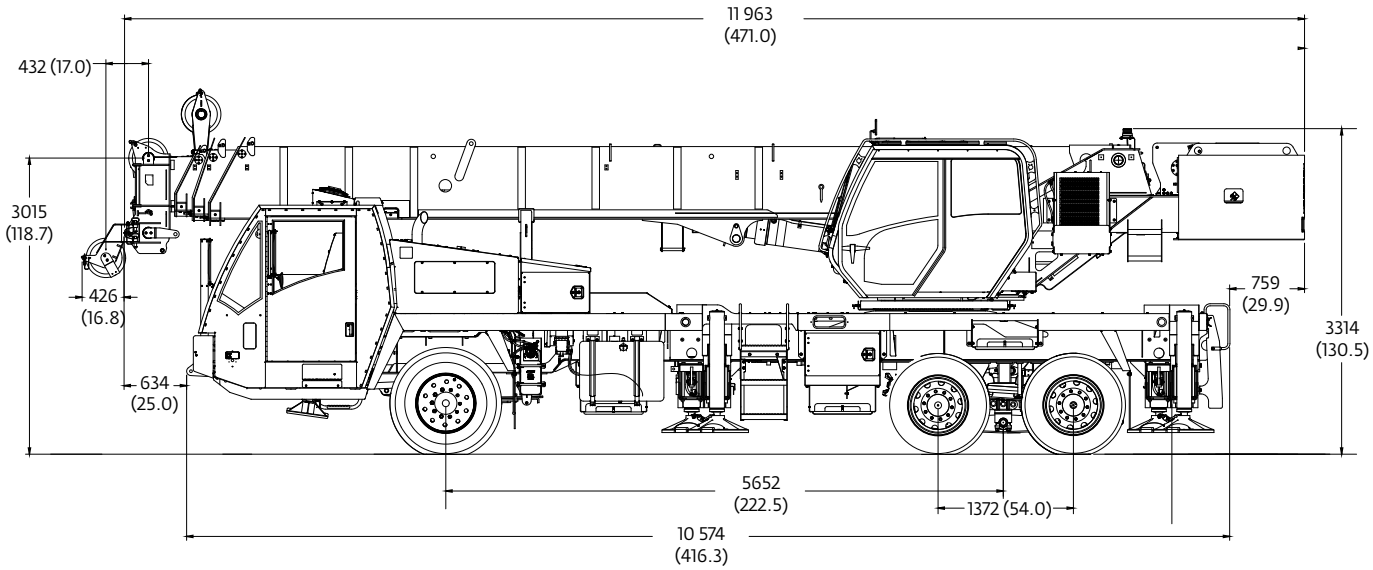


Dimensions shown in mm (in)

Unit configuration

	Front		Rear		G.V.W.	
Basic machine: Includes ISL9 on-highway engine, main hoist with wire rope, air conditioning, no counterweight, full fuel tank and driver	8854 kg	19,519 lb	14 131 kg	31,153 lb	22 984 kg	50,672 lb
Add: 2268 kg (5000 lb) counterweight	7918 kg	17,456 lb	17 339 kg	38,226 lb	25 257 kg	55,682 lb
Add: 3856 kg (8500 lb) counterweight	7273 kg	16,035 lb	19 571 kg	43,147 lb	26 845 kg	59,182 lb
7,9 m - 13,7 m (26 ft - 45 ft) telescoping swingaway lattice extension (includes brackets)	594 kg	1310 lb	267 kg	588 lb	861 kg	1898 lb
Auxiliary hoist	- 75 kg	-165 lb	260 kg	574 lb	186 kg	409 lb
Auxiliary boom nose	68 kg	149 lb	-20 kg	-44 lb	48 kg	105 lb
6,8 t (7.5 USt) overhaul ball in stowage tray	229 kg	505 lb	-62 kg	-136 lb	167 kg	369 lb
30 t (33 USt) three-sheave hook block in stowage tray	409 kg	902 lb	-117 kg	-258 lb	292 kg	644 lb
Maximum allowable	9752 kg	21,500 lb	20 865 kg	46,000 lb	30 617 kg	67,500 lb

102 ft - boom over front



Dimensions shown in mm (in)

Unit configuration

	Front		Rear		G.V.W.	
Basic machine: Includes ISL9 on-highway engine, main hoist with wire rope, air conditioning, 8500 lb. counterweight, full fuel tank and driver	8165 kg	18,000 lb	19 623 kg	43,261 lb	27 788 kg	61,261 lb
7,9 m - 13,7 m (26 - 45 ft) telescoping swingaway lattice extension (includes brackets)	748 kg	1649 lb	113 kg	249 lb	861 kg	1898 lb
Auxiliary hoist	-75 kg	-165 lb	260 kg	574 lb	186 kg	409 lb
Auxiliary boom nose	76 kg	168 lb	-29 kg	-63 lb	48 kg	105 lb
6,8 t (7.5 USt) overhaul ball in stowage tray	229 kg	505 lb	-62 kg	-136 lb	167 kg	369 lb
30 t (33 USt) three sheave hook block in stowage tray	409 kg	902 lb	-117 kg	-258 lb	292 kg	644 lb
Maximum allowable	9752 kg	21,500 lb	20 865 kg	46,000 lb	30 617 kg	67,500 lb

Load handling

Auxiliary boom nose	48 kg (105 lb)

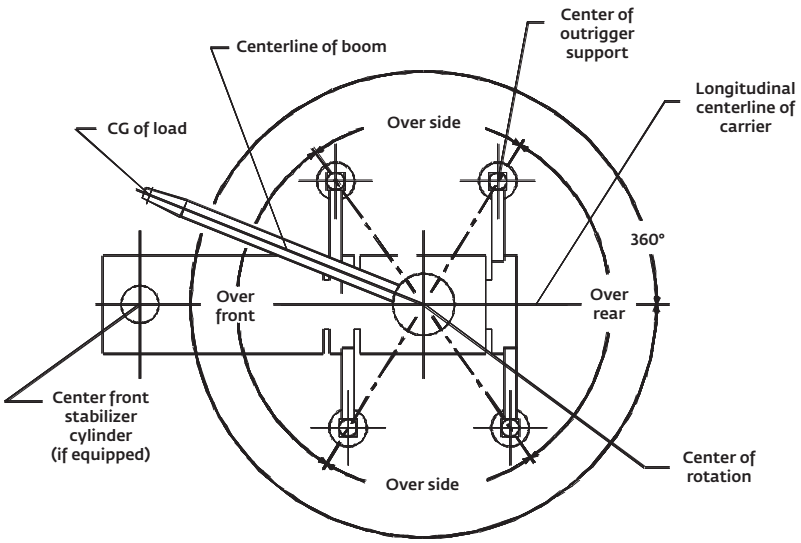
Hook blocks and overhaul weights:	
36 t (40 USt) 4 sheave	351 kg (774 lb) +
30 t (33 USt) 3 sheave	292 kg (644 lb) +
17 t (19 USt) 1 sheave	186 kg (410 lb) +
6,8 t (7.5 USt) overhaul ball	167 kg (369 lb) +
+ Refer to rating plate for actual weight.	
When lifting over extension and/or jib combinations, 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	16 mm (5/8 in) 35 x 7 Class Rotation Resistant Min. Breaking Strength 27 736 kg (61,148 lb)	5455 kg (12,000 lb)	138 m (453 ft)
Auxiliary	16 mm (5/8 in) 35 x 7 Class Rotation Resistant Min. Breaking Strength 27 736 kg (61,148 lb)	5455 kg (12,000 lb)	138 m (453 ft)
The approximate weight of 16 mm (5/8 in) wire rope is 1.3 kg/m (0.9 lb/ft)			

Hoist performance			
Wire rope layer	Hoist line pull	Drum rope capacity m (ft)	
	Available*	Layer	Total
1	5500 kg (12,200 lb)	22,6 m (74 ft)	22,6 m (74 ft)
2	5035 kg (11,100 lb)	24,7 m (81 ft)	47,2 m (155 ft)
3	4600 kg (10,100 lb)	27,1 m (89 ft)	74,4 m (244 ft)
4	3900 kg (8700 lb)	29,3 m (96 ft)	103,6 m (340 ft)
5	3946 kg (8700 lb)	31,7 m (104 ft)	135,3 m (444 ft)
*Max. lifting capacity: 16 mm (5/8 in) 35x7 Class: 5455 kg (12,000 lb)			

Working area diagram

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



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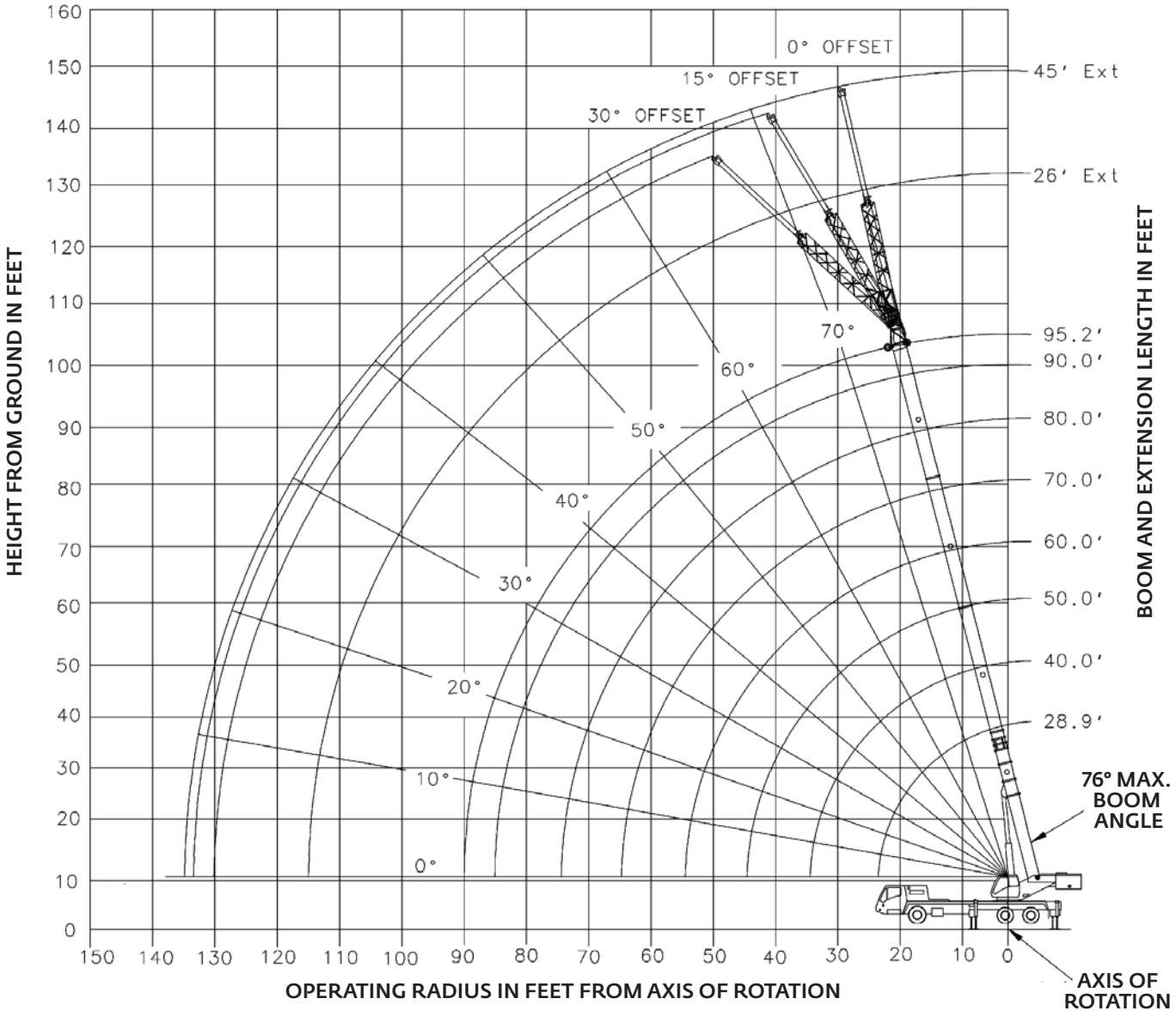
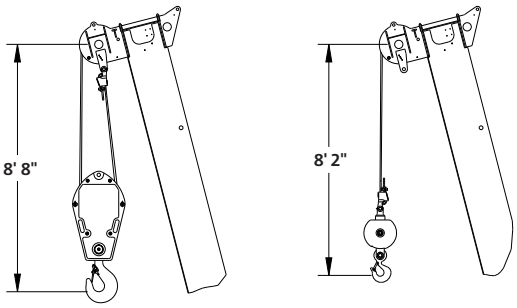
95 ft main boom





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 – PROVISIONAL


29 ft - 95 ft


8500 lb


100%


360°


Pounds

Radius in Feet	Main Boom Length in Feet							
	28.9	40.0	50.0	60.0	70.0	80.0	90.0	95.2
8	80,000 (65)							
10	63,000 (60.3)	50,100 (69.2)	46,950 (73.6)					
12	55,050 (55.4)	50,100 (66.1)	44,950 (71.2)	38,850 (74.4)				
15	46,300 (47.3)	48,750 (61.1)	41,050 (67.4)	36,000 (71.4)	29,450 (74.2)			
20	36,300 (29.5)	38,400 (52.2)	36,450 (60.9)	29,500 (66.2)	27,400 (69.8)	22,450 (72.4)	18,550 (74.5)	15,500 (75.3)
25		29,150 (41.9)	29,550 (53.9)	24,800 (60.8)	23,100 (65.3)	19,250 (68.6)	16,500 (71.1)	15,300 (72.2)
30		23,050 (28.4)	23,450 (46.1)	21,100 (55)	19,600 (60.6)	16,850 (64.7)	14,400 (67.7)	13,200 (69)
35			18,750 (37)	18,350 (48.7)	17,000 (55.7)	14,850 (60.6)	12,700 (64.1)	11,500 (65.7)
40			14,900 (25)	14,950 (41.7)	15,000 (50.5)	13,250 (56.3)	11,000 (60.5)	10,000 (62.3)
45				12,250 (33.5)	12,250 (44.8)	11,950 (51.8)	9630 (56.7)	9060 (58.8)
50				10,200 (22.6)	10,250 (38.4)	10,250 (46.9)	8740 (52.7)	7990 (55.1)
55					8640 (30.8)	8670 (41.7)	7760 (48.5)	7100 (51.3)
60					7350 (20.7)	7370 (35.7)	6920 (44)	6320 (47.2)
65						6320 (28.7)	6210 (39.1)	5650 (42.9)
70						5440 (19.3)	5450 (33.5)	5080 (38.1)
75							4700 (26.9)	4570 (32.7)
80							4070 (18.1)	4070 (26.4)
85								3520 (17.9)
Min. boom angle for indicated length (no load)							0°	
Max. boom length at 0° boom angle (no load)							95.2 ft	

NOTE: ( ) Boom angles are in degrees.

Boom Angle	Main Boom Length in Feet							
	28.9	40	50	60	70	80	90	95.2
0°	26,450 (22.7)	17,850 (33.8)	12,750 (43.8)	8950 (53.8)	6540 (63.8)	4880 (73.8)	3660 (83.8)	3150 (88.9)

NOTE: ( ) Reference radii in feet.

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Load chart

Main boom and extension – PROVISIONAL


29 ft - 95 ft


26 ft - 45 ft


8500 lb


100%


360°


Pounds

Radius in Feet	26 ft Length			45 ft Length		
	0° OFFSET	15° OFFSET	30° OFFSET	0° OFFSET	15° OFFSET	30° OFFSET
30	8750 (72.9)					
35	8750 (70.4)	7770 (73.4)		5250 (73.2)		
40	8500 (67.9)	7600 (70.9)	6300 (73.4)	5250 (71)		
45	8130 (65.4)	7130 (68.3)	5920 (70.8)	5160 (68.9)	3660 (73.4)	
50	7420 (62.7)	6420 (65.6)	5650 (68.1)	4850 (66.7)	3600 (71.1)	
55	6520 (60)	5630 (62.9)	5400 (65.4)	4440 (64.4)	3480 (68.9)	3000 (72.9)
60	5820 (57.3)	4950 (60.1)	4990 (62.5)	4110 (62.1)	3370 (66.6)	2950 (70.5)
65	5100 (54.4)	4380 (57.3)	4450 (59.6)	3870 (59.8)	3260 (64.2)	2850 (68.1)
70	4500 (51.4)	3860 (54.3)	3940 (56.6)	3690 (57.4)	3160 (61.8)	2750 (65.6)
75	3910 (48.3)	3410 (51.2)	3480 (53.4)	3550 (54.9)	3040 (59.3)	2660 (63.1)
80	3480 (45.1)	3010 (47.9)	3070 (50)	3390 (52.4)	2920 (56.8)	2570 (60.4)
85	3050 (41.6)	2650 (44.4)	2700 (46.4)	3080 (49.8)	2800 (54.1)	2500 (57.7)
90	2650 (37.9)	2330 (40.7)	2360 (42.5)	2760 (47)	2700 (51.4)	2430 (54.8)
95	2310 (33.9)	2040 (36.6)	2070 (38.3)	2470 (44.2)	2590 (48.5)	2380 (51.8)
100	2000 (29.4)	1780 (32)	1700 (33.4)	2200 (41.1)	2360 (45.4)	2320 (48.6)
105	1670 (24.1)	1510 (26.6)		1960 (37.9)	2140 (42.2)	2210 (45.2)
110	1380 (17.3)			1740 (34.4)	1930 (38.6)	1990 (41.4)
115				1560 (30.6)	1740 (34.7)	1790 (37.2)
120				1420 (26.3)	1470 (30.3)	1400 (32.3)
125				1190 (21.2)	1280 (25)	
Min. boom angle for indicated length (no load)	16°	26°	32°	20°	24°	31°
Max. boom at 0° boom angle (no load)	50 ft			50 ft		

NOTE: ( ) Boom angles are in degrees.

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Load chart

Main boom – PROVISIONAL


29 ft - 95 ft


5000 lb


100%


360°


Pounds

Radius in Feet	Main Boom Length in Feet							
	28.9	40.0	50.0	60.0	70.0	80.0	90.0	95.2
8	80,000 (65)							
10	63,000 (60.3)	50,100 (69.2)	46,950 (73.6)					
12	55,050 (55.4)	50,100 (66.1)	44,950 (71.2)	38,850 (74.4)				
15	46,300 (47.3)	48,750 (61.1)	41,050 (67.4)	36,000 (71.4)	29,450 (74.2)			
20	35,800 (29.5)	36,650 (52.2)	36,450 (60.9)	29,500 (66.2)	27,400 (69.8)	22,450 (72.4)	18,550 (74.5)	15,500 (75.3)
25		27,750 (41.9)	28,150 (53.9)	24,800 (60.8)	23,100 (65.3)	19,250 (68.6)	16,500 (71.1)	15,300 (72.2)
30		21,400 (28.4)	21,600 (46.1)	21,100 (55)	19,600 (60.6)	16,850 (64.7)	14,400 (67.7)	13,200 (69)
35			16,350 (37)	16,450 (48.7)	16,500 (55.7)	14,850 (60.6)	12,700 (64.1)	11,500 (65.7)
40			12,900 (25)	13,000 (41.7)	13,050 (50.5)	13,050 (56.3)	11,000 (60.5)	10,000 (62.3)
45				10,550 (33.5)	10,600 (44.8)	10,650 (51.8)	9630 (56.7)	9060 (58.8)
50				8,710 (22.6)	8,760 (38.4)	8,790 (46.9)	8,740 (52.7)	7,990 (55.1)
55					7310 (30.8)	7340 (41.7)	7360 (48.5)	7100 (51.3)
60					6150 (20.7)	6180 (35.7)	6190 (44)	6190 (47.2)
65						5230 (28.7)	5240 (39.1)	5240 (42.9)
70						4440 (19.3)	4450 (33.5)	4450 (38.1)
75							3790 (26.9)	3780 (32.7)
80							3220 (18.1)	3210 (26.4)
85								2720 (17.9)
Min. boom angle for indicated length (no load)							0°	
Max. boom length at 0° boom angle (no load)							95.2 ft	

NOTE: ( ) Boom angles are in degrees.

Boom Angle	Main Boom Length in Feet							
	28.9	40	50	60	70	80	90	95.2
0°	26,450 (22.7)	17,300 (33.8)	11,000 (43.8)	7590 (53.8)	5430 (63.8)	3940 (73.8)	2850 (83.8)	2390 (88.9)

NOTE: ( ) Reference radii in feet.

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Load chart

Main boom and extension – PROVISIONAL


29 ft - 95 ft


26 ft - 45 ft


5000 lb


100%


360°


Pounds

Radius in Feet	26 ft Length			45 ft Length		
	0° OFFSET	15° OFFSET	30° OFFSET	0° OFFSET	15° OFFSET	30° OFFSET
30	8750 (72.9)					
35	8750 (70.4)	7770 (73.4)		5250 (73.2)		
40	8500 (67.9)	7600 (70.9)	6300 (73.4)	5250 (71)		
45	8130 (65.4)	7130 (68.3)	5920 (70.8)	5160 (68.9)	3660 (73.4)	
50	7420 (62.7)	6420 (65.6)	5650 (68.1)	4850 (66.7)	3600 (71.1)	
55	6520 (60)	5630 (62.9)	5400 (65.4)	4440 (64.4)	3480 (68.9)	3000 (72.9)
60	5820 (57.3)	4950 (60.1)	4990 (62.5)	4110 (62.1)	3370 (66.6)	2950 (70.5)
65	5070 (54.4)	4380 (57.3)	4450 (59.6)	3870 (59.8)	3260 (64.2)	2850 (68.1)
70	4270 (51.4)	3860 (54.3)	3940 (56.6)	3690 (57.4)	3160 (61.8)	2750 (65.6)
75	3590 (48.3)	3410 (51.2)	3480 (53.4)	3550 (54.9)	3040 (59.3)	2660 (63.1)
80	3010 (45.1)	3010 (47.9)	3070 (50)	3390 (52.4)	2920 (56.8)	2570 (60.4)
85	2500 (41.6)	2650 (44.4)	2700 (46.4)	3080 (49.8)	2800 (54.1)	2500 (57.7)
90	2070 (37.9)	2240 (40.7)	2360 (42.5)	2680 (47)	2700 (51.4)	2430 (54.8)
95	1680 (33.9)	1830 (36.6)	1930 (38.3)	2280 (44.2)	2590 (48.5)	2380 (51.8)
100	1340 (29.4)	1460 (32)	1540 (33.4)	1940 (41.1)	2200 (45.4)	2320 (48.6)
105	1040 (24.1)	1140 (26.6)		1620 (37.9)	1860 (42.2)	2040 (45.2)
110				1350 (34.4)	1550 (38.6)	1700 (41.4)
115				1100 (30.6)	1270 (34.7)	1390 (37.2)
120					1010 (30.3)	1100 (32.3)
Min. boom angle for indicated length (no load)	23°	26°	32°	30°	29°	31°
Max. boom at 0° boom angle (no load)	50 ft			50 ft		

NOTE: ( ) Boom angles are in degrees.

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Load chart

Main boom – PROVISIONAL


29 ft - 95 ft


0 lb


100%


360°


Pounds

Radius in Feet	Main Boom Length in Feet							
	28.9	40	50	60	70	80	90	95.2
8	80,000 (65)							
10	63,000 (60.3)	50,100 (69.2)	46,950 (73.6)					
12	55,050 (55.4)	50,100 (66.1)	44,950 (71.2)	38,850 (74.4)				
15	46,300 (47.3)	47,550 (61.1)	41,050 (67.4)	36,000 (71.4)	29,450 (74.2)			
20	32,650 (29.5)	33,500 (52.2)	33,900 (60.9)	29,500 (66.2)	27,400 (69.8)	22,450 (72.4)	18,550 (74.5)	15,500 (75.3)
25		24,350 (41.9)	24,450 (53.9)	24,550 (60.8)	23,100 (65.3)	19,250 (68.6)	16,500 (71.1)	15,300 (72.2)
30		17,100 (28.4)	17,300 (46.1)	17,400 (55)	17,450 (60.6)	16,850 (64.7)	14,400 (67.7)	13,200 (69)
35			12,950 (37)	13,050 (48.7)	13,050 (55.7)	13,100 (60.6)	12,700 (64.1)	11,500 (65.7)
40			10,100 (25)	10,200 (41.7)	10,250 (50.5)	10,300 (56.3)	10,300 (60.5)	10,000 (62.3)
45				8120 (33.5)	8180 (44.8)	8210 (51.8)	8230 (56.7)	8230 (58.8)
50				6560 (22.6)	6610 (38.4)	6650 (46.9)	6660 (52.7)	6660 (55.1)
55					5400 (30.8)	5430 (41.7)	5450 (48.5)	5450 (51.3)
60					4430 (20.7)	4460 (35.7)	4470 (44)	4470 (47.2)
65						3670 (28.7)	3680 (39.1)	3680 (42.9)
70						3010 (19.3)	3020 (33.5)	3020 (38.1)
75							2460 (26.9)	2460 (32.7)
80							1990 (18.1)	1990 (26.4)
85								1580 (17.9)

NOTE: ( ) Boom angles are in degrees.

Boom Angle	Main Boom Length in Feet							
	28.9	40	50	60	70	80	90	95.2
0°	26,450 (22.7)	13,650 (33.8)	8470 (43.8)	5620 (53.8)	3830 (63.8)	2590 (73.8)	1690 (83.8)	1300 (88.9)

NOTE: ( ) Reference radii in feet.

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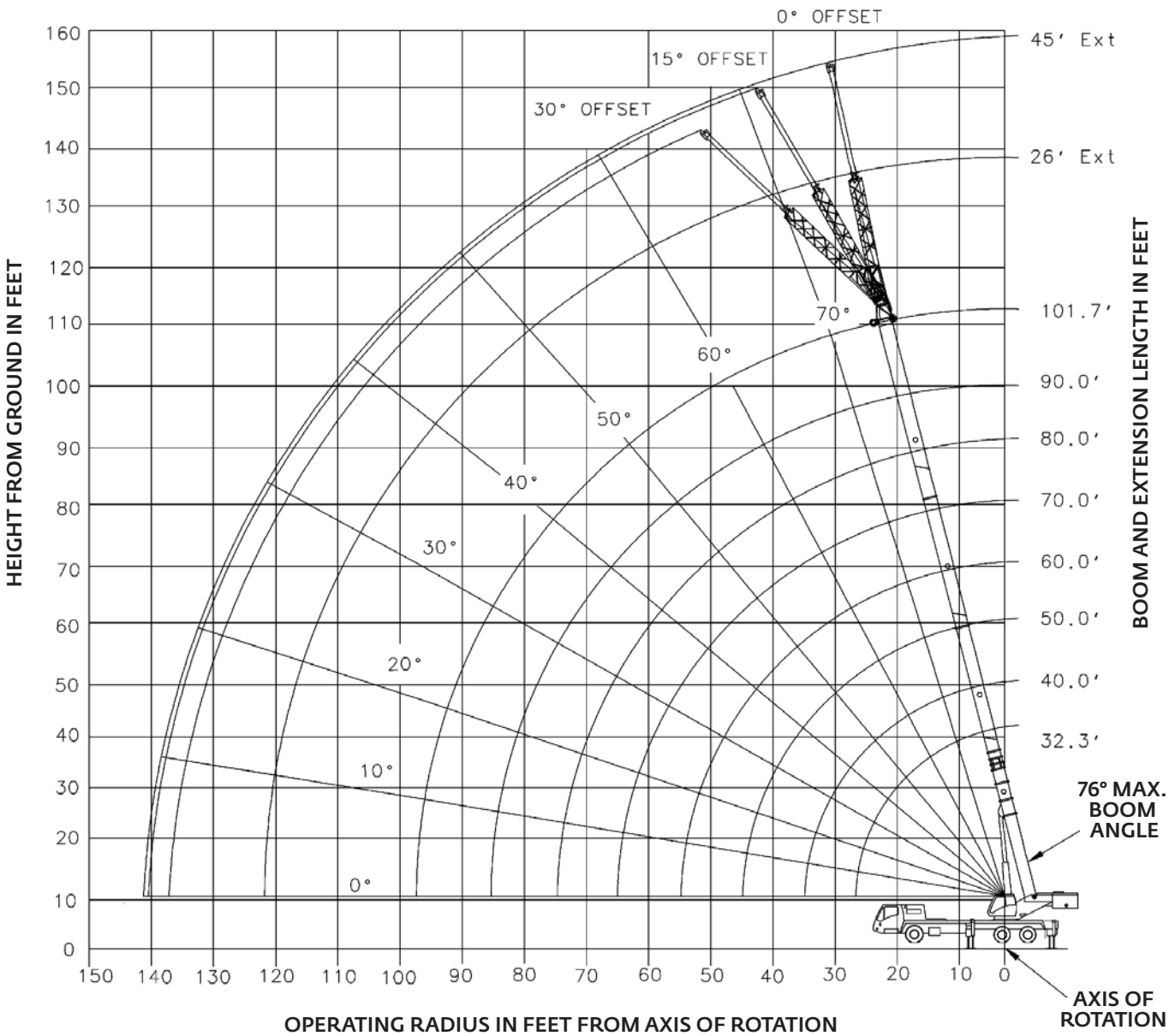
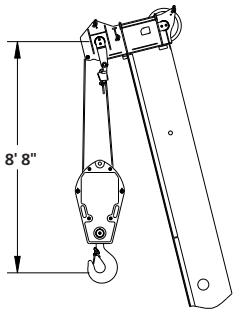
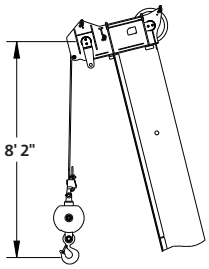
102 ft main boom







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


32 ft - 102 ft


8500 lb


100%


360°


Pounds

Radius in Feet	Main Boom Length in Feet							
	32.3	40	50	60	70	80	90	101.7
8	80,000 (69)							
10	72,750 (65)	50,700 (70.5)	48,500 (75)					
12	63,500 (61)	50,700 (67.5)	48,500 (72.5)	*46,400 (76)				
15	52,350 (54.5)	50,700 (62.5)	48,500 (69)	44,300 (73)	*38,700 (76)			
20	37,150 (41.5)	37,700 (53.5)	38,150 (62.5)	35,300 (68)	31,000 (71.5)	29,700 (74.6)	*22,000 (76)	
25	27,800 (20.5)	28,350 (43.5)	28,800 (55.5)	29,050 (62.5)	25,800 (67)	24,600 (70.5)	22,000 (73)	*18,500 (76)
30		22,200 (30)	22,650 (43.5)	22,900 (56.5)	21,800 (62.5)	20,800 (66.5)	18,350 (69.5)	17,500 (72.5)
35			18,350 (38.5)	18,550 (50.5)	18,700 (57.5)	17,800 (62.5)	15,600 (66)	15,200 (69.5)
40			14,600 (26.5)	14,700 (43.5)	14,850 (52.5)	15,000 (58.5)	13,500 (62.5)	13,200 (66.5)
45				11,850 (35)	12,000 (46.5)	12,150 (54)	11,750 (59)	11,600 (63.5)
50				9610 (24.5)	9880 (40.5)	10,000 (49.5)	10,000 (55)	10,000 (60.5)
55					8170 (33)	8320 (44.5)	8330 (51)	8330 (57)
60					6790 (22.5)	6970 (38.5)	6980 (46.5)	6990 (53.5)
65						5840 (31.5)	5890 (42)	5890 (49.5)
70						4890 (22.5)	4950 (36.5)	4980 (45.5)
75							4150 (29.5)	4200 (41)
80							3470 (21)	3520 (36)
85								2930 (30.5)
90								2410 (23)
95								1950 (9.5)
Min. boom angle for indicated length (no load)							0°	
Max. boom length at 0° boom angle (no load)							101.7 ft	

NOTE: ( ) Boom angles are in degrees.
* This capacity is based on maximum boom angle.

Boom Angle	Main Boom Length in Feet							
	32.3	40	50	60	70	80	90	101.7
0°	26,300 (26)	18,800 (33.8)	12,300 (43.8)	8,340 (53.8)	5,930 (63.8)	4,280 (73.8)	3,020 (83.8)	1,910 (95.5)

NOTE: ( ) Reference radii in feet.

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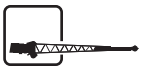
32 ft - 102 ft


26 ft - 45 ft


8500 lb


100%


360°


Pounds

Radius in Feet	26 ft Length			45 ft Length		
	0° OFFSET	15° OFFSET	30° OFFSET	0° OFFSET	15° OFFSET	30° OFFSET
35	10,200 (75.5)					
40	9460 (73)	7770 (75)		*5250 (76)		
45	8760 (71)	7370 (72.5)	6030 (75)	5250 (74.5)		
50	8150 (68.5)	6870 (70)	5780 (72.5)	5050 (72.5)	3660 (75.5)	
55	7510 (66)	6050 (67.5)	5520 (70)	4650 (70.5)	3540 (73.5)	
60	6700 (63)	5350 (65)	5290 (67.5)	4290 (68.5)	3430 (71)	3000 (75.5)
65	5910 (60.5)	4740 (62.5)	4810 (65)	4000 (66)	3320 (69)	2890 (73.5)
70	4990 (58)	4210 (59.5)	4270 (62)	3800 (64)	3220 (67)	2790 (71)
75	4200 (55)	3750 (56.5)	3800 (59)	3650 (61.5)	3130 (64.5)	2700 (68.5)
80	3530 (52)	3330 (53.5)	3380 (56)	3520 (59)	3000 (62)	2620 (66)
85	2950 (48.5)	2960 (50.5)	3010 (53)	3360 (57)	2880 (59.5)	2550 (63.5)
90	2240 (45)	2630 (47.5)	2670 (49.5)	3030 (54.5)	2770 (57)	2480 (61)
95	1990 (41.5)	2160 (43.5)	2300 (46)	2670 (51.5)	2680 (54.5)	2410 (58)
100	1600 (41.5)	1720 (39.5)	1840 (42)	2270 (48.5)	2570 (51.5)	2380 (55.5)
105	1240 (33.5)	1320 (35.5)	1430 (37.5)	1900 (45.5)	2200 (48.5)	2310 (52)
110				1580 (42.5)	1820 (45.5)	2040 (48.5)
115				1280 (39)	1490 (42)	1660 (45)
120				1010 (35.5)	1180 (42)	1330 (41)
125						1020 (36.5)
Min. boom angle for indicated length (no load)	29°	31°	36°	34°	35°	35°
Max. boom length at 0° boom angle (no load)	80 ft			80 ft		

NOTE: ( ) Boom angles are in degrees.
*This capacity is based on maximum boom angle.

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Specifications

Super Structure

Boom
8,8 m – 29 m (29 ft – 95 ft) four-section, synchronized full-power boom with a maximum tip height of 31,2 m (102.2 ft)
9,8 m – 31 m (32 ft – 102 ft) four-section, synchronized full-power boom with a maximum tip height of 33,1 m (108.7 ft)

Boom nose
Four nylatron sheaves, mounted with removable pin-type rope guards. Quick reeve boom nose.

Boom elevation
Single lift cylinder with integrated valve provides boom angle from -3° to +76°.

*Optional offsettable lattice extensions
7,9 m – 13,7 m (26 ft – 45 ft) offsettable telescopic lattice swingaway extension. Offsets at 0°, 15° and 30°. Stows alongside base boom section.
Maximum tip height: 39,1 m (128.2 ft) with 29 m (95 ft) boom
Maximum tip height: 42,0 m (134.8 ft) with 31 m (102 ft) boom

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
Full-vision, all-steel fabricated with acoustical lining and tinted safety glass throughout. Adjustable deluxe seat incorporates armrest-mounted electronic single or dual axis controllers and a jog dial for easier data input. Other standard features include hot water heater, cab circulating air fan, sliding side and rear windows, sliding skylight with electric wiper and sunscreen, electric windshield wash/wipe, fire extinguisher, seat belt, air conditioning and dual cab mounted work light.

Swing
Variable speed, planetary swing drive with foot applied multidisc wet brake. Spring applied, hydraulically released swing brake. Single position mechanical house lock, operated from cab.
Maximum speed: 2 rpm

Counterweight
2268 kg (5000 lb) pinned to the super structure.
*Optional "Heavy Lift" counterweight package consisting of (2) 794 kg (1750 lb) inserts in addition to the standard, for a total of 3856 kg (8500 lb).

Hydraulic system
Two main pumps, one (1) piston and one (1) gear with a combined capacity of 372,1 L/min. (98.3 gpm).
Maximum operating pressure: 275,7 bar (4000 psi).
Four-section pressure compensated valve bank. Return line type filter with full flow bypass protection and service indicator. Replaceable cartridge with a 5-micron filtration rating. 397 L (107 gal) hydraulic reservoir. System pressure test ports.

Hoist
Main and optional 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: 5500 kg (12,200 lb)
3rd Layer: 4600 kg (10,100 lb)
4th Layer: 3900 kg (8700 lb)
Maximum line speed: 131 m/min. (429 fpm)
Maximum permissible line pull: 5280 kg (11,640 lb) 35 x 7 Class
Rope diameter: 16 mm (5/8 in)
Rope length (main, aux hoists): 138 m (453 ft)
Maximum rope storage: 169 m (555 ft)

*Cameras
Back-up, right-side and hoist cameras.

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, single stage, double box beam outriggers and integral holding valves.
Quick release type outrigger floats 500 mm (20 in) diameter.
Three position setting with fully extended, 50%, 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: 36 300 kg (80,000 lb)

Outrigger controls
Located in the superstructure cab and on either side of carrier. Crane level indicators located at all stations. Auto leveling and outrigger monitoring system is standard.

Engine

Cummins ISL9 six-cylinder, turbocharged and after-cooled diesel engine. 9 L 261 kW (350 bhp) at 2000 rpm. Maximum torque 1159 Nm (1150 lb-ft) at 1400 rpm. “On Highway” EPA, CARB compliant.

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

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

Fuel tank capacity

244 L (64.5 gal)

Transmission

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

Steering

Front axle, single circuit, mechanical steering with hydraulic power assist Turning radius: 10,8 m (35.6 ft).

Axles

Front: (1) tube-type steering axle, 2,34 m (92.29 in) track.
Rear: (2) single reduction drive axles, 1,85 m (73.0 in) track. Inter-axle differential locks.

Drive: 6 x 4 x 2 in

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: Multi-leaf spring.

Rear: Walking beam with air bags and shock absorbers.

Tires

Front: 425/65R22.5 tubeless, mounted on aluminum disc wheels.

Rear: 11R22.5 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

Two (2) maintenance-free batteries provide 24 V electrical system.

Standard lockable battery disconnect.

Maximum speed

113 kph (70 mph)

Gradeability (theoretical)

79.7%, 1st gear

Miscellaneous standard equipment

Aluminum fenders; dual rear view mirrors; electronic back-up alarm; two sling/tool boxes; tire inflation kit; air cleaner restriction indicator; headache ball and hook block stowage trays; air conditioning; air horn; hoist access platform

*Optional equipment

- 360° mechanical swing lock
- Aluminum outrigger pads
- Auxiliary hoist package includes Model HP15C-17G auxiliary hoist with electronic hoist drum rotation indicator, hoist drum cable follower, hoist mirror, 137 m (450 ft) of 16 mm (5/8 in) 35 x 7 class wire rope and auxiliary single sheave boom nose.
- Auxiliary lighting package includes carrier cab and superstructure mounted amber flashing beacons, dual base boom mounted floodlights, in-cab RCL light bar.
- Bluetooth/AM/FM radios
- Counterweight package
- CraneSTAR asset management system
- Cross axle differential locks
- Hook blocks
- Pintle hook (rear)
- Single axis joysticks
- Vertical RCL light tower
- Wind speed indicator
- Winterfront radiator cover
- Wireless rigging remote control
- 24 x 24 x 24 in toolbox

Symbols glossary


Axles


Counterweight


Height (no max)


Radius


Boom


Drive


Heavy duty jib


Outriggers


Boom elevation


Electrical system


Hoist


Rotation


Boom extension


Engine


Hook block


Speed


Boom length


Extension


Hydraulic system


Steering


Boom nose


Frame


Insert


Suspension


Brakes


Fuel tank capacity


Lights


Swing


Cab


Gear


Oil


Tires


Camera


Grade


Outrigger controls


Transmission

Notes

Notes

Notes

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