

GROVE®

GRT780

Product Guide

ASME B30.5 Imperial 85%



80 USt
(80 t)



39.2 ft – 155.1 ft
(11,9 m - 47,3 m)

GVW

99,760 lbs
(45 250 kg)

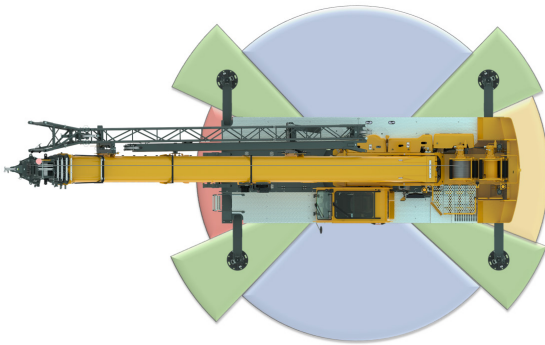


220 ft
(67 m)

GROVE GRT780

FEATURES

- Strong load charts with long reach provide higher utilization and greater versatility.
- Three operator-selectable telescoping modes provide quick and simple operation along with flexibility for any application.
- Manual bi-fold swingaway increases ability to reach over obstacles.
- Compact dimensions, under 10 ft (3 m) wide & lightweight GVW – easy transportation to the job & excellent maneuverability once on site.
- 17,500 lb (7938 kg) or 20,500 lb (9299 kg) counterweight options combine maximum capacities with easy transportability. Hydraulically removable counterweight option available.
- MAXbase variable outrigger positioning system for increased lift capacities and easy access to any jobsite.
- oCSI (on Crane Service Interface) provides enhanced diagnostics and monitoring systems on-board for easy serviceability.
- Multiple site steering modes via the steering wheel provide simple operation when moving or positioning the crane on the job-site.



MAXbase variable outrigger positioning

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

Backing up our promise

Our GRT line of Rough Terrain cranes have been designed from the ground up to provide class-leading specifications and have undergone extensive testing to ensure they provide industry-leading quality and reliability. We stand behind our GRT cranes and we're willing to prove it with a two-year standard warranty and available three, four or five-year extended warranty programs.



Wider Full-Vision Cab with CCS +1

The 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, heavy duty foot rest bars, added storage behind the seat, and a three camera package. Also included is the new CCS 1+. The same Crane Control System you've come to expect on Grove Rough Terrain cranes, now on a single 12 inch (30.5 cm) touchscreen display. CCS 1+ provides simple, intuitive functionality for quick set-up and enhanced operation. New driving mode includes steering indication, fore and aft as well as side to side slope indication, travel speed and more.



GROVE[®] CONNECT[™]

GROVE CONNECT transforms the user experience of crane owners and makes everyday work easier.

Get access to secure, accurate data with an easy and intuitive remote 'real time' view on your crane's operation.



Scan to learn more or visit manitowoc.com/support.



KEEP YOUR CRANE CONNECTED



New carrier design

The GRT780's carrier includes features that will make jobsite set-up simple, while also providing quick and easy access. Features include flat aluminum decking, additional storage compartments, a full LED lighting package with new side-mounted carrier lights, auto leveling of outrigger jacks along with smart length sensing outrigger monitoring system, and centrally located, accessible maintenance points.

The world's most advanced crane service and support network

WORLDWIDE SUPPORT NETWORK

Manitowoc's customer service extends beyond any borders. Our locations span the globe, covering five continents. No matter where the job takes you, you have a business partner nearby.



PARTS

Locating the correct part quickly is vital to managing your operations. With Manitowoc Customer Support, the parts you need are just a phone call or click away.

LIFT SOLUTIONS

The Manitowoc Crane Lift Solutions Team is dedicated to helping customers with unique and customized applications for their Manitowoc cranes, regardless of product line.

TRAINING

Manitowoc Training Centers offer courses for operators and technicians across the globe to provide in-depth instruction on crane operation, maintenance, and troubleshooting procedures.

EnCORE

Manitowoc's EnCORE program maximizes your investment by rebuilding or repairing your crane to extend its life significantly. EnCORE also includes remanufactured parts.



MANITOWOC FINANCE

Manitowoc Finance gets you in the field with the right equipment by giving you access to flexible, affordable financing. With Manitowoc Finance, equipment can be acquired with virtually no cash outlay, and unlike traditional lending, our financial products don't affect bank lines of credit. Your capital resources remain intact for times when you need ready access to cash.

Competitive rates with flexible financing options and payment schedules put you in control.

Did you know? Manitowoc Finance can finance used Manitowoc cranes. You can also trade-in your used fleet for upgrade and get financed by Manitowoc Finance.





CONTENTS

8

Dimensions

10

Weights

11

Working Range / Load Charts — Main Boom and Extensions

26

Rigging Charts

27

Load Handling

28

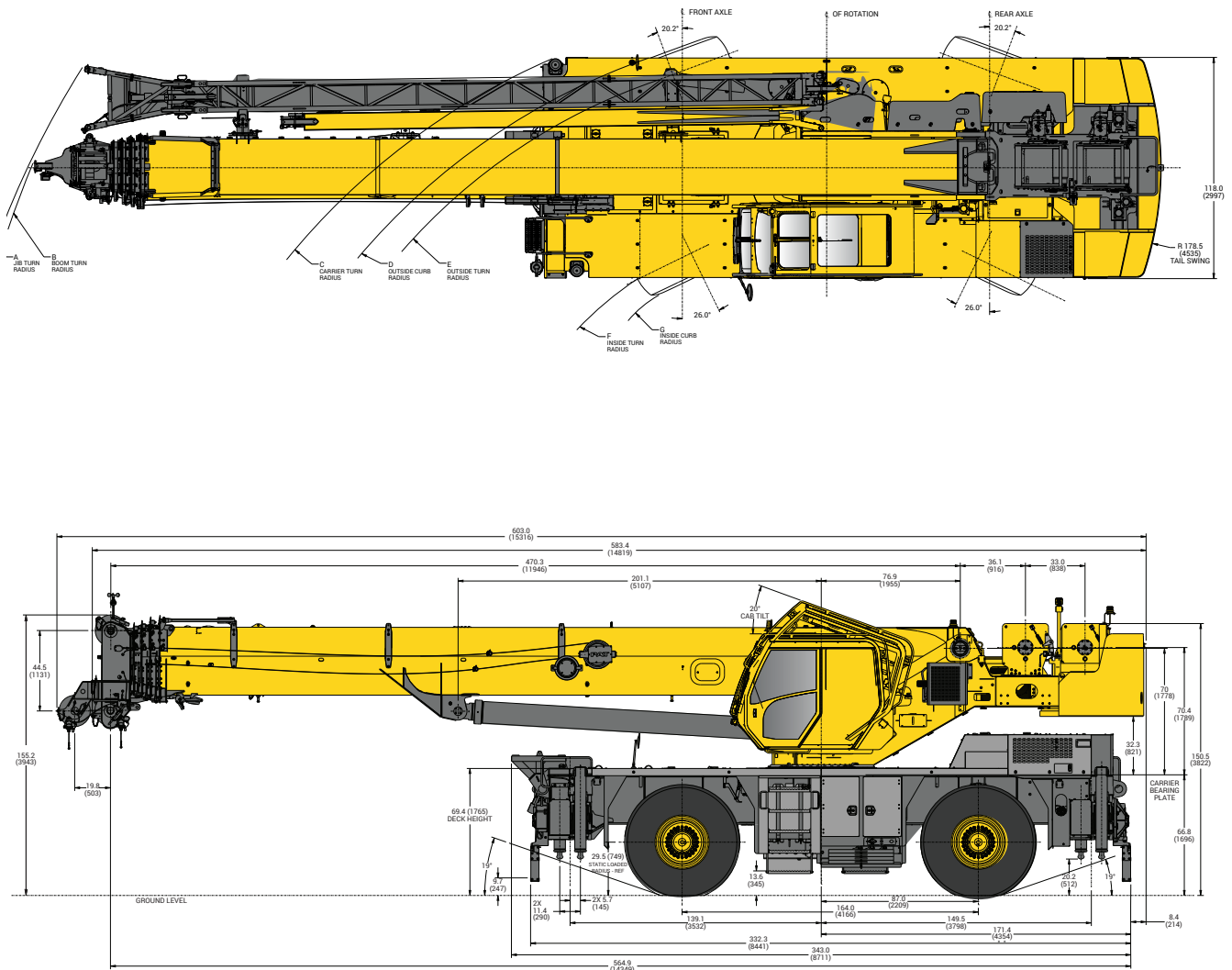
Specifications

DIMENSIONS

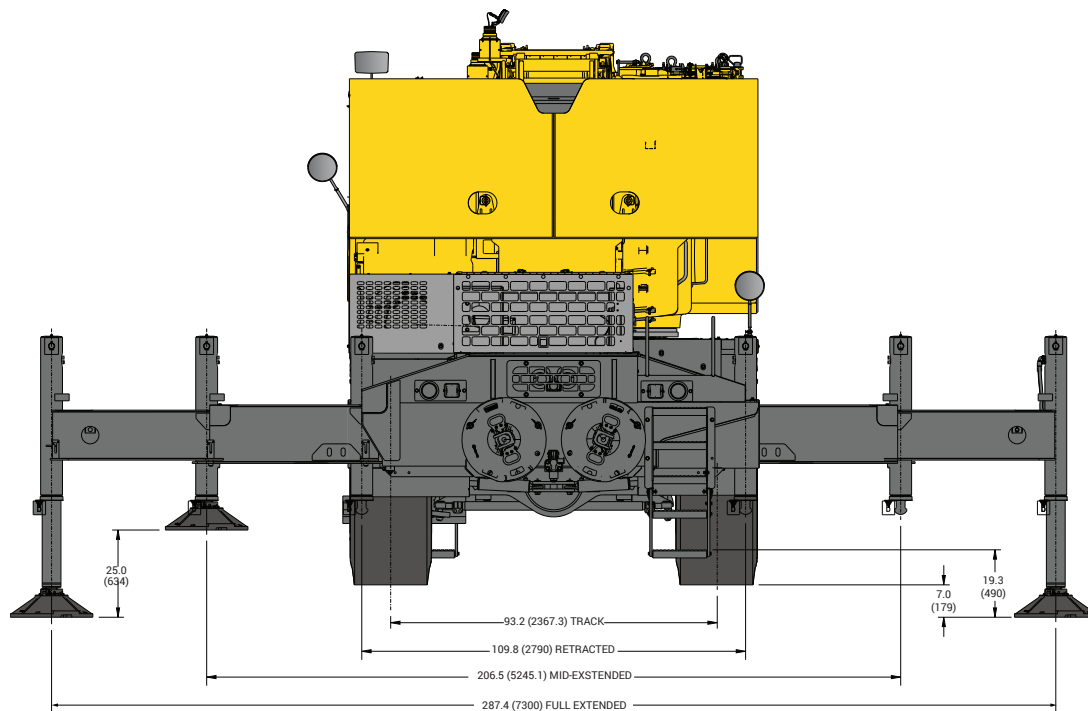
Tire Size: 23.5 x 25

A	B	C	D	E	F	G	A	B	C	D	E	F	G
668.9 (16 990)	656.2 (16 667)	515.9 (13 103)	502.2 (12 755)	490.6 (12 461)	364.7 (9 263)	350.8 (8 910)	475.9 (12 089)	475.5 (12 077)	281.9 (7 161)	262.9 (6 678)	254.1 (6 455)	179.1 (4 550)	165.7 (4 209)
Two-Wheel Steer							Four-Wheel Steer						

Dimensions in inches (mm) unless otherwise specified.



DIMENSIONS



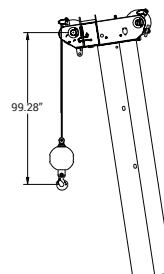
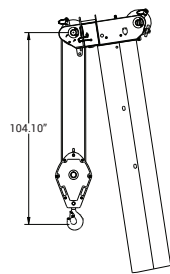
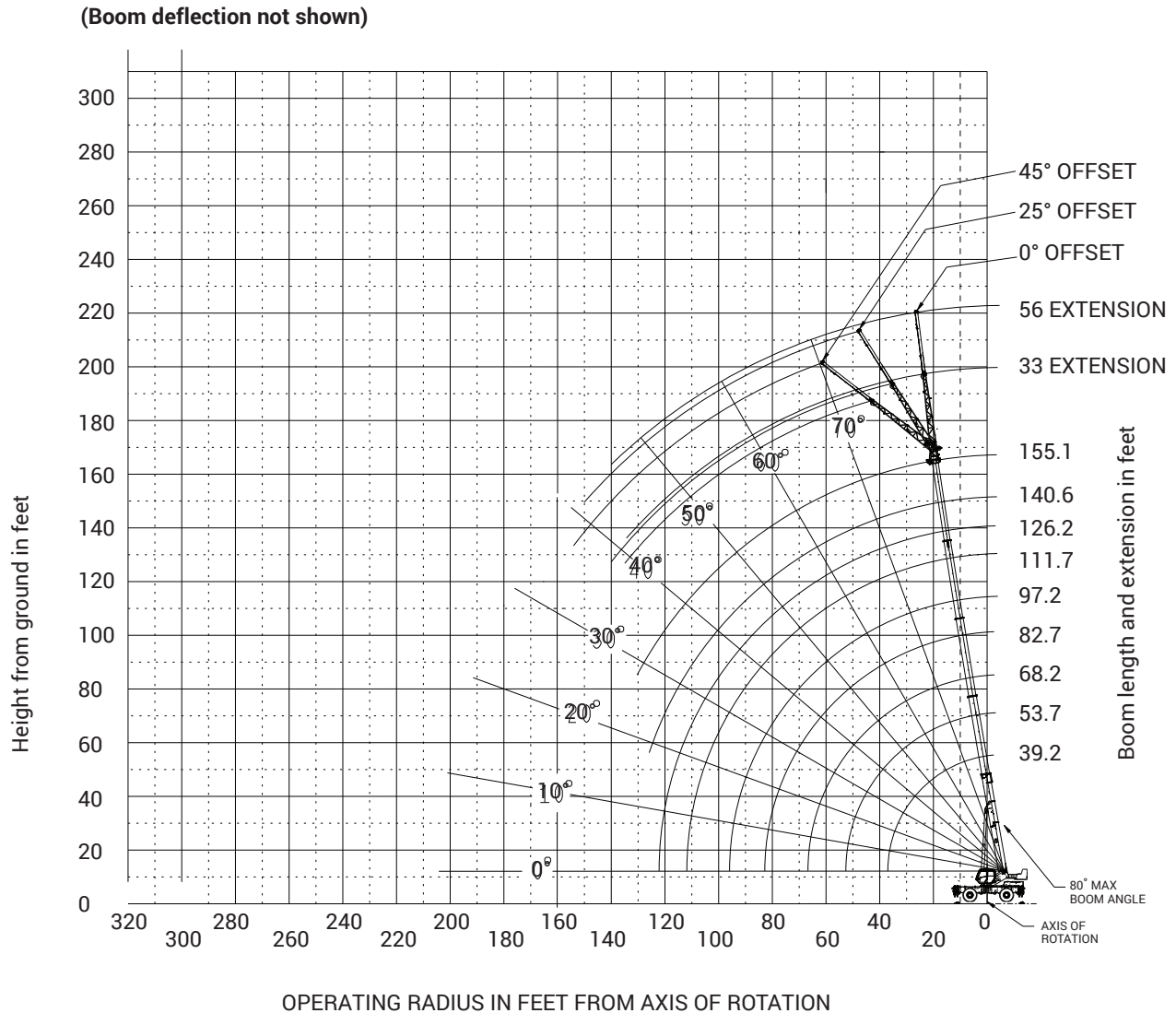
WEIGHTS

Weights	GVW		Front		Rear	
	lb	kg	lb	kg	lb	kg
Basic crane with Cummins Stage V/T4F engine, 155.2 ft (47.3 m) main boom, main and auxiliary hoist with wire rope and 17,500 lb (7938 kg) standard counterweight	94,880	43 037	49,081	22 263	45,799	20 774
Add: 56 ft (17.1 m) manually offset bi-fold swingaway & stowage brackets	2,955	1340	5,101	2314	-2,146	-973
Crane weight	97,835	44 377	54,182	24 577	43,653	19 801
Add: Auxiliary boom nose	115	52	348	158	-233	-106
Crane weight	97,950	44 429	54,530	24 734	43,420	19 695
Add: 12 USt (11 t) overhaul ball	575	261	933	423	-358	-162
Crane weight	98,525	44 690	55,463	25 158	43,062	19 533
Add: 50 USt (45 t) hookblock	1,235	560	1,145	519	90	41
Crane weight	99,760	45 250	56,608	25 677	43,152	19 573
Add: 3,000 lb (1361 kg) optional counterweight	3,000	1361	-1,245	-565	4,245	1925
Crane weight	102,760	46 611	55,363	25 112	47,397	21 499

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



DIMENSIONS ARE FOR LARGEST GROVE
FURNISHED HOOK BLOCK AND HEADACHE BALL,
WITH ANTI-TWO BLOCK ACTIVATED.

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

LOAD CHART

Main Boom



39.2 ft - 155.1 ft



20,500 lb



100%



360°



Pounds

Feet	Main boom length in feet											
	39.2	53.7	53.7	68.2	68.2	68.2	82.7	82.7	82.7	97.2	97.2	97.2
Mode	A, X, B	A	X, B	A	X	B	A	X	B	A	X	B
8	160,000 ¹ (73.5)	46,650 (78.5)	117,500 (78.5)	-	-	-	-	-	-	-	-	-
10	135,000 (70.5)	46,650 (76.5)	117,500 (76.5)	46,500 (79.5)	57,850 (80)	37,950 (80)	-	-	-	-	-	-
12	120,500 (67)	46,650 (74)	117,500 (74)	46,500 (78)	57,850 (78)	37,950 (78)	*46,350 (80)	*57,700 (80)	*37,800 (80)	-	-	-
15	103,500 (62)	46,650 (70.5)	102,500 (70.5)	46,500 (75.5)	57,850 (75.5)	37,950 (75.5)	46,350 (78.5)	57,700 (78.5)	37,800 (78.5)	*29,000 (80)	*55,450 (80)	*37,700 (80)
20	80,750 (53)	46,650 (64.5)	79,750 (64.5)	46,500 (71)	57,850 (71)	37,950 (71)	46,350 (74.5)	57,700 (74.5)	37,800 (75)	29,000 (77.5)	55,450 (77.5)	37,700 (77.5)
25	61,050 (42.5)	46,650 (58.5)	60,100 (58.5)	46,500 (66)	57,850 (66.5)	37,950 (66.5)	46,350 (71)	57,700 (71)	37,800 (71)	29,000 (74.5)	55,450 (74.5)	37,700 (74.5)
30	48,000 (27.5)	46,650 (51.5)	47,100 (51.5)	46,500 (61.5)	49,100 (61.5)	37,950 (61.5)	45,300 (67)	50,350 (67)	37,800 (67.5)	29,000 (71.5)	50,100 (71.5)	37,700 (71.5)
35	-	41,150 (44)	37,900 (44)	42,400 (56.5)	39,900 (56.5)	37,350 (56.5)	40,450 (63.5)	41,150 (63.5)	35,950 (63.5)	29,000 (68)	42,000 (68)	33,850 (68)
40	-	32,550 (34.5)	29,600 (34.5)	34,300 (51)	31,050 (51)	28,800 (51)	35,100 (59.5)	32,300 (59.5)	30,050 (59.5)	27,050 (64.5)	33,550 (64.5)	29,450 (65)
45	-	25,650 (21.5)	23,050 (21.5)	27,600 (45)	24,700 (45)	22,650 (45)	28,600 (55)	25,900 (55)	23,800 (55)	24,600 (61.5)	27,150 (61.5)	25,000 (61.5)
50	-	-	-	22,600 (38)	19,950 (38)	17,950 (38)	23,800 (50.5)	21,150 (50.5)	19,200 (50.5)	22,550 (58)	22,400 (58)	20,350 (58)
55	-	-	-	18,650 (29.5)	16,150 (29.5)	14,000 (29.5)	20,100 (45.5)	17,500 (45.5)	15,450 (45.5)	20,350 (54)	18,700 (54)	16,750 (54)
60	-	-	-	15,550 (17)	13,150 (17)	10,850 (17)	17,150 (40)	14,550 (40)	12,400 (40)	17,400 (50)	15,800 (50)	13,800 (50.5)
65	-	-	-	-	-	-	14,700 (34)	12,100 (34)	9,910 (34)	15,050 (46)	13,300 (46)	11,350 (46)
70	-	-	-	-	-	-	12,650 (26)	10,050 (26)	7,810 (26)	13,050 (41.5)	11,300 (41.5)	9,360 (41.5)
75	-	-	-	-	-	-	10,900 (13.5)	8,330 (13.5)	6,040 (14)	11,350 (36.5)	9,580 (36.5)	7,640 (36.5)
80	-	-	-	-	-	-	-	-	-	9,880 (30.5)	8,080 (30.5)	6,150 (30.5)
85	-	-	-	-	-	-	-	-	-	8,580 (23)	6,780 (23)	4,850 (23.5)
90	-	-	-	-	-	-	-	-	-	7,440 (10.5)	5,650 (10.5)	3,730 (11)

NOTE: () Boom angles are in degrees.

*This capacity is based on maximum boom angle.

¹Special equipment required to lift this capacity.

Boom angle	Lifting capacities at 0° boom angle											
	39.2	53.7	53.7	68.2	68.2	68.2	82.7	82.7	82.7	97.2	97.2	97.2
0°	23,850 (32.8)	15,650 (47.3)	13,100 (47.3)	10,950 (61.8)	8,940 (61.8)	6,930 (61.8)	7,910 (76.3)	6,230 (76.3)	4,550 (76.3)	5,770 (90.8)	4,330 (90.8)	2,890 (90.8)

NOTE: () Reference radii in feet.

Shaded area indicates optimal lift capacity within boom length sections.

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

LOAD CHART

Main Boom



39.2 ft - 155.1 ft



20,500 lb



100%



360°



Pounds

Feet	Main boom length in feet								
	111.7	111.7	111.7	126.2	126.2	126.2	140.6	140.6	155.1
Mode	A	X	B	A	X	B	A, X	B	A, X, B
20	13,550 (79.5)	39,500 (79.5)	37,650 (79.5)	*8,520 (80)	*28,500 (80)	*29,000 (80)	-	-	-
25	13,550 (77)	39,500 (77)	37,650 (77)	8,520 (79)	28,500 (79)	29,000 (79)	*21,350 (80)	*23,300 (80)	-
30	13,550 (74)	36,400 (74)	37,150 (74)	8,520 (76.5)	28,500 (76.5)	29,000 (76.5)	21,350 (78.5)	23,300 (78.5)	18,000 (80)
35	13,550 (71.5)	32,800 (71.5)	32,300 (71.5)	8,520 (74)	28,500 (74)	29,000 (74)	21,350 (76)	23,300 (76.5)	18,000 (78)
40	13,550 (68.5)	29,800 (68.5)	28,150 (68.5)	8,520 (71.5)	27,900 (71.5)	27,050 (71.5)	21,350 (74)	23,300 (74)	18,000 (76)
45	13,550 (66)	27,250 (66)	24,750 (66)	8,520 (69)	25,350 (69)	23,900 (69)	21,350 (72)	22,700 (72)	18,000 (74)
50	13,550 (63)	22,850 (63)	21,500 (63)	8,520 (66.5)	23,050 (66.5)	21,200 (66.5)	20,650 (69.5)	20,500 (70)	18,000 (72)
55	13,550 (60)	19,150 (60)	17,850 (60)	8,520 (64)	19,500 (64)	18,350 (64)	18,950 (67.5)	18,400 (67.5)	17,450 (70)
60	13,550 (57)	16,150 (57)	15,000 (57)	8,520 (61.5)	16,550 (61.5)	15,450 (61.5)	16,950 (65)	15,950 (65.5)	15,900 (68)
65	13,550 (53.5)	13,750 (53.5)	12,650 (53.5)	8,520 (59)	14,150 (59)	13,100 (59)	14,600 (63)	13,600 (63)	14,000 (66)
70	13,350 (50)	11,750 (50)	10,700 (50)	8,520 (56)	12,200 (56)	11,150 (56)	12,650 (60.5)	11,600 (60.5)	12,000 (64)
75	11,700 (46.5)	10,050 (46.5)	9,100 (46.5)	8,520 (53)	10,500 (53)	9,540 (53)	11,000 (58)	9,960 (58)	10,350 (62)
80	10,250 (42.5)	8,630 (42.5)	7,650 (42.5)	8,520 (50)	9,120 (50)	8,080 (50)	9,610 (55.5)	8,520 (55.5)	8,960 (60)
85	9,040 (38.5)	7,380 (38.5)	6,380 (38.5)	8,520 (47)	7,890 (47)	6,830 (47)	8,400 (53)	7,290 (53)	7,740 (57.5)
90	7,910 (33.5)	6,270 (33.5)	5,240 (33.5)	8,240 (43.5)	6,820 (43.5)	5,740 (43.5)	7,350 (50)	6,210 (50.5)	6,680 (55)
95	6,920 (28)	5,290 (28)	4,240 (28)	7,290 (40)	5,880 (40)	4,780 (40)	6,420 (47.5)	5,260 (47.5)	5,750 (53)
100	6,040 (21)	4,410 (21)	3,350 (21)	6,430 (36)	5,030 (36)	3,910 (36)	5,600 (44.5)	4,420 (44.5)	4,900 (50.5)
105	5,250 (7.5)	3,640 (7.5)	2,550 (7.5)	5,660 (31.5)	4,260 (31.5)	3,130 (31.5)	4,860 (41)	3,670 (41.5)	4,140 (48)
110	-	-	-	4,970 (26)	3,570 (26)	2,430 (26)	4,180 (37.5)	2,990 (38)	3,450 (45)
115	-	-	-	4,340 (19)	2,950 (19.5)	1,790 (19.5)	3,540 (34)	2,370 (34)	2,830 (42)
120	-	-	-	-	-	-	2,960 (29.5)	1,790 (29.5)	2,270 (39)
125	-	-	-	-	-	-	2,430 (24.5)	1,260 (24.5)	1,740 (36)
130	-	-	-	-	-	-	1,950 (17.5)	-	1,250 (32)
Minimum boom angle (°) for indicated length (no load)						18.5°	16.5°	23.5°	31°
Maximum boom length (ft) at 0° boom angle (no load)									111.7 ft

NOTE: () Boom angles are in degrees.

*This capacity is based on maximum boom angle.

Boom angle	Lifting capacities at 0° boom angle								
	111.7	111.7	111.7	126.2	126.2	126.2	140.6	140.6	155.1
0°	4,190 (105.2)	2,920 (105.2)	1,650 (105.2)	2,970 (119.7)	1,840 (119.7)	-	-	-	-

NOTE: () Reference radii in feet.

Shaded area indicates optimal lift capacity within boom length sections.

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

LOAD CHART

Main Boom - MAXbase



39.2 ft - 155.1 ft



20,500 lb



100%



360°



MAXbase



Pounds

Feet	Main boom length in feet											
	39.2	53.7	53.7	68.2	68.2	68.2	82.7	82.7	82.7	97.2	97.2	97.2
Mode	A, X, B	A	X, B	A	X	B	A	X	B	A	X	B
10	135,500 (70)	47,050 (75.5)	118,000 (75.5)	46,500 (79)	57,850 (79)	37,950 (79)	-	-	-	-	-	-
12	120,500 (66.5)	47,050 (73.5)	118,000 (73.5)	46,500 (77)	57,850 (77)	37,950 (77)	46,350 (79.5)	57,700 (79.5)	37,800 (79.5)	-	-	-
15	103,500 (61.5)	47,050 (70)	103,000 (70)	46,500 (74.5)	57,850 (74.5)	37,950 (74.5)	46,350 (77)	57,700 (77)	37,800 (77)	29,000 (79)	55,450 (79)	37,700 (79)
20	80,950 (52)	47,050 (64)	79,900 (64)	46,500 (70)	57,850 (70)	37,950 (70)	46,350 (73.5)	57,700 (73.5)	37,800 (73.5)	29,000 (76)	55,450 (76)	37,700 (76)
25	61,050 (41.5)	47,050 (57.5)	60,100 (57.5)	46,500 (65.5)	57,850 (65.5)	37,950 (65.5)	46,350 (70)	57,700 (70)	37,800 (70)	29,000 (73)	55,450 (73)	37,700 (73)
30	48,000 (26.5)	47,050 (50.5)	47,100 (50.5)	46,500 (60.5)	49,100 (60.5)	37,950 (60.5)	45,300 (66)	50,350 (66)	37,800 (66)	29,000 (70)	50,100 (70)	37,700 (70)
35	-	41,150 (43)	37,900 (43)	42,400 (55.5)	39,900 (55.5)	37,350 (55.5)	40,450 (62)	41,150 (62)	35,950 (62)	29,000 (66.5)	42,000 (66.5)	33,850 (66.5)
40	-	34,300 (33.5)	31,100 (33.5)	35,550 (50)	33,050 (50)	30,550 (50)	36,350 (58)	34,300 (58)	31,200 (58)	27,050 (63.5)	35,150 (63.5)	29,450 (63.5)
45	-	28,950 (20.5)	25,750 (20.5)	30,250 (44)	27,750 (44)	25,300 (44)	31,050 (54)	29,000 (54)	26,950 (54)	24,600 (60)	29,850 (60)	25,850 (60)
50	-	-	-	26,000 (37)	23,550 (37)	21,100 (37)	26,800 (49.5)	24,800 (49.5)	22,750 (49.5)	22,550 (56.5)	25,650 (56.5)	22,850 (56.5)
55	-	-	-	22,550 (28.5)	20,100 (28.5)	17,650 (28.5)	23,350 (44.5)	21,350 (44.5)	19,350 (44.5)	20,750 (53)	22,200 (53)	20,350 (53)
60	-	-	-	19,700 (16)	17,250 (16)	14,800 (16)	20,500 (39)	18,500 (39)	16,500 (39)	19,200 (49)	19,350 (49)	17,600 (49)
65	-	-	-	-	-	-	18,100 (32.5)	16,050 (32.5)	14,100 (32.5)	17,900 (44.5)	16,900 (44.5)	15,200 (44.5)
70	-	-	-	-	-	-	16,000 (25)	14,000 (25)	12,000 (25)	16,550 (40)	14,850 (40)	13,150 (40)
75	-	-	-	-	-	-	14,200 (12.5)	12,200 (12.5)	10,200 (12.5)	14,750 (35)	13,050 (35)	11,400 (35)
80	-	-	-	-	-	-	-	-	-	13,200 (29)	11,500 (29)	9,840 (29)
85	-	-	-	-	-	-	-	-	-	11,850 (22)	10,150 (22)	8,460 (22)
90	-	-	-	-	-	-	-	-	-	10,600 (9.5)	8,910 (9.5)	7,220 (9.5)

NOTE: () Boom angles are in degrees.

Boom angle	Lifting capacities at 0° boom angle											
	39.2	53.7	53.7	68.2	68.2	68.2	82.7	82.7	82.7	97.2	97.2	97.2
0°	23,850 (32.8)	15,650 (47.3)	13,100 (47.3)	10,950 (61.8)	8,940 (61.8)	6,930 (61.8)	7,910 (76.3)	6,230 (76.3)	4,550 (76.3)	5,770 (90.8)	4,330 (90.8)	2,890 (90.8)

NOTE: () Reference radii in feet.

Shaded area indicates optimal lift capacity within boom length sections.

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

LOAD CHART

Main Boom - MAXbase



39.2 ft - 155.1 ft



20,500 lb



100%



360°



MAXbase



Pounds

Feet	Main boom length in feet								
	111.7	111.7	111.7	126.2	126.2	126.2	140.6	140.6	155.1
Mode	A	X	B	A	X	B	A, X	B	A, X, B
20	13,550 (78)	39,500 (78)	37,650 (78)	8,520 (79.5)	28,500 (79.5)	29,000 (79.5)	-	-	-
25	13,550 (75.5)	39,500 (75.5)	37,650 (75.5)	8,520 (77)	28,500 (77)	29,000 (77)	21,350 (78.5)	23,300 (78.5)	18,000 (79.5)
30	13,550 (72.5)	36,400 (72.5)	37,150 (72.5)	8,520 (75)	28,500 (75)	29,000 (75)	21,350 (76.5)	23,300 (76.5)	18,000 (77.5)
35	13,550 (70)	32,800 (70)	32,300 (70)	8,520 (72.5)	28,500 (72.5)	29,000 (72.5)	21,350 (74.5)	23,300 (74.5)	18,000 (76)
40	13,550 (67)	29,800 (67)	28,150 (67)	8,520 (70)	27,900 (70)	27,050 (70)	21,350 (72)	23,300 (72)	18,000 (74)
45	13,550 (64.5)	27,250 (64.5)	24,750 (64.5)	8,520 (67.5)	25,350 (67.5)	23,900 (67.5)	21,350 (70)	22,700 (70)	18,000 (72)
50	13,550 (61.5)	25,100 (61.5)	21,900 (61.5)	8,520 (65)	23,050 (65)	21,200 (65)	20,650 (68)	20,500 (68)	18,000 (70)
55	13,550 (58.5)	22,800 (58.5)	19,500 (58.5)	8,520 (62.5)	21,000 (62.5)	18,850 (62.5)	18,950 (65.5)	18,400 (65.5)	17,450 (68)
60	13,550 (55)	19,950 (55)	17,450 (55)	8,520 (60)	19,200 (60)	16,900 (60)	17,450 (63.5)	16,450 (63.5)	15,900 (66)
65	13,550 (52)	17,550 (52)	15,650 (52)	8,520 (57)	17,650 (57)	15,150 (57)	16,100 (61)	14,800 (61)	14,500 (64)
70	13,550 (48.5)	15,450 (48.5)	14,000 (48.5)	8,520 (54.5)	15,950 (54.5)	13,650 (54.5)	14,900 (58.5)	13,350 (58.5)	13,100 (62)
75	13,550 (45)	13,700 (45)	12,200 (45)	8,520 (51.5)	14,150 (51.5)	12,350 (51.5)	13,800 (56)	12,050 (56)	11,850 (59.5)
80	12,600 (41)	12,150 (41)	10,650 (41)	8,520 (48.5)	12,600 (48.5)	11,150 (48.5)	12,800 (53.5)	10,900 (53.5)	10,700 (57.5)
85	11,700 (37)	10,750 (37)	9,300 (37)	8,520 (45)	11,200 (45)	9,930 (45)	11,600 (51)	9,900 (51)	9,730 (55)
90	10,900 (32)	9,550 (32)	8,080 (32)	8,520 (41.5)	10,000 (41.5)	8,710 (41.5)	10,300 (48)	8,970 (48)	8,820 (53)
95	9,940 (26.5)	8,460 (26.5)	6,980 (26.5)	8,520 (38)	8,860 (38)	7,620 (38)	9,160 (45.5)	8,050 (45.5)	8,000 (50.5)
100	8,930 (19.5)	7,470 (19.5)	6,000 (19.5)	8,430 (34)	7,860 (34)	6,640 (34)	8,150 (42.5)	7,050 (42.5)	7,260 (48)
105	7,620 (6)	6,360 (6)	5,090 (6)	7,860 (29.5)	6,970 (29.5)	5,750 (29.5)	7,260 (39)	6,170 (39)	6,470 (45.5)
110	-	-	-	7,340 (24.5)	6,160 (24.5)	4,940 (24.5)	6,460 (35.5)	5,380 (35.5)	5,680 (42.5)
115	-	-	-	6,700 (17.5)	5,420 (17.5)	4,200 (17.5)	5,740 (32)	4,670 (32)	4,960 (40)
120	-	-	-	-	-	-	5,090 (27.5)	4,020 (27.5)	4,320 (37)
125	-	-	-	-	-	-	4,480 (22.5)	3,420 (22.5)	3,730 (33.5)
130	-	-	-	-	-	-	3,930 (15.5)	2,840 (15.5)	3,200 (30)
135	-	-	-	-	-	-	-	-	2,690 (25.5)
140	-	-	-	-	-	-	-	-	2,230 (20.5)
145	-	-	-	-	-	-	-	-	1,770 (14)

NOTE: () Boom angles are in degrees.

Boom angle	Lifting capacities at 0° boom angle								
	111.7	111.7	111.7	126.2	126.2	126.2	140.6	140.6	155.1
0°	4,190 (105.2)"	2,920 (105.2)	1,650 (105.2)	2,970 (119.7)	1,840 (119.7)	-	-	-	-

NOTE: () Reference radii in feet.

Shaded area indicates optimal lift capacity within boom length sections.

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

LOAD CHART

Manual Extension



155.1 ft



33 ft - 56 ft



20,500 lb



100%



360°



Pounds

Feet	33 ft length			56 ft length		
	0° offset	25° offset	45° offset	0° offset	25° offset	45° offset
35	9,080 (80)	-	-	-	-	-
40	9,080 (78.5)	-	-	5,470 (80)	-	-
45	9,080 (77)	-	-	5,470 (79)	-	-
50	9,080 (75.5)	9,140 (80)	-	5,470 (77.5)	-	-
55	9,080 (74)	9,140 (78.5)	6,400 (80)	5,470 (76.5)	-	-
60	9,080 (72.5)	9,140 (77)	6,260 (78.5)	5,470 (75)	-	-
65	9,080 (71)	9,140 (75.5)	6,140 (77)	5,470 (74)	5,080 (80)	-
70	9,080 (69.5)	9,140 (74)	6,030 (75.5)	5,470 (72.5)	4,940 (78.5)	-
75	9,080 (68)	9,010 (72)	5,920 (74.5)	5,470 (71)	4,800 (77.5)	3,000 (80)
80	9,080 (66.5)	8,820 (70.5)	5,830 (73)	5,470 (70)	4,670 (76.5)	2,930 (79)
85	8,070 (65)	8,630 (69)	5,740 (71.5)	5,470 (68.5)	4,550 (75)	2,870 (77.5)
90	6,980 (63)	8,460 (67.5)	5,650 (69)	5,470 (67)	4,430 (73.5)	2,810 (76.5)
95	6,030 (61.5)	7,490 (65.5)	5,580 (67)	5,470 (66)	4,330 (72)	2,760 (75)
100	5,180 (59.5)	6,470 (63.5)	5,510 (65)	5,470 (64.5)	4,230 (70.5)	2,710 (73.5)
105	4,420 (57.5)	5,530 (61)	5,450 (63)	5,440 (63)	4,130 (68.5)	2,660 (72)
110	3,740 (55.5)	4,700 (59)	5,010 (60.5)	4,720 (61.5)	4,040 (67)	2,620 (70)
115	3,120 (53.5)	3,940 (57)	4,300 (58.5)	4,080 (60)	3,960 (65)	2,580 (68)
120	2,570 (51.5)	3,250 (54.5)	3,630 (56)	3,490 (58)	3,880 (63.5)	2,540 (66)
125	2,060 (49.5)	2,630 (52.5)	3,000 (53.5)	2,950 (56.5)	3,810 (61.5)	2,510 (64)
130	1,590 (47)	2,060 (50)	2,410 (51.5)	2,430 (54.5)	3,460 (59.5)	2,480 (62)
135	1,170 (45)	1,530 (48)	1,880 (49)	1,950 (52.5)	2,900 (57.5)	2,460 (60)
140	-	1,040 (45.5)	-	1,510 (51)	2,360 (56)	2,430 (58)
145	-	-	-	1,100 (49)	1,860 (54)	2,120 (56)
150	-	-	-	-	1,390 (51.5)	1,650 (53.5)
155	-	-	-	-	-	1,220 (51)
Min. boom angle for indicated length (no load)	44°	44.5°	48°	48°	50.5°	50°
Max. boom length at 0° boom angle (no load)	97.2 ft			82.7 ft		

NOTE: () Boom angles are in degrees.

- 33 ft and 56 ft folding boom extension lengths may be used for single line lifting service only.
- For main boom lengths less than 141 ft with the boom extension erected, the rated loads are determined by boom angle. Use only the column that corresponds to the boom extension length and offset for which the machine is set up. For boom angles not shown, use rating of the next lower boom angle.
- WARNING: Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
- Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
- Capacities listed are with outriggers properly extended and vertical jacks set only.
- When lifting over the main boom nose with 33 ft or 56 ft extension erected, the outriggers must be fully extended.

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

LOAD CHART

Pick and Carry



39.2 ft - 155.1 ft



20,500 lb



Pick and carry up to 1 mph
23.5 x 25 tires



Boom over front

Boom centered over front				
Radius in feet	Main boom length in feet			
	39.2	53.7	68.2	82.7
Mode	A	A	A	A
12	33,500 (67)	31,350 (73.5)	22,600 (77.5)	-
15	26,300 (61.5)	26,050 (70.5)	21,000 (75)	21,000 (77.5)
20	18,800 (52.5)	19,700 (64.5)	19,950 (70.5)	18,200 (74)
25	14,100 (42)	15,250 (58)	15,900 (66)	13,800 (70.5)
30	10,950 (27)	11,950 (51)	12,700 (61)	12,550 (66.5)
35	-	9,410 (43.5)	10,150 (56)	10,200 (63)
40	-	7,390 (34)	8,050 (50.5)	8,320 (58.5)
45	-	5,740 (21)	6,300 (44.5)	6,710 (54.5)
50	-	-	4,810 (37.5)	5,340 (50)
55	-	-	3,540 (29)	4,160 (45)
60	-	-	2,430 (16.5)	3,130 (39.5)
65	-	-	-	2,230 (33)
70	-	-	-	1,440 (25.5)
Minimum boom angle (°) for indicated length (no load)				24.5°
Maximum boom length at 0° boom angle (no load) - X mode				68.2 ft

NOTE: () Boom angles are in degrees.

*This capacity is based on maximum boom angle.

1. Capacities are in pounds and do not exceed 75% of tipping loads as determined by test in accordance with SAE J765.
2. Capacities are applicable to machines equipped with Titan ND LCM or Maitech MT212+ E-3/L-3 - 23.5x25 (36 ply) tires, at 102 psi (7.0 BAR)..
3. Capacities are applicable only with machine on firm level surface.
4. On rubber lifting with boom extension not permitted.
5. For pick and carry operation, boom must be centered over front of machine, mechanical swing lock engaged and load restrained from swinging.
6. Axle lockouts must be functioning when lifting on rubber.
7. All lifting depends on proper tire inflation, capacity and condition. Capacities must be reduced for lower tire inflation pressures. See lifting capacity chart for tire used. Damaged tires are hazardous to safe operation of crane.
8. Creep — not over 200 ft of movement in any 30 minute period and not exceeding 1 mph.

Boom angle	Lifting capacities at 0° boom angle			
	39.2	53.7	68.2	82.7
0°	9,160 (32.8)	4,980 (47.3)	2,030 (61.8)	-

NOTE: () Reference radii in feet.

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

LOAD CHART

Stationary



39.2 ft - 155.1 ft



20,500 lb



Stationary



360°

Stationary capacities				
Radius in feet	Main boom length in feet			
	39.2	53.7	68.2	82.7
Mode	A	A	A	A
15	29,350 (61.5)	-	-	-
20	20,000 (52.5)	21,700 (64.5)	22,650 (70.5)	-
25	13,300 (42)	15,750 (58)	16,600 (66)	17,450 (70.5)
30	8,820 (27)	11,100 (51)	11,900 (61)	12,750 (66.5)
35	-	7,910 (43.5)	8,700 (56)	9,560 (63)
40	-	5,610 (34)	6,380 (50.5)	7,170 (58.5)
45	-	3,880 (21)	4,640 (44.5)	5,360 (54.5)
50	-	-	3,290 (37.5)	3,940 (50)
55	-	-	2,210 (29)	2,800 (45)
60	-	-	1,330 (16.5)	1,870 (45)
65	-	-	-	1,090 (33)
Minimum boom angle (°) for indicated length (no load)				32°
Maximum boom length at 0° boom angle (no load)				68.2 ft

NOTE: () Boom angles are in degrees.

*This capacity is based on maximum boom angle.

Boom angle	Lifting capacities at 0° boom angle			
	39.2	53.7	68.2	82.7
0°	6,960 (32.8)	3,190 (47.3)	1,040 (61.8)	-

NOTE: () Reference radii in feet.

1. Capacities are in pounds and do not exceed 75% of tipping loads as determined by test in accordance with SAE J765.
2. Capacities are applicable to machines equipped with Titan ND LCM or Maitech MT212+ E-3/L-3 - 23.5x25 (36 ply) tires, at 102 psi (7.0 BAR).
3. Capacities are applicable only with machine on firm level surface.
4. On rubber lifting with boom extension not permitted.
5. For pick and carry operation, boom must be centered over front of machine, mechanical swing lock engaged and load restrained from swinging.
6. Axle lockouts must be functioning when lifting on rubber.
7. All lifting depends on proper tire inflation, capacity and condition. Capacities must be reduced for lower tire inflation pressures. See lifting capacity chart for tire used. Damaged tires are hazardous to safe operation of crane.
8. Creep — not over 200 ft of movement in any 30 minute period and not exceeding 1 mph.

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

LOAD CHART

Main Boom



39.2 ft - 155.1 ft



17,500 lb



100%



360°



Pounds

Feet	Main boom length in feet											
	39.2	53.7	53.7	68.2	68.2	68.2	82.7	82.7	82.7	97.2	97.2	97.2
Mode	A, X, B	A	X, B	A	X	B	A	X	B	A	X	B
8	160,000 ¹ (73.5)	46,650 (78.5)	117,500 (78.5)	-	-	-	-	-	-	-	-	-
10	134,500 (70.5)	46,650 (76.5)	117,500 (76.5)	46,500 (79.5)	57,850 (80)	37,950 (80)	-	-	-	-	-	-
12	120,000 (67)	46,650 (74)	117,500 (74)	46,500 (78)	57,850 (78)	37,950 (78)	*46,350 (80)	*57,700 (80)	*37,800 (80)	-	-	-
15	102,500 (62)	46,650 (70.5)	102,000 (70.5)	46,500 (75.5)	57,850 (75.5)	37,950 (75.5)	46,350 (78.5)	57,700 (78.5)	37,800 (78.5)	*29,000 (80)	*55,450 (80)	*37,700 (80)
20	78,650 (53)	46,650 (64.5)	77,650 (64.5)	46,500 (71)	57,850 (71)	37,950 (71)	46,350 (74.5)	57,700 (74.5)	37,800 (75)	29,000 (77.5)	55,450 (77.5)	37,700 (77.5)
25	59,300 (42.5)	46,650 (58.5)	58,350 (58.5)	46,500 (66)	57,850 (66.5)	37,950 (66.5)	46,350 (71)	57,700 (71)	37,800 (71)	29,000 (74.5)	55,450 (74.5)	37,700 (74.5)
30	46,550 (27.5)	46,650 (51.5)	45,650 (51.5)	46,500 (61.5)	47,650 (61.5)	37,950 (61.5)	45,300 (67)	48,900 (67)	37,800 (67.5)	29,000 (71.5)	49,800 (71.5)	37,700 (71.5)
35	-	39,500 (44)	36,050 (44)	40,750 (56.5)	37,500 (56.5)	34,900 (56.5)	40,450 (63.5)	38,750 (63.5)	35,950 (63.5)	29,000 (68)	40,050 (68)	33,850 (68)
40	-	30,250 (34.5)	27,350 (34.5)	32,050 (51)	28,850 (51)	26,600 (51)	32,900 (59.5)	30,100 (59.5)	27,850 (59.5)	27,050 (64.5)	31,350 (64.5)	29,100 (65)
45	-	23,700 (21.5)	21,150 (21.5)	25,650 (45)	22,800 (45)	20,750 (45)	26,750 (55)	24,050 (55)	21,950 (55)	24,600 (61.5)	25,250 (61.5)	23,150 (61.5)
50	-	-	-	20,900 (38)	18,250 (38)	16,300 (38)	22,200 (50.5)	19,550 (50.5)	17,600 (50.5)	22,400 (58)	20,750 (58)	18,700 (58)
55	-	-	-	17,150 (29.5)	14,650 (29.5)	12,500 (29.5)	18,650 (45.5)	16,050 (45.5)	14,000 (45.5)	18,900 (54)	17,300 (54)	15,300 (54)
60	-	-	-	14,200 (17)	11,800 (17)	9,530 (17)	15,850 (40)	13,250 (40)	11,100 (40)	16,100 (50)	14,450 (50)	12,500 (50.5)
65	-	-	-	-	-	-	13,550 (34)	10,900 (34)	8,720 (34)	13,850 (46)	12,100 (46)	10,150 (46)
70	-	-	-	-	-	-	11,600 (26)	8,970 (26)	6,720 (26)	12,000 (41.5)	10,200 (41.5)	8,260 (41.5)
75	-	-	-	-	-	-	9,900 (13.5)	7,320 (13.5)	5,040 (14)	10,350 (36.5)	8,570 (36.5)	6,630 (36.5)
80	-	-	-	-	-	-	-	-	-	8,950 (30.5)	7,140 (30.5)	5,210 (30.5)
85	-	-	-	-	-	-	-	-	-	7,710 (23)	5,910 (23)	3,990 (23.5)
90	-	-	-	-	-	-	-	-	-	6,620 (10.5)	4,830 (10.5)	2,910 (11)

NOTE: () Boom angles are in degrees.

*This capacity is based on maximum boom angle.

¹Special equipment required to lift this capacity.

Boom angle	Lifting capacities at 0° boom angle											
	39.2	53.7	53.7	68.2	68.2	68.2	82.7	82.7	82.7	97.2	97.2	97.2
0°	23,850 (32.8)	15,650 (47.3)	13,100 (47.3)	10,950 (61.8)	8,940 (61.8)	6,930 (61.8)	7,910 (76.3)	6,230 (76.3)	4,550 (76.3)	5,770 (90.8)	4,330 (90.8)	2,760 (90.8)

NOTE: () Reference radii in feet.

Shaded area indicates optimal lift capacity within boom length sections.

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.

LOAD CHART

Main Boom



39.2 ft - 155.1 ft



17,500 lb



100%



360°



Pounds

Feet	Main boom length in feet								
	111.7	111.7	111.7	126.2	126.2	126.2	140.6	140.6	155.1
Mode	A	X	B	A	X	B	A, X	B	A, X, B
20	13,550 (79.5)	39,500 (79.5)	37,650 (79.5)	*8,520 (80)	*28,500 (80)	*29,000 (80)	-	-	-
25	13,550 (77)	39,500 (77)	37,650 (77)	8,520 (79)	28,500 (79)	29,000 (79)	*21,350 (80)	*23,300 (80)	-
30	13,550 (74)	36,400 (74)	37,150 (74)	8,520 (76.5)	28,500 (76.5)	29,000 (76.5)	21,350 (78.5)	23,300 (78.5)	18,000 (80)
35	13,550 (71.5)	32,800 (71.5)	32,300 (71.5)	8,520 (74)	28,500 (74)	29,000 (74)	21,350 (76)	23,300 (76.5)	18,000 (78)
40	13,550 (68.5)	29,800 (68.5)	28,150 (68.5)	8,520 (71.5)	27,900 (71.5)	27,050 (71.5)	21,350 (74)	23,300 (74)	18,000 (76)
45	13,550 (66)	25,800 (66)	24,300 (66)	8,520 (69)	25,350 (69)	23,900 (69)	21,350 (72)	22,700 (72)	18,000 (74)
50	13,550 (63)	21,250 (63)	19,850 (63)	8,520 (66.5)	21,550 (66.5)	20,250 (66.5)	20,650 (69.5)	20,500 (70)	18,000 (72)
55	13,550 (60)	17,700 (60)	16,400 (60)	8,520 (64)	18,050 (64)	16,900 (64)	18,400 (67.5)	17,400 (67.5)	17,450 (70)
60	13,550 (57)	14,850 (57)	13,700 (57)	8,520 (61.5)	15,250 (61.5)	14,150 (61.5)	15,600 (65)	14,650 (65.5)	15,050 (68)
65	13,550 (53.5)	12,550 (53.5)	11,500 (53.5)	8,520 (59)	12,950 (59)	11,950 (59)	13,400 (63)	12,400 (63)	12,800 (66)
70	12,250 (50)	10,650 (50)	9,660 (50)	8,520 (56)	11,100 (56)	10,100 (56)	11,550 (60.5)	10,500 (60.5)	10,900 (64)
75	10,700 (46.5)	9,060 (46.5)	8,110 (46.5)	8,520 (53)	9,530 (53)	8,530 (53)	10,000 (58)	8,950 (58)	9,370 (62)
80	9,350 (42.5)	7,700 (42.5)	6,710 (42.5)	8,520 (50)	8,190 (50)	7,150 (50)	8,680 (55.5)	7,590 (55.5)	8,030 (60)
85	8,170 (38.5)	6,520 (38.5)	5,510 (38.5)	8,440 (47)	7,020 (47)	5,960 (47)	7,530 (53)	6,420 (53)	6,880 (57.5)
90	7,100 (33.5)	5,450 (33.5)	4,420 (33.5)	7,420 (43.5)	6,010 (43.5)	4,930 (43.5)	6,530 (50)	5,400 (50.5)	5,870 (55)
95	6,150 (28)	4,520 (28)	3,470 (28)	6,530 (40)	5,120 (40)	4,020 (40)	5,650 (47.5)	4,500 (47.5)	4,980 (53)
100	5,310 (21)	3,690 (21)	2,630 (21)	5,710 (36)	4,310 (36)	3,190 (36)	4,870 (44.5)	3,700 (44.5)	4,170 (50.5)
105	4,570 (7.5)	2,950 (7.5)	1,870 (7.5)	4,980 (31.5)	3,580 (31.5)	2,450 (31.5)	4,180 (41)	2,990 (41.5)	3,450 (48)
110	-	-	-	4,320 (26)	2,930 (26)	1,780 (26)	3,530 (37.5)	2,350 (38)	2,800 (45)
115	-	-	-	3,730 (19)	2,330 (19.5)	1,170 (19.5)	2,920 (34)	1,750 (34)	2,210 (42)
120	-	-	-	-	-	-	2,370 (29.5)	1,200 (29.5)	1,680 (39)
125	-	-	-	-	-	-	1,870 (24.5)	-	1,170 (36)
130	-	-	-	-	-	-	1,410 (17.5)	-	-
Minimum boom angle (°) for indicated length (no load)						18.5°	16.5°	28.5°	35°
Maximum boom length (ft) at 0° boom angle (no load)						111.7 ft			

NOTE: () Boom angles are in degrees.

*This capacity is based on maximum boom angle.

Boom angle	Lifting capacities at 0° boom angle								
	111.7	111.7	111.7	126.2	126.2	126.2	140.6	140.6	155.1
0°	4,190 (105.2)	2,920 (105.2)	1,650 (105.2)	2,970 (119.7)	1,810 (119.7)	-	-	-	-

NOTE: () Reference radii in feet.

Shaded area indicates optimal lift capacity within boom length sections.

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

LOAD CHART

Main Boom - MAXbase



39.2 ft - 155.1 ft



17,500 lb



100%



360°



MAXbase



Pounds

Feet	Main boom length in feet											
	39.2	53.7	53.7	68.2	68.2	68.2	82.7	82.7	82.7	97.2	97.2	97.2
Mode	A, X, B	A	X, B	A	X	B	A	X	B	A	X	B
10	134,500 (70)	47,050 (75.5)	118,000 (75.5)	46,500 (79)	57,850 (79)	37,950 (79)	-	-	-	-	-	-
12	120,000 (66.5)	47,050 (73.5)	118,000 (73.5)	46,500 (77)	57,850 (77)	37,950 (77)	46,350 (79.5)	57,700 (79.5)	37,800 (79.5)	-	-	-
15	102,500 (61.5)	47,050 (70)	102,000 (70)	46,500 (74.5)	57,850 (74.5)	37,950 (74.5)	46,350 (77)	57,700 (77)	37,800 (77)	29,000 (79)	55,450 (79)	37,700 (79)
20	78,700 (52)	47,050 (64)	77,700 (64)	46,500 (70)	57,850 (70)	37,950 (70)	46,350 (73.5)	57,700 (73.5)	37,800 (73.5)	29,000 (76)	55,450 (76)	37,700 (76)
25	59,300 (41.5)	47,050 (57.5)	58,350 (57.5)	46,500 (65.5)	57,850 (65.5)	37,950 (65.5)	46,350 (70)	57,700 (70)	37,800 (70)	29,000 (73)	55,450 (73)	37,700 (73)
30	46,550 (26.5)	47,050 (50.5)	45,650 (50.5)	46,500 (60.5)	47,650 (60.5)	37,950 (60.5)	45,300 (66)	48,900 (66)	37,800 (66)	29,000 (70)	49,800 (70)	37,700 (70)
35	-	39,900 (43)	36,700 (43)	41,200 (55.5)	38,650 (55.5)	36,150 (55.5)	40,450 (62)	39,900 (62)	35,950 (62)	29,000 (66.5)	40,800 (66.5)	33,850 (66.5)
40	-	33,200 (33.5)	30,000 (33.5)	34,450 (50)	31,950 (50)	29,500 (50)	35,300 (58)	33,200 (58)	31,150 (58)	27,050 (63.5)	34,050 (63.5)	29,450 (63.5)
45	-	28,000 (20.5)	24,800 (20.5)	29,300 (44)	26,800 (44)	24,350 (44)	30,100 (54)	28,050 (54)	26,000 (54)	24,600 (60)	28,900 (60)	25,850 (60)
50	-	-	-	25,150 (37)	22,700 (37)	20,250 (37)	25,950 (49.5)	23,900 (49.5)	21,900 (49.5)	22,550 (56.5)	24,750 (56.5)	22,850 (56.5)
55	-	-	-	21,800 (28.5)	19,350 (28.5)	16,900 (28.5)	22,600 (44.5)	20,550 (44.5)	18,550 (44.5)	20,750 (53)	21,400 (53)	19,700 (53)
60	-	-	-	18,950 (16)	16,500 (16)	14,050 (16)	19,800 (39)	17,750 (39)	15,750 (39)	19,200 (49)	18,600 (49)	16,900 (49)
65	-	-	-	-	-	-	17,450 (32.5)	15,400 (32.5)	13,400 (32.5)	17,900 (44.5)	16,250 (44.5)	14,450 (44.5)
70	-	-	-	-	-	-	15,400 (25)	13,300 (25)	11,200 (25)	15,800 (40)	14,000 (40)	12,200 (40)
75	-	-	-	-	-	-	13,400 (12.5)	11,350 (12.5)	9,280 (12.5)	13,850 (35)	12,100 (35)	10,300 (35)
80	-	-	-	-	-	-	-	-	-	12,200 (29)	10,450 (29)	8,750 (29)
85	-	-	-	-	-	-	-	-	-	10,750 (22)	9,070 (22)	7,350 (22)
90	-	-	-	-	-	-	-	-	-	9,540 (9.5)	7,830 (9.5)	6,130 (9.5)

NOTE: () Boom angles are in degrees.

*This capacity is based on maximum boom angle.

Boom angle	Lifting capacities at 0° boom angle											
	39.2	53.7	53.7	68.2	68.2	68.2	82.7	82.7	82.7	97.2	97.2	97.2
0°	23,850 (32.8)	15,650 (47.3)	13,100 (47.3)	10,950 (61.8)	8,940 (61.8)	6,930 (61.8)	7,910 (76.3)	6,230 (76.3)	4,550 (76.3)	5,770 (90.8)	4,330 (90.8)	2,760 (90.8)

NOTE: () Reference radii in feet.

Shaded area indicates optimal lift capacity within boom length sections.

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

LOAD CHART

Main Boom - MAXbase



39.2 ft - 155.1 ft



17,500 lb



100%



360°



MAXbase



Pounds

Feet	Main boom length in feet								
	111.7	111.7	111.7	126.2	126.2	126.2	140.6	140.6	155.1
Mode	A	X	B	A	X	B	A, X	B	A, X, B
20	13,550 (78)	39,500 (78)	37,650 (78)	8,520 (79.5)	28,500 (79.5)	29,000 (79.5)	-	-	-
25	13,550 (75.5)	39,500 (75.5)	37,650 (75.5)	8,520 (77)	28,500 (77)	29,000 (77)	21,350 (78.5)	23,300 (78.5)	18,000 (79.5)
30	13,550 (72.5)	36,400 (72.5)	37,150 (72.5)	8,520 (75)	28,500 (75)	29,000 (75)	21,350 (76.5)	23,300 (76.5)	18,000 (77.5)
35	13,550 (70)	32,800 (70)	32,300 (70)	8,520 (72.5)	28,500 (72.5)	29,000 (72.5)	21,350 (74.5)	23,300 (74.5)	18,000 (76)
40	13,550 (67)	29,800 (67)	28,150 (67)	8,520 (70)	27,900 (70)	27,050 (70)	21,350 (72)	23,300 (72)	18,000 (74)
45	13,550 (64.5)	27,250 (64.5)	24,750 (64.5)	8,520 (67.5)	25,350 (67.5)	23,900 (67.5)	21,350 (70)	22,700 (70)	18,000 (72)
50	13,550 (61.5)	25,100 (61.5)	21,900 (61.5)	8,520 (65)	23,050 (65)	21,200 (65)	20,650 (68)	20,500 (68)	18,000 (70)
55	13,550 (58.5)	22,050 (58.5)	19,500 (58.5)	8,520 (62.5)	21,000 (62.5)	18,850 (62.5)	18,950 (65.5)	18,400 (65.5)	17,450 (68)
60	13,550 (55)	19,250 (55)	17,450 (55)	8,520 (60)	19,200 (60)	16,900 (60)	17,450 (63.5)	16,450 (63.5)	15,900 (66)
65	13,550 (52)	16,750 (52)	15,150 (52)	8,520 (57)	17,150 (57)	15,150 (57)	16,100 (61)	14,800 (61)	14,500 (64)
70	13,550 (48.5)	14,450 (48.5)	12,900 (48.5)	8,520 (54.5)	14,850 (54.5)	13,450 (54.5)	14,900 (58.5)	13,350 (58.5)	13,100 (62)
75	13,550 (45)	12,550 (45)	11,000 (45)	8,520 (51.5)	12,900 (51.5)	11,550 (51.5)	13,200 (56)	11,950 (56)	11,850 (59.5)
80	12,450 (41)	10,900 (41)	9,430 (41)	8,520 (48.5)	11,250 (48.5)	9,940 (48.5)	11,550 (53.5)	10,300 (53.5)	10,650 (57.5)
85	11,050 (37)	9,550 (37)	8,060 (37)	8,520 (45)	9,890 (45)	8,560 (45)	10,150 (51)	8,950 (51)	9,260 (55)
90	9,830 (32)	8,340 (32)	6,870 (32)	8,520 (41.5)	8,680 (41.5)	7,360 (41.5)	8,930 (48)	7,750 (48)	8,050 (53)
95	8,750 (26.5)	7,280 (26.5)	5,820 (26.5)	8,520 (38)	7,610 (38)	6,310 (38)	7,870 (45.5)	6,690 (45.5)	7,000 (50.5)
100	7,780 (19.5)	6,330 (19.5)	4,880 (19.5)	7,970 (34)	6,680 (34)	5,390 (34)	6,930 (42.5)	5,770 (42.5)	6,060 (48)
105	6,940 (6)	5,490 (6)	4,040 (6)	7,130 (29.5)	5,850 (29.5)	4,570 (29.5)	6,090 (39)	4,940 (39)	5,230 (45.5)
110	-	-	-	6,370 (24.5)	5,100 (24.5)	3,830 (24.5)	5,350 (35.5)	4,200 (35.5)	4,490 (42.5)
115	-	-	-	5,680 (17.5)	4,410 (17.5)	3,150 (17.5)	4,680 (32)	3,540 (32)	3,830 (40)
120	-	-	-	-	-	-	4,070 (27.5)	2,940 (27.5)	3,220 (37)
125	-	-	-	-	-	-	3,510 (22.5)	2,390 (22.5)	2,680 (33.5)
130	-	-	-	-	-	-	3,000 (15.5)	1,880 (15.5)	2,180 (30)
135	-	-	-	-	-	-	-	-	1,720 (25.5)
140	-	-	-	-	-	-	-	-	1,300 (20.5)

NOTE: () Boom angles are in degrees.

Boom angle	Lifting capacities at 0° boom angle								
	111.7	111.7	111.7	126.2	126.2	126.2	140.6	140.6	155.1
0°	4,190 (105.2)	2,920 (105.2)	1,650 (105.2)	2,970 (119.7)	1,810 (119.7)	-	-	-	-

NOTE: () Reference radii in feet.

Shaded area indicates optimal lift capacity within boom length sections.

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

LOAD CHART

Manual Extension



155.1 ft



33 ft - 56 ft



17,500 lb



100%



360°



Pounds

Feet	33 ft length			56 ft length		
	0° offset	25° offset	45° offset	0° offset	25° offset	45° offset
35	9,080 (80)	-	-	-	-	-
40	9,080 (78.5)	-	-	5,470 (80)	-	-
45	9,080 (77)	-	-	5,470 (79)	-	-
50	9,080 (75.5)	9,140 (80)	-	5,470 (77.5)	-	-
55	9,080 (74)	9,140 (78.5)	6,400 (80)	5,470 (76.5)	-	-
60	9,080 (72.5)	9,140 (77)	6,260 (78.5)	5,470 (75)	-	-
65	9,080 (71)	9,140 (75.5)	6,140 (77)	5,470 (74)	5,080 (80)	-
70	9,080 (69.5)	9,140 (74)	6,030 (75.5)	5,470 (72.5)	4,940 (78.5)	-
75	9,080 (68)	9,010 (72)	5,920 (74.5)	5,470 (71)	4,800 (77.5)	3,000 (80)
80	8,390 (66.5)	8,820 (70.5)	5,830 (73)	5,470 (70)	4,670 (76.5)	2,930 (79)
85	7,200 (65)	8,630 (69)	5,740 (71.5)	5,470 (68.5)	4,550 (75)	2,870 (77.5)
90	6,170 (63)	7,780 (67.5)	5,650 (69)	5,470 (67)	4,430 (73.5)	2,810 (76.5)
95	5,260 (61.5)	6,730 (65.5)	5,580 (67)	5,470 (66)	4,330 (72)	2,760 (75)
100	4,460 (59.5)	5,740 (63.5)	5,510 (65)	5,470 (64.5)	4,230 (70.5)	2,710 (73.5)
105	3,740 (57.5)	4,850 (61)	5,110 (63)	4,760 (63)	4,130 (68.5)	2,660 (72)
110	3,090 (55.5)	4,050 (59)	4,360 (60.5)	4,080 (61.5)	4,040 (67)	2,620 (70)
115	2,510 (53.5)	3,320 (57)	3,690 (58.5)	3,460 (60)	3,960 (65)	2,580 (68)
120	1,980 (51.5)	2,670 (54.5)	3,040 (56)	2,900 (58)	3,880 (63.5)	2,540 (66)
125	1,500 (49.5)	2,070 (52.5)	2,430 (53.5)	2,390 (56.5)	3,520 (61.5)	2,510 (64)
130	1,060 (47)	1,520 (50)	1,880 (51.5)	1,890 (54.5)	2,920 (59.5)	2,480 (62)
135	-	1,010 (48)	1,360 (49)	1,430 (52.5)	2,380 (57.5)	2,460 (60)
140	-	-	-	1,010 (51)	1,860 (56)	2,140 (58)
145	-	-	-	-	1,380 (54)	1,650 (56)
150	-	-	-	-	-	1,190 (53.5)
Min. boom angle for indicated length (no load)	46°	47°	48°	50°	53°	52.5°
Max. boom length at 0° boom angle (no load)	97.2 ft			82.7 ft		

NOTE: () Boom angles are in degrees.

- 33 ft and 56 ft folding boom extension lengths may be used for single line lifting service only.
- For main boom lengths less than 141 ft with the boom extension erected, the rated loads are determined by boom angle. Use only the column that corresponds to the boom extension length and offset for which the machine is set up. For boom angles not shown, use rating of the next lower boom angle.
- WARNING: Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
- Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
- Capacities listed are with outriggers properly extended and vertical jacks set only.
- When lifting over the main boom nose with 33 ft or 56 ft extension erected, the outriggers must be fully extended.

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

LOAD CHART

Pick and Carry



39.2 ft - 155.1 ft



17,500 lb



Pick and carry up to 1 mph
23.5 x 25 tires



Boom over front

Boom centered over front				
Radius in feet	Main boom length in feet			
	39.2	53.7	68.2	82.7
Mode	A	A	A	A
12	29,850 (67)	28,350 (73.5)	21,650 (77.5)	-
15	25,000 (61.5)	24,050 (70.5)	21,000 (75)	16,850 (77.5)
20	18,750 (52.5)	18,650 (64.5)	18,900 (70.5)	15,950 (74)
25	13,950 (42)	14,650 (58)	15,200 (66)	13,800 (70.5)
30	10,200 (27)	11,600 (51)	12,250 (61)	12,100 (66.5)
35	-	9,230 (43.5)	9,920 (56)	9,890 (63)
40	-	7,280 (34)	7,960 (50.5)	8,060 (58.5)
45	-	5,670 (21)	6,310 (44.5)	6,550 (54.5)
50	-	-	4,900 (37.5)	5,280 (50)
55	-	-	3,690 (29)	4,180 (45)
60	-	-	2,630 (16.5)	3,240 (39.5)
65	-	-	-	2,420 (33)
70	-	-	-	1,690 (25.5)
75	-	-	-	1,040 (13)
Minimum boom angle (°) for indicated length (no load)				12°
Maximum boom length at 0° boom angle (no load) - X mode				68.2 ft

NOTE: () Boom angles are in degrees.

*This capacity is based on maximum boom angle.

1. Capacities are in pounds and do not exceed 75% of tipping loads as determined by test in accordance with SAE J765.
2. Capacities are applicable to machines equipped with Titan ND LCM or Maitech MT212+ E-3/L-3 - 23.5x25 (36 ply) tires, at 102 psi (7.0 bar).
3. Capacities are applicable only with machine on firm level surface.
4. On rubber lifting with boom extension not permitted.
5. For pick and carry operation, boom must be centered over front of machine, mechanical swing lock engaged and load restrained from swinging.
6. Axle lockouts must be functioning when lifting on rubber.
7. All lifting depends on proper tire inflation, capacity and condition. Capacities must be reduced for lower tire inflation pressures. See lifting capacity chart for tire used. Damaged tires are hazardous to safe operation of crane.
8. Creep — not over 200 ft of movement in any 30 minute period and not exceeding 1 mph.

Boom angle	Lifting capacities at 0° boom angle			
	39.2	53.7	68.2	82.7
0°	8,100 (32.8)	4,930 (47.3)	2,250 (61.8)	-

NOTE: () Reference radii in feet.

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

LOAD CHART

Stationary



39.2 ft - 155.1 ft



17,500 lb



Stationary



360°

Stationary capacities				
Radius in feet	Main boom length in feet			
	39.2	53.7	68.2	82.7
Mode	A	A	A	A
15	30,150 (61.5)	29,050 (70.5)	-	-
20	18,650 (52.5)	21,350 (64.5)	22,450 (70.5)	22,150 (74)
25	11,850 (42)	14,400 (58)	15,550 (66)	15,650 (70.5)
30	7,680 (27)	9,970 (51)	10,850 (61)	11,200 (66.5)
35	-	6,830 (43.5)	7,620 (56)	8,160 (63)
40	-	4,510 (34)	5,270 (50.5)	5,890 (58.5)
45	-	2,730 (21)	3,500 (44.5)	4,170 (54.5)
50	-	-	2,110 (37.5)	2,830 (50)
55	-	-	1,000 (29)	1,750 (45)
Minimum boom angle (°) for indicated length (no load)			28°	44°
Maximum boom length at 0° boom angle (no load)		53.7 ft		

NOTE: () Boom angles are in degrees.

*This capacity is based on maximum boom angle.

1. Capacities are in pounds and do not exceed 75% of tipping loads as determined by test in accordance with SAE J765.
2. Capacities are applicable to machines equipped with Titan ND LCM or Maitech MT212+ E-3/L-3 - 23.5x25 (36 ply) tires, at 102 psi (7.0 bar).
3. Capacities are applicable only with machine on firm level surface.
4. On rubber lifting with boom extension not permitted.
5. For pick and carry operation, boom must be centered over front of machine, mechanical swing lock engaged and load restrained from swinging.
6. Axle lockouts must be functioning when lifting on rubber.
7. All lifting depends on proper tire inflation, capacity and condition. Capacities must be reduced for lower tire inflation pressures. See lifting capacity chart for tire used. Damaged tires are hazardous to safe operation of crane.
8. Creep — not over 200 ft of movement in any 30 minute period and not exceeding 1 mph.

Boom angle	Lifting capacities at 0° boom angle			
	39.2	53.7	68.2	82.7
0°	5,940 (32.8)	2,030 (47.3)	-	-

NOTE: () Reference radii in feet.

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

RIGGING CHARTS

Installation and removal of optional hydraulic removable counterweight on outriggers fully extended				
Radius in feet	Main boom length in feet			
	39.2	53.7	68.2	82.7
Mode	A	A	A	A
8	147,500 (73.5)	46,650 (78.5)	-	-
10	130,000 (70.5)	46,650 (76.5)	46,500 (79.5)	-
12	116,000 (67)	46,650 (74)	46,500 (78)	*46,350 (80)
15	94,400 (62)	46,650 (70.5)	46,500 (75.5)	46,350 (78.5)
20	65,750 (53)	46,650 (64.5)	46,500 (71)	46,350 (74.5)
25	46,300 (42.5)	46,650 (58.5)	46,500 (66)	46,350 (71)
30	30,750 (27.5)	32,900 (51.5)	34,300 (61.5)	35,450 (67)
35	-	23,350 (44)	24,850 (56.5)	26,100 (63.5)
40	-	17,000 (34.5)	18,750 (51)	20,000 (59.5)
45	-	12,450 (21.5)	14,400 (45)	15,700 (55)
50	-	-	*11,150 (38)	12,550 (50.5)
55	-	-	8,550 (29.5)	10,100 (45.5)
60	-	-	6,480 (17)	8,160 (40)
65	-	-	-	6,550 (34)
70	-	-	-	5,180 (26)
75	-	-	-	4,000 (13.5)
Minimum boom angle (°) for indicated length (no load)				33°
Maximum boom length at 0° boom angle (no load)				68.2 ft

NOTE: () Boom angles are in degrees.

*This capacity is based on maximum boom angle.

Loading and unloading - on rubber (0 lb counterweight)	
Radius in feet	Main boom length in feet
	39.2
Mode	A
12	5,400 (67")
15	5,400 (61.5)
20	5,400 (52.5)
25	5,400 (42)
30	5,400 (27)
Min. boom angle for indicated length (no load)	0°
Max. boom length at 0° boom angle (no load)	39.2 ft

Note: () Boom angles are in degrees

Boom angle	Lifting capacities at 0° boom angle
	39.2
0°	5,400 (32.8)

Note: () Reference radii in feet.

For loading and unloading, the boom must be centered over front of machine and mechanical swing lock engaged.

Boom angle	Lifting capacities at 0° boom angle			
	39.2	53.7	68.2	82.7
0°	23,850 (32.8)	10,800 (47.3)	5,840 (61.8)	3,720 (76.3)

NOTE: () Reference radii in feet.

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

LOAD HANDLING

Weight reductions for load handling devices

Auxiliary boom nose	115 lb (52 kg)
Hook blocks and overhaul weights:	
83 USt (75 t), 5 sheave	1592 lb (722 kg) +
50 USt (45 t), 3 Sheave	1235 lb (560 kg) +
29 USt (26 t), 1 sheave	983 lb (446 kg) +
12 USt (11 t), overhaul weight	648 lb (294 kg) +
12 USt (11 t), overhaul ball	575 lb (261 kg) +

+Refer to rating plate for actual weight.

Tire inflation - PSI (bar)

Size (front and rear)	TRA Code	Lifting service, general travel and extended travel
		Static, creep and 2.5 mph (4.0 km/h)
23.5 x 25 (36)	E-3/L-3	102 (7.0)

Line pulls and reeving information

Hoists	Cable Specs.	Permissible Line Pulls	Nominal Cable Length
Main and Auxiliary	19 mm (3/4 in) 35x7 Class Rotation Resistant (non-rotating) Min. Breaking strength 85,800 lb	17,160 lb*	Main Hoist: 580 ft Auxiliary Hoist: 452 ft Optional Main & Auxiliary Hoist: 702 ft

The approximate weight of 3/4 in wire rope is 1.3 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.

33 ft - 56 ft (10 m - 17 m) folding boom extension

	Without overhaul ball or block	With 648 lb (294 kg) overhaul ball
*33 ft (10 m) extension (erected)	3,900 lb (1769 kg)	6,300 lb (2858 kg)
*56 ft (17 m) extension (erected)	7,600 lb (3447 kg)	11,700 lb (5307 kg)

*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.

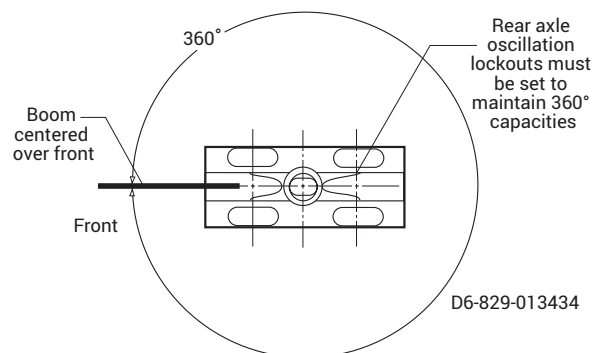
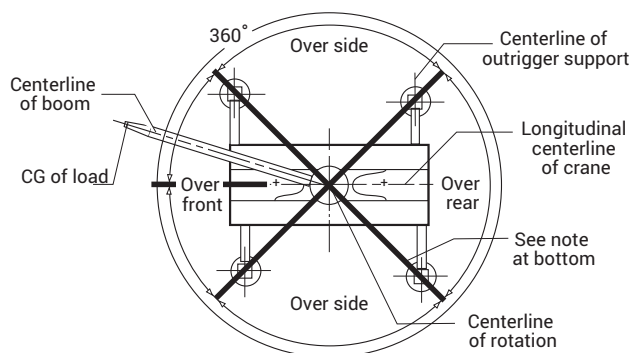
Hoist performance

Wire rope layer	Hoist line pulls		Drum capacity	
	Two speed hoist			
	Low	High	Layer	Total
	Available*	Available*		
1	21,300 lb (9662 kg)	10,100 lb (4581 kg)	95 ft (29,0 m)	95 ft (29,0 m)
2	19,500 lb (8845 kg)	9,300 lb (4218 kg)	103 ft (31,4 m)	198 ft (60,4 m)
3	18,100 lb (8210 kg)	8,600 lb (3901 kg)	112 ft (34,1 m)	310 ft (94,5 m)
4	16,900 lb (7666 kg)	8,000 lb (3629 kg)	120 ft (36,6 m)	430 ft (131,1 m)
5	15,800 lb (7167 kg)	7,500 lb (3402 kg)	128 ft (39,0 m)	558 ft (170,1 m)
6	14,800 lb (6713 kg)	7,000 lb (3175 kg)	136 ft (41,5 m)	694 ft (211,5 m)

*Refer to Line Pulls and Reeving Information table for max. lifting capacity of wire rope.

Working Area Diagram

Diagram for lifting on tires



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

SPECIFICATIONS

Superstructure



Boom

39.2 ft – 155.1 ft (11.9 m – 47 m) five-section, sequenced synchronized, full-power boom with three operator selectable modes of extension and retraction. Any mode can be enabled or disabled to offer all modes or limited mode depending on user or application usage. Maximum tip height: 164 ft (50 m).



Manual bi-fold swingaway extension*

33 ft – 56 ft (10.1 m – 17.1 m) bi-fold lattice swingaway extension. Offsettable at 0°, 25°, and 45°. Stows alongside base boom section. Maximum tip height: 220 ft (67 m).



Boom nose

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



Boom elevation

One double-acting hydraulic cylinder with integral holding valve provides elevation from -3° to +80°.



Crane Control System (CCS) 1+

Rated Capacity Limiter (RCL) with 12 in. (30.5 cm) graphical display with operation via touch screen or the armrest mounted jog dial keypad. 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 displays 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's 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. Driving mode provides steering indication, fore/aft as well as side to side slope indication and travel speed.



Counterweight

Standard 17,500 lb (7938 kg) one-piece counterweight, pinned to superstructure.

*Optional 20,500 lb (9299 kg) one-piece counterweight, pinned to superstructure.

*Optional 3000 lb (1360 kg) two additional pieces of counterweight, for a total of 9299 kg (20,500 lb) of counterweight pinned to the superstructure.

*Optional hydraulic counterweight installation and removal system with superstructure controls.



Cab

Operator-controlled 20° hydraulic cab tilt, full vision; all steel, galvanealed construction with acoustical lining and tinted safety glass throughout. Deluxe seat with electronic seat controls and 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 LED work lights, and three camera package (rear-view, right side and hoists).



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.



Hoist (main and optional auxiliary hoist)

Equipped with grooved drum, piston motor, planetary gear and multiple disc brake. Electronic hoist drum rotation indicator alerts operator of hoist movement. Third wrap indicator with hoist function cut-out, hoist cable follower, hoist access platform and hoist camera are standard.

Maximum hoist single line pull: 1st layer: 21,300 lb (9662 kg)

3rd layer: 18,100 lb (8210 kg)

5th layer: 15,800 lb (7167 kg)

Maximum permissible single line pull: 17,160 lb (7784 kg) with 35 x 7 class rope

Maximum hoist single line speed (no load): 543 ft/min (165.5 m/min)

Rope construction: 35 x 7 rotation – resistant

Rope diameter: 3/4 in (19 mm)

Rope length: Main hoist: 580 ft (177 m) Aux. hoist: 452 ft (138 m)

Maximum usable rope: 702 ft (214 m) 6 layers

* Denotes optional equipment

SPECIFICATIONS

Carrier



Chassis

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



Outrigger system

Four hydraulic telescoping two-stage double box beam outriggers with inverted jacks and integral holding valves. Three position settings, 0%, 50%, and fully extended. Outrigger Monitoring System (OMS) with in-cylinder sensors. Outrigger beam position shown on RCL display. Polymer outrigger floats 23.6 in (600 mm) diameter. Maximum outrigger pad load: 93,000 lb (42 547 kg).



Outrigger controls

Main controls and digital level shown on operating display in cab. Extension and retraction are through the CCS system. Includes automatic leveling feature.



Hydraulic system

Two main pumps variable displacement piston and single gear with a combined output capacity of 107 gal/min (406 L/min). Maximum operating pressure: 4000 psi (276 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 hydraulic motor driven fan / air to oil. System pressure test ports.



Engine (Tier 4 Final/Stage V)

Cummins B6.7L diesel engine with after-treatment system. Six-cylinder, turbo-charged and water cooled engine. 260 HP (194 kw) at 2,500 rpm. Maximum torque: 850 lb-ft (1152 Nm) 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 water cooled engine. 260 HP (194 kw) at 2,500 rpm. Maximum torque: 850 lb-ft (1152 Nm) 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

70 gal (266 L)



Transmission

Rangeshift with six forward and six reverse speeds. (Three speeds high and three speeds low). Front axle disconnect for 4 x 2 drive.



Axles

FRONT: Drive / steer with differential and planetary reduction hubs rigid mounted to frame.

REAR: Drive / steer with differential and planetary reduction hubs pivot mounted to frame. Automatic full hydraulic lockouts on rear axle permits 8.5 in (215 mm) of oscillation only with boom centered over the front.



Brakes

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



Steering

Fully independent power steering. 4 steering modes, front only, rear only, coordinated and crab with site steering via steering wheel. Steering indication shown via graphical display in cab.



Tires

23.5 x 25 – 36 bias ply rating.



Electrical system

Two 12 V maintenance-free batteries with disconnect. 24 V system / 24 V lighting.



Lighting

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



Maximum Drive Speed

21 mph (33,8 km/h) with maximum counterweight.



Gradeability (theoretical)

126% to drive train stall based on 46 611 kg (102,760 lb) GVW with 23.5 x 25 tires, maximum counterweight, auxiliary hoist, and bi-fold extension.

* Denotes optional equipment



SPECIFICATIONS

Miscellaneous standard equipment

Flat aluminum decking, dual rear view mirrors, hook block tie-down, electronic back-up alarm, covered deck storage compartment, hot water cab heater / defroster, cab air conditioner, hour meter, A/V warning system, combination lift/tie-down/towing lugs, coolant sight level indicator, hoist access platform and storage box on left side of carrier.

Optional equipment

- **Auxiliary Hoist Package:** Includes auxiliary hoist with electronic hoist drum rotation indicator, third wrap indicator with hoist function cut-out, 452 ft (138 m) of $\frac{3}{4}$ in (19 mm) of 35 x 7 class rotation resistant wire rope.
- **Auxiliary Lighting and Convenience Package:** Includes superstructure-mounted amber flashing beacon, dual base boom-mounted LED work lights, controlled from cab and decking storage box mat.
- 33 ft – 56 ft (10.1 m – 17.1 m) Manual bi-fold swingaway extension
- 20,500 lb (9299 kg) maximum counterweight
- 360° Positive swing lock
- Rear pintle hitch
- Cab-controlled cross axle differential locks (front and rear)
- Wireless wind speed indicator
- Boom mounted, boom position indicator light
- Vertical RCL light tower
- Auxiliary oil cooler
- Automatic lubrication of superstructure
- Swing alarm
- Superstructure lighting package
- Cribbing storage compartment w/ four cribbing mats
- -20F/-29C cold weather package
- -40F/-40C arctic weather package
- Emergency stop buttons on each side of carrier
- Second beacon light
- Refinery package
- MAXbase - variable outrigger positioning system
- Bluetooth / AM / FM radio
- Heated Seat



NOTES

The Manitowoc Company, Inc.

Regional headquarters

Americas

Milwaukee, Wisconsin, USA
Tel: +1 414 760 4600

Shady Grove, Pennsylvania, USA
Tel: +1 717 597 8121

Europe and Africa

Dardilly, France - TOWERS
Tel: +33 (0) 4 72 18 20 20

Wilhelmshaven, Germany - MOBILE
Tel: +49 (0) 4421 294 0

APAC

Shanghai, China
Tel: +86 21 6457 0066

Singapore
Tel: +65 6264 1188

Middle East and India

Dubai, UAE
Tel: +971 4 8862677

© 2024 The Manitowoc Company, Inc.
Form No. GRT780 PG
Part No. 24----/.025M/0924

This document is non-contractual. Constant improvement and engineering progress make it necessary that we reserve the right to make specification, equipment, and price changes without notice. Illustrations shown may include optional equipment and accessories and may not include all standard equipment.



manitowoc.com