



Grove Manitowoc National Crane Potain



Grove TMS700E

Product Guide



Features

- 50 t or 55 t (50 USt or 60 USt) capacity
- 11 m – 33,5 m (36 ft – 110 ft) four-section, full power sequenced synchronized boom
- 10,1 m – 17 m (33 ft – 56 ft) offsettable bi-fold lattice swingaway extension
- Optional 6,1 m (20 ft) or 12,2 m (40 ft) swingaway extension inserts
- Grove MEGAFORM™ boom
- Up to 7484 kg (16,500 lb) hydraulically installed and removed counterweight

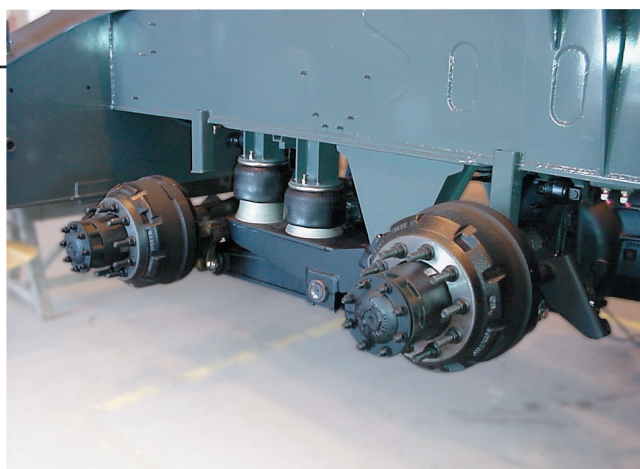




Features

Swingaway extension inserts

Optional 6,1 m (20 ft) or 12,2 m (40 ft) swingaway extension inserts offer excellent capacities with an unprecedented tip height of up to 212 ft.

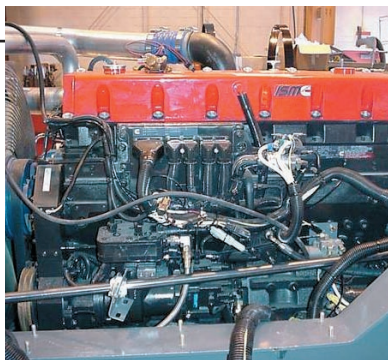


Suspension system

Standard front and rear air ride suspension provides a comfortable ride at maximum speed of 105 km/h (65 mph).

Cummins diesel carrier engine

Cummins ISM 450 diesel carrier engine delivers the horsepower and torque needed to negotiate tough job sites and achieve highway travel speeds.



MEGAFORM™ boom

The 11 m – 33,5 m (36 ft – 110 ft) four-section full power sequenced synchronized MEGAFORM™ boom is designed for maximum vertical and lateral strength.





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Specifications

Superstructure



Boom

11 m – 33,5 m (36 ft – 110 ft) four (4) section, full power sequenced synchronized boom.

Maximum tip height: 35,9 m (118 ft).



Folding lattice extension

10,1 m – 17,1 m (33 ft – 56 ft) folding lattice swingaway extension offsettable at 0°, 25° or 45°. Stows alongside base boom section.

Maximum tip height: 52,6 m (172.5 ft).



*Lattice extensions

Two (2) 6,1 m (20 ft) lattice extensions used with the swingaway extension to increase the length to 23,2 m (76 ft) or 29,3 m (96 ft).

Maximum tip height: 64,6 m (212 ft).



Boom nose

Quick reeving type boom nose with 3 nylatron sheaves (4 for 60 ton rating) mounted on heavy duty tapered roller bearings with removable pin-type rope guards. Removable 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 78°.



Load moment and anti-two block system

Standard “Graphics Display” load moment and anti-two block system with audio-visual warning and control lever lockout. These systems provide electronic display of boom angle, boom length, radius, tip height, relative load moment, maximum permissible load, load indication and warning of impending two-block condition. The standard “Work Area Definition System” allows the operator to pre-select and define safe working areas. If the crane approaches the pre-set limits, audio-visual warnings aid the operator in avoiding job-site obstructions.



Cab

High visibility, all steel cab with acoustical lining and tinted safety glass throughout. Deluxe seat with armrest mounted hydraulic single axis controls. Dash panel incorporates gauges for all engine functions. Other standard features include: sliding side and rear windows, hot water heat, electric windshield wash/wipe, circulating air fan, sliding skylight with sunscreen and electric skylight wiper, fire extinguisher, cup holder, air conditioning.



Swing

Planetary swing with foot applied multi-disc wet brake. Spring applied, hydraulically released parking brake. Two position plunger type and 360° mechanical house locks operated from cab.

Maximum speed: 2.0 rpm.



Counterweight

4990 kg (11,000 lb) consisting of (2) 2495 kg ([2] 5500 lb) sections. *Optional “Heavy Lift” package consisting of (1) additional 2495 kg (5500 lb) section, for a total of 7484 kg (16,500 lb). Hydraulic installation/removal.



Hydraulic system

Four main gear pumps with a combined capacity of 513 L/m (135.4 gpm). Individual pressure compensated valve banks. Maximum operating pressure: 27,6 Mpa (4000 psi).

Return line type filter with full flow by-pass protection and service indicator. Replaceable cartridge with beta rating of 5/12/16. 643 L (170 gal) reservoir. Remote mounted oil cooler with thermostatically controlled electric motor driven fan.



Specifications

Superstructure, continued



Hoist specifications main and auxiliary hoists-model HP30A-19G

Planetary reduction with integral automatic brake, electronic hoist drum rotation indicator, and hoist drum cable follower. Grooved drum.

Single line pull:	1st layer:	8226 kg (18,134 lb)
	3rd layer:	6994 kg (15,420 lb)
	5th layer:	6084 kg (13,413 lb)

Maximum single line speed:	162 m/min (531 fpm)
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Maximum permissible line pull:	7620 kg (16,800 lb) with standard 6 x 37 class rope
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7620 kg (16,800 lb)
with optional 35 x 7
class rope

Rope diameter:	19 mm (.75 in)
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Rope length:	152 m (500 ft)
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Rope type:	6 x 36 EIPS IWRC special flexible Optional 35 x 7 rotation resistant
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Maximum rope stowage:	256 m (841 ft)
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Carrier



Chassis

Triple box section, 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 with inverted jack and integral holding valves. Quick release type steel outrigger floats 610 mm (24 in) diameter. Three position setting with fully extended, intermediate (50%) extended and fully retracted capacities.



Outrigger controls

Located in the superstructure cab and both sides of chassis. Level indicator at each control station.



Engine

Cummins ISM 450, 10,8 L diesel (On Highway EPA Certified) six cylinders, after cooled, 336 kW (450 bhp) @ 2000 rpm. Maximum torque 2102 Nm (1550 ft-lb) @ 1200 rpm.

Fuel requirement — Maximum of 15 ppm sulfur content (ultra low sulfur diesel).

Equipped with engine compression brake, block heater, cold start aid (less canister) and audio-visual engine distress system.



*Engine (required for sale outside North America)

Cummins QSM 402, 10,8 L diesel (Off Highway EPA Certified) six cylinders, after cooled 300 kW (402 bhp) @ 1800 rpm. Maximum torque 1898 Nm (1400 ft lb) @ 1400 rpm.

Fuel requirement — Maximum of 5000 ppm sulfur content.

Equipped with engine compression brake, block heater, cold start aid (less canister) and audio-visual engine distress system.



Fuel tank capacity

379 L (100 gal).



Transmission

Roadranger 11 speeds forward, 3 reverse.



Specifications

Carrier, continued

Drive

Drive 8 x 4 x 4.



Steering

Front axles, single circuit, mechanical steering with hydraulic assist.



Axles

Front: (2) beam-type steering axles, 2,1 m (83.3 in) track.

Rear: (2) single reduction drive axles, 1,9 m (75.1 in) track. Inter-axle differential lock.



Brakes

S-cam, dual system operating on all wheels. Spring applied air released parking brake acting on rear axles.



Suspension

Front: Walking beam with air bags and shock absorbers.

Rear: Walking beam with air bags and shock absorbers.



Tires

Front: 445/65R 22.5, tubeless, mounted on aluminum disc wheels.

Rear: 315/80R 22.5, tubeless, mounted on aluminum disc wheels, steel inner.



Lights

Full lighting package including turn indicators, head, tail, brake, and hazard warning lights.



Cab

One man design, all steel fabricated with acoustical lining and tinted safety glass throughout. Deluxe fabric covered, fully adjustable air ride seat. Complete driving controls and engine instrumentation including tilt telescope steering wheel, tachometer, speedometer, voltmeter, water temp., oil pressure, fuel level, air pressure gauge with A/V warning and engine high temp./low oil pressure A/V warning. Other standard items include hot water heater/defroster, electric windshield wash/wipe, fire extinguisher, seat belt, air conditioning, air horn and door lock.



Electrical system

Two (2) 12V batteries. 12V lighting/starting. Battery disconnect standard equipment.



Maximum speed

104 km/h (65 mph)



Gradeability (theoretical)

70%

Miscellaneous standard equipment

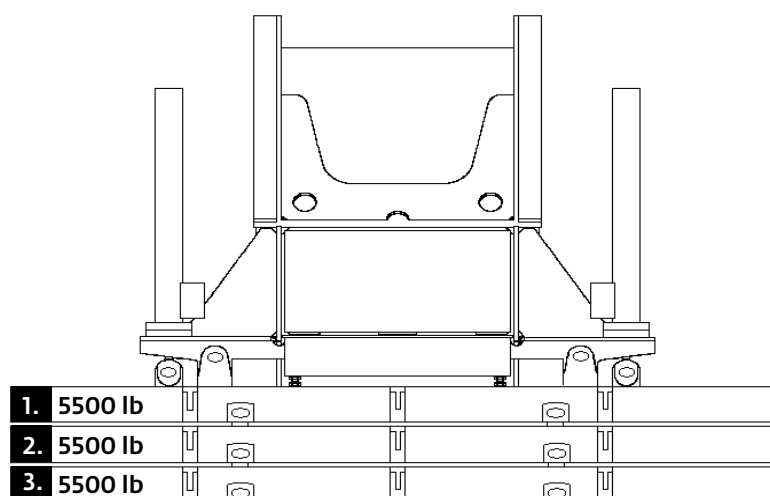
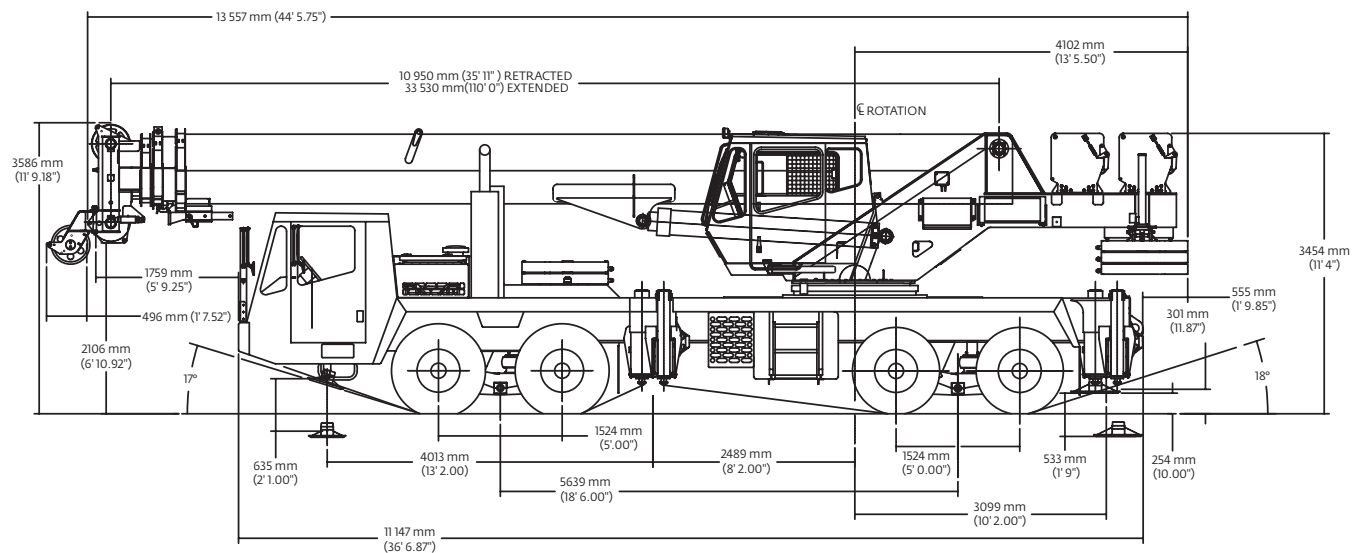
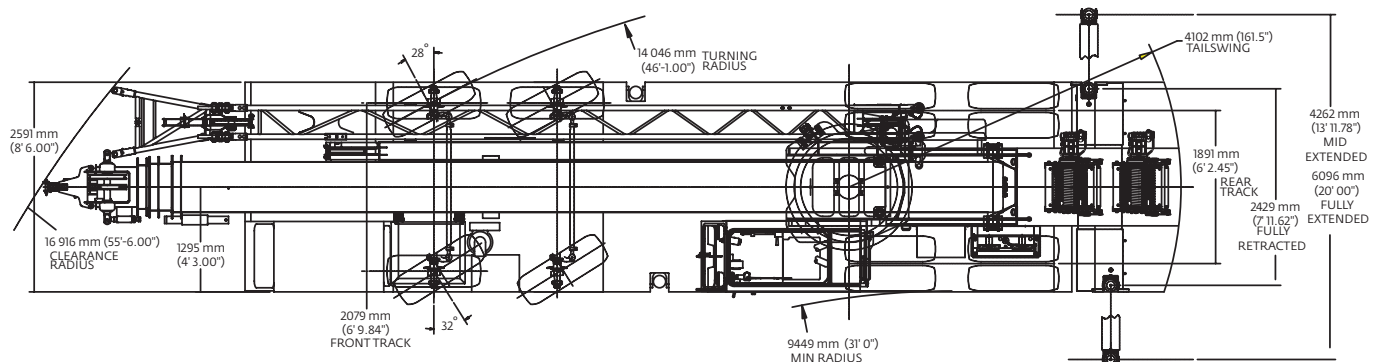
Aluminum fenders with rear storage compartments; dual rear view mirrors; electronic back-up alarm; pump disconnect; tire inflation kit; air cleaner restriction indicator; headache ball stowage; chrome package which includes aluminum wheels, and LMI event recorder.

*Optional equipment

- ▶ Auxiliary Lighting and Convenience Package — includes amber strobe for superstructure and carrier cabs, dual boom base mounted floodlights, and LMI light bar (in cab)
- ▶ Trailing Boom Package — includes trailer air and electrical disconnects, no spin differential and trailing boom kit (less dolly)
- ▶ Wind speed indicator
- ▶ Hookblocks
- ▶ Rear pintle hook
- ▶ Cross axle differential locks
- ▶ Winter front radiator cover
- ▶ Aluminum outrigger pads
- ▶ Tow cable
- ▶ LMI calibration for on rubber



Dimensions

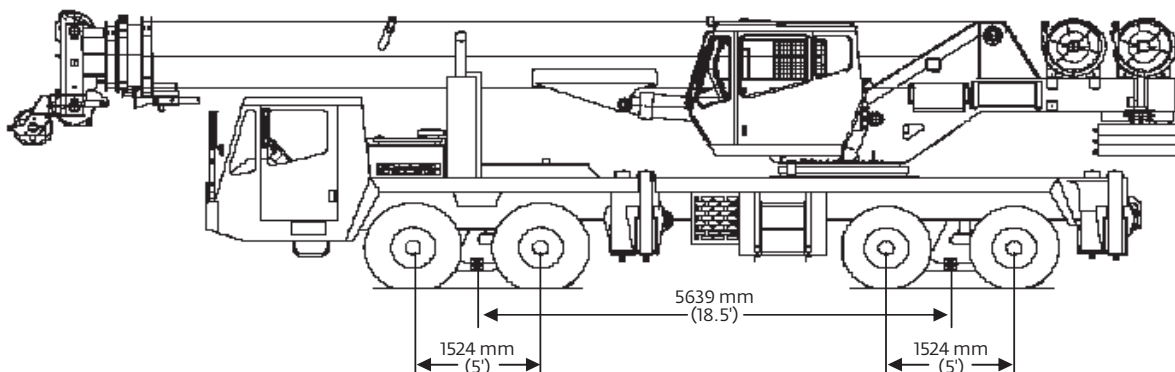


	1	2	3
Counterweight configuration			
Zero			
2495 kg (5500 lb)	●		
4990 kg (11,000 lb)	●	●	
7485 kg (16,500 lb)	●	●	●



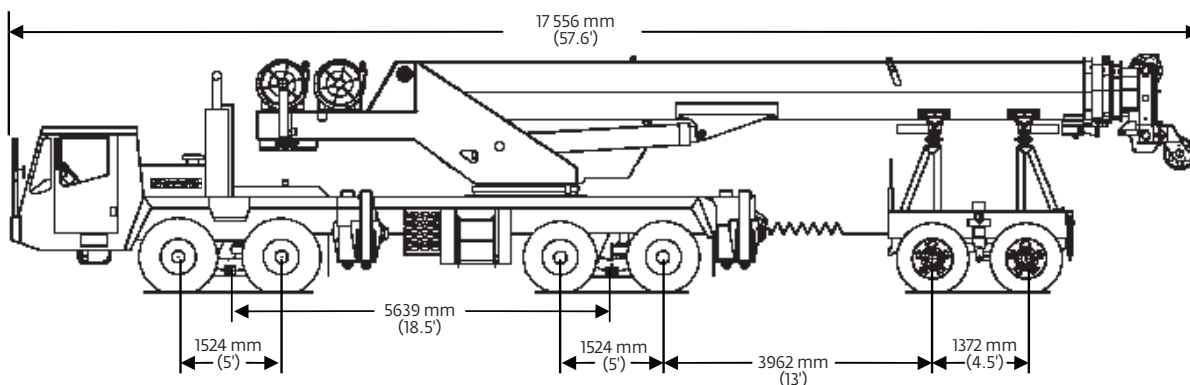
Travel proposals

Boom over front



Unit configuration kg (lb)	Gross		Front		Rear	
Basic machine including 33,5 m (110 ft) main boom, main and auxiliary hoists with cable, driver and no counterweight.	33 634	(74,149)	16 664	(36,738)	16 970	(37,411)
Additions:						
2495 kg (5500 lb) counterweight pinned on superstructure	2495	(5500)	1004	(-2214)	3499	(7714)
4990 kg (11,000 lb) counterweight pinned on superstructure	4990	(11,000)	2009	(-4428)	6998	(15,428)
7485 kg (16,500 lb) counterweight pinned on superstructure	7484	(16,500)	3013	(-6642)	10 497	(23,142)
2495 kg (5500 lb) counterweight stowed on carrier deck	2495	(5500)	2128	(4692)	367	(808)
4990 kg (11,000 lb) counterweight stowed on carrier deck	4990	(11,000)	4257	(9384)	733	(1616)
Swingaway carrier brackets	150	(330)	128	(282)	22	(48)
10,1 m (33 ft) swingaway	785	(1730)	895	(1972)	-110	(-242)
10,1 m – 17,1 m (33 ft – 56 ft) swingaway	1125	(2480)	1135	(2502)	-10	(-22)
Auxiliary boom nose	59	(130)	114	(251)	-55	(-121)
35 t (40 USt) hookblock stowed at bumper	363	(800)	557	(1229)	-195	(-429)
45 t (50 USt) hookblock stowed at bumper	454	(1000)	697	(1536)	-243	(-536)
55 t (60 USt) hookblock stowed at bumper	567	(1250)	871	(1920)	-304	(-670)
7,5 t (8.3 USt) headache ball stowed in trough	168	(371)	240	(530)	-72	(-159)
Air conditioning superstructure cab	129	(285)	5	(10)	125	(275)
Air conditioning chassis cab	40	(88)	52	(115)	-12	(-27)

Boom over front



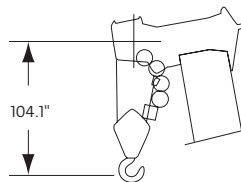
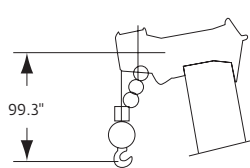
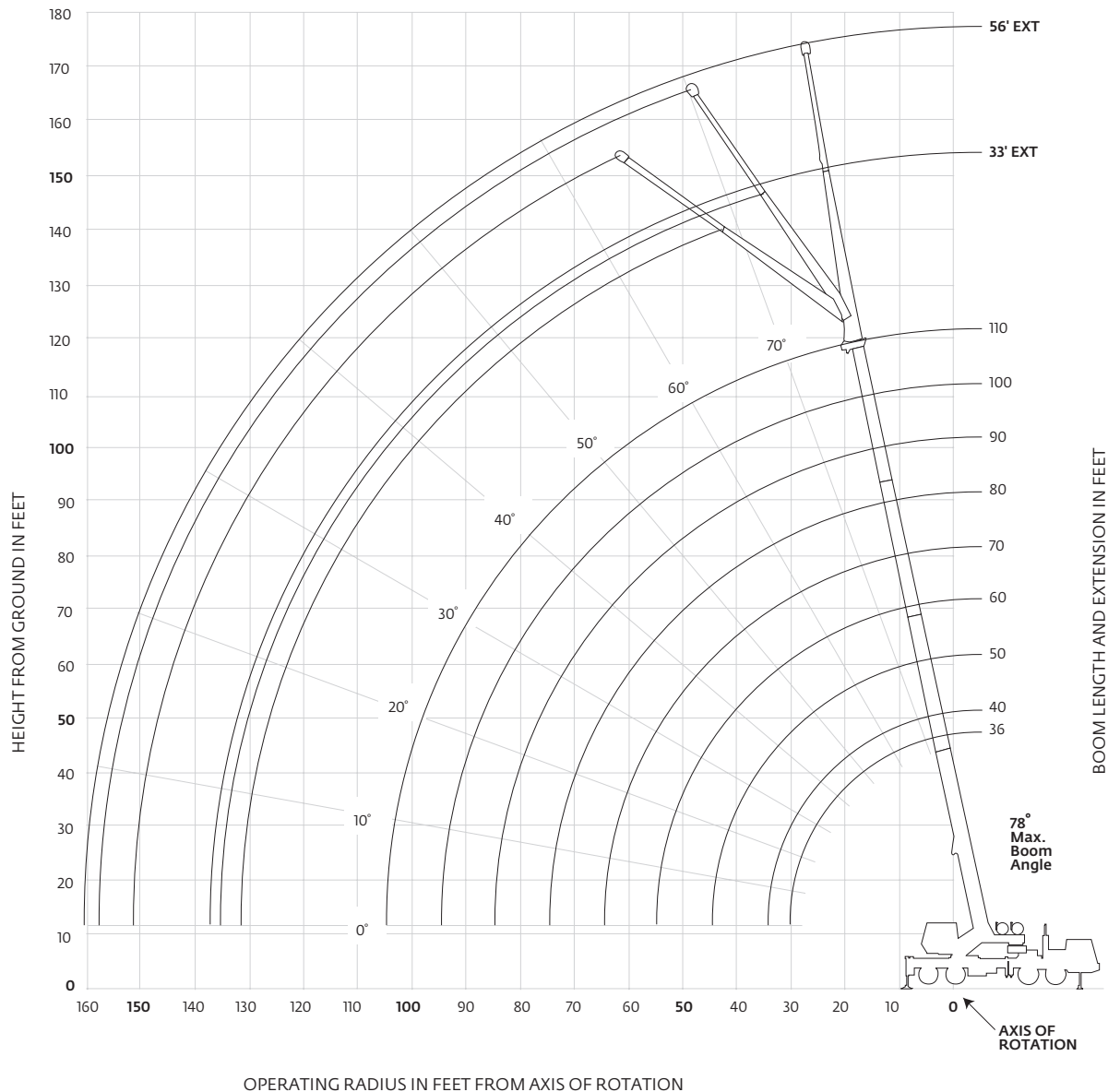
Unit configuration kg (lb)	Gross		Front		Rear		Dolly	
Basic machine including 33,5 m (110 ft) main boom, main and auxiliary hoists with cable, driver, no counterweight and 6000 lb (2722 kg) tandem axle dolly.	36 357	(80,152)	15 020	(33,113)	13 173	(29,041)	8164	(17,998)
Additions:								
2495 kg (5500 lb) counterweight stowed on carrier deck.	2495	(5500)	2128	(4692)	367	(808)	0	(0)
4990 kg (11,000 lb) counterweight stowed on carrier deck.	4990	(11,000)	4257	(9384)	733	(1616)	0	(0)
10,1 m (33 ft) swingaway with brackets.	934	(2060)	107	(236)	91	(201)	936	(1623)
10,1 m – 17,1 m (33 ft – 56 ft) swingaway with brackets.	1275	(2810)	194	(427)	165	(363)	916	(2020)
Auxiliary boom nose.	59	(130)	-11	(-24)	-9	(-20)	79	(174)
35 t (40 USt) hookblock hanging at boom nose.	363	(800)	-57	(-126)	-49	(-107)	469	(1033)
45 t (50 USt) hookblock hanging at boom nose.	454	(1000)	-71	(-157)	-61	(-134)	586	(1291)
55 t (60 USt) hookblock hanging at boom nose.	567	(1250)	-89	(-197)	-76	(-167)	732	(1614)
7,5 t (8.3 USt) headache ball hanging at boom nose.	168	(371)	-26	(-58)	-23	(-50)	217	(479)



Working range

36 ft – 110 ft main boom + 33 ft – 56 ft lattice extension

(BOOM DEFLECTION NOT SHOWN)



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 charts



36 ft – 110 ft



16,500 lb

100%
20 ft

360°



#0001

Feet	Main boom length in feet								
	35	40	50	**60	70	80	90	100	110
10	120,000 (69)	84,400 (72)	80,200 (76)	*62,500 (78)	—	—	—	—	—
12	100,000 (65.5)	84,400 (68.5)	80,200 (73.5)	62,500 (77)	*36,800 (78)	—	—	—	—
15	87,300 (59.5)	82,700 (63.5)	80,200 (70)	61,000 (74)	36,800 (76.5)	*36,800 (78)	*31,000 (78)	—	—
20	68,250 (49)	65,000 (55)	64,300 (63.5)	50,650 (69)	36,800 (72)	36,800 (75)	31,000 (77)	*29,100 (78)	*24,000 (78)
25	54,900 (36)	53,100 (45)	52,000 (56.5)	41,800 (63.5)	36,800 (68)	34,000 (71)	30,000 (73.5)	27,000 (76)	24,000 (77.5)
30	—	39,350 (31.5)	38,700 (48.5)	37,850 (57.5)	33,400 (63)	29,000 (67)	25,300 (70.5)	24,200 (72.5)	22,000 (75)
35	—	—	29,400 (40)	28,400 (51.5)	28,700 (58)	25,000 (63)	22,200 (67)	21,750 (69.5)	20,000 (72)
40	—	—	23,050 (28)	22,100 (45)	22,750 (53)	22,000 (59)	20,200 (63)	19,000 (66.5)	18,500 (69)
45	—	—	—	17,550 (37)	18,250 (47.5)	18,800 (54.5)	17,800 (59.5)	17,300 (63)	17,300 (66.5)
50	—	—	—	14,050 (26.5)	14,850 (41)	15,600 (49.5)	16,000 (55.5)	16,000 (60)	16,000 (63.5)
55	—	—	—	—	12,200 (33.5)	12,950 (44.5)	13,650 (51)	14,100 (56.5)	14,100 (60)
60	—	—	—	—	10,050 (24)	10,850 (38.5)	11,600 (47)	12,000 (52.5)	12,200 (57)
65	—	—	—	—	—	9110 (31.5)	9900 (42)	10,250 (48.5)	10,600 (53.5)
70	—	—	—	—	—	7650 (22.5)	8450 (36.5)	8820 (44.5)	9000 (50)
75	—	—	—	—	—	—	7210 (30)	7580 (40)	7800 (46.5)
80	—	—	—	—	—	—	6150 (21.5)	6490 (34.5)	6600 (42.5)
85	—	—	—	—	—	—	—	5550 (28.5)	5800 (38)
90	—	—	—	—	—	—	—	4730 (20.5)	5000 (33)
95	—	—	—	—	—	—	—	—	4270 (27.5)
100	—	—	—	—	—	—	—	—	3600 (19.5)
Minimum boom angle (deg) for indicated length (no load)									
Maximum boom length (ft.) at 0 degree boom angle (no load)									
NOTE: () Boom angles are in degrees. #LMI operating code. Refer to LMI manual for instructions. *This capacity is based on maximum boom angle.									
Lifting capacities at zero degree boom angle									
Main boom length in feet									
Boom angle	35	40	50	**60	70	80	90	100	110
0°	29,050 (29.8)	24,450 (34.2)	17,050 (44.2)	11,600 (54.6)	8570 (64.2)	6610 (74.2)	5380 (84.2)	4120 (94.2)	3110 (104.2)
NOTE: () Reference radii in feet.									
**60 ft boom length is with inner-mid extended and outer-mid & fly retracted.									

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36 ft – 110 ft



16,500 lb

100%
20 ft

Over rear



#0001

Feet	Main boom length in feet								
	35	40	50	**60	70	80	90	100	110
10	120,000 (69)	84,400 (72)	80,200 (76)	*62,500 (78)	—	—	—	—	—
12	100,000 (65.5)	84,400 (68.5)	80,200 (73.5)	62,500 (77)	*36,800 (78)	—	—	—	—
15	87,300 (59.5)	82,700 (63.5)	80,200 (70)	61,000 (74)	36,800 (76.5)	*36,800 (78)	*31,000 (78)	—	—
20	68,250 (49)	65,000 (55)	64,300 (63.5)	50,650 (69)	36,800 (72)	36,800 (75)	31,000 (77)	*29,100 (78)	*24,000 (78)
25	55,650 (36)	53,100 (45)	52,000 (56.5)	41,800 (63.5)	36,800 (68)	34,000 (71)	30,000 (73.5)	27,000 (76)	24,000 (77.5)
30	—	44,100 (31.5)	39,600 (48.5)	38,000 (57.5)	33,400 (63)	29,000 (67)	25,300 (70.5)	24,200 (72.5)	22,000 (75)
35	—	—	32,400 (40)	29,750 (51.5)	28,700 (58)	25,000 (63)	22,200 (67)	21,750 (69.5)	20,000 (72)
40	—	—	26,050 (28)	25,500 (45)	23,600 (53)	22,000 (59)	20,200 (63)	19,000 (66.5)	18,500 (69)
45	—	—	—	20,000 (37)	19,700 (47.5)	18,800 (54.5)	17,800 (59.5)	17,300 (63)	17,300 (66.5)
50	—	—	—	17,850 (26.5)	16,800 (41)	16,500 (49.5)	16,000 (55.5)	16,000 (60)	16,000 (63.5)
55	—	—	—	—	14,900 (33.5)	14,650 (44.5)	14,100 (51)	14,100 (56.5)	14,100 (60)
60	—	—	—	—	13,050 (24)	12,800 (38.5)	12,200 (47)	12,200 (52.5)	12,200 (57)
65	—	—	—	—	—	11,450 (31.5)	10,800 (42)	10,600 (48.5)	10,600 (53.5)
70	—	—	—	—	—	10,100 (22.5)	9450 (36.5)	9000 (44.5)	9000 (50)
75	—	—	—	—	—	—	8290 (30)	7800 (40)	7800 (46.5)
80	—	—	—	—	—	—	7140 (21.5)	6800 (34.5)	6600 (42.5)
85	—	—	—	—	—	—	—	5800 (28.5)	5800 (38)
90	—	—	—	—	—	—	—	5000 (20.5)	5000 (33)
95	—	—	—	—	—	—	—	—	4440 (27.5)
100	—	—	—	—	—	—	—	—	3880 (19.5)
Minimum boom angle (deg) for indicated length (no load)									
Maximum boom length (ft.) at 0 degree boom angle (no load)									
NOTE: () Boom angles are in degrees. #LMI operating code. Refer to LMI manual for instructions. *This capacity is based on maximum boom angle.									
Lifting capacities at zero degree boom angle									
Main boom length in feet									
Boom angle	35	40	50	**60	70	80	90	100	110
0°	29,050 (29.8)	24,450 (34.2)	17,050 (44.2)	11,950 (54.6)	9640 (64.2)	7810 (74.2)	6390 (84.2)	4770 (94.2)	3350 (104.2)
NOTE: () Reference radii in feet.									
**60 ft boom length is with inner-mid extended and outer-mid & fly retracted.									

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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 charts

 36 ft – 110 ft
  33 ft – 56 ft
  16,500 lb
  100% 20 ft
  360°

Pounds						
Feet	33 ft length			56 ft length		
	#0021 0° Offset	#0022 25° Offset	#0023 45° Offset	#0041 0° Offset	#0042 25° Offset	#0043 45° Offset
30	12,900 (78)					
35	12,900 (76)			*8330 (78)		
40	12,900 (74)	*10,850 (78)		8330 (77.5)		
45	12,900 (72)	10,450 (77)	*7410 (78)	8330 (76)		
50	12,100 (70)	10,000 (74.5)	7200 (77.5)	8330 (74.5)		
55	11,100 (68)	9220 (72.5)	6990 (75)	8250 (73)	*5300 (78)	
60	10,100 (66)	8550 (70.5)	6800 (72.5)	7540 (71)	5140 (77)	
65	9130 (63.5)	7930 (68)	6650 (70.5)	7160 (69)	5100 (75)	*3860 (78)
70	8460 (61.5)	7380 (65.5)	6490 (68)	6820 (67.5)	5100 (73)	3790 (77.5)
75	7840 (59)	6900 (63)	6370 (65.5)	6300 (65.5)	4800 (71)	3660 (75)
80	7230 (56.5)	6470 (60.5)	6110 (62.5)	5810 (63.5)	4580 (69)	3550 (73)
85	6470 (54)	6070 (58)	5780 (60)	5370 (61.5)	4470 (67.5)	3450 (71)
90	5670 (51)	5720 (55.5)	5480 (57)	4980 (59.5)	4330 (65.5)	3410 (68.5)
95	4970 (48.5)	5400 (52.5)	5200 (54)	4630 (57)	4070 (63)	3300 (66.5)
100	4350 (45.5)	4840 (49.5)	4950 (51)	4320 (55)	3830 (61)	3260 (64)
105	3790 (42.5)	4210 (46.5)	4470 (47.5)	4040 (52.5)	3620 (58.5)	3220 (62)
110	3290 (39.5)	3640 (43)		3760 (50.5)	3410 (56)	3180 (59.5)
115	2830 (36)	3130 (39.5)		3290 (48)	3230 (53.5)	3060 (56.5)
120	2420 (32)	2660 (35)		2860 (45.5)	3050 (51)	2940 (53.5)
125	2040 (27.5)	2240 (30.5)		2470 (42.5)	2890 (48.5)	2800 (50.5)
130	1700 (22)			2120 (39.5)	2590 (45.5)	
135				1790 (36.5)	2200 (42.5)	
140				1480 (33)	1840 (38.5)	
145				1200 (29.5)	1500 (34.5)	
No load stability data						
Min. boom angle for indicated length	21°	25°	45°	28°	28°	45°
Max. boom length at 0° boom angle	100 ft			90 ft		

NOTE: () Boom angles are in degrees.

AG-829-101337

*This capacity is based upon maximum boom angle.

#LMI operating code. Refer to LMI manual for instructions.

NOTES:

1. All capacities above the bold line are based on structural strength of boom extension.
2. 33 ft and 56 ft boom extension lengths may be used for single line lifting service.
3. Radii listed are for a fully extended boom with the boom extension erected. For main boom lengths less than fully extended, the rated loads are determined by boom angle. Use only the column which corresponds to the boom extension length and offset for which the machine is configured. For boom angles not shown, use the rating of the next lower boom angle.
4. 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.
5. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
6. Capacities listed are with outriggers properly extended and vertical jacks set only.

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 charts



36 ft – 110 ft



11,000 lb

100%
20 ft

360°



#0101

Feet	Main boom length in feet								
	35	40	50	**60	70	80	90	100	110
10	120,000 (69)	84,400 (72)	80,200 (76)	*62,500 (78)	—	—	—	—	—
12	100,000 (65.5)	84,400 (68.5)	80,200 (73.5)	62,500 (77)	*36,800 (78)	—	—	—	—
15	87,300 (59.5)	82,700 (63.5)	80,200 (70)	61,000 (74)	36,800 (76.5)	*36,800 (78)	*31,000 (78)	—	—
20	68,250 (49)	65,000 (55)	64,300 (63.5)	50,650 (69)	36,800 (75)	36,800 (77)	31,000 (77)	*29,100 (78)	*24,000 (78)
25	48,550 (36)	48,350 (45)	47,650 (56.5)	41,800 (63.5)	36,800 (68)	34,000 (71)	30,000 (73.5)	27,000 (76)	24,000 (77.5)
30	—	34,300 (31.5)	33,650 (48.5)	32,800 (57.5)	33,400 (63)	29,000 (67)	25,300 (70.5)	24,200 (72.5)	22,000 (75)
35	—	—	25,250 (40)	24,350 (51.5)	25,000 (58)	25,000 (63)	22,200 (67)	21,750 (69.5)	20,000 (72)
40	—	—	19,500 (28)	18,700 (45)	19,350 (53)	20,050 (59)	20,200 (63)	19,000 (66.5)	18,500 (69)
45	—	—	—	14,650 (37)	15,350 (47.5)	16,050 (54.5)	16,750 (59.5)	17,300 (63)	17,300 (66.5)
50	—	—	—	11,550 (26.5)	12,350 (41)	13,050 (49.5)	13,750 (55.5)	14,300 (60)	14,850 (63.5)
55	—	—	—	—	9960 (33.5)	10,700 (44.5)	11,450 (51)	11,900 (56.5)	12,400 (60)
60	—	—	—	—	8040 (24)	8850 (38.5)	9590 (47)	10,000 (52.5)	10,400 (57)
65	—	—	—	—	—	7280 (31.5)	8070 (42)	8450 (48.5)	8830 (53.5)
70	—	—	—	—	—	5970 (22.5)	6760 (36.5)	7140 (44.5)	7480 (50)
75	—	—	—	—	—	—	5660 (30)	6020 (40)	6350 (46.5)
80	—	—	—	—	—	—	4710 (21.5)	5050 (34.5)	5370 (42.5)
85	—	—	—	—	—	—	—	4200 (28.5)	4510 (38)
90	—	—	—	—	—	—	—	3460 (20.5)	3750 (33)
95	—	—	—	—	—	—	—	—	3080 (27.5)
100	—	—	—	—	—	—	—	—	2480 (19.5)
Minimum boom angle (deg) for indicated length (no load)									
Maximum boom length (ft.) at 0 degree boom angle (no load)									
NOTE: () Boom angles are in degrees. #LMI operating code. Refer to LMI manual for instructions. *This capacity is based on maximum boom angle.									
Lifting capacities at zero degree boom angle									
Main boom length in feet									
Boom angle	35	40	50	**60	70	80	90	100	110
0°	29,050 (29.8)	24,450 (34.2)	16,000 (44.2)	9340 (54.6)	6710 (64.2)	5030 (74.2)	4020 (84.2)	2920 (94.2)	2030 (104.2)
NOTE: () Reference radii in feet.									
**60 ft boom length is with inner-mid extended and outer-mid & fly retracted.									

A6-829-101320



36 ft – 110 ft



11,000 lb

100%
20 ft

Over rear



#0101

Feet	Main boom length in feet								
	35	40	50	**60	70	80	90	100	110
10	120,000 (69)	84,400 (72)	80,200 (76)	*62,500 (78)	—	—	—	—	—
12	100,000 (65.5)	84,400 (68.5)	80,200 (73.5)	62,500 (77)	*36,800 (78)	—	—	—	—
15	87,300 (59.5)	82,700 (63.5)	80,200 (70)	61,000 (74)	36,800 (76.5)	*36,800 (78)	*31,000 (78)	—	—
20	68,250 (49)	65,000 (55)	64,300 (63.5)	50,650 (69)	36,800 (72)	36,800 (75)	31,000 (77)	*29,100 (78)	*24,000 (78)
25	52,900 (36)	52,700 (45)	52,000 (56.5)	41,800 (63.5)	36,800 (71)	34,000 (68)	30,000 (73.5)	27,000 (76)	24,000 (77.5)
30	—	41,750 (31.5)	39,600 (57.5)	38,000 (63.5)	33,400 (67)	29,000 (67)	25,300 (70.5)	24,200 (72.5)	22,000 (75)
35	—	—	32,400 (40)	29,750 (51.5)	28,700 (58)	25,000 (63)	22,200 (67)	21,750 (69.5)	20,000 (72)
40	—	—	26,050 (28)	25,500 (45)	23,600 (53)	22,000 (59)	20,200 (63)	19,000 (66.5)	18,500 (69)
45	—	—	—	20,000 (37)	19,700 (47.5)	18,800 (54.5)	17,800 (59.5)	17,300 (63)	17,300 (66.5)
50	—	—	—	16,650 (26.5)	16,800 (41)	16,500 (49.5)	16,000 (55.5)	16,000 (60)	16,000 (63.5)
55	—	—	—	—	14,500 (33.5)	14,650 (44.5)	14,100 (51)	14,100 (56.5)	14,100 (60)
60	—	—	—	—	12,100 (24)	12,800 (38.5)	12,200 (47)	12,200 (52.5)	12,200 (57)
65	—	—	—	—	—	10,950 (31.5)	10,800 (42)	10,600 (48.5)	10,600 (53.5)
70	—	—	—	—	—	9290 (22.5)	9450 (36.5)	9000 (44.5)	9000 (50)
75	—	—	—	—	—	—	8290 (30)	7800 (40)	7800 (46.5)
80	—	—	—	—	—	—	7140 (21.5)	6600 (34.5)	6600 (42.5)
85	—	—	—	—	—	—	—	5800 (28.5)	5800 (38)
90	—	—	—	—	—	—	—	5000 (20.5)	5000 (33)
95	—	—	—	—	—	—	—	—	4440 (27.5)
100	—	—	—	—	—	—	—	—	3800 (19.5)
Minimum boom angle (deg) for indicated length (no load)									
Maximum boom length (ft.) at 0 degree boom angle (no load)									
NOTE: () Boom angles are in degrees. #LMI operating code. Refer to LMI manual for instructions. *This capacity is based on maximum boom angle.									
Lifting capacities at zero degree boom angle									
Main boom length in feet									
Boom angle	35	40	50	**60	70	80	90	100	110
0°	29,050 (29.8)	24,450 (34.2)	17,050 (44.2)	11,950 (54.6)	9640 (64.2)	7810 (74.2)	6390 (84.2)	4770 (94.2)	3350 (104.2)
NOTE: () Reference radii in feet.									
**60 ft boom length is with inner-mid extended and outer-mid & fly retracted.									

A6-829-101321

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 charts

 36 ft – 110 ft
  33 ft– 56 ft
  11,000 lb
  100% 20 ft
  360°

Pounds						
Feet	33 ft length			56 ft length		
	#0121 0° Offset	#0122 25° Offset	#0123 45° Offset	#0141 0° Offset	#0142 25° Offset	#0143 45° Offset
30	12,900 (78)					
35	12,900 (76)			*8330 (78)		
40	12,900 (74)	*10,850 (78)		8330 (77.5)		
45	12,900 (72)	10,450 (77)	*7410 (78)	8330 (76)		
50	12,100 (70)	10,000 (74.5)	7200 (77.5)	8330 (74.5)		
55	11,100 (68)	9220 (72.5)	6990 (75)	8250 (73)	*5300 (78)	
60	10,100 (66)	8550 (70.5)	6800 (72.5)	7540 (71)	5140 (77)	
65	9130 (63.5)	7930 (68)	6650 (70.5)	7160 (69)	5100 (75)	*3860 (78)
70	7960 (61.5)	7380 (65.5)	6490 (68)	6820 (67.5)	5100 (73)	3790 (77.5)
75	6870 (59)	6900 (63)	6370 (65.5)	6300 (65.5)	4800 (71)	3660 (75)
80	5930 (56.5)	6470 (60.5)	6110 (62.5)	5810 (63.5)	4580 (69)	3550 (73)
85	5120 (54)	5880 (58)	5780 (60)	5370 (61.5)	4470 (67.5)	3450 (71)
90	4410 (51)	5070 (55.5)	5440 (57)	4960 (59.5)	4330 (65.5)	3410 (68.5)
95	3780 (48.5)	4350 (52.5)	4680 (54)	4310 (57)	4070 (63)	3300 (66.5)
100	3230 (45.5)	3710 (49.5)	4010 (51)	3730 (55)	3830 (61)	3260 (64)
105	2730 (42.5)	3140 (46.5)	3410 (47.5)	3210 (52.5)	3620 (58.5)	3220 (62)
110	2280 (39.5)	2630 (43)		2750 (50.5)	3410 (56)	3180 (59.5)
115	1870 (36)	2170 (39.5)		2330 (48)	3020 (53.5)	3060 (56.5)
120	1500 (32)	1750 (35)		1940 (45.5)	2550 (51)	2800 (53.5)
125	1170 (27.5)	1360 (30.5)		1590 (42.5)	2130 (48.5)	2330 (50.5)
130				1270 (39.5)	1740 (45.5)	
135					1390 (42.5)	
140					1060 (38.5)	

No load stability data

Min. boom angle for indicated length	25°	25°	45°	33°	36°	45°
Max. boom length at 0° boom angle		90 ft			80 ft	

NOTE: () Boom angles are in degrees.

A6-829-101338

*This capacity is based upon maximum boom angle.

#LMI operating code. Refer to LMI manual for instructions.

NOTES:

1. All capacities above the bold line are based on structural strength of boom extension.
2. 33 ft and 56 ft boom extension lengths may be used for single line lifting service.
3. Radii listed are for a fully extended boom with the boom extension erected. For main boom lengths less than fully extended, the rated loads are determined by boom angle. Use only the column which corresponds to the boom extension length and offset for which the machine is configured. For boom angles not shown, use the rating of the next lower boom angle.
4. 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.
5. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
6. Capacities listed are with outriggers properly extended and vertical jacks set only.

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

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Load charts



36 ft – 110 ft



5500 lb

100%
20 ft

360°



#0201

Feet	Main boom length in feet								
	35	40	50	**60	70	80	90	100	110
10	118,500 (69)	84,400 (72)	80,200 (76)	**62,500 (78)	—	—	—	—	—
12	100,000 (65.5)	84,400 (68.5)	80,200 (73.5)	62,500 (77)	*36,800 (78)	—	—	—	—
15	87,300 (59.5)	82,700 (63.5)	80,200 (70)	61,000 (74)	36,800 (76.5)	*36,800 (78)	*31,000 (78)	—	—
20	66,000 (49)	65,000 (55)	64,300 (63.5)	50,650 (69)	36,800 (72)	36,800 (75)	31,000 (77)	*29,100 (78)	*24,000 (78)
25	41,100 (36)	41,000 (45)	40,600 (56.5)	40,150 (63.5)	36,800 (68)	34,000 (71)	30,000 (73.5)	27,000 (76)	24,000 (77.5)
30	—	28,400 (31.5)	28,150 (48.5)	27,750 (57.5)	28,450 (63)	29,000 (67)	25,300 (70.5)	24,200 (72.5)	22,000 (75)
35	—	—	20,700 (40)	20,300 (51.5)	21,000 (58)	21,750 (63)	22,200 (67)	21,750 (69.5)	20,000 (72)
40	—	—	15,600 (28)	15,350 (45)	16,050 (53)	16,750 (59)	17,500 (63)	17,900 (66.5)	18,300 (69)
45	—	—	—	11,750 (37)	12,500 (47.5)	13,200 (54.5)	13,950 (59.5)	14,300 (63)	14,700 (66.5)
50	—	—	—	9040 (26.5)	9850 (41)	10,550 (49.5)	11,250 (55.5)	11,650 (60)	12,000 (63.5)
55	—	—	—	—	7720 (33.5)	8500 (44.5)	9210 (51)	9570 (56.5)	9940 (60)
60	—	—	—	—	6010 (24)	6810 (38.5)	7550 (47)	7900 (52.5)	8260 (57)
65	—	—	—	—	—	5410 (31.5)	6190 (42)	6540 (48.5)	6880 (53.5)
70	—	—	—	—	—	4250 (22.5)	5020 (36.5)	5400 (44.5)	5740 (50)
75	—	—	—	—	—	—	4030 (30)	4420 (40)	4770 (46.5)
80	—	—	—	—	—	—	3190 (21.5)	3570 (34.5)	3940 (42.5)
85	—	—	—	—	—	—	—	2830 (28.5)	3200 (38)
90	—	—	—	—	—	—	—	2180 (20.5)	2550 (33)
95	—	—	—	—	—	—	—	—	1980 (27.5)
100	—	—	—	—	—	—	—	—	1470 (19.5)
Minimum boom angle (deg) for indicated length (no load)									
Maximum boom length (ft.) at 0 degree boom angle (no load)									
NOTE: () Boom angles are in degrees. #LMI operating code. Refer to LMI manual for instructions. *This capacity is based on maximum boom angle.									
Lifting capacities at zero degree boom angle									
Boom angle	Main boom length in feet								
	35	40	50	**60	70	80	90	100	110
0°	28,850 (29.8)	21,800 (34.2)	12,500 (44.2)	7080 (54.6)	4830 (64.2)	3410 (74.2)	2570 (84.2)	1710 (94.2)	1080 (104.2)
NOTE: () Reference radii in feet.									
**60 ft boom length is with inner-mid extended and outer-mid & fly retracted									

A6-829-101322



36 ft – 110 ft



5500 lb

100%
20 ft

Over rear



#0201

Feet	Main boom length in feet								
	35	40	50	**60	70	80	90	100	110
10	120,000 (69)	84,400 (72)	80,200 (76)	*62,500 (78)	—	—	—	—	—
12	100,000 (65.5)	84,400 (68.5)	80,200 (73.5)	62,500 (77)	*36,800 (78)	—	—	—	—
15	87,300 (59.5)	82,700 (63.5)	80,200 (70)	61,000 (74)	36,800 (76.5)	*36,800 (78)	*31,000 (78)	—	—
20	66,000 (49)	65,000 (55)	64,300 (63.5)	50,650 (69)	36,800 (72)	36,800 (75)	31,000 (77)	*29,100 (78)	*24,000 (78)
25	50,050 (36)	49,850 (45)	49,500 (56.5)	41,800 (63.5)	36,800 (68)	34,000 (71)	30,000 (73.5)	27,000 (76.5)	24,000 (77.5)
30	—	38,100 (31.5)	38,200 (48.5)	38,000 (57.5)	33,400 (63)	29,000 (67)	25,300 (70.5)	24,200 (72.5)	22,000 (75)
35	—	—	28,700 (40)	28,600 (51.5)	28,700 (58)	25,000 (63)	22,200 (67)	21,750 (69.5)	20,000 (72)
40	—	—	22,200 (28)	22,200 (45)	23,000 (53)	22,000 (59)	20,200 (63)	19,000 (66.5)	18,500 (69)
45	—	—	—	17,600 (37)	18,400 (47.5)	18,800 (54.5)	17,800 (59.5)	17,300 (63)	17,300 (66.5)
50	—	—	—	14,100 (26.5)	14,950 (41)	15,750 (49.5)	16,000 (55.5)	16,000 (60)	16,000 (63.5)
55	—	—	—	—	12,250 (33.5)	13,050 (44.5)	13,800 (51)	14,100 (56.5)	14,100 (60)
60	—	—	—	—	10,050 (24)	10,900 (38.5)	11,650 (47)	12,000 (52.5)	12,200 (57)
65	—	—	—	—	—	9100 (31.5)	9890 (42)	10,200 (48.5)	10,550 (53.5)
70	—	—	—	—	—	7590 (22.5)	8380 (36.5)	8740 (44.5)	9000 (50)
75	—	—	—	—	—	—	7100 (30)	7480 (40)	7800 (46.5)
80	—	—	—	—	—	—	5990 (21.5)	6370 (34.5)	6600 (42.5)
85	—	—	—	—	—	—	—	5410 (28.5)	5770 (38)
90	—	—	—	—	—	—	—	4570 (20.5)	4920 (33)
95	—	—	—	—	—	—	—	—	4180 (27.5)
100	—	—	—	—	—	—	—	—	3520 (19.5)
Minimum boom angle (deg) for indicated length (no load)									
Maximum boom length (ft.) at 0 degree boom angle (no load)									
NOTE: () Boom angles are in degrees. #LMI operating code. Refer to LMI manual for instructions. *This capacity is based on maximum boom angle.									
Lifting capacities at zero degree boom angle									
Boom angle	Main boom length in feet								
	35	40	50	**60	70	80	90	100	110
0°	29,050 (29.8)	24,450 (34.2)	17,050 (44.2)	11,600 (54.6)	8550 (64.2)	6520 (74.2)	5190 (84.2)	3950 (94.2)	3020 (104.2)
NOTE: () Reference radii in feet.									
**60 ft boom length is with inner-mid extended and outer-mid & fly retracted.									

A6-829-101323

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 charts

 36 ft – 110 ft
  33 ft – 56 ft
  5500 lb
  100%
20 ft
  360°

Pounds						
Feet	33 ft length			56 ft length		
	#0221	#0222	#0223	#0241	#0242	#0243
	0° Offset	25° Offset	45° Offset	0° Offset	25° Offset	45° Offset
30	12,900 (78)					
35	12,900 (76)			*8330 (78)		
40	12,900 (74)	*10,850 (78)		8330 (77.5)		
45	12,900 (72)	10,450 (77)	*7410 (76)	8330 (76)		
50	12,100 (70)	10,000 (74.5)	7200 (77.5)	8330 (74.5)		
55	10,450 (68)	9220 (72.5)	6990 (75)	8250 (73)	*5300 (78)	
60	8780 (66)	8550 (70.5)	6800 (72.5)	7540 (71)	5140 (77)	
65	7420 (63.5)	7930 (68)	6650 (70.5)	7160 (69)	5100 (75)	*3860 (78)
70	6280 (61.5)	7260 (65.5)	6490 (68)	6820 (67.5)	5100 (73)	3790 (77.5)
75	5310 (59)	6180 (63)	6370 (65.5)	6030 (65.5)	4800 (71)	3660 (75)
80	4490 (56.5)	5250 (60.5)	5840 (62.5)	5150 (63.5)	4580 (69)	3550 (73)
85	3770 (54)	4450 (58)	4950 (60)	4400 (61.5)	4470 (67.5)	3450 (71)
90	3150 (51)	3750 (55.5)	4180 (57)	3730 (59.5)	4330 (65.5)	3410 (68.5)
95	2590 (48.5)	3130 (52.5)	3490 (54)	3140 (57)	4070 (63)	3300 (66.5)
100	2100 (45.5)	2580 (49.5)	2890 (51)	2620 (55)	3590 (61)	3260 (64)
105	1660 (42.5)	2080 (46.5)	2340 (47.5)	2160 (52.5)	3030 (58.5)	3220 (62)
110	1270 (39.5)	1640 (43)		1740 (50.5)	2520 (56)	2880 (59.5)
115		1240 (39.5)		1360 (48)	2050 (53.5)	2360 (56.5)
120				1010 (45.5)	1640 (51)	1890 (53.5)
125					1250 (48.5)	1450 (50.5)
No load stability data						
Min. boom angle for indicated length	37°	37°	45°	45°	46°	48°
Max. boom length at 0° boom angle	80 ft			60 ft		

NOTE: () Boom angles are in degrees.

A6-829-101339

*This capacity is based upon maximum boom angle.

#IMI operating code. Refer to IMI manual for instructions.

NOTES:

1. All capacities above the bold line are based on structural strength of boom extension.
2. 33 ft and 56 ft boom extension lengths may be used for single line lifting service.
3. Radii listed are for a fully extended boom with the boom extension erected. For main boom lengths less than fully extended, the rated loads are determined by boom angle. Use only the column which corresponds to the boom extension length and offset for which the machine is configured. For boom angles not shown, use the rating of the next lower boom angle.
4. 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.
5. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
6. Capacities listed are with outriggers properly extended and vertical jacks set only.

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 charts



36 ft – 110 ft



0 lb

100%
20 ft

360°



#0801

Feet	Main boom length in feet								
	35	40	50	**60	70	80	90	100	110
10	117,500 (69)	84,400 (72)	80,200 (76)	*62,500 (78)	—	—	—	—	—
12	100,000 (65.5)	84,400 (68.5)	80,200 (73.5)	62,500 (77)	*36,800 (78)	—	—	—	—
15	87,300 (59.5)	82,700 (63.5)	80,200 (70)	61,000 (74)	36,800 (76.5)	*36,800 (78)	*31,000 (78)	—	—
20	56,000 (49)	55,750 (55)	55,300 (63.5)	50,650 (69)	36,800 (72)	36,800 (75)	31,000 (77)	*29,100 (78)	*24,000 (78)
25	34,350 (36)	34,300 (45)	33,850 (56.5)	33,400 (63.5)	34,100 (68)	34,000 (71)	30,000 (73.5)	27,000 (76)	24,000 (77.5)
30	—	23,350 (31.5)	23,100 (48.5)	22,700 (57.5)	23,400 (63)	24,150 (67)	24,850 (70.5)	24,200 (72.5)	22,000 (75)
35	—	—	16,650 (40)	16,250 (51.5)	16,950 (58)	17,700 (63)	18,400 (67)	18,850 (69.5)	19,300 (72)
40	—	—	12,250 (28)	12,000 (45)	12,650 (53)	13,400 (59)	14,100 (63)	14,550 (66.5)	14,950 (69)
45	—	—	—	8890 (57)	9620 (67)	10,300 (74.5)	11,050 (81.5)	11,450 (86.5)	11,800 (91.5)
50	—	—	—	6510 (26.5)	7330 (41)	8040 (49.5)	8750 (55.5)	9130 (60)	9510 (63.5)
55	—	—	—	—	5470 (33.5)	6250 (44.5)	6960 (51)	7320 (56.5)	7690 (60)
60	—	—	—	—	3990 (24)	4790 (38.5)	5530 (47)	5880 (52.5)	6240 (57)
65	—	—	—	—	—	3580 (31.5)	4350 (42)	4700 (48.5)	5050 (53.5)
70	—	—	—	—	—	2560 (22.5)	3340 (36.5)	3710 (44.5)	4060 (50)
75	—	—	—	—	—	—	2480 (30)	2870 (40)	3220 (46.5)
80	—	—	—	—	—	—	1740 (21.5)	2130 (34.5)	2500 (42.5)
85	—	—	—	—	—	—	—	1480 (28.5)	1850 (38)
90	—	—	—	—	—	—	—	—	1290 (33)
Minimum boom angle (deg) for indicated length (no load)								14	26
Maximum boom length (ft.) at 0 degree boom angle (no load)								90	
NOTE: () Boom angles are in degrees. #LMI operating code. Refer to LMI manual for instructions. *This capacity is based on maximum boom angle.									
Lifting capacities at zero degree boom angle									
Main boom length in feet									
Boom angle	35	40	50	**60	70	80	90		
0°	23,700 (29.8)	17,650 (34.2)	9550 (44.2)	4810 (54.6)	2960 (64.2)	1840 (74.2)	1210 (84.2)		
NOTE: () Reference radii in feet.									
**60 ft boom length is with inner-mid extended and outer-mid & fly retracted.									
A6-829-10132									



36 ft – 110 ft



0 lb

100%
20 ft

Over rear



#0801

Feet	Main boom length in feet								
	35	40	50	**60	70	80	90	100	110
10	120,000 (69)	84,400 (72)	80,200 (76)	*62,500 (78)	—	—	—	—	—
12	100,000 (65.5)	84,400 (68.5)	80,200 (73.5)	62,500 (77)	*36,800 (78)	—	—	—	—
15	87,300 (59.5)	82,700 (63.5)	80,200 (70)	61,000 (74)	36,800 (76.5)	*36,800 (78)	*31,000 (78)	—	—
20	62,400 (49)	62,200 (55)	61,800 (63.5)	50,650 (69)	36,800 (72)	36,800 (75)	31,000 (77)	*29,100 (78)	*24,000 (78)
25	47,250 (36)	47,050 (45)	46,700 (56.5)	41,800 (63.5)	36,800 (68)	34,000 (71)	30,000 (73.5)	27,000 (76)	24,000 (77.5)
30	—	32,950 (31.5)	33,100 (48.5)	33,050 (57.5)	33,400 (63)	29,000 (67)	25,300 (70.5)	24,200 (72.5)	22,000 (75)
35	—	—	24,600 (40)	24,500 (51.5)	25,350 (58)	25,000 (63)	22,200 (67)	21,750 (69.5)	20,000 (72)
40	—	—	18,800 (28)	18,750 (45)	19,600 (53)	20,450 (59)	20,200 (63)	19,000 (66.5)	18,500 (69)
45	—	—	—	14,650 (47.5)	15,500 (54.5)	16,300 (61.5)	17,100 (68.5)	17,300 (71.5)	17,300 (73.5)
50	—	—	—	11,550 (26.5)	12,400 (41)	13,200 (49.5)	14,000 (55.5)	14,350 (60)	14,750 (63.5)
55	—	—	—	—	9990 (33.5)	10,800 (44.5)	11,550 (51)	11,900 (56.5)	12,300 (60)
60	—	—	—	—	8020 (24)	8860 (38.5)	9620 (47)	9980 (52.5)	10,300 (57)
65	—	—	—	—	—	7240 (31.5)	8030 (42)	8370 (48.5)	8720 (53.5)
70	—	—	—	—	—	5890 (22.5)	6680 (36.5)	7040 (44.5)	7380 (50)
75	—	—	—	—	—	—	5520 (30)	5910 (40)	6240 (46.5)
80	—	—	—	—	—	—	4540 (21.5)	4910 (34.5)	5270 (42.5)
85	—	—	—	—	—	—	—	4050 (28.5)	4410 (38)
90	—	—	—	—	—	—	—	3300 (20.5)	3650 (33)
95	—	—	—	—	—	—	—	—	2980 (27.5)
100	—	—	—	—	—	—	—	—	2380 (19.5)
Minimum boom angle (deg) for indicated length (no load)									
Maximum boom length (ft.) at 0 degree boom angle (no load)									
NOTE: () Boom angles are in degrees. #LMI operating code. Refer to LMI manual for instructions. *This capacity is based on maximum boom angle.									
Lifting capacities at zero degree boom angle									
Main boom length in feet									
Boom angle	35	40	50	**60	70	80	90	100	110
0°	29,050 (29.8)	24,450 (34.2)	15,250 (44.2)	9320 (54.6)	6660 (64.2)	4930 (74.2)	3820 (84.2)	2740 (94.2)	1940 (104.2)
NOTE: () Reference radii in feet.									
**60 ft boom length is with inner-mid extended and outer-mid & fly retracted									
A6-829-10132									

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 charts



Pounds						
Feet	33 ft length			56 ft length		
	#0821 0° Offset	#0822 25° Offset	#0823 45° Offset	#0841 0° Offset	#0842 25° Offset	#0843 45° Offset
30	12,900 (78)					
35	12,900 (76)			*8330 (78)		
40	12,900 (74)	*10,850 (78)		8330 (77.5)		
45	12,800 (72)	10,450 (77)	*7410 (78)	8330 (76)		
50	10,350 (70)	10,000 (74.5)	7200 (77.5)	8330 (74.5)		
55	8510 (68)	9220 (72.5)	6990 (75)	8250 (73)	*5300 (78)	
60	7000 (66)	8330 (70.5)	6800 (72.5)	7540 (71)	5140 (77)	
65	5770 (63.5)	6930 (68)	6650 (70.5)	6420 (69)	5100 (75)	*3860 (78)
70	4740 (61.5)	5760 (65.5)	6370 (68)	5370 (67.5)	5100 (73)	3790 (77.5)
75	3870 (59)	4770 (63)	5310 (65.5)	4480 (65.5)	4800 (71)	3660 (75)
80	3130 (56.5)	3920 (60.5)	4390 (62.5)	3710 (63.5)	4580 (69)	3550 (73)
85	2480 (54)	3180 (58)	3610 (60)	3050 (61.5)	4110 (67.5)	3450 (71)
90	1920 (51)	2540 (55.5)	2910 (57)	2470 (59.5)	3450 (65.5)	3410 (68.5)
95	1420 (48.5)	1970 (52.5)	2310 (54)	1960 (57)	2860 (63)	3300 (66.5)
100		1470 (49.5)	1760 (51)	1500 (55)	2330 (61)	2980 (64)
105		1020 (46.5)	1280 (47.5)	1090 (52.5)	1870 (58.5)	2390 (62)
110					1450 (56)	1870 (59.5)
115					1060 (53.5)	1400 (56.5)
No load stability data						
Min. boom angle for indicated length	46°	45°	45°	48°	51°	51°
Max. boom length at 0° boom angle	60 ft			50 ft		

NOTE: () Boom angles are in degrees.

A6-829-101340

*This capacity is based upon maximum boom angle.

#LMI operating code. Refer to LMI manual for instructions.

NOTES:

1. All capacities above the bold line are based on structural strength of boom extension.
2. 33 ft and 56 ft boom extension lengths may be used for single line lifting service.
3. Radii listed are for a fully extended boom with the boom extension erected. For main boom lengths less than fully extended, the rated loads are determined by boom angle. Use only the column which corresponds to the boom extension length and offset for which the machine is configured. For boom angles not shown, use the rating of the next lower boom angle.
4. 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.
5. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
6. Capacities listed are with outriggers properly extended and vertical jacks set only.

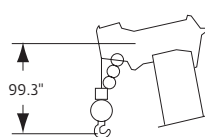
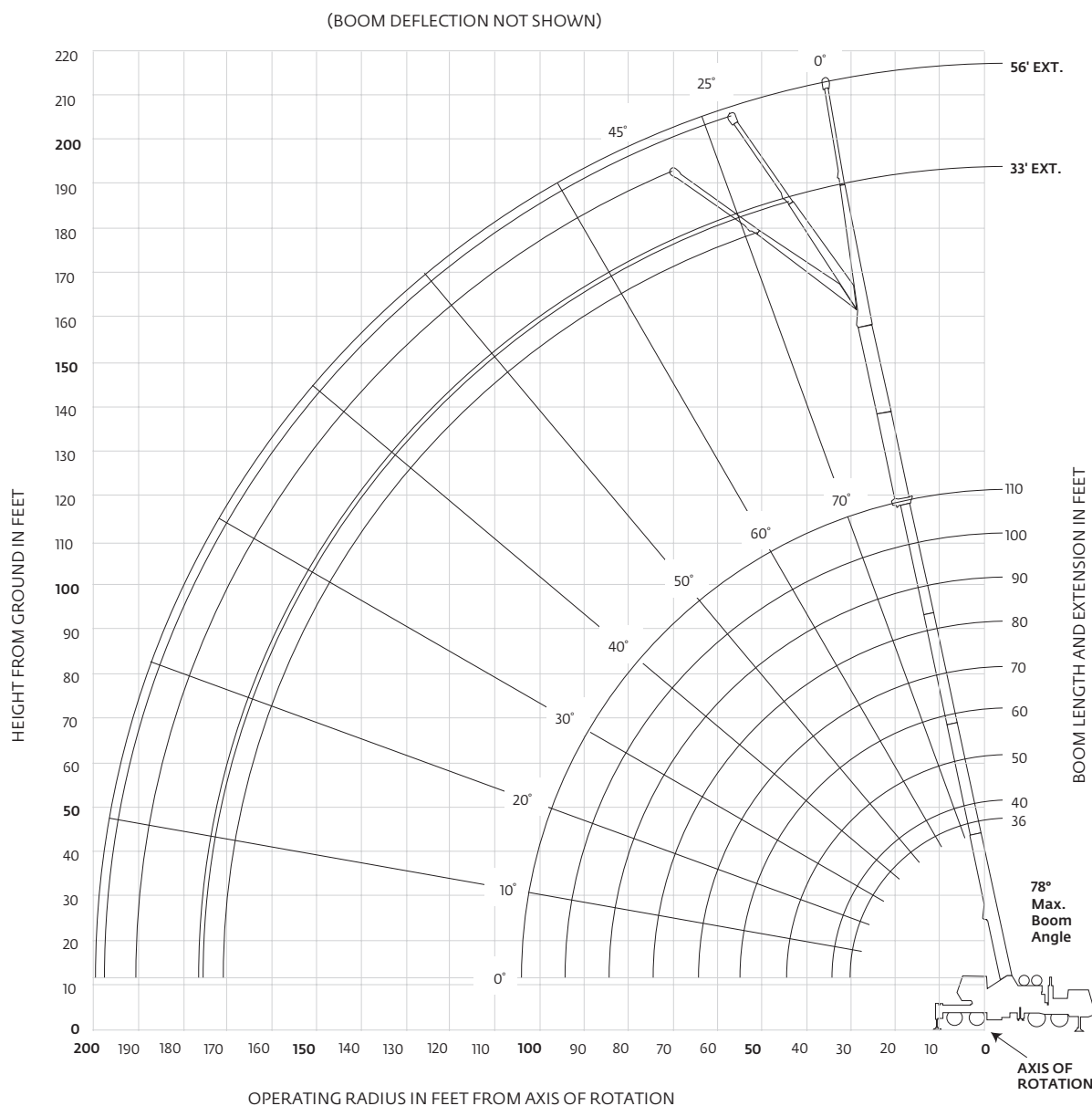
THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE.

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must be read and understood prior to operating the crane.



Working range

36 ft – 110 ft main boom + 33 ft – 56 ft lattice extension + 40 ft insert



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



Load charts

36 ft – 110 ft	33 ft – 56 ft	20 ft	16,500 lb	100% 20 ft	360°
Pounds					
	33 ft length			56 ft length	
	#0064	#0065	#0066	#0084	#0085
Feet	0° Offset	25° Offset	45° Offset	0° Offset	25° Offset
35	*9360 (78)				
40	9360 (77.5)			*6300 (78)	
45	8480 (76)	*7480 (78)		6300 (77.5)	
50	7680 (74)	7070 (77.5)		6000 (77)	
55	6990 (72)	6470 (76)	5880 (78)	5990 (75.5)	
60	6390 (70)	5970 (74)	5480 (76.5)	5980 (73.5)	*4840 (78)
65	5890 (68.5)	5570 (72.5)	5080 (74.5)	5510 (72)	4840 (77.5)
70	5390 (66.5)	5070 (70.5)	4780 (72.5)	5010 (70.5)	4440 (76.5)
75	4990 (64.5)	4770 (68.5)	4480 (70.5)	4560 (68.5)	4050 (75)
80	4650 (62.5)	4400 (66)	4190 (68)	4170 (67)	3870 (73)
85	4300 (60)	4150 (64)	3890 (66)	3820 (65)	3570 (71.5)
90	4000 (58)	3850 (62)	3690 (63.5)	3520 (63.5)	3320 (69.5)
95	3760 (56)	3650 (59.5)	3500 (61.5)	3220 (61.5)	3070 (67.5)
100	3510 (53.5)	3410 (57.5)	3300 (59)	2980 (59.5)	2880 (66)
105	3260 (51)	3210 (55)	3100 (56.5)	2780 (58)	2680 (64)
110	3070 (48.5)	3020 (52.5)	2930 (54)	2530 (56)	2480 (62)
115	2870 (46)	2870 (50)	2780 (51)	2340 (54)	2280 (60)
120	2550 (43.5)	2730 (47)		2190 (52)	2140 (57.5)
125	2170 (40.5)	2500 (44)		2000 (49.5)	1990 (55.5)
130	1820 (37.5)	2100 (41)		1850 (47.5)	1850 (53)
135	1500 (34.5)	1730 (37.5)		1720 (45)	1750 (51)
140	1210 (30.5)	1390 (33.5)		1480 (42.5)	1610 (48.5)
145					1520 (45.5)
150					1370 (43)
No load stability data					
Min. boom angle at 110' boom length	22°	29°	45°	38°	40°
Max. boom length at 0° boom angle		100 ft			80 ft

NOTE: () Boom angles are in degrees.

A6-829-101484

*This capacity is based upon maximum boom angle.







#LMI operating code. Refer to LMI manual for instructions.

NOTES:

1. All capacities above the bold line are based on structural strength of boom extension.
2. 33 ft and 56 ft boom extension lengths may be used for single line lifting service.
3. Radii listed are for a fully extended boom with the boom extension erected. For main boom lengths less than fully extended, the rated loads are determined by boom angle. Use only the column which corresponds to the boom extension length and offset for which the machine is configured. For boom angles not shown, use the rating of the next lower boom angle.
4. 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.
5. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
6. Capacities listed are with outriggers properly extended and vertical jacks set only.



Load charts

 36 ft – 110 ft
  33 ft – 56 ft
  40 ft
  16,500 lb
  100%
20 ft
  360°

Pounds						
Feet	33 ft Length			56 ft Length		
	#0064	#0065	#0066	#0084	#0085	#0086
	0° Offset	25° Offset	45° Offset	0° Offset	25° Offset	45° Offset
45	6560 (78)					
50	5960 (76)			4510 (78)		
55	5360 (74.5)	5860 (78)		4210 (77.5)		
60	4860 (73)	5260 (76.5)	*5170 (77)	3910 (76)		
65	4370 (71)	4870 (75)	4670 (77.5)	3710 (74.5)		
70	3970 (69.5)	4370 (73)	4270 (75.5)	3410 (73)	*3710 (78)	
75	3670 (67.5)	4070 (71.5)	3980 (73.5)	3220 (71.5)	3420 (77.5)	
80	3270 (66)	3670 (69.5)	3680 (72)	2820 (70)	3120 (76)	
85	2980 (64)	3370 (68)	3380 (70)	2520 (68.5)	2820 (74.5)	2730 (77.5)
90	2780 (62.5)	3080 (66)	3080 (68)	2320 (66.5)	2620 (72.5)	2530 (76)
95	2480 (60.5)	2880 (64)	2890 (66)	2030 (65)	2330 (71)	2340 (74.5)
100	2290 (58.5)	2580 (62)	2690 (64)	1830 (63.5)	2130 (69.5)	2140 (72.5)
105	2090 (56.5)	2390 (60)	2390 (62)	1630 (62)	1930 (68)	1940 (71)
110	1900 (54.5)	2190 (58)	2200 (60)	1440 (60)	1730 (66)	1740 (69)
115	1700 (52.5)	2000 (56)	2100 (58)	1240 (58.5)	1540 (64.5)	1550 (67)
120	1600 (50.5)	1800 (54)	1910 (55.5)	1140 (57)	1340 (62.5)	1450 (65)
125	1410 (48)	1700 (51.5)	1710 (53)		1240 (61)	1260 (63.5)
130	1310 (46)	1510 (49.5)	1520 (50.5)		1050 (59)	1160 (61.5)
135	1120 (43.5)	1420 (47)	1420 (48)			
140	1030 (41)	1220 (44.5)				
145		1070 (41.5)				

No load stability data

Min. boom angle at 110 ft boom length	40°	40°	47°	56°	58°	60°
--	-----	-----	-----	-----	-----	-----

Max. boom
length at 0°
boom angle

70 ft

40 ft

NOTE: () Boom angles are in degrees.

A6-829-101494

*This capacity is based upon maximum boom angle.

#LMI operating code. Refer to LMI manual for instructions.

NOTES:

1. All capacities above the bold line are based on structural strength of boom extension.
2. 33 ft and 56 ft boom extension lengths may be used for single line lifting service.
3. Radii listed are for a fully extended boom with the boom extension erected. For main boom lengths less than fully extended, the rated loads are determined by boom angle. Use only the column which corresponds to the boom extension length and offset for which the machine is configured. For boom angles not shown, use the rating of the next lower boom angle.
4. 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.
5. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
6. Capacities listed are with outriggers properly extended and vertical jacks set only.

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Load handling

Weight reductions for load handling devices

33 ft-56 ft folding boom extension

*33 ft extension (erected)	4350 lb
*56 ft extension (erected)	9450 lb

Folding ext. with 20 ft insert

*33 ft extension (erected)	9410 lb
*56 ft extension (erected)	16,010 lb

Folding ext. with 40 ft insert

*33 ft extension (erected)	16,280 lb
*56 ft extension (erected)	24,390 lb

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

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

Auxiliary boom nose	137 lb
---------------------	--------

Hookblocks and headache balls:

60 Ust, 5 sheave	1125 lb +
50 Ust, 3 sheave	1075 lb +
40 Ust, 3 sheave	785 lb +
8.3 Ust Headache ball (non-swivel)	350 lb +
8.3 Ust Headache ball (swivel)	370 lb +

+ Refer to rating plate for actual weight.

NOTE: All load handling devices and boom attachments are considered part of the load and suitable allowances **MUST BE MADE** for their combined weights. Weights are for Grove furnished equipment.

Line pulls and reeving information

Hoists	Cable/Specs.	Permissible	Nominal
		Line pulls	Cable length
Main	3/4 in (19 mm) 6x37 Class,		
	EIPS, IWRC Special Flexible	16,800 lb	500 ft
	Min. Breaking Strength 58,800 lb.		
Main & Aux	19 mm (.75 in) Flex-X 35		
	Rotation resistant (non-rotating)	16,800 lb	500 ft
	Min breaking strength 85,800 lb		

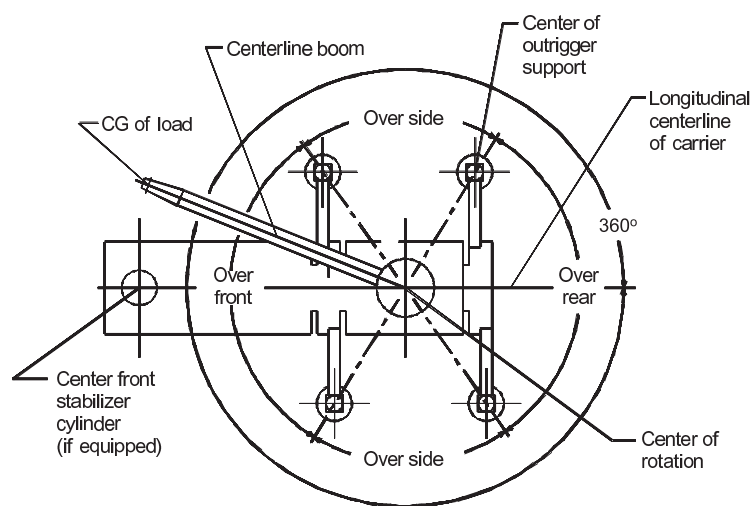
The approximate weight of 3/4 in wire rope is 1.5 lb/ft

Hoist performance

Wire Rope Layer	Hoist line pulls Two speed hoist		Drum rope Capacity (ft)	
	Low	High	Layer	Total
	Available lb*	Available lb*		
1	18,134	9067	101	101
2	16,668	8334	110	211
3	15,420	7710	120	331
4	14,347	7174	129	460
5	13,413	6707	139	599
6	12,594	6297	149	748

*Max. lifting capacity: 6x37 or 35x7 class = 16,800 lb

Working area diagram



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

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Notes



Symbols glossary



Axles



Counterweight



Grade



Outriggers



Boom



Drive



Heavy duty jib



Radius



Boom elevation



Electrical system



Hoist



Rotation



Boom extension



Engine



Hookblock



Speed



Boom length



Extension



Hydraulic system



Steering



Boom nose



Frame



Lights



Suspension



Brakes



Fuel tank capacity



Oil



Swing



Cab



Gear



Outrigger controls



Tires



Transmission



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