STERLING CRANE

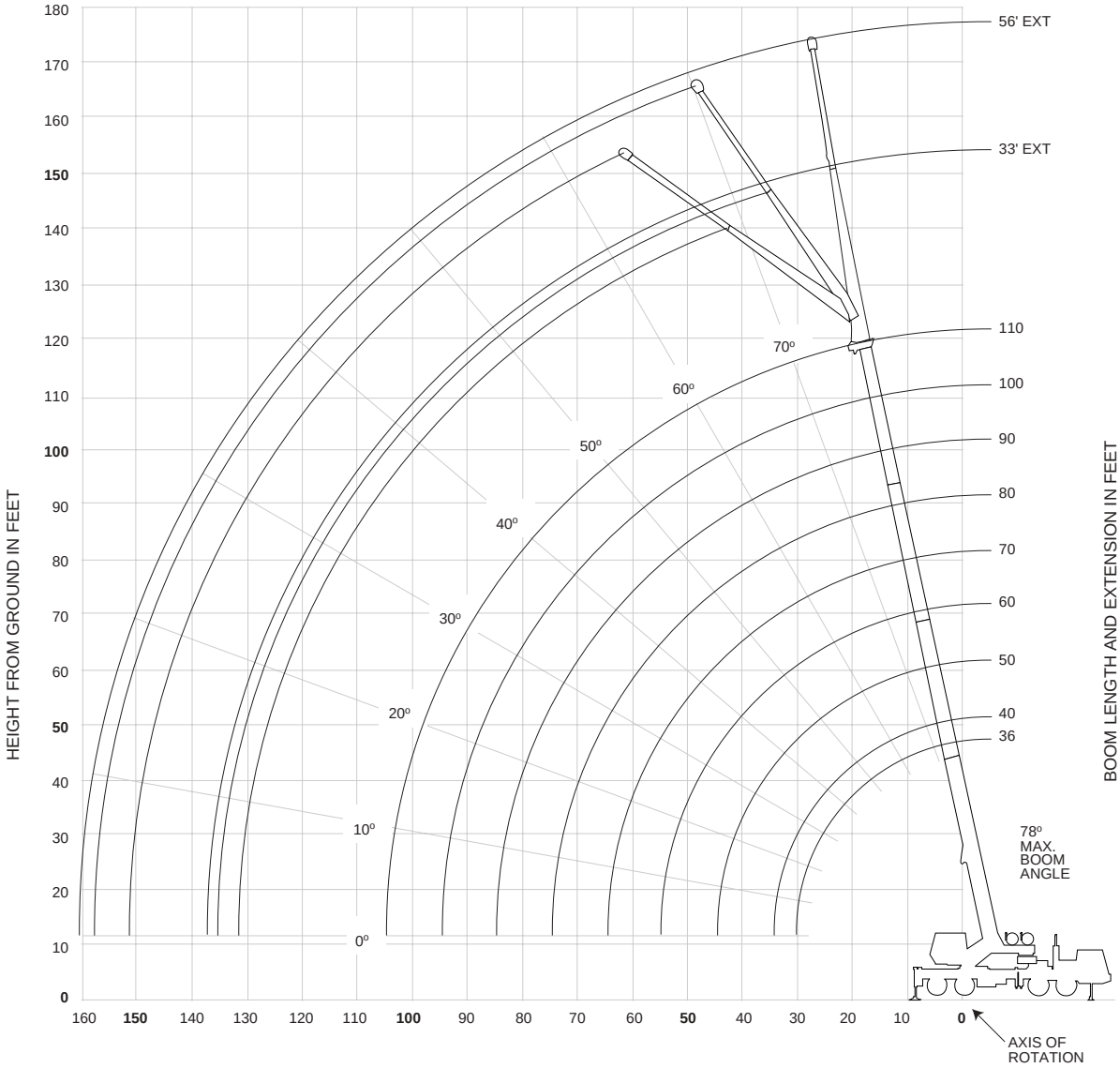
LIFTING CHARTS - Hydraulic Truck Cranes

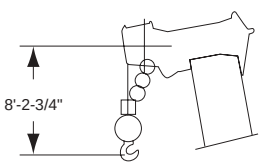
GROVE MODEL TMS700E - 60 TON CAPACITY

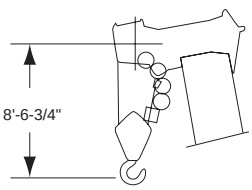
working range

36-110' main boom + 33-56' lattice extension

(BOOM DEFLECTION NOT SHOWN)







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

load charts

36 - 110 ft. | 16,500 lbs. | 100% 20' 0" | 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						9,110 (31.5)	9,900 (42)	10,250 (48.5)	10,600 (53.5)
70						7,650 (22.5)	8,450 (36.5)	8,820 (44.5)	9,000 (50)
75							7,210 (30)	7,580 (40)	7,800 (46.5)
80							6,150 (21.5)	6,490 (34.5)	6,600 (42.5)
85								5,550 (28.5)	5,800 (38)
90								4,730 (20.5)	5,000 (33)
95									4,270 (27.5)
100									3,600 (19.5)
Minimum boom angle (deg.) for indicated length (no load)									0
Maximum boom length (ft.) at 0 degree boom angle (no load)									110

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)	8,570 (64.2)	6,610 (74.2)	5,380 (84.2)	4,120 (94.2)	3,110 (104.2)

NOTE: ( ) Reference radii in feet.

A6-829-101318

**60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

36 - 110 ft. | 16,500 lbs. | 100% 20' 0" | 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)	9,450 (36.5)	9,000 (44.5)	9,000 (50)
75							8,290 (30)	7,800 (40)	7,800 (46.5)
80							7,140 (21.5)	6,600 (34.5)	6,600 (42.5)
85								5,800 (28.5)	5,800 (38)
90								5,000 (20.5)	5,000 (33)
95									4,440 (27.5)
100									3,880 (19.5)
Minimum boom angle (deg.) for indicated length (no load)									0
Maximum boom length (ft.) at 0 degree boom angle (no load)									110

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)	11,950 (54.6)	9,640 (64.2)	7,810 (74.2)	6,390 (84.2)	4,770 (94.2)	3,350 (104.2)

NOTE: ( ) Reference radii in feet.

A6-829-101319

**60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

load charts

36 - 110 ft.	33 - 56 ft.	16,500 lbs.	100% 20' 0"	360°

	Pounds					
	33 ft. LENGTH			56 ft. LENGTH		
	#0021	#0022	#0023	#0041	#0042	#0043
Feet	0° OFFSET	25° OFFSET	45° OFFSET	0° OFFSET	25° OFFSET	45° OFFSET
30	12,900 (78)					
35	12,900 (76)			*8,330 (78)		
40	12,900 (74)	*10,850 (78)		8,330 (77.5)		
45	12,900 (72)	10,450 (77)	*7,410 (78)	8,330 (76)		
50	12,100 (70)	10,000 (74.5)	7,200 (77.5)	8,330 (74.5)		
55	11,100 (68)	9,220 (72.5)	6,990 (75)	8,250 (73)	*5,300 (78)	
60	10,100 (66)	8,550 (70.5)	6,800 (72.5)	7,540 (71)	5,140 (77)	
65	9,130 (63.5)	7,930 (68)	6,650 (70.5)	7,160 (69)	5,100 (75)	*3,860 (78)
70	8,460 (61.5)	7,380 (65.5)	6,490 (68)	6,820 (67.5)	5,100 (73)	3,790 (77.5)
75	7,840 (59)	6,900 (63)	6,370 (65.5)	6,300 (65.5)	4,800 (71)	3,660 (75)
80	7,230 (56.5)	6,470 (60.5)	6,110 (62.5)	5,810 (63.5)	4,580 (69)	3,550 (73)
85	6,470 (54)	6,070 (58)	5,780 (60)	5,370 (61.5)	4,470 (67.5)	3,450 (71)
90	5,670 (51)	5,720 (55.5)	5,480 (57)	4,980 (59.5)	4,330 (65.5)	3,410 (68.5)
95	4,970 (48.5)	5,400 (52.5)	5,200 (54)	4,630 (57)	4,070 (63)	3,300 (66.5)
100	4,350 (45.5)	4,840 (49.5)	4,950 (51)	4,320 (55)	3,830 (61)	3,260 (64)
105	3,790 (42.5)	4,210 (46.5)	4,470 (47.5)	4,040 (52.5)	3,620 (58.5)	3,220 (62)
110	3,290 (39.5)	3,640 (43)		3,760 (50.5)	3,410 (56)	3,180 (59.5)
115	2,830 (36)	3,130 (39.5)		3,290 (48)	3,230 (53.5)	3,060 (56.5)
120	2,420 (32)	2,660 (35)		2,860 (45.5)	3,050 (51)	2,940 (53.5)
125	2,040 (27.5)	2,240 (30.5)		2,470 (42.5)	2,890 (48.5)	2,800 (50.5)
130	1,700 (22)			2,120 (39.5)	2,590 (45.5)	
135				1,790 (36.5)	2,200 (42.5)	
140				1,480 (33)	1,840 (38.5)	
145				1,200 (29.5)	1,500 (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. A6-829-101337

*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.

load charts

36 - 110 ft. | 11,000 lbs. | 100% 20' 0" | 360°

#0101

Main Boom Length in Feet

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	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					9,960 (33.5)	10,700 (44.5)	11,450 (51)	11,900 (56.5)	12,400 (60)
60					8,040 (24)	8,850 (38.5)	9,590 (47)	10,000 (52.5)	10,400 (57)
65						7,280 (31.5)	8,070 (42)	8,450 (48.5)	8,830 (53.5)
70						5,970 (22.5)	6,760 (36.5)	7,140 (44.5)	7,480 (50)
75							5,660 (30)	6,020 (40)	6,350 (46.5)
80							4,710 (21.5)	5,050 (34.5)	5,370 (42.5)
85								4,200 (28.5)	4,510 (38)
90								3,460 (20.5)	3,750 (33)
95									3,080 (27.5)
100									2,480 (19.5)
Minimum boom angle (deg.) for indicated length (no load)									0
Maximum boom length (ft.) at 0 degree boom angle (no load)									110

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)	9,340 (54.6)	6,710 (64.2)	5,030 (74.2)	4,020 (84.2)	2,920 (94.2)	2,030 (104.2)

NOTE: ( ) Reference radii in feet.

A6-829-101320

**60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

36 - 110 ft. | 11,000 lbs. | 100% 20' 0" | Over Rear

#0101

Main Boom Length in Feet

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 (68)	34,000 (71)	30,000 (73.5)	27,000 (76)	24,000 (77.5)
30		41,750 (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				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						9,290 (22.5)	9,450 (36.5)	9,000 (44.5)	9,000 (50)
75							8,290 (30)	7,800 (40)	7,800 (46.5)
80							7,140 (21.5)	6,600 (34.5)	6,600 (42.5)
85								5,800 (28.5)	5,800 (38)
90								5,000 (20.5)	5,000 (33)
95									4,440 (27.5)
100									3,880 (19.5)
Minimum boom angle (deg.) for indicated length (no load)									0
Maximum boom length (ft.) at 0 degree boom angle (no load)									110

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)	9,640 (64.2)	7,810 (74.2)	6,390 (84.2)	4,770 (94.2)	3,350 (104.2)

NOTE: ( ) Reference radii in feet.

A6-829-101321

**60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

load charts

36 - 110 ft.	33 - 56 ft.	11,000 lbs.	100% 20' 0"	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)			*8,330 (78)		
40	12,900 (74)	*10,850 (78)		8,330 (77.5)		
45	12,900 (72)	10,450 (77)	*7,410 (78)	8,330 (76)		
50	12,100 (70)	10,000 (74.5)	7,200 (77.5)	8,330 (74.5)		
55	11,100 (68)	9,220 (72.5)	6,990 (75)	8,250 (73)	*5,300 (78)	
60	10,100 (66)	8,550 (70.5)	6,800 (72.5)	7,540 (71)	5,140 (77)	
65	9,130 (63.5)	7,930 (68)	6,650 (70.5)	7,160 (69)	5,100 (75)	*3,860 (78)
70	7,960 (61.5)	7,380 (65.5)	6,490 (68)	6,820 (67.5)	5,100 (73)	3,790 (77.5)
75	6,870 (59)	6,900 (63)	6,370 (65.5)	6,300 (65.5)	4,800 (71)	3,660 (75)
80	5,930 (56.5)	6,470 (60.5)	6,110 (62.5)	5,810 (63.5)	4,580 (69)	3,550 (73)
85	5,120 (54)	5,880 (58)	5,780 (60)	5,370 (61.5)	4,470 (67.5)	3,450 (71)
90	4,410 (51)	5,070 (55.5)	5,440 (57)	4,960 (59.5)	4,330 (65.5)	3,410 (68.5)
95	3,780 (48.5)	4,350 (52.5)	4,680 (54)	4,310 (57)	4,070 (63)	3,300 (66.5)
100	3,230 (45.5)	3,710 (49.5)	4,010 (51)	3,730 (55)	3,830 (61)	3,260 (64)
105	2,730 (42.5)	3,140 (46.5)	3,410 (47.5)	3,210 (52.5)	3,620 (58.5)	3,220 (62)
110	2,280 (39.5)	2,630 (43)		2,750 (50.5)	3,410 (56)	3,180 (59.5)
115	1,870 (36)	2,170 (39.5)		2,330 (48)	3,020 (53.5)	3,060 (56.5)
120	1,500 (32)	1,750 (35)		1,940 (45.5)	2,550 (51)	2,800 (53.5)
125	1,170 (27.5)	1,360 (30.5)		1,590 (42.5)	2,130 (48.5)	2,330 (50.5)
130				1,270 (39.5)	1,740 (45.5)	
135					1,390 (42.5)	
140					1,060 (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.

load charts

36 - 110 ft. | 5,500 lbs. | 100% 20' 0" | 360°

#0201

Main Boom Length in Feet

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				9,040 (26.5)	9,850 (41)	10,550 (49.5)	11,250 (55.5)	11,650 (60)	12,000 (63.5)
55					7,720 (33.5)	8,500 (44.5)	9,210 (51)	9,570 (56.5)	9,940 (60)
60					6,010 (24)	6,810 (38.5)	7,550 (47)	7,900 (52.5)	8,260 (57)
65						5,410 (31.5)	6,190 (42)	6,540 (48.5)	6,880 (53.5)
70						4,250 (22.5)	5,020 (36.5)	5,400 (44.5)	5,740 (50)
75							4,030 (30)	4,420 (40)	4,770 (46.5)
80							3,190 (21.5)	3,570 (34.5)	3,940 (42.5)
85								2,830 (28.5)	3,200 (38)
90								2,180 (20.5)	2,550 (33)
95									1,980 (27.5)
100									1,470 (19.5)
Minimum boom angle (deg.) for indicated length (no load)									0
Maximum boom length (ft.) at 0 degree boom angle (no load)									110

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)	7,080 (54.6)	4,830 (64.2)	3,410 (74.2)	2,570 (84.2)	1,710 (94.2)	1,080 (104.2)

NOTE: ( ) Reference radii in feet. A6-829-101322

**60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

36 - 110 ft. | 5,500 lbs. | 100% 20' 0" | Over Rear

#0201

Main Boom Length in Feet

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)	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						9,100 (31.5)	9,890 (42)	10,200 (48.5)	10,550 (53.5)
70						7,590 (22.5)	8,380 (36.5)	8,740 (44.5)	9,000 (50)
75							7,100 (30)	7,480 (40)	7,800 (46.5)
80							5,990 (21.5)	6,370 (34.5)	6,600 (42.5)
85								5,410 (28.5)	5,770 (38)
90								4,570 (20.5)	4,920 (33)
95									4,180 (27.5)
100									3,520 (19.5)
Minimum boom angle (deg.) for indicated length (no load)									0
Maximum boom length (ft.) at 0 degree boom angle (no load)									110

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)	8,550 (64.2)	6,520 (74.2)	5,190 (84.2)	3,950 (94.2)	3,020 (104.2)

NOTE: ( ) Reference radii in feet. A6-829-101323

**60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

load charts

36 - 110 ft.	33 - 56 ft.	5,500 lbs.	100% 20' 0"	360°

Pounds

Feet	33 ft. LENGTH #0221 0° OFFSET	33 ft. LENGTH #0222 25° OFFSET	33 ft. LENGTH #0223 45° OFFSET	56 ft. LENGTH #0241 0° OFFSET	56 ft. LENGTH #0242 25° OFFSET	56 ft. LENGTH #0243 45° OFFSET
30	12,900 (78)					
35	12,900 (76)			*8,330 (78)		
40	12,900 (74)	*10,850 (78)		8,330 (77.5)		
45	12,900 (72)	10,450 (77)	*7,410 (78)	8,330 (76)		
50	12,100 (70)	10,000 (74.5)	7,200 (77.5)	8,330 (74.5)		
55	10,450 (68)	9,220 (72.5)	6,990 (75)	8,250 (73)	*5,300 (78)	
60	8,780 (66)	8,550 (70.5)	6,800 (72.5)	7,540 (71)	5,140 (77)	
65	7,420 (63.5)	7,930 (68)	6,650 (70.5)	7,160 (69)	5,100 (75)	*3,860 (78)
70	6,280 (61.5)	7,260 (65.5)	6,490 (68)	6,820 (67.5)	5,100 (73)	3,790 (77.5)
75	5,310 (59)	6,180 (63)	6,370 (65.5)	6,030 (65.5)	4,800 (71)	3,660 (75)
80	4,490 (56.5)	5,250 (60.5)	5,840 (62.5)	5,150 (63.5)	4,580 (69)	3,550 (73)
85	3,770 (54)	4,450 (58)	4,950 (60)	4,400 (61.5)	4,470 (67.5)	3,450 (71)
90	3,150 (51)	3,750 (55.5)	4,180 (57)	3,730 (59.5)	4,330 (65.5)	3,410 (68.5)
95	2,590 (48.5)	3,130 (52.5)	3,490 (54)	3,140 (57)	4,070 (63)	3,300 (66.5)
100	2,100 (45.5)	2,580 (49.5)	2,890 (51)	2,620 (55)	3,590 (61)	3,260 (64)
105	1,660 (42.5)	2,080 (46.5)	2,340 (47.5)	2,160 (52.5)	3,030 (58.5)	3,220 (62)
110	1,270 (39.5)	1,640 (43)		1,740 (50.5)	2,520 (56)	2,880 (59.5)
115		1,240 (39.5)		1,360 (48)	2,050 (53.5)	2,360 (56.5)
120				1,010 (45.5)	1,640 (51)	1,890 (53.5)
125					1,250 (48.5)	1,450 (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.

#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 - 110 ft. | 0 lbs. | 100% 20' 0" | 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				8,890 (37)	9,620 (47.5)	10,300 (54.5)	11,050 (59.5)	11,450 (63)	11,800 (66.5)
50				6,510 (26.5)	7,330 (41)	8,040 (49.5)	8,750 (55.5)	9,130 (60)	9,510 (63.5)
55					5,470 (33.5)	6,250 (44.5)	6,960 (51)	7,320 (56.5)	7,690 (60)
60					3,990 (24)	4,790 (38.5)	5,530 (47)	5,880 (52.5)	6,240 (57)
65						3,580 (31.5)	4,350 (42)	4,700 (48.5)	5,050 (53.5)
70						2,560 (22.5)	3,340 (36.5)	3,710 (44.5)	4,060 (50)
75							2,480 (30)	2,870 (40)	3,220 (46.5)
80							1,740 (21.5)	2,130 (34.5)	2,500 (42.5)
85								1,480 (28.5)	1,850 (38)
90									1,290 (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

Boom Angle	Main Boom Length in Feet								
	35	40	50	**60	70	80	90		
0°	23,700 (29.8)	17,650 (34.2)	9,550 (44.2)	4,810 (54.6)	2,960 (64.2)	1,840 (74.2)	1,210 (84.2)		

NOTE: ( ) Reference radii in feet. A6-829-101324

**60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

36 - 110 ft. | 0 lbs. | 100% 20' 0" | 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 (37)	15,500 (47.5)	16,300 (54.5)	17,100 (59.5)	17,300 (63)	17,300 (66.5)
50				11,550 (26.5)	12,400 (41)	13,200 (49.5)	14,000 (55.5)	14,350 (60)	14,750 (63.5)
55					9,990 (33.5)	10,800 (44.5)	11,550 (51)	11,900 (56.5)	12,300 (60)
60					8,020 (24)	8,860 (38.5)	9,620 (47)	9,980 (52.5)	10,300 (57)
65						7,240 (31.5)	8,030 (42)	8,370 (48.5)	8,720 (53.5)
70						5,890 (22.5)	6,680 (36.5)	7,040 (44.5)	7,380 (50)
75							5,520 (30)	5,910 (40)	6,240 (46.5)
80							4,540 (21.5)	4,910 (34.5)	5,270 (42.5)
85								4,050 (28.5)	4,410 (38)
90								3,300 (20.5)	3,650 (33)
95									2,980 (27.5)
100									2,380 (19.5)
Minimum boom angle (deg.) for indicated length (no load)									0
Maximum boom length (ft.) at 0 degree boom angle (no load)									110

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)	15,250 (44.2)	9,320 (54.6)	6,660 (64.2)	4,930 (74.2)	3,820 (84.2)	2,740 (94.2)	1,940 (104.2)

NOTE: ( ) Reference radii in feet. A6-829-101325

**60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

load charts

36 - 110 ft.	33 - 56 ft.	0 lbs.	100% 20' 0"	360°

Feet	Pounds					
	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)			*8,330 (78)		
40	12,900 (74)	*10,850 (78)		8,330 (77.5)		
45	12,800 (72)	10,450 (77)	*7,410 (78)	8,330 (76)		
50	10,350 (70)	10,000 (74.5)	7,200 (77.5)	8,330 (74.5)		
55	8,510 (68)	9,220 (72.5)	6,990 (75)	8,250 (73)	*5,300 (78)	
60	7,000 (66)	8,330 (70.5)	6,800 (72.5)	7,540 (71)	5,140 (77)	
65	5,770 (63.5)	6,930 (68)	6,650 (70.5)	6,420 (69)	5,100 (75)	*3,860 (78)
70	4,740 (61.5)	5,760 (65.5)	6,370 (68)	5,370 (67.5)	5,100 (73)	3,790 (77.5)
75	3,870 (59)	4,770 (63)	5,310 (65.5)	4,480 (65.5)	4,800 (71)	3,660 (75)
80	3,130 (56.5)	3,920 (60.5)	4,390 (62.5)	3,710 (63.5)	4,580 (69)	3,550 (73)
85	2,480 (54)	3,180 (58)	3,610 (60)	3,050 (61.5)	4,110 (67.5)	3,450 (71)
90	1,920 (51)	2,540 (55.5)	2,910 (57)	2,470 (59.5)	3,450 (65.5)	3,410 (68.5)
95	1,420 (48.5)	1,970 (52.5)	2,310 (54)	1,960 (57)	2,860 (63)	3,300 (66.5)
100		1,470 (49.5)	1,760 (51)	1,500 (55)	2,330 (61)	2,980 (64)
105		1,020 (46.5)	1,280 (47.5)	1,090 (52.5)	1,870 (58.5)	2,390 (62)
110					1,450 (56)	1,870 (59.5)
115					1,060 (53.5)	1,400 (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.

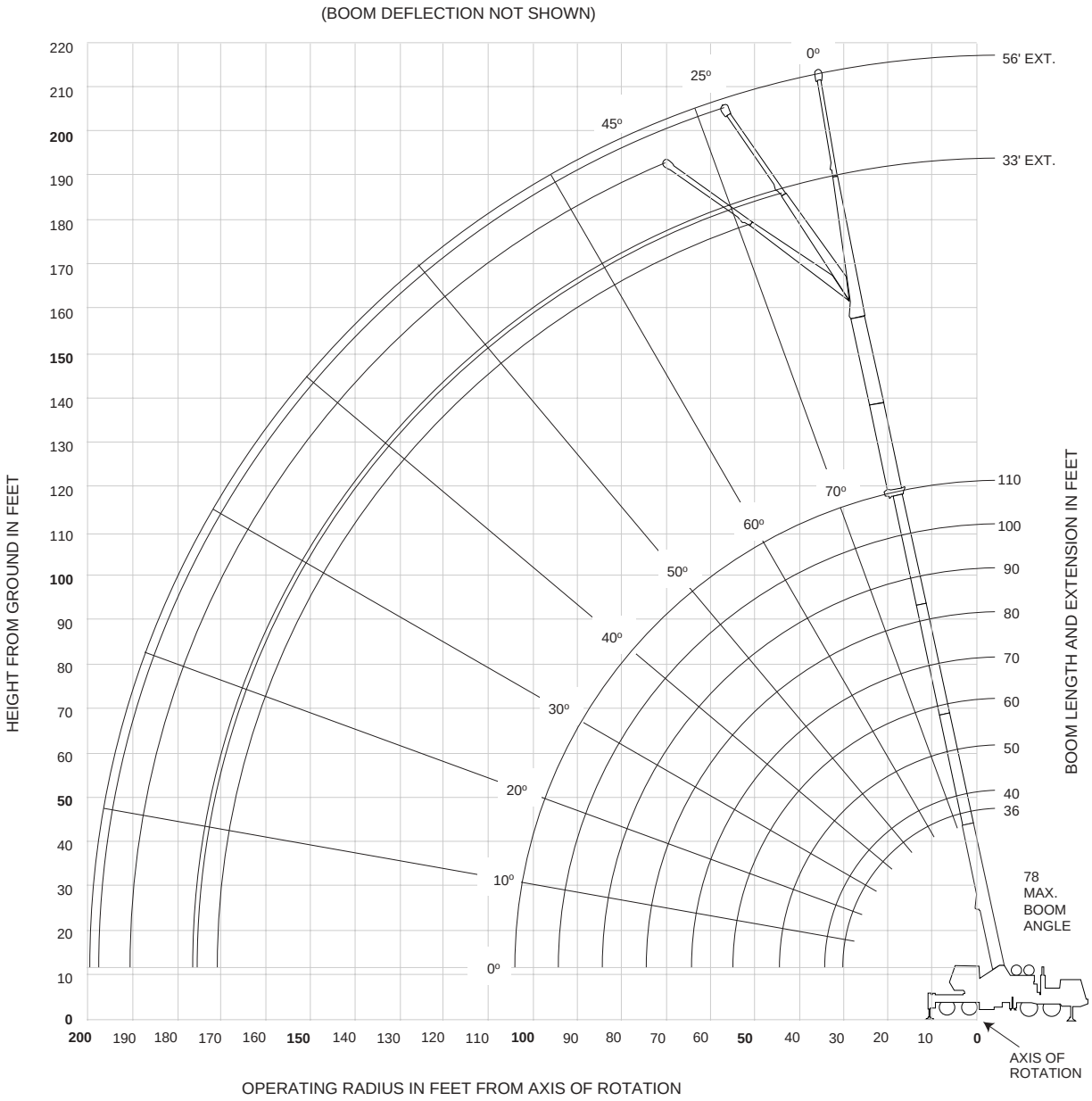
#LMI operating code. Refer to LMI manual for instructions.

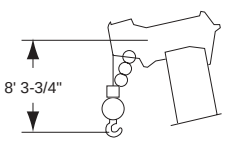
NOTES:

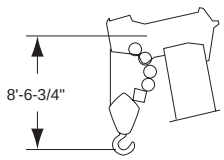
1. All capacities above the bold line are based on structural strength of boom extension.
2. 33 ft. and 56 ft. boom extension lengths may be used for single line lifting service.
3. Radii listed are for a fully extended boom with the boom extension erected. For main boom lengths less than fully extended, 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.

working range

36-110' main boom + 33-56' lattice extension + 20' or 40' insert

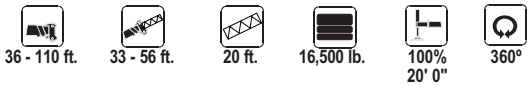






Dimensions are for largest Grove furnished hook block and headache ball, with anti-two block activated.

load charts



	Pounds					
	33 ft. LENGTH			56 ft. LENGTH		
	#0064	#0065	#0066	#0084	#0085	#0086
Feet	0° OFFSET	25° OFFSET	45° OFFSET	0° OFFSET	25° OFFSET	45° OFFSET
35	*9,360 (78)					
40	9,360 (77.5)			*6,300 (78)		
45	8,480 (76)	*7,480 (78)		6,300 (77.5)		
50	7,680 (74)	7,070 (77.5)		6,000 (77)		
55	6,990 (72)	6,470 (76)	5,880 (78)	5,990 (75.5)		
60	6,390 (70)	5,970 (74)	5,480 (76.5)	5,980 (73.5)	*4,840 (78)	
65	5,890 (68.5)	5,570 (72.5)	5,080 (74.5)	5,510 (72)	4,840 (77.5)	
70	5,390 (66.5)	5,070 (70.5)	4,780 (72.5)	5,010 (70.5)	4,440 (76.5)	
75	4,990 (64.5)	4,770 (68.5)	4,480 (70.5)	4,560 (68.5)	4,050 (75)	*3,760 (78)
80	4,650 (62.5)	4,400 (66)	4,190 (68)	4,170 (67)	3,870 (73)	3,460 (77)
85	4,300 (60)	4,150 (64)	3,890 (66)	3,820 (65)	3,570 (71.5)	3,260 (75)
90	4,000 (58)	3,850 (62)	3,690 (63.5)	3,520 (63.5)	3,320 (69.5)	2,960 (73)
95	3,760 (56)	3,650 (59.5)	3,500 (61.5)	3,220 (61.5)	3,070 (67.5)	2,770 (71)
100	3,510 (53.5)	3,410 (57.5)	3,300 (59)	2,980 (59.5)	2,880 (66)	2,570 (69)
105	3,260 (51)	3,210 (55)	3,100 (56.5)	2,780 (58)	2,680 (64)	2,460 (67)
110	3,070 (48.5)	3,020 (52.5)	2,930 (54)	2,530 (56)	2,480 (62)	2,340 (65)
115	2,870 (46)	2,870 (50)	2,780 (51)	2,340 (54)	2,280 (60)	2,200 (63)
120	2,550 (43.5)	2,730 (47)		2,190 (52)	2,140 (57.5)	2,050 (60.5)
125	2,170 (40.5)	2,500 (44)		2,000 (49.5)	1,990 (55.5)	1,910 (58)
130	1,820 (37.5)	2,100 (41)		1,850 (47.5)	1,850 (53)	1,810 (55.5)
135	1,500 (34.5)	1,730 (37.5)		1,720 (45)	1,750 (51)	1,670 (53)
140	1,210 (30.5)	1,390 (33.5)		1,480 (42.5)	1,610 (48.5)	
145					1,520 (45.5)	
150					1,370 (43)	
No Load Stability Data						
Min. boom angle at 110' boom length	22°	29°	45°	38°	40°	45°
Max. boom length at 0° boom angle	100 ft.			80 ft.		

NOTE: ( ) Boom angles are in degrees. A6-829-101484

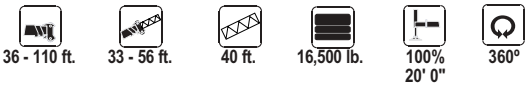
*This capacity is based upon maximum boom angle.

#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 and do not exceed 85% of tipping loads, in accordance with SAE J-765.
2. 33 ft. and 56 ft. folding boom extension lengths may be used for single line lifting service only.
3. For main boom lengths less than 110 ft. with the boom extension erected, 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



Pounds

Feet	33 ft. LENGTH			56 ft. LENGTH		
	#0064 0° OFFSET	#0065 25° OFFSET	#0066 45° OFFSET	#0084 0° OFFSET	#0085 25° OFFSET	#0086 45° OFFSET
45	6,560 (78)					
50	5,960 (76)			4,510 (78)		
55	5,360 (74.5)	5,860 (78)		4,210 (77.5)		
60	4,860 (73)	5,260 (76.5)	*5,170 (78)	3,910 (76)		
65	4,370 (71)	4,870 (75)	4,670 (77.5)	3,710 (74.5)		
70	3,970 (69.5)	4,370 (73)	4,270 (75.5)	3,410 (73)	*3,710 (78)	
75	3,670 (67.5)	4,070 (71.5)	3,980 (73.5)	3,220 (71.5)	3,420 (77.5)	
80	3,270 (66)	3,670 (69.5)	3,680 (72)	2,820 (70)	3,120 (76)	
85	2,980 (64)	3,370 (68)	3,380 (70)	2,520 (68.5)	2,820 (74.5)	2,730 (77.5)
90	2,780 (62.5)	3,080 (66)	3,080 (68)	2,320 (66.5)	2,620 (72.5)	2,530 (76)
95	2,480 (60.5)	2,880 (64)	2,890 (66)	2,030 (65)	2,330 (71)	2,340 (74.5)
100	2,290 (58.5)	2,580 (62)	2,690 (64)	1,830 (63.5)	2,130 (69.5)	2,140 (72.5)
105	2,090 (56.5)	2,390 (60)	2,390 (62)	1,630 (62)	1,930 (68)	1,940 (71)
110	1,900 (54.5)	2,190 (58)	2,200 (60)	1,440 (60)	1,730 (66)	1,740 (69)
115	1,700 (52.5)	2,000 (56)	2,100 (58)	1,240 (58.5)	1,540 (64.5)	1,550 (67)
120	1,600 (50.5)	1,800 (54)	1,910 (55.5)	1,140 (57)	1,340 (62.5)	1,450 (65)
125	1,410 (48)	1,700 (51.5)	1,710 (53)		1,240 (61)	1,260 (63.5)
130	1,310 (46)	1,510 (49.5)	1,520 (50.5)		1,050 (59)	1,160 (61.5)
135	1,120 (43.5)	1,420 (47)	1,420 (48)			
140	1,030 (41)	1,220 (44.5)				
145		1,070 (41.5)				
No Load Stability Data						
Min. boom angle at 110' 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 and do not exceed 85% of tipping loads, in accordance with SAE J-765.
2. 33 ft. and 56 ft. folding boom extension lengths may be used for single line lifting service only.
3. For main boom lengths less than 110 ft. with the boom extension erected, 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 handling

Weight Reductions for Load Handling Devices

33 ft.-56 ft. Folding Boom Extension	
*33 ft. Extension (Erected)	4,350 lb.
*56 ft. Extension (Erected)	9,450 lb.
Folding Ext. with 20 ft. Insert	
*33 ft. Extension (Erected)	9,410 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 Ton, 5 Sheave	1,125 lb. +
50 Ton, 5 Sheave	1,075 lb. +
40 Ton, 5 Sheave	785 lb. +
8.3 Ton Headache Ball (non-swivel)	350 lb. +
8.3 Ton 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 Line Pulls	Nominal Cable Length
Main	3/4" (19 mm) 6x37 Class, EIPS, IWRC Special Flexible Min. Breaking Strength 58,800 lb.	16,800 lb.	500 ft.
Main & Aux.	3/4" (19 mm) Flex-X 35 Rotation Resistant (Non-rotating) Min. Breaking Strength 85,800 lb.	16,800 lb.	500 ft.

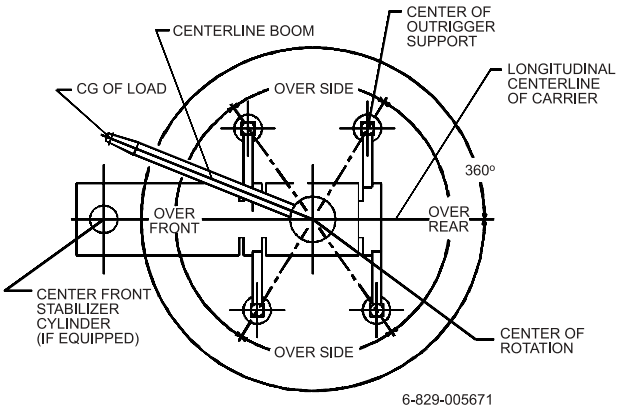
The approximate weight of 3/4" wire rope is 1.5 lb./ft.

Hoist Performance

Wire Rope Layer	Hoist Line Pulls Two Speed Hoist Low Available lb.*	High Available lb.*	Drum Rope Capacity (ft.) Layer	Total
1	18,134	9,067	78	78
2	16,668	8,334	85	164
3	15,420	7,710	92	256
4	14,347	7,174	99	356
5	13,413	6,707	106	462
6	12,594	6,297	113	575

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

Working Area Diagram



6-829-005671

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

specifications

Superstructure

Boom

36 ft. - 110 ft. (11 m - 33.5 m) four section, full power sequenced synchronized boom.
Maximum Tip Height: 118 ft. (35.9 m).

Folding Lattice Extension

33 ft. - 56 ft. (10.1 m - 17.1 m) folding lattice swingaway extension offsettable at 0˚, 25˚ or 45˚. Stows alongside base boom section.
Maximum Tip Height: 172.5 ft. (52.6 m)

*Optional Lattice Extension

33 ft. (10.1 m) lattice swingaway extension, offsettable at 0˚, 25˚ or 45˚. Stows alongside base boom section.
Maximum Tip Height: 148 ft. (45.1 m).

*Optional 20 ft. (6.1 m) or 40 ft. (12.2 m) Swingaway Extension Inserts

Installs between boom nose and extension, non-stowable.
Maximum Tip Height: 192 ft. (58.5 m) - 20 ft. (6.1 m) insert
212 ft. (64.6 m) - 40 ft. (12.2 m) insert

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 & 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.

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

11,000 lbs. (4 990 kg) consisting of (2) 5,500 lb. (2 495 kg) sections. *Optional “Heavy Lift” package consisting of (1) additional 5,500 lb. (2 495 kg) section, for a total of 16,500 lb. (7 484 kg). Hydraulic installation/removal.

Hydraulic System

Four main gear pumps with a combined capacity of 135.4 GPM (513 L/m). Individual post pressure compensated valve banks.
Maximum operating pressure: 4000 psi (27.6 Mpa).
Return line type filter with full flow by-pass protection and service indicator. Replaceable cartridge with beta rating of 5/12/16.
170 gallons (643 L) reservoir. Remote mounted oil cooler with thermostatically controlled electric motor driven fan.

Hoist Specifications
Main and Auxiliary Hoists-Model HO3OG-16G

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

Single Line Pull:	1st Layer:	18,134 lb. (8 226 kg)
	3rd Layer:	15,420 lb. (6 995 kg)
	5th Layer:	13,413 lb. (6 084 kg)
Maximum Single Line Speed:		580 FPM (177 m/min)
Maximum Permissible Line Pull:		16,800 lb. (7 620kg) w/standard 6 x 37 class rope
		16,800 lb. (7 620 kg) w/optional 35 x 7 class rope
Rope Diameter:		3/4 in. (19 mm)
Rope Length:		500 ft. (152 m)
Rope Type:		6 x 36 WS non-rotation resistant Optional 35 x 7 rotation resistant
Maximum Rope Stowage:		695 ft. (212 m)

*Denotes optional equipment

specifications

Carrier

Chassis
Triple box section, four-axle carrier, fabricated from highstrength, 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 24 in. (610 mm) diameter. Three position setting with fully extended, intermediate (50%) extended and fully retracted capacities.

Outrigger Controls
Located in the superstructure cab and on the left side (umbilical design), requires two hand operation. Crane level indicator (sight bubble) on right side console. *Optional controls in lighted boxes, mounted on both sides of chassis.

Engine
Cummins ISM 450 diesel, six cylinders, after cooled, 661 cu. in. (10.8 L), 450 bhp (336 kW) @ 1800 RPM. Maximum torque 1,450 ft. lb. (1966 Nm) @ 1200 RPM. Equipped with engine brake, engine block heater, cold start aid (less canister) and audio-visual engine distress system.

Fuel Tank Capacity
100 gallons (379 L).

Transmission
Roadranger 11 speeds forward, 3 reverse.

Drive
Drive 8 x 4 x 4.

Steering
Front axle, single circuit, mechanical steering with hydraulic assist.

Axles
Front: (2) beam-type steering axles, 83.3 in. (2.1 m) track.
Rear: (2) single reduction drive axles, 75.1 in. (1.9 m) track. Inter-axle differential lock.

Brakes
Dual air, split system operating on all wheels. S-cam brakes on the front and wedge brakes on the rear. Spring-applied, air released parking brake acting on rear axles. Air dryer.

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 Goodyear G286, tubeless, mounted on aluminum disc wheels.
Rear: 315/80R 22.5 Goodyear G286, tubeless, mounted on aluminum disc wheels.

*Optional Tires
Front: 445/65R 22.5 Bridgestone M844F, tubeless.
445/65R 22.5 Michelin XZY (WB), tubeless.
Rear: 315/80R 22.5 Bridgestone M843, tubeless.
315/80R 22.5 Michelin XZY-2 tubeless.

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 and door lock.

Electrical System
Two 12V, 2150 CCA maintenance free batteries. 12V lighting/starting. Battery disconnect standard equipment.

Maximum Speed
65 MPH (104 kph)

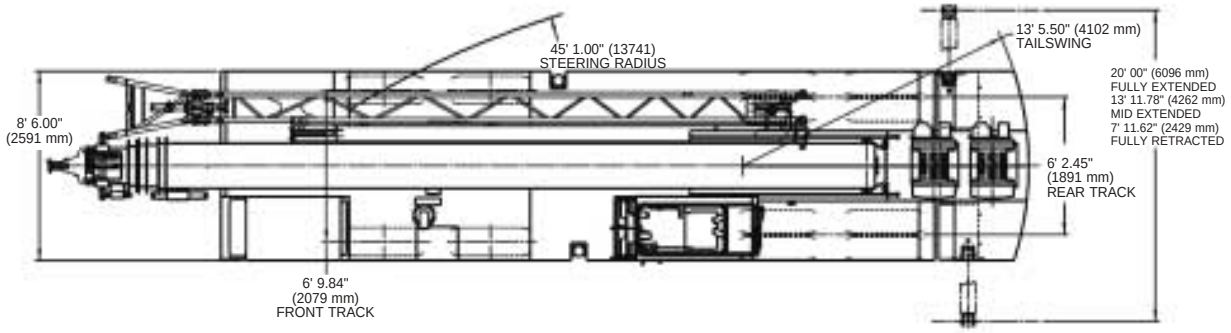
Gradeability (Theoretical)
70%

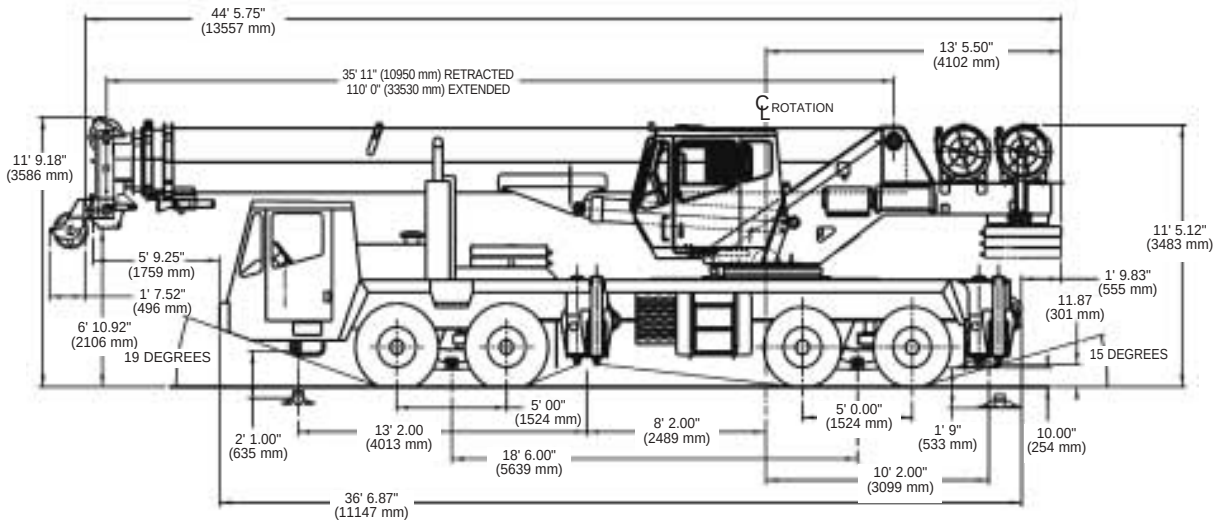
Miscellaneous Standard Equipment
Aluminum fenders with rear storage compartments; dual rear view mirrors; electronic back-up alarm; pump disconnect; tire inflation kit; air cleaner restriction indicator; block and ball stowage; and chrome package which includes aluminum wheels.

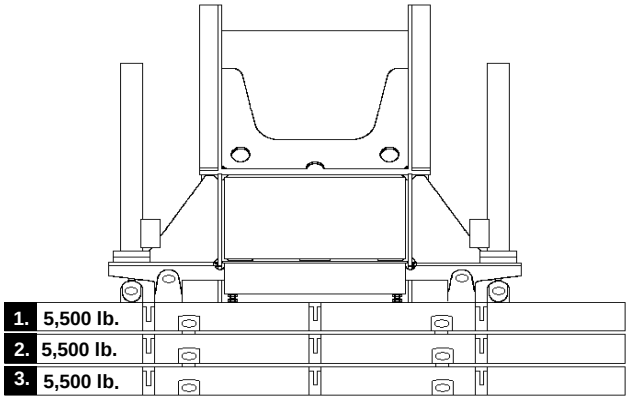
*Optional Equipment
*Flashing Light Package – includes amber strobe for both cabs
*Trailing Boom Package – includes trailer air and electrical disconnects and trailing boom kit with no spin differential (less dolly)
*Hookblocks
*Air conditioning
*Rear pintle hook
*Aluminum outrigger pads
*Cross axle differential locks
*LMI calibration for on-rubber
*LMI light bar
*LMI data logger
*Air horn

**Denotes optional equipment*

dimensions







Counterweight Configuration	1	2	3
Zero			
5,500 lb. (2 495 kg)	●		
11,000 lb. (4 990 kg)	●	●	
16,500 lb. (7 485 kg)	●	●	●

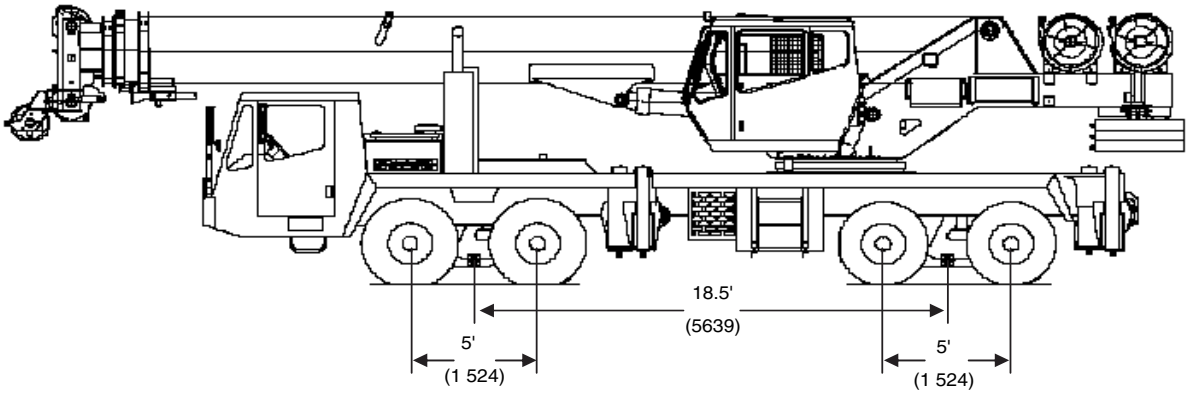
Load Chart Configuration – 360°

	16,500 lb.	11,000 lb.	5,500 lb.	0 lb.
Main Boom	✖ ■ ● □	✖ ■ ● □	✖ ■ ● □	✖ ■ ● □
33 ft. Swingaway	✖ ■	✖ ■	✖ ■	✖ ■
56 ft. Swingaway	✖ ■	✖ ■	✖ ■	✖ ■
76 ft. Boom extension (56 ft. + 20 ft. insert)	✖	✖	✖	✖
96 ft. Boom extension (56 ft. + 40 ft. insert)	✖	✖	✖	✖

Outrigger Span Rubber — 20 ft. = ✖ 14 ft. = ■ 8 ft. = ● P&C = □

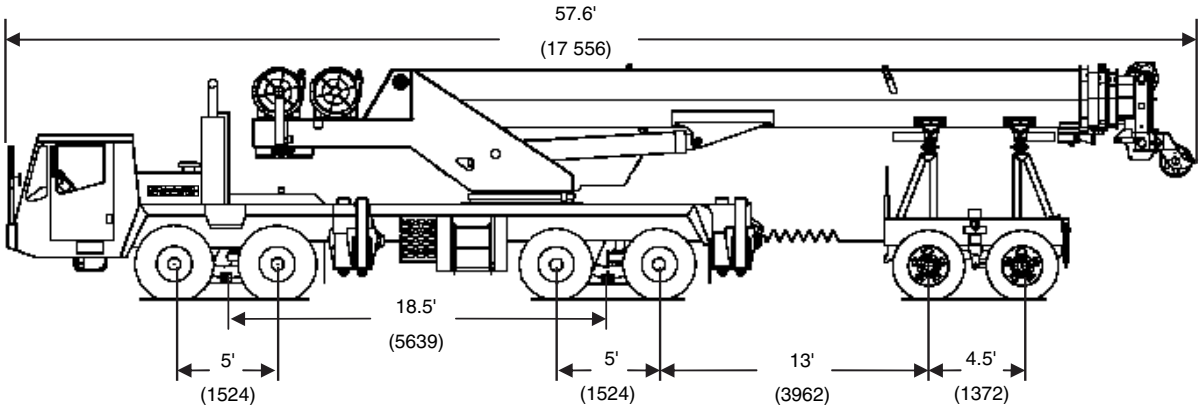
travel proposals

Boom over front



Unit Configuration lb. (kg)	Gross		Front		Rear	
Basic machine including 110 ft. (33.5 m) main boom, main and auxiliary hoists with cable, driver and no counterweight.	74,712	(33 889)	37,097	(16 827)	37,615	(17 062)
Additions:						
5,500 lb. (2 495 kg.) counterweight pinned on superstructure	5,500	(2 495)	-2,214	(1 004)	7,714	(3 499)
11,000 lb. (4 990 kg.) counterweight pinned on superstructure	11,000	(4 990)	-4,428	(2 009)	15,428	(6 998)
16,500 lb. (7 485 kg.) counterweight pinned on superstructure	16,500	(7 484)	-6,642	(3 013)	23,142	(10 497)
5,500 lb. (2 495 kg.) counterweight stowed on carrier deck	5,500	(2 495)	4,692	(2 128)	808	(367)
11,000 lb. (4 990 kg.) counterweight stowed on carrier deck	11,000	(4 990)	9,384	(4 257)	1,616	(733)
Swingaway carrier brackets	330	(150)	282	(128)	48	(22)
33 ft. (10.1 m) swingaway	1,730	(785)	1,972	(895)	-242	(-110)
33 - 56 ft. (10.1 - 17.1 m) swingaway	2,480	(1 125)	2,502	(1 135)	-22	(-10)
Auxiliary boom nose	130	(59)	251	(114)	-121	(-55)
40 ton (35 mt) hookblock stowed in trough	800	(363)	1,142	(518)	-342	(-155)
50 ton (45 mt) hookblock stowed in trough	1,000	(454)	1,428	(648)	-428	(-194)
60 ton (55 mt) hookblock stowed in trough	1,250	(567)	1,785	(810)	-535	(-243)
8.3 ton (7.5 mt) headache ball stowed in trough	371	(168)	530	(240)	-159	(-72)
Air conditioning superstructure cab	285	(129)	10	(5)	275	(125)
Air conditioning chassis cab	88	(40)	115	(52)	-27	(-12)

Trailing boom dolly



Unit Configuration lb. (kg.)	Gross		Front		Rear		Dolly	
Basic machine including 110 ft. (33.5 m) main boom, main and auxiliary hoists with cable, driver, no counterweight and 6,000 lb. (2 722 kg.) tandem axle dolly.	80,737	(36 622)	33,479	(15 186)	29,275	(13 279)	17,983	(8 157)
Additions:								
5,500 lb. (2 495 kg.) counterweight stowed on carrier deck.	5,500	(2 495)	4,692	(2 128)	808	(367)	0	(0)
11,000 lb. (4 990 kg.) counterweight stowed on carrier deck.	11,000	(4 990)	9,384	(4 257)	1,616	(733)	0	(0)
33 ft. (10.1 m) swingaway with brackets.	2,060	(934)	281	(128)	239	(108)	1,540	(699)
33 - 56 ft. (10.1 - 17.1 m) swingaway with brackets.	2,810	(1 275)	384	(174)	326	(148)	2,100	(953)
Auxiliary boom nose.	130	(59)	-24	(-11)	-20	(-9)	174	(79)
40 ton (35 mt) hookblock hanging at boom nose.	800	(363)	-126	(-57)	-107	(-49)	1,033	(469)
50 ton (45 mt) hookblock hanging at boom nose.	1,000	(454)	-157	(-71)	-134	(-61)	1,291	(586)
60 ton (55 mt) hookblock hanging at boom nose.	1,250	(567)	-197	(-89)	-167	(-76)	1,614	(732)
8.3 ton (7.5 mt) headache ball hanging at boom nose.	371	(168)	-58	(-26)	-50	(-23)	479	(217)