

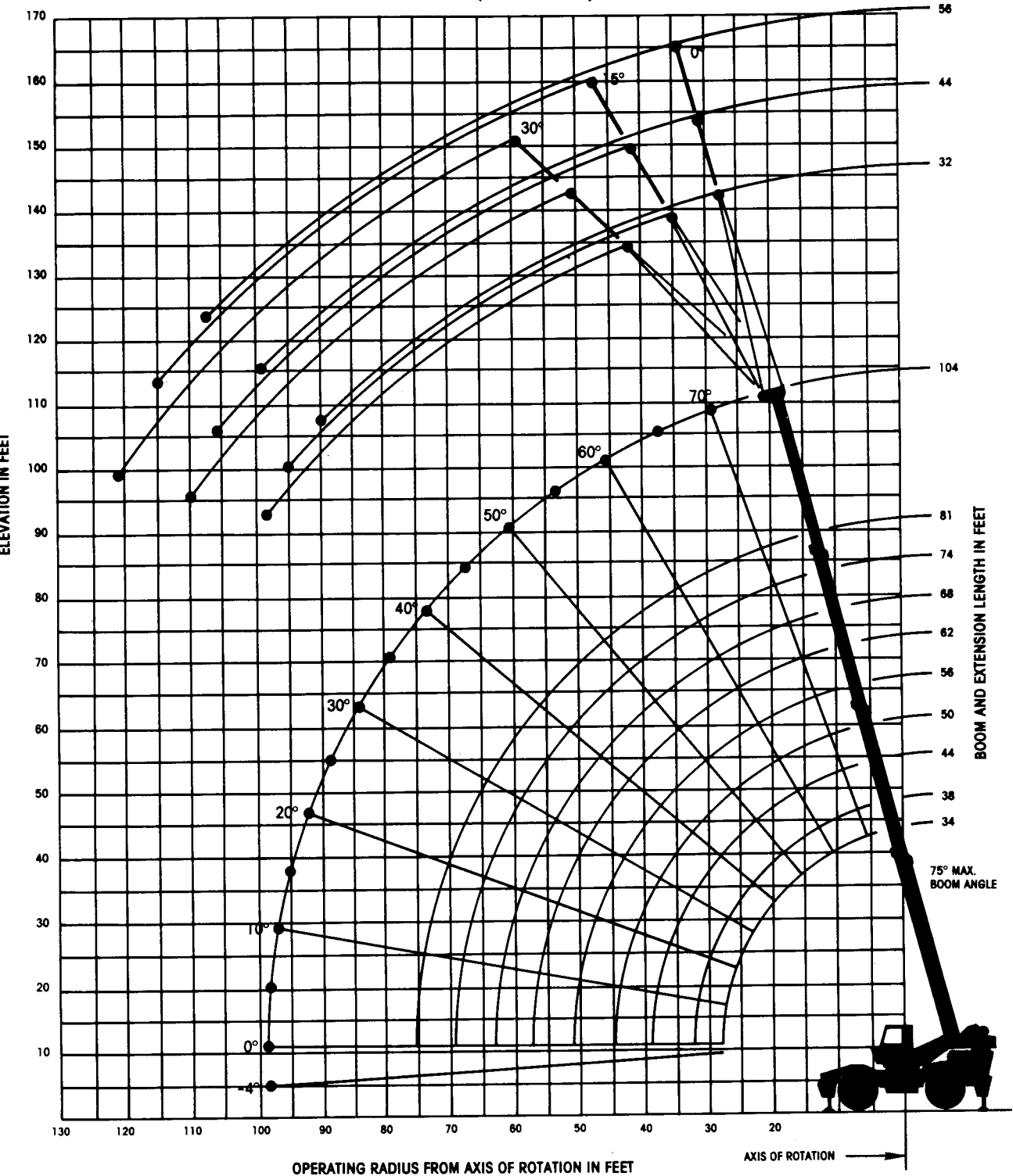


**GROVE**<sup>®</sup>  
worldwide

# RT735

85% Domestic/34 ft.-104 ft. Power Pinned Boom

RANGE DIAGRAM (UNLADEN BOOM)



# ON RUBBER CAPACITIES

## 26.5X25 - 26 PLY STATIONARY CAPACITIES - DEFINED ARC OVER FRONT

Radius in Feet	Main Boom Length in Feet								
	34	38	44	50	56	62	68	74	81
10	55,810 (63.5)	38,700 (67)	29,800 (70.5)						
12	52,230 (60)	33,300 (63.5)	28,450 (67.5)						
15	46,000 (53.5)	27,100 (58.5)	27,100 (63.5)	27,100 (67)	27,100 (70)				
20	31,914 (42)	26,000 (49)	20,100 (55.5)	20,100 (60.5)	20,100 (64)	20,100 (67)			
25	21,400 (26)	21,400 (37.5)	19,400 (47)	15,400 (53.5)	15,400 (58)	15,400 (62)	15,400 (65)		
30		15,530 (21.5)	15,530 (37)	12,000 (46)	12,000 (52)	12,000 (56.5)	12,000 (60)	12,000 (63)	
35			11,580 (23.5)	11,500 (37)	9,500 (45)	9,500 (50.5)	9,500 (55)	9,500 (58.5)	9,500 (62)
40				8,830 (25.5)	8,300 (37)	8,300 (44)	7,500 (49.5)	7,500 (53.5)	7,500 (58)
45					6,910 (26.5)	6,910 (36.5)	6,700 (43.5)	5,900 (48.5)	5,900 (53.5)
50					5,380 (8)	5,380 (27.5)	5,380 (36.5)	4,600 (43)	4,600 (48.5)
55						3,970 (13)	3,970 (28.5)	3,500 (36.5)	3,500 (43.5)
60							3,020 (16.5)	3,020 (29)	2,600 (37.5)
65								2,250 (19)	1,800 (31)
70									1,500 (22.5)

A6-829-0092

## STATIONARY CAPACITIES - 360°

Radius in Feet	Main Boom Length in Feet							
	34	38	44	50	56	62	68	74
10	43,040 (63.5)	29,800 (67)	29,800 (70.5)					
12	37,470 (60)	25,000 (63.5)	25,000 (67.5)					
15	27,150 (53.5)	19,700 (58.5)	19,700 (63.5)	19,700 (67)	19,700 (70)			
20	16,470 (42)	16,470 (49)	13,800 (55.5)	13,800 (60.5)	13,800 (64)	13,800 (67)		
25	10,520 (26)	10,520 (37.5)	10,520 (47)	10,000 (53.5)	10,000 (58)	10,000 (62)	10,000 (65)	
30		7,020 (21.5)	7,020 (37)	7,020 (46)	7,020 (52)	7,020 (56.5)	7,020 (60)	7,020 (63)
35			4,880 (23.5)	4,880 (37)	4,880 (45)	4,880 (50.5)	4,880 (55)	4,880 (58.5)
40				3,350 (25.5)	3,350 (37)	3,350 (44)	3,350 (49.5)	3,350 (53.5)
45					2,220 (26.5)	2,220 (36.5)	2,220 (43.5)	2,220 (48.5)
50					1,270 (8)	1,270 (27.5)	1,270 (36.5)	1,270 (43)

A6-829-0092

## PICK & CARRY CAPACITIES (UP TO 2.5 MPH) - BOOM CENTERED OVER FRONT

Radius in Feet	Main Boom Length in Feet								
	34	38	44	50	56	62	68	74	81
10	48,220 (63.5)	38,700 (67)	29,800 (70.5)						
12	42,060 (60)	33,300 (63.5)	28,450 (67.5)						
15	35,010 (53.5)	27,100 (58.5)	27,100 (63.5)	27,100 (67)	27,100 (70)				
20	30,320 (42)	20,100 (49)	20,100 (55.5)	20,100 (60.5)	20,100 (64)	20,100 (67)			
25	21,400 (26)	18,800 (37.5)	15,400 (47)	15,400 (53.5)	15,400 (58)	15,400 (62)	15,400 (65)	15,400 (67)	
30		15,530 (21.5)	12,000 (37)	12,000 (46)	12,000 (52)	12,000 (56.5)	12,000 (60)	12,000 (63)	12,000 (66)
35			10,260 (23.5)	9,500 (37)	9,500 (45)	9,500 (50.5)	9,500 (55)	9,500 (58.5)	9,500 (62)
40				8,150 (25.5)	7,500 (37)	7,500 (44)	7,500 (49.5)	7,500 (53.5)	7,500 (58)
45					6,580 (26.5)	5,900 (36.5)	5,900 (43.5)	5,900 (48.5)	5,900 (53.5)
50					5,230 (8)	4,600 (27.5)	4,600 (36.5)	4,600 (43)	4,600 (48.5)
55						3,900 (13)	3,500 (28.5)	3,500 (36.5)	3,500 (43.5)
60							2,970 (16.5)	2,600 (29)	2,600 (37.5)
65								2,200 (19)	1,800 (31)
70									1,170 (22.5)

NOTE: ( ) Boom angles are in degrees.

A6-829-009279

# ON RUBBER CAPACITIES

## 29.5X25 - 22 PLY

### STATIONARY CAPACITIES - DEFINED ARC OVER FRONT

Radius in Feet	Main Boom Length in Feet								
	34	38	44	50	56	62	68	74	81
10	58,980 (63.5)								
12	55,200 (60)								
15	50,170 (53.5)								
20	33,400 (42)	27,000 (49)	22,000 (55.5)	22,000 (60.5)					
25	22,740 (26)	22,740 (37.5)	19,000 (47)	17,300 (53.5)	17,300 (58)				
30		15,970 (21.5)	15,970 (37)	13,600 (46)	13,600 (52)	13,600 (56.5)			
35			11,550 (23.5)	10,900 (37)	10,900 (45)	10,900 (50.5)	10,900 (55)		
40				9,120 (25.5)	8,800 (37)	8,800 (44)	8,800 (49.5)	8,800 (53.5)	8,800 (58)
45					7,060 (26.5)	7,060 (36.5)	7,060 (43.5)	7,060 (48.5)	7,060 (53.5)
50					5,520 (8)	5,520 (27.5)	5,520 (36.5)	5,520 (43)	5,520 (48.5)
55						4,280 (13)	4,280 (28.5)	4,280 (36.5)	4,280 (43.5)
60							3,210 (16.5)	3,210 (29)	3,210 (37.5)
65								2,360 (19)	2,360 (31)
70									1,700 (22.5)

A6-829-009076

### STATIONARY CAPACITIES - 360°

Radius in Feet	Main Boom Length in Feet							
	34	38	44	50	56	62	68	74
10	46,600 (63.5)							
12	37,940 (60)							
15	27,080 (53.5)							
20	16,500 (42)	16,500 (49)	14,500 (55.5)	14,500 (60.5)				
25	11,050 (26)	11,050 (37.5)	11,050 (47)	10,100 (53.5)	10,100 (58)			
30		7,440 (21.5)	7,440 (37)	7,440 (46)	7,440 (52)	7,440 (56.5)		
35			5,160 (23.5)	5,160 (37)	5,160 (45)	5,160 (50.5)	5,160 (55)	
40				3,610 (25.5)	3,610 (37)	3,610 (44)	3,610 (49.5)	3,610 (53.5)
45					2,290 (26.5)	2,290 (36.5)	2,290 (43.5)	2,290 (48.5)
50					1,370 (8)	1,370 (27.5)	1,370 (36.5)	1,370 (43)

A6-829-009077

### PICK & CARRY CAPACITIES (UP TO 2.5 MPH) - BOOM CENTERED OVER FRONT

Radius in Feet	Main Boom Length in Feet								
	34	38	44	50	56	62	68	74	81
10	52,100 (63.5)								
12	45,410 (60)								
15	37,780 (53.5)								
20	30,540 (42)	27,000 (49)	22,200 (55.5)	22,200 (60.5)					
25	22,740 (26)	19,000 (37.5)	19,000 (47)	17,300 (53.5)	17,300 (58)				
30		15,970 (21.5)	13,600 (37)	13,600 (46)	13,600 (52)	13,600 (56.5)			
35			11,550 (23.5)	10,900 (37)	10,900 (45)	10,900 (50.5)	10,900 (55)		
40				9,120 (25.5)	8,800 (37)	8,800 (44)	8,800 (49.5)	8,800 (53.5)	8,800 (58)
45					7,060 (26.5)	7,060 (36.5)	7,060 (43.5)	7,060 (48.5)	7,060 (53.5)
50					5,520 (8)	5,520 (27.5)	5,520 (36.5)	5,520 (43)	5,520 (48.5)
55						4,280 (13)	4,280 (28.5)	4,280 (36.5)	4,280 (43.5)
60							3,210 (16.5)	3,210 (29)	3,210 (37.5)
65								2,360 (19)	2,360 (31)
70									1,700 (22.5)

NOTE: ( ) Boom angles are in degrees.

A6-829-009078

# DOMESTIC 85% LIFTING CAPACITIES (POUNDS) ON OUTRIGGERS FULLY EXTENDED

## 32 FT. SWINGAWAY - 360°

## MAIN BOOM - 360°

Main Boom Ang. (deg.)	0° OFFSET		15° OFFSET		30° OFFSET	
	Rad. Ref. (ft.)	Cap. lbs.	Rad. Ref. (ft.)	Cap. lbs.	Rad. Ref. (ft.)	Cap. lbs.
POWER PINNED FLY RETRACTED						
75	25.5	18,200	31.6	10,300	36.6	6,900
70	34.6	14,900	40.4	9,000	45.0	6,400
65	43.4	12,200	48.9	8,000	53.0	6,100
60	51.8	10,200	57.0	7,100	60.6	5,600
55	59.8	8,800	64.6	6,600	67.6	5,400
50	67.4	7,900	71.7	6,100	74.1	5,100
45	74.4	7,020	78.2	5,700	80.0	5,000
POWER PINNED FLY EXTENDED						
75	35.8	11,000	41.6	8,500	46.0	6,400
70	46.6	9,200	52.2	7,500	56.4	5,900
65	57.1	7,800	62.4	6,500	66.2	5,500
60	67.2	6,600	72.1	5,700	75.6	5,100
55	76.7	5,700	81.3	5,000	84.3	4,700
50	85.7	5,000	89.8	4,400	92.4	4,200
45	94.0	4,220	97.6	3,700	99.8	3,410

A6-829-008562 & -008563

### WEIGHT REDUCTIONS FOR LOAD HANDLING DEVICES

32 ft. Extension with 34 ft. - 104 ft. Boom	
*Slowed -	884 lbs.
*Erected -	5,730 lbs.

32 ft. - 56 ft. Tele. Ext. with 34 ft. - 104 ft. Boom	
*Slowed -	1,038 lbs.
*Erected (ret.) -	7,268 lbs.
*Erected (ext.) -	9,367 lbs.

\*Reduction of main boom capacities

HOOKBLOCKS:	
15 Ton, 1 Sheave	400 lbs.
45 Ton, 3 Sheave	1,100 lbs.
Auxiliary Boom Head	220 lbs.
7 1/2 Ton Headache Ball	338 lbs.
10 Ton Headache Ball	560 lbs.

Radius in Feet	Main Boom Length in Feet (Power Pinned Fly Retracted)										Power Pin. Fly Ext. & 81 ft.
	34	38	44	50	56	62	68	74	81	104	
13	70,000 (58)	89,150 (82)	83,700 (88.5)	58,450 (89.5)	54,550 (72)	50,950 (74)					
15	62,000 (53.5)	62,000 (58.5)	58,050 (63.5)	54,000 (67)	51,000 (70)	46,850 (72)	43,850 (74)	40,850 (75.5)			
20	47,300 (42)	47,300 (49)	47,300 (55.5)	43,950 (60.5)	40,550 (64)	38,000 (67)	35,700 (69.5)	33,100 (71.5)	30,000 (74)		
25	38,000 (28)	36,000 (37.5)	36,000 (47)	36,000 (53.5)	34,050 (58)	31,800 (62)	29,900 (65)	27,800 (67)	25,200 (70)	21,800 (75.5)	
30		29,000 (21.5)	29,000 (37)	29,000 (48)	29,000 (52)	27,100 (56.5)	25,800 (60)	23,500 (63)	21,500 (66)	18,800 (72.5)	
35			23,800 (23.5)	23,800 (37)	23,800 (45)	23,500 (50.5)	22,250 (55)	20,350 (58.5)	18,850 (62)	16,400 (69.5)	
40				19,200 (25.5)	19,200 (37)	19,200 (44)	19,200 (49.5)	17,800 (53.5)	16,200 (58)	14,500 (66.5)	
45					15,900 (26.5)	15,900 (38.5)	15,900 (43.5)	15,750 (48.5)	14,250 (53.5)	12,750 (63.5)	
50					13,150 (8)	13,150 (27.5)	13,150 (36.5)	13,150 (43)	12,600 (48.5)	11,300 (60.5)	
55						11,200 (13)	11,200 (28.5)	11,200 (36.5)	11,200 (43.5)	10,000 (57)	
60							9,560 (16.5)	9,560 (29)	9,560 (37.5)	9,060 (53.5)	
65								8,000 (19)	8,000 (31)	8,150 (50)	
70									6,870 (22.5)	7,360 (48)	
75										6,660 (42)	
80										6,040 (37)	
85										5,380 (32)	
90										4,450 (25.5)	
95										3,580 (17)	
Minimum boom angle (deg.) for indicated length (no load)										0	0
Maximum boom length (ft.) at 0 deg. boom angle (no load)										81	104

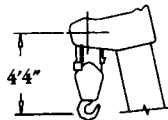
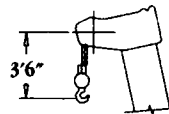
Note: ( ) Boom angles are in degrees.

A6-829-009280

### NOTES FOR RUBBER CAPACITIES

No Load Stability Data		Main Boom Fly Ref.
Front (No load)	Min. boom angle (deg.) for indicated length	0
	Max. boom length (ft.) at 0 deg. boom angle	81
360 Deg. (No load)	Min. boom angle (deg.) for indicated length	47
	Max. boom length (ft.) at 0 deg. boom angle	62

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



## 32 FT. - 56 FT. TELE. SWINGAWAY - 360°

Main Boom Angle (deg.)	32 ft. LENGTH						44 ft. LENGTH						56 ft. LENGTH					
	0° OFFSET		15° OFFSET		30° OFFSET		0° OFFSET		15° OFFSET		30° OFFSET		0° OFFSET		15° OFFSET		30° OFFSET	
	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.
POWER PINNED FLY RETRACTED																		
75	25.5	17,500	31.6	9,600	36.6	6,500	30.3	11,700	40.0	6,400	47.3	4,500	35.1	8,900	48.5	4,800	57.1	3,200
70	34.6	14,200	40.4	8,300	45.0	5,800	40.5	9,400	49.8	5,200	56.4	3,900	46.1	7,100	58.9	4,200	66.8	2,800
65	43.4	11,500	48.9	7,300	53.0	5,400	50.3	7,700	59.1	4,800	65.1	3,700	56.8	5,700	68.8	3,600	76.0	2,600
60	51.8	9,500	57.0	6,500	60.6	5,000	59.7	6,400	68.0	4,500	73.3	3,600	67.0	4,800	78.2	3,200	84.6	2,500
55	59.8	8,100	64.6	5,900	67.6	4,700	68.7	5,200	76.4	4,100	80.9	3,400	76.7	4,000	87.0	2,800	92.5	2,400
50	67.4	7,200	71.7	5,400	74.1	4,400	77.1	4,800	84.1	3,800	87.8	3,300	85.8	3,400	95.1	2,600	99.6	2,300
45	74.4	6,500	78.2	5,000	80.0	4,300	84.9	4,500	91.2	3,600	94.0	3,200	94.2	3,200	102.4	2,500	106.0	2,200
POWER PINNED FLY EXTENDED																		
75	35.8	10,300	41.6	7,800	46.0	6,000	41.5	8,700	50.9	5,800	57.7	4,200	47.4	7,000	58.6	4,400	67.3	3,000
70	46.6	8,500	52.2	6,800	56.4	5,300	53.3	7,100	62.5	5,200	68.6	3,900	60.0	5,900	70.9	3,800	78.7	2,700
65	57.1	7,100	62.4	5,800	66.2	4,800	64.8	5,900	73.6	4,600	79.0	3,700	72.2	5,000	82.6	3,300	89.5	2,500
60	67.2	5,900	72.1	5,100	75.6	4,500	75.8	4,900	84.2	4,100	88.7	3,400	83.9	4,200	93.8	3,000	99.6	2,400
55	76.7	5,000	81.3	4,300	84.3	4,000	86.3	4,000	94.1	3,600	97.8	3,000	95.0	3,400	104.3	2,600	109.0	2,100
50	85.7	4,300	89.8	3,700	92.4	3,500	96.1	3,400	103.3	3,100	106.1	2,700	105.4	2,700	114.0	2,400	117.5	2,000
45	94.0	3,500	97.6	3,200	99.8	2,930	105.3	2,900	111.8	2,460	113.6	2,290	115.0	2,400	122.9	2,160	125.1	1,900

A6-829-008232

STATIONARY CAPACITIES - DEFINED ARC OVER FRONT

Radius in Feet	Main Boom Length in Feet								
	34	38	44	50	56	62	68	74	81
10	64,000 (63.5)	41,900 (67)							
12	58,350 (60)	36,000 (63.5)							
15	50,500 (53.5)	29,450 (58.5)	29,450 (63.5)						
20	32,400 (42)	24,500 (49)	21,950 (56.5)	21,950 (60.5)					
25	21,600 (26)	21,600 (37.5)	17,950 (47)	16,950 (53.5)	16,950 (58)	16,950 (62)			
30		15,850 (21.5)	15,850 (37)	13,400 (46)	13,400 (52)	13,400 (56.5)	13,400 (60)	13,400 (63)	13,400 (66)
35			11,850 (23.5)	10,700 (37)	10,700 (45)	10,700 (50.5)	10,700 (55)	10,700 (58.5)	10,700 (62)
40				9,080 (25.5)	8,600 (37)	8,600 (44)	8,600 (49.5)	8,600 (53.5)	8,600 (58)
45					7,010 (26.5)	7,010 (36.5)	6,900 (43.5)	6,900 (48.5)	6,900 (53.5)
50					5,420 (8)	5,420 (27.5)	5,420 (36.5)	5,420 (43)	5,420 (48.5)
55						4,160 (13)	4,160 (28.5)	4,160 (36.5)	4,160 (43.5)
60							3,130 (16.5)	3,130 (29)	3,130 (37.5)
65								2,280 (19)	2,280 (31)
70									1,570 (22.5)

A6-829-009321

STATIONARY CAPACITIES - 360°

Radius in Feet	Main Boom Length in Feet							
	34	38	44	50	56	62	68	74
10	46,700 (63.5)	29,800 (67)						
12	36,550 (60)	25,000 (63.5)						
15	26,450 (53.5)	19,600 (58.5)	19,600 (63.5)					
20	16,800 (42)	16,800 (49)	13,850 (55.5)	13,850 (60.5)				
25	11,250 (26)	11,250 (37.5)	11,250 (47)	9,980 (53.5)	9,980 (58)	9,980 (62)		
30		7,640 (21.5)	7,640 (37)	7,640 (46)	7,280 (52)	7,280 (56.5)	7,280 (60)	7,280 (63)
35			5,290 (23.5)	5,290 (37)	5,290 (45)	5,270 (50.5)	5,270 (55)	5,270 (58.5)
40				3,590 (25.5)	3,590 (37)	3,590 (44)	3,590 (49.5)	3,590 (53.5)
45					2,310 (26.5)	2,310 (36.5)	2,310 (43.5)	2,310 (48.5)
50					1,300 (8)	1,300 (27.5)	1,300 (36.5)	1,300 (43)

A6-829-009327

PICK & CARRY CAPACITIES (UP TO 2.5 MPH) -  
BOOM CENTERED OVER FRONT

Radius in Feet	Main Boom Length in Feet								
	34	38	44	50	56	62	68	74	81
10	56,500 (63.5)	39,900 (67)							
12	49,100 (60)	34,500 (63.5)							
15	40,650 (53.5)	28,400 (58.5)	28,400 (63.5)	28,400 (67)					
20	30,900 (42)	21,300 (49)	21,300 (55.5)	21,300 (60.5)	21,300 (64)	21,300 (67)	21,300 (69.5)		
25	21,600 (26)	16,600 (37.5)	16,600 (47)	16,600 (53.5)	16,600 (58)	16,600 (62)	16,600 (65)		
30		15,850 (21.5)	13,100 (37)	13,100 (46)	13,100 (52)	13,100 (56.5)	13,100 (60)		
35			11,850 (23.5)	10,500 (37)	10,500 (45)	10,500 (50.5)	10,500 (55)	10,500 (58.5)	10,500 (62)
40				9,080 (25.5)	8,500 (37)	8,500 (44)	8,500 (49.5)	8,500 (53.5)	8,500 (58)
45					7,010 (26.5)	6,800 (36.5)	6,800 (43.5)	6,800 (48.5)	6,800 (53.5)
50					5,420 (8)	5,400 (27.5)	5,400 (36.5)	5,400 (43)	5,400 (48.5)
55						4,160 (13)	4,160 (28.5)	4,160 (36.5)	4,160 (43.5)
60							3,130 (16.5)	3,130 (29)	3,130 (37.5)
65								2,280 (19)	2,280 (31)
70									1,570 (22.5)

NOTE: ( ) Boom angles are in degrees.

A6-829-009323

# NOTES FOR LIFTING CAPACITIES

**WARNING: THIS CHART IS ONLY A GUIDE.** The Notes below are for illustration only and should not be relied upon to operate the crane. The individual crane's load chart, operating instructions and other instruction plates must be read and understood prior to operating the crane.

- All rated loads have been tested to and meet minimum requirements of SAEJ1063 OCT80 - Cantilevered Boom Crane Structures - Method of Test, and do not exceed 85% of the tipping load on outriggers (75% of tipping load on rubber) as determined by SAEJ765 OCT80 Crane Stability Test Code.
- Capacities given do not include the weight of hookblocks, slings, auxiliary lifting equipment and load handling devices. Their weights MUST be added to the load to be lifted. When more than minimum required reeving is used, the additional rope weight shall be considered part of the load.
- Defined Arc  $\pm 6^\circ$  on either side of longitudinal centerline of machine.
- Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.
- All capacities are for crane on firm, level surface. It may be necessary to have structural supports under the outrigger floats or tires to spread the load to a larger bearing surface.
- When either boom length or radius or both are between values listed, the smallest load shown at either the next larger radius or boom length shall be used.
- Tires shall be inflated to the recommended pressure before lifting on rubber.
- For outrigger operation, ALL outriggers shall be fully extended with tires raised free of ground before raising the boom or lifting loads.
- Unless otherwise stated, capacities are with powered boom sections equally extended.
- With tele boom extension in working position and main boom length greater than 81 ft., boom angle must not be less than  $30^\circ$ , since loss of stability will occur causing a tipping condition.

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



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