

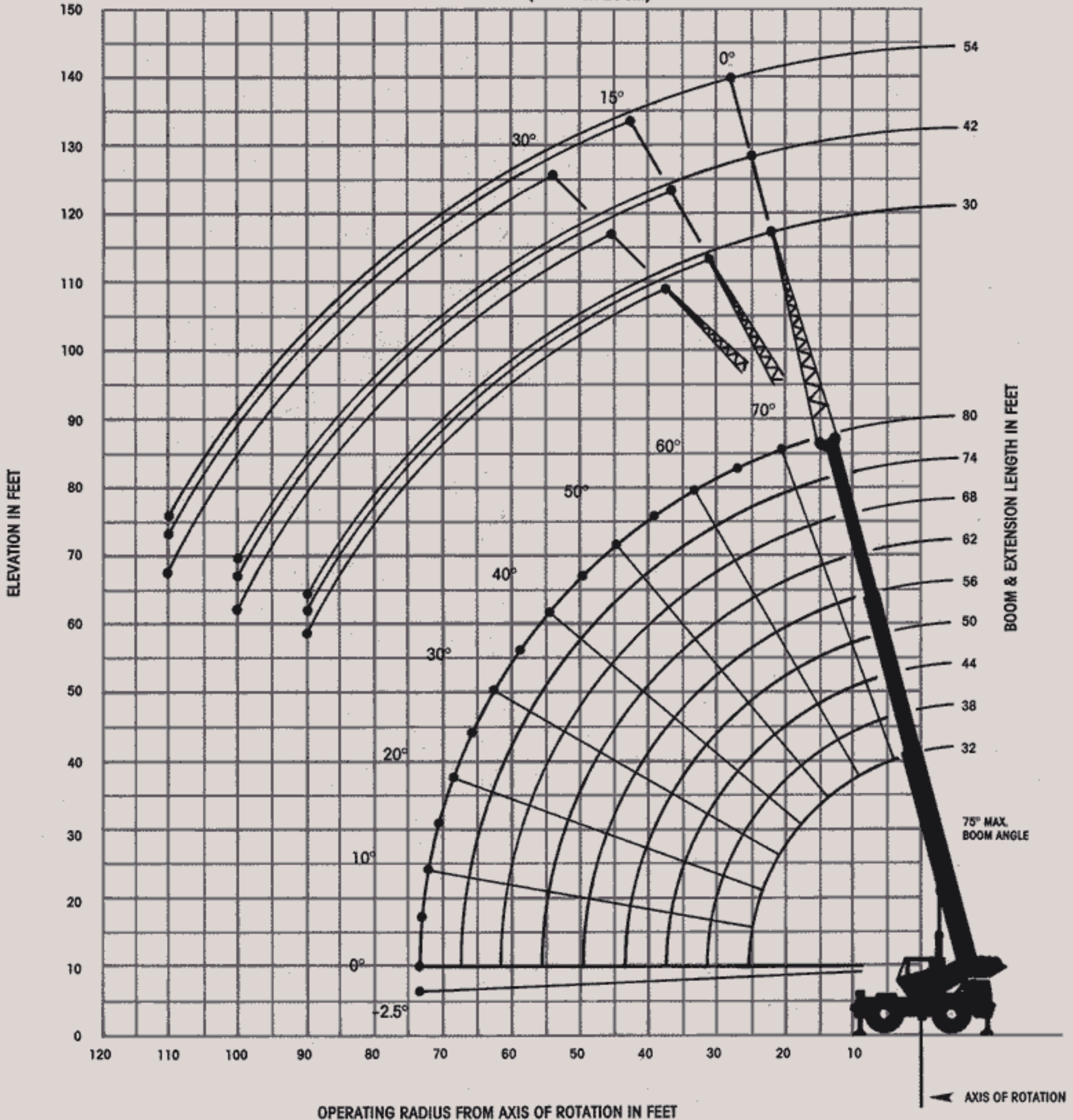


**GROVE**<sup>®</sup>  
worldwide

# RT630B

Rough terrain hydraulic crane/85% Domestic  
32 ft.-80 ft. full power boom

RANGE DIAGRAM (UNLADEN BOOM)





# 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 SAE J1063 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 SAE J765 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.
- 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.
- For outrigger operation, ALL outriggers shall be fully extended with tires raised free of ground before raising the boom or lifting loads.
- Tires shall be inflated to the recommended pressure before lifting on rubber.
- Defined Arc  $\pm 6^\circ$  on either side of longitudinal centerline of machine.
- With boom extension in working position and main boom length greater than 74 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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## ON RUBBER 20.5x25 TIRES - 24PR (STATIONARY - DEFINED ARC OVER FRONT)

Radius in Feet	Main Boom Length in Feet							
	32	38	44	50	56	62	68	74
10	26,000 (63)	26,300 (67.5)	22,300 (71)	22,300 (74)				
12	25,100 (58.5)	23,300 (64)	20,000 (68.5)	20,000 (71.5)				
15	21,150 (52)	18,500 (59)	14,800 (64)	14,800 (67.5)	14,800 (70.5)	14,800 (73)		
20	15,000 (38)	15,000 (49)	11,550 (56)	11,550 (61)	11,550 (65)	11,550 (68)	11,550 (70.5)	11,550 (72.5)
25	9,880 (9.5)	9,880 (37.5)	8,500 (47.5)	8,500 (54)	8,500 (59)	8,500 (63)	8,500 (66)	8,500 (68)
30		7,200 (18.5)	7,200 (37)	7,200 (46)	6,800 (52.5)	6,800 (57.5)	6,800 (61)	6,800 (64)
35			5,420 (21.5)	5,420 (37)	5,000 (45)	5,000 (51.5)	5,000 (56)	5,000 (59.5)
40				4,140 (24)	4,140 (37)	3,800 (45)	3,800 (50.5)	3,800 (54.5)
45					3,190 (25.5)	3,190 (37.5)	3,190 (44)	3,190 (49.5)
50						2,460 (28)	2,460 (37)	2,460 (43.5)
55							1,870 (28.5)	1,870 (37)
60							1,380 (14)	1,380 (29)
65								980 (17.5)

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## ON RUBBER (STATIONARY CAPACITIES - 360°)

Radius in Feet	Main Boom Length in Feet						
	32	38	44	50	56	62	68
10	26,300 (63)	26,300 (67.5)	22,300 (71)				
12	19,200 (58.5)	19,200 (64)	19,200 (68.5)	18,000 (71.5)			
15	13,150 (52)	13,150 (59)	13,150 (64)	13,150 (67.5)	13,150 (70.5)	13,150 (73)	
20	7,920 (38)	7,920 (49)	7,920 (56)	7,920 (61)	7,920 (65)	7,920 (68)	7,920 (70.5)
25	5,100 (9.5)	5,100 (37.5)	5,100 (47.5)	5,100 (54)	5,100 (59)	5,100 (63)	5,100 (66)
30		3,510 (18.5)	3,510 (37)	3,510 (46)	3,510 (52.5)	3,510 (57.5)	3,510 (61)
35			2,430 (21.5)	2,430 (37)	2,430 (45)	2,430 (51.5)	2,430 (56)
40				1,640 (24)	1,640 (37)	1,640 (45)	1,640 (50.5)
45					1,040 (25.5)	1,040 (37.5)	1,040 (44)

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## ON RUBBER (PICK & CARRY CAPACITIES - UP TO 2.5 MPH)

Radius in Feet	Main Boom Length in Feet								
	32	38	44	50	56	62	68	74	80
10	33,500 (63)	26,300 (67.5)	23,300 (71)	22,300 (74)					
12	28,750 (58.5)	23,300 (64)	23,300 (68.5)	20,000 (71.5)					
15	23,300 (52)	23,300 (59)	23,300 (64)	18,500 (67.5)	14,800 (70.5)	14,800 (73)			
20	15,000 (38)	15,000 (49)	15,000 (56)	15,000 (61)	11,550 (65)	11,550 (68)	11,550 (70.5)	11,550 (72.5)	11,550 (74)
25	9,880 (9.5)	9,880 (37.5)	9,880 (47.5)	9,880 (54)	8,500 (59)	8,500 (63)	8,500 (66)	8,500 (68)	8,500 (70.5)
30		6,760 (18.5)	6,760 (37)	6,760 (46)	6,760 (52.5)	6,760 (57.5)	6,760 (61)	6,760 (64)	6,760 (66.5)
35			5,350 (21.5)	5,350 (37)	5,350 (45)	5,350 (51.5)	5,000 (56)	5,000 (59.5)	5,000 (62.5)
40				4,140 (24)	4,140 (37)	4,140 (45)	3,800 (50.5)	3,800 (54.5)	3,800 (58)
45					3,190 (25.5)	3,190 (37.5)	3,190 (44)	3,190 (49.5)	3,190 (53.5)
50						2,460 (28)	2,460 (37)	2,460 (43.5)	2,460 (48.5)
55							1,870 (28.5)	1,870 (37)	1,870 (43.5)
60							1,380 (14)	1,380 (29)	1,380 (37.5)
65								980 (17.5)	980 (30)

NOTE: Boom angles are in degrees.

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## NO LOAD STABILITY ON RUBBER

	No Load Stability Data		Main Boom 80 ft.
Front (No load)	Min. boom angle (deg.) for indicated length		14
	Max. boom length (ft.) at 0 deg. boom angle		74
360 Deg. (No load)	Min. boom angle (deg.) for indicated length		46
	Max. boom length (ft.) at 0 deg. boom angle		56



### 30 FT. OFFSETTABLE EXTENSION (ON OUTRIGGERS - 360°)

### MAIN BOOM ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	0° OFFSET		15° OFFSET		30° OFFSET	
	Boom Angle Ref. (Deg.)	Cap. lbs.	Boom Angle Ref. (Deg.)	Cap. lbs.	Boom Angle Ref. (Deg.)	Cap. lbs.
30	75.0	10,350				
35	73.5	9,800	75.0	7,660		
40	70.5	8,790	74.0	7,040	75.0	5,310
45	67.0	7,510	70.5	6,030	74.0	5,170
50	64.0	6,370	67.0	5,300	70.5	4,810
55	60.5	5,560	63.5	4,730	67.0	4,350
60	57.0	4,880	60.0	4,210	63.5	3,910
65	53.5	4,300	56.5	3,780	60.0	3,550
70	49.5	3,820	52.5	3,410	56.0	3,230
75	45.5	3,410	48.5	3,070	51.5	2,940
80	41.5	2,860	44.0	2,790	47.0	2,690
85	36.5	2,340	39.0	2,340	42.0	2,340
90	31.5	1,890	33.5	1,890	36.0	1,890

\*Capacity based upon maximum boom angle.

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### WEIGHT REDUCTIONS FOR LOAD HANDLING DEVICES

30 FT. EXTENSION	
†Stowed -	456 lbs.
†Erected -	3,288 lbs.

30 FT. - 54 FT. TELE. EXT.	
†Stowed -	652 lbs.
†Erected (ret.) -	5,067 lbs.
†Erected (ext.) -	6,784 lbs.

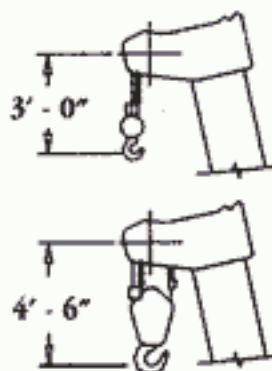
†Reduction of main boom capacities.

HOOKBLOCKS:	
12 Ton, 1 Sheave (12 1/8 in. OD) . . . . .	270 lbs.
12 Ton, 1 Sheave (15 7/8 in. OD) . . . . .	360 lbs.
35 Ton, 4 Sheave . . . . .	600 lbs.
Auxiliary Boom Head . . . . .	145 lbs.
5 Ton Headache Ball . . . . .	172 lbs.

Radius in Feet	Main Boom Length in Feet									
	32	38	44	50	56	62	68	74	80	
10.0	60,000 (63)	39,500 (67.5)	37,500 (71)	36,950 (74)						
12.0	41,300 (58.5)	37,000 (64)	36,000 (68.5)	35,000 (71.5)	32,400 (74)					
15.0	31,750 (52)	31,500 (59)	30,950 (64)	30,300 (67.5)	29,750 (70.5)	29,150 (73)				
20.0	24,050 (38)	24,050 (49)	24,050 (56)	24,050 (61)	23,800 (65)	23,400 (68)	22,250 (70.5)	20,500 (72.5)	19,000 (74)	
25.0	17,950 (9.5)	17,950 (37.5)	17,950 (47.5)	17,950 (54)	17,950 (59)	17,950 (63)	17,950 (66)	17,650 (68)	16,600 (70.5)	
30.0		15,350 (18.5)	15,350 (37)	15,350 (46)	15,350 (52.5)	15,350 (57.5)	15,350 (61)	14,900 (64)	14,550 (66.5)	
35.0			12,850 (21.5)	12,850 (37)	12,850 (45)	12,850 (51.5)	12,850 (56)	12,850 (59.5)	12,500 (62.5)	
40.0				10,700 (24)	10,700 (37)	10,700 (45)	10,700 (50.5)	10,700 (54.5)	10,700 (58)	
45.0					8,970 (25.5)	8,970 (37.5)	8,970 (44)	8,970 (49.5)	8,970 (53.5)	
50.0						7,390 (28)	7,390 (37)	7,390 (43.5)	7,390 (48.5)	
55.0							6,160 (28.5)	6,160 (37)	6,160 (43.5)	
60.0								5,170 (14)	5,170 (29)	5,170 (37.5)
65.0									4,360 (17.5)	4,360 (30)
70.0										3,680 (20)
Minimum boom angle (deg.) for indicated length (no load)										0
Maximum boom length (ft.) at 0 deg. boom angle (no load)										80

NOTE: Boom angles are in degrees.

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

### 30 FT.-54 FT. TELE. EXTENSION ON OUTRIGGERS - 360°

Radius in Feet	30 ft. LENGTH						42 ft. LENGTH						54 ft. LENGTH					
	0° OFFSET		15° OFFSET		30° OFFSET		0° OFFSET		15° OFFSET		30° OFFSET		0° OFFSET		15° OFFSET		30° OFFSET	
	Boom Angle Ref. (Deg.)	Cap. lbs.	Boom Angle Ref. (Deg.)	Cap. lbs.	Boom Angle Ref. (Deg.)	Cap. lbs.	Boom Angle Ref. (Deg.)	Cap. lbs.	Boom Angle Ref. (Deg.)	Cap. lbs.	Boom Angle Ref. (Deg.)	Cap. lbs.	Boom Angle Ref. (Deg.)	Cap. lbs.	Boom Angle Ref. (Deg.)	Cap. lbs.	Boom Angle Ref. (Deg.)	Cap. lbs.
30	75.0	10,000																
35	73.5	9,430	75.0	7,300			75.0	7,700										
40	70.5	8,430	74.0	6,680	75.0	4,950	73.0	7,470	75.0	5,090			75.0	6,150				
45	67.0	7,150	70.5	5,670	74.0	4,800	70.5	6,970	74.5	4,990			72.5	5,730				
50	64.0	6,010	67.0	4,940	70.5	4,450	67.5	6,040	72.0	4,590	75.0	3,750	70.0	5,320	75.0	3,750		
55	60.5	5,190	63.5	4,360	67.0	3,990	64.5	5,080	69.0	4,130	73.5	3,580	67.5	4,860	73.0	3,550		
60	57.0	4,520	60.0	3,850	63.5	3,550	61.5	4,410	66.0	3,650	70.5	3,310	65.0	4,360	70.5	3,320	75.0	2,690
65	53.5	3,940	56.5	3,420	60.0	3,190	58.5	3,880	62.5	3,240	67.0	2,990	62.5	3,830	68.0	3,080	73.5	2,620
70	49.5	3,460	52.5	3,040	56.0	2,870	55.5	3,400	59.5	2,890	64.0	2,690	60.0	3,360	65.0	2,820	71.0	2,500
75	45.5	2,960	48.5	2,710	51.5	2,580	52.5	3,000	56.0	2,590	60.5	2,440	57.0	2,970	62.0	2,530	68.0	2,340
80	41.5	2,360	44.0	2,360	47.0	2,330	49.0	2,660	52.5	2,320	57.0	2,210	54.5	2,650	59.0	2,260	65.0	2,160
85	36.5	1,840	39.0	1,840	42.0	1,840	45.0	2,350	49.0	2,080	53.0	1,990	51.5	2,350	56.0	2,030	61.5	1,950
90	31.5	1,380	33.5	1,380	36.0	1,380	41.5	2,020	44.5	1,870	49.0	1,800	48.0	2,100	52.5	1,830	58.5	1,760
95							37.0	1,620	40.5	1,620	44.5	1,620	45.0	1,870	49.5	1,640	55.0	1,610
100							32.5	1,250	35.5	1,250	39.0	1,250	41.5	1,670	45.5	1,480	51.0	1,450
105													37.5	1,410	41.5	1,330	47.0	1,310
110													33.5	1,120	37.0	1,120	42.0	1,120

\*Capacity based upon maximum boom angle.

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# ZERO DEGREE BOOM ANGLE CHARTS

## ON OUTRIGGERS - 360 DEGREES

Boom Angle	Main Boom Length in Feet								
	32	38	44	50	56	62	68	74	80
0°	12,350 (25)	9,700 (31)	7,760 (37)	6,290 (43)	5,130 (49)	4,200 (55)	3,430 (61)	2,790 (67)	2,240 (73.1)

## ON RUBBER 20.5 x 25 TIRES

Stationary Capacity Defined Arc (3) Over Front

Boom Angle	Main Boom Length in Feet						
	32	38	44	50	56	62	68
0°	9,880 (25)	6,800 (31)	4,860 (37)	3,540 (43)	2,590 (49)	1,870 (55)	1,300 (61)

Stationary Capacity 360° Arc

Boom Angle	Main Boom Length in Feet			
	32	38	44	50
0°	5,100 (25)	3,270 (31)	2,090 (37)	1,260 (43)

Pick & Carry Capacities Up to 2.5 MPH Boom Centered (7) Over Front

Boom Angle	Main Boom Length in Feet						
	32	38	44	50	56	62	68
0°	9,880 (25)	6,445 (31)	4,860 (37)	3,540 (43)	2,590 (49)	1,870 (55)	1,300 (61)

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Note: ( ) Reference radii in feet

Refer to in-cab load chart for notes.