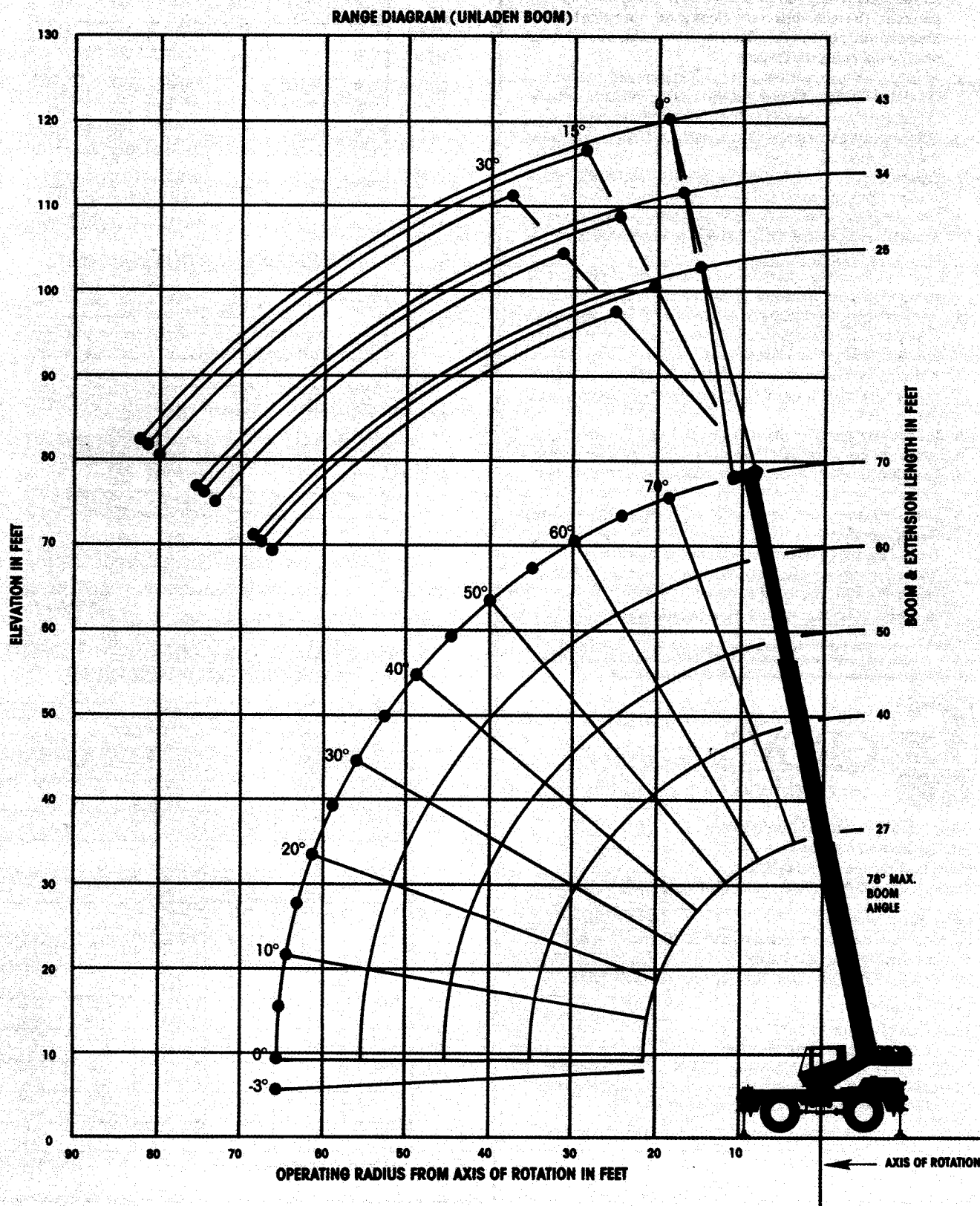




GROVE®
worldwide

RT420

Rough terrain hydraulic crane/85% Domestic
27 ft. - 70 ft. full power 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."

1. 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 OCT 80 Crane Stability Test Code.
2. 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.
3. Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.
4. 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.
5. 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.
6. For outrigger operation, ALL outriggers shall be fully extended with tires raised free of ground before raising the boom or lifting loads.
7. Tires shall be inflated to the recommended pressure before lifting on rubber.
8. Unless otherwise stated, capacities are with powered boom sections equally extended.
9. Defined Arc $\pm 6^\circ$ on either side of longitudinal centerline of machine.
10. With tele. boom extension in working position and main boom length greater than 60 ft., boom angle must not be less than 30° , 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 CAPACITIES 16.00x24 (16 PLY) TIRES STATIONARY (DEFINED ARC OVER FRONT)

Radius in Feet	#9005				
	Main Boom Length in Feet				
	27	40	50	60	70
8	38,360 (64)				
9	32,200 (61.5)				
10	28,100 (59)	16,800 (70)			
12	20,750 (54)	16,800 (66.5)	9,950 (71.5)	8,900 (75.5)	
15	13,900 (48)	13,900 (61.5)	9,960 (68)	8,900 (72)	6,910 (78.5)
20	8,520 (23)	8,520 (52.5)	8,520 (61.5)	8,520 (67)	6,500 (72)
25		5,730 (42)	5,730 (54.5)	5,730 (61.5)	5,730 (67)
30		4,120 (28.5)	4,120 (46.5)	4,120 (55.5)	4,120 (62.5)
35			3,040 (37.5)	3,040 (48.5)	3,040 (57.5)
40			2,270 (25)	2,270 (42.5)	2,270 (52)
45				1,890 (34)	1,890 (48)
50				1,230 (23.5)	1,230 (39.5)
55					890 (31.5)

A6-829-009107

ON RUBBER (STATIONARY - 360°)

Radius in Feet	#9005				
	Main Boom Length in Feet				
	27	40	50	60	70
8	21,860 (64)				
9	17,600 (61.5)				
10	14,860 (59)	14,860 (70)			
12	10,750 (54)	10,750 (66.5)	8,900 (71.5)	8,900 (75.5)	
15	7,420 (48)	7,420 (61.5)	7,310 (68)	7,290 (72)	6,910 (78.5)
20	4,330 (23)	4,330 (52.5)	4,330 (61.5)	4,330 (67)	4,330 (72)
25		2,790 (42)	2,790 (54.5)	2,790 (61.5)	2,790 (67)
30		1,870 (28.5)	1,870 (46.5)	1,870 (55.5)	1,870 (62.5)
35			1,240 (37.5)	1,240 (48.5)	1,240 (57.5)
40			780 (25)	780 (42.5)	780 (52)

A6-829-009108

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

Radius in Feet	#9006				
	Main Boom Length in Feet				
	27	40	50	60	70
8	31,760 (64)				
9	30,000 (61.5)				
10	28,200 (59)				
12	20,750 (54)				
15	13,900 (45)	13,000 (61.5)	12,960 (68)		
20	8,520 (23)	8,520 (52.5)	8,520 (61.5)	8,520 (67)	
25		5,730 (42)	5,730 (54.5)	5,730 (61.5)	5,730 (67)
30		4,120 (28.5)	4,120 (46.5)	4,120 (55.5)	4,120 (62.5)
35			3,040 (37.5)	3,040 (48.5)	3,040 (57.5)
40			2,270 (25)	2,270 (42.5)	2,270 (52)
45				1,890 (34)	1,890 (48)
50				1,230 (23.5)	1,230 (39.5)
55					890 (31.5)

Note: Boom angles are in degrees

A6-829-009109

**WEIGHT REDUCTIONS FOR
LOAD HANDLING DEVICES**

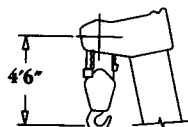
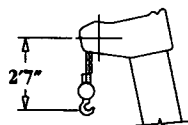
25 FT. FIXED EXTENSION WITH 27 FT. - 70 FT. BOOM	
† Stowed -	294 lbs.
† Erected -	1,471 lbs.

25 FT. - 43 FT. TELE. BOOM EXTENSION WITH 27 FT. - 70 FT. BOOM	
† Stowed -	538 lbs.
† Erected (Retracted) -	3,906 lbs.
† Erected (Extended) -	4,995 lbs.

† Reduction of main boom capacities.

HOOKBLOCKS:

22 Ton, 3 Sheave	499 lbs.
15 Ton, 2 Sheave	462 lbs.
12 Ton, 1 Sheave	360 lbs.
5 Ton Headache Ball	172 lbs.
Auxiliary Boom Head	145 lbs.



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

NOTES FOR RUBBER CAPACITIES

No Load Stability Data		Main Boom 70 ft.
Front	Min. boom angle (deg.) for indicated length	23
(No load)	Max. boom length (ft.) at 0 deg. boom angle	60
360 Deg.	Min. boom angle (deg.) for indicated length	46
(No load)	Max. boom length (ft.) at 0 deg. boom angle	40

**27 FT. - 70 FT. BOOM
ON OUTRIGGERS FULLY EXTENDED - 360°**

Radius in Feet	#0001					#0003
	Main Boom Length in Feet					25 ft. Ext. & 70 ft.
	27	40	50	60	70	95
9	40,000 (61.5)	40,000 (71.5)	39,850 (75.5)			
10	38,000 (59)	38,000 (70)	37,550 (74)			
12	31,450 (54)	31,450 (66.5)	31,450 (71.5)	31,450 (75.5)		
15	24,300 (45)	24,300 (61.5)	24,300 (68)	24,300 (72)	22,000 (76.5)	
20	18,000 (23)	17,650 (52.5)	17,650 (61.5)	17,650 (67)	17,650 (72)	12,500 (78)
		13,300 (42)	13,300 (54.5)	13,300 (61.5)	13,300 (67)	10,750 (74.5)
		10,400 (28.5)	10,400 (46.5)	10,400 (55.5)	10,400 (62.5)	9,810 (71)
35			8,370 (37.5)	8,370 (49.5)	8,370 (57.5)	8,930 (67.5)
40			6,630 (25)	6,630 (42.5)	6,630 (52)	7,820 (64)
45				5,370 (34)	5,370 (46)	6,210 (60.5)
50				4,410 (23.5)	4,410 (39.5)	5,040 (57)
55					3,660 (31.5)	4,140 (52.5)
60					3,060 (21.5)	3,430 (48.5)
65						2,860 (44)
Minimum boom angle (deg.) for indicated length (no load)					0	0
Maximum boom length (ft.) at 0 deg. boom angle (no load)					70	95

NOTE: Boom angles are in degrees

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

A6-829-008382 & 008259

25 FT. - 43 FT. TELE. BOOM EXTENSION (ON OUTRIGGERS - 360°)

Radius in Feet	25 ft. LENGTH						34 ft. LENGTH						43 ft. LENGTH					
	#0021		#0022		#0023		#0031		#0032		#0033		#0041		#0042		#0043	
	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.
20	78.0	*12,500					78.0	*8,500					78.0	*5,000				
25	75.0	10,750	78.0	7,500			77.0	8,030					77.5	4,750				
30	71.5	9,810	74.5	6,870	78.0	*5,500	74.0	7,170	78.0	*5,500			75.0	4,360				
35	68.0	8,930	71.0	6,330	74.5	5,110	71.0	6,390	75.5	4,910	78.0	*3,600	72.0	4,020	78.0	3,000		
40	64.5	7,200	67.5	5,880	71.0	4,770	68.0	5,680	72.5	4,540	76.0	3,290	69.5	3,710	75.5	2,800	78.0	*2,300
45	61.0	5,670	64.0	5,450	67.5	4,490	65.0	5,040	69.0	4,180	72.5	2,930	66.5	3,420	72.5	2,650	76.5	2,210
50	57.0	4,610	60.0	4,510	63.5	4,260	61.5	4,590	66.0	3,840	69.5	2,650	64.0	3,170	70.0	2,510	73.5	2,160
55	53.0	3,600	56.0	3,600	59.5	3,600	58.5	4,010	62.5	3,510	66.0	2,430	61.0	2,940	67.0	2,400	70.5	2,100
60	49.0	2,860	52.0	2,860	56.5	2,860	55.0	3,260	59.0	3,200	62.0	2,250	58.0	2,730	64.0	2,300	67.0	2,030
65	44.0	2,260	47.0	2,260	50.5	2,260	51.0	2,650	55.5	2,650	58.5	2,100	54.5	2,540	60.5	2,210	63.5	1,970
70							47.5	2,130	51.5	2,130	54.0	1,970	51.5	2,360	57.5	2,130	60.0	1,890
75													48.0	2,140	54.0	2,060	56.5	1,820
80													44.0	1,780	50.0	1,780	52.0	1,730

*This capacity is based upon the maximum boom angle

A6-829-008268



ON RUBBER CAPACITIES 17.5x25 (20 PLY) TIRES STATIONARY (DEFINED ARC OVER FRONT)

Radius in Feet	#9005				
	Main Boom Length in Feet				
	27	40	50	60	70
8	36,300 (64)	33,000 (73)	29,150 (76.5)		
9	31,950 (61.5)	28,650 (71.5)	25,650 (75.5)		
10	27,900 (59)	25,250 (70)	22,850 (74)		
12	20,750 (54)	20,200 (66.5)	18,550 (71.5)	17,150 (75.5)	
15	13,900 (45)	13,900 (61.5)	13,900 (68)	13,350 (72)	12,500 (76.5)
20	8,520 (23)	8,520 (52.5)	8,520 (61.5)	8,520 (67)	8,520 (72)
25		5,730 (42)	5,730 (54.5)	5,730 (61.5)	5,730 (67)
30		4,120 (28.5)	4,120 (46.5)	4,120 (55.5)	4,120 (62.5)
35			3,040 (37.5)	3,040 (49.5)	3,040 (57.5)
40			2,270 (25)	2,270 (42.5)	2,270 (52)
45				1,690 (34)	1,690 (46)
50				1,230 (23.5)	1,230 (39.5)
55					860 (31.5)

A6-829-008932

ZERO DEGREE BOOM ANGLE CHARTS

ON OUTRIGGERS - 360 DEGREES

Boom Angle	Main Boom Length in Feet				
	27	40	50	60	70
0°	16,550 (21.1)	8,910 (33.7)	5,650 (43.7)	3,830 (53.7)	2,680 (63.8)

ON RUBBER

(16.00 OR 17.5)

Stationary Capacity Defined Arc (3) Over Front and
Pick & Carry Capacities Up To 2.5 MPH Boom Centered (7) Over Front

Boom Angle	Main Boom Length in Feet			
	27	40	50	60
0°	7,670 (21.1)	2,670 (33.7)	1,010 (43.7)	950 (53.7)

Stationary Capacity 360° Arc

Boom Angle	Main Boom Length in Feet		
	27	40	
0°	3,860 (21.1)	1,380 (33.7)	

A6-829-009364A

Note: () Reference radii in feet

Refer to in-cab load chart for notes.

ON RUBBER (STATIONARY - 360°)

Radius in Feet	#9005				
	Main Boom Length in Feet				
	27	40	50	60	70
8	21,850 (64)	20,300 (73)	14,300 (76.5)		
9	17,600 (61.5)	17,600 (71.5)	12,800 (75.5)		
10	14,650 (59)	14,650 (70)	11,550 (74)		
12	10,750 (54)	10,750 (66.5)	9,520 (71.5)	9,470 (75.5)	
15	7,420 (45)	7,420 (61.5)	7,310 (68)	7,290 (72)	6,910 (76.5)
20	4,330 (23)	4,330 (52.5)	4,330 (61.5)	4,330 (67)	4,330 (72)
25		2,790 (42)	2,790 (54.5)	2,790 (61.5)	2,790 (67)
30		1,870 (28.5)	1,870 (46.5)	1,870 (55.5)	1,870 (62.5)
35			1,240 (37.5)	1,240 (49.5)	1,240 (57.5)
40			780 (25)	780 (42.5)	780 (52)

A6-829-008933

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

Radius in Feet	#9006				
	Main Boom Length in Feet				
	27	40	50	60	70
8	28,400 (64)	22,000 (73)	21,800 (76.5)		
9	26,200 (61.5)	20,150 (71.5)	20,000 (75.5)		
10	24,250 (59)	18,600 (70)	18,450 (74)		
12	20,750 (54)	15,950 (66.5)	15,850 (71.5)	14,200 (75.5)	
15	13,900 (45)	13,000 (61.5)	12,950 (68)	11,500 (72)	11,500 (76.5)
20	8,520 (23)	8,520 (52.5)	8,520 (61.5)	8,520 (67)	8,500 (72)
25		5,730 (42)	5,730 (54.5)	5,730 (61.5)	5,730 (67)
30		4,120 (28.5)	4,120 (46.5)	4,120 (55.5)	4,120 (62.5)
35			3,040 (37.5)	3,040 (49.5)	3,040 (57.5)
40			2,270 (25)	2,270 (42.5)	2,270 (52)
45				1,690 (34)	1,690 (46)
50				1,230 (23.5)	1,230 (39.5)
55					860 (31.5)

NOTE: Boom angles are in degrees.

A6-829-008934