RT75S
50 TON CAP.

35 ft. - 142 ft. BOOM

(POWER PINNED)

PCSA CLASS 10-151

RATED LIFTING CAPACITIES IN POUNDS

ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	Main Boom Length in Feet (Power Pinned Fly Retracted)							Power Pin. Fly & 85 ft.	32 ft. Ext. & 85 ft.	32 ft. Ext. & 110 ft.
	*35	40	45	55	65	75	85	110	117	142
10	100,000 (65)	74,000 (68)	72,000 (71)	64,000 (75)				See Warning Note C	See Warning Note D	See Warning Note E
12	80,000 (61)	69,800 (65)	65,500 (68)	58,000 (73)	44,700 (76)					
15	70,000 (55.5)	61,000 (60)	57,000 (64)	50,300 (69.5)	43,500 (73)					
20	53,000 (44.5)	50,300 (51)	46,800 (56.5)	40,800 (63.5)	37,400 (68.5)	35,000 (72)	31,000 (74.5)			
25	37,550 (31)	37,550 (41)	37,550 (48.5)	34,200 (57.5)	31,200 (63.5)	29,200 (68)	27,000 (71)	20,000 (76)	17,500 (76)	
30		26,200 (28)	26,200 (39)	26,200 (51)	26,200 (58.5)	24,700 (63.5)	23,500 (67.5)	17,000 (74)	15,600 (74)	
35			19,620 (26.5)	19,620 (44)	19,620 (53)	19,620 (59)	19,620 (63.5)	14,550 (71)	13,500 (71.5)	9,600 (76)
40				15,120 (35.5)	15,120 (47)	15,120 (54.5)	15,120 (60)	12,720 (68)	11,900 (69)	8,550 (74.5)
45				11,850 (24.5)	11,850 (40.5)	11,850 (49.5)	11,850 (55.5)	11,300 (65)	10,600 (66)	7,680 (72.5)
50					9,650 (32.5)	9,650 (44)	9,650 (51.5)	10,000 (62)	9,600 (63.5)	6,940 (70.5)
55					7,680 (22.5)	7,680 (38)	7,680 (46.5)	8,850 (59)	8,700 (61)	6,280 (68)
60						6,120 (31)	6,120 (41.5)	7,900 (56)	7,950 (58)	5,760 (66)
65						4,810 (21.5)	4,810 (36)	6,730 (52.5)	6,900 (55)	5,230 (63.5)
70							3,830 (29.5)	5,660 (49)	5,810 (52)	4,800 (61)
75							2,930 (20.5)	4,580 (45.5)	4,750 (48.5)	4,490 (58.5)
80								3,760 (41.5)	3,890 (45)	4,140 (56)
85								2,970 (37)	3,230 (41.5)	3,670 (53.5)
90								2,400 (32)	2,590 (37.5)	3,080 (51)
95								1,860 (26.5)	2,030 (33)	2,560 (48)
100								1,360 (18.5)	1,520 (28)	2,100 (45)
105									1,020 (21.5)	1,680 (42)
110										1,300 (38.5)

A6-829-001476C & -002139A

ON OUTRIGGERS FULLY EXTENDED -

Radius in Feet	Main Boom Length in Feet (Power Pinned Fly Retracted)						
	*35	40	45	55	65	75	85
10	100,000 (65)	74,000 (68)	72,000 (71)	64,000 (75)			
12	80,000 (61)	69,800 (65)	65,500 (68)	58,000 (73)	44,700 (76)		
15	70,000 (55.5)	61,000 (60)	57,000 (64)	50,300 (69.5)	43,500 (73)		
20	53,000 (44.5)	50,300 (51)	46,800 (56.5)	40,800 (63.5)	37,400 (68.5)	35,000 (72)	31,0 (74.5
25	41,000 (31)	41,000 (41)	39,600 (48.5)	34,200 (57.5)	31,200 (63.5)	29,200 (68)	27,0 (71)
30		32,700 (28)	32,700 (39)	29,300 (51)	26,500 (58.5)	24,700 (63.5)	23,5 (67.5
35			24,680 (26.5)	24,680 (44)	23,000 (53)	21,300 (59)	20,1 (63.5
40				18,390 (35.5)	18,390 (47)	18,390 (54.5)	17,5 (60)
45				13,580 (24.5)	13,580 (40.5)	13,580 (49.5)	13,5 (55.5
50					10,860 (32.5)	10,860 (44)	10,8 (51.5
55					8,890 (22.5)	8,890 (38)	8,8 (46.5
60						7,420 (31)	7,4 (41.5
65						6,190 (21.5)	6,1 (36)
70							5,0 (29.5
75							4,3 (20.5
80							
85							
90							
95							
100							
105							
110							
115							
120							
125							

ON RUBBER CAPACITIES

Radius in Feet	Stationary Capacity Defined Arc (1) Over Front	2.5 MPH Capacity Boom Centered (2) Over Front	Stationary Capacity 360° Arc
10	45,550 (a)	36,540 (a)	40,650 (a)
12	37,650 (a)	32,150 (a)	30,000 (b)
15	30,750 (a)	26,470 (a)	21,500 (b)
20	24,250 (b)	19,910 (b)	12,460 (c)
25	19,150 (c)	15,340 (c)	7,840 (c)
30	13,190 (c)	11,720 (c)	4,840 (c)
35	9,310 (c)	9,020 (c)	2,640 (c)
40	6,840 (c)	6,520 (c)	1,270 (c)
45	5,200 (c)	4,790 (c)	

A6-829-001488C

Maximum Permissible Boom Length:
(a) 35 ft.
(b) 45 ft.
(c) 55 ft.

NOTES FOR ON RUBBER

(1) Defined Ar track CL.
(2) Mechanical Chart based on and 50/65 PSI reduced for lowe Capacities appea structural streng as a capacity lim Capacities do no ance with SAE J Capacities are a surface only.
32 ft. boom ext not permitted fo

ft. - 142 ft. BOOM

(POWER PINNED)

PCSA CLASS 10-151

GROVE®

FULL HYDRAULIC

SELF-PROPELLED CRANE

ACITIES IN POUNDS

ON OUTRIGGERS FULLY EXTENDED - OVER FRONT

Radius in Feet	Main Boom Length in Feet (Power Pinned Fly Retracted)							Power Pin. Fly & 85 ft.	32 ft. Ext. & 85 ft.	32 ft. Ext. & 110 ft.
	*35	40	45	55	65	75	85	110	117	142
10	100,000 (65)	74,000 (68)	72,000 (71)	64,000 (75)				See Warning Note C	See Warning Note D	See Warning Note E
12	80,000 (61)	69,800 (65)	65,500 (68)	58,000 (73)	44,700 (76)					
15	70,000 (55.5)	61,000 (60)	57,000 (64)	50,300 (69.5)	43,500 (73)					
20	53,000 (44.5)	50,300 (51)	46,800 (56.5)	40,800 (63.5)	37,400 (68.5)	35,000 (72)	31,000 (74.5)			
25	41,000 (31)	41,000 (41)	39,600 (48.5)	34,200 (57.5)	31,200 (63.5)	29,200 (68)	27,000 (71)	20,000 (76)	17,500 (76)	
30		32,700 (28)	32,700 (39)	29,300 (51)	26,500 (58.5)	24,700 (63.5)	23,500 (67.5)	17,000 (74)	15,600 (74)	
35			24,680 (26.5)	24,680 (44)	23,000 (53)	21,300 (59)	20,100 (63.5)	14,550 (71)	13,500 (71.5)	9,600 (76)
40				18,390 (35.5)	18,390 (47)	18,390 (54.5)	17,500 (60)	12,720 (68)	11,900 (69)	8,550 (74.5)
45				13,580 (24.5)	13,580 (40.5)	13,580 (49.5)	13,580 (55.5)	11,300 (65)	10,600 (66)	7,680 (72.5)
50					10,860 (32.5)	10,860 (44)	10,860 (51.5)	10,000 (62)	9,600 (63.5)	6,940 (70.5)
55					8,890 (22.5)	8,890 (38)	8,890 (46.5)	8,850 (59)	8,700 (61)	6,280 (68)
60						7,420 (31)	7,420 (41.5)	7,900 (56)	7,950 (58)	5,760 (66)
65						6,190 (21.5)	6,190 (36)	7,100 (52.5)	7,350 (55)	5,230 (63.5)
70							5,040 (29.5)	6,400 (49)	6,800 (52)	4,800 (61)
75							4,300 (20.5)	5,720 (45.5)	5,890 (48.5)	4,490 (58.5)
80								4,880 (41.5)	4,990 (45)	4,140 (56)
85								4,090 (37)	4,150 (41.5)	3,880 (53.5)
90								3,340 (32)	3,570 (37.5)	3,620 (51)
95								2,680 (26.5)	3,040 (33)	3,360 (48)
100								2,140 (18.5)	2,510 (28)	2,970 (45)
105									1,950 (21.5)	2,460 (42)
110									1,420 (10.5)	2,000 (38.5)
115										1,650 (35)
120										1,330 (31)
125										1,020 (26)

A6-829-001470C &-002139A

NOTES FOR ON OUTRIGGERS

A. Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation. Capacities do not exceed 85% of tipping loads as determined by test in accordance with SAE recommended practice crane load stability test code - SAE J-765.

*B. Capacities for the 35 ft. boom length shall be lifted with boom fully retracted. If boom is not fully retracted, capacities shall not exceed those shown for the 40 ft. boom length.

C. For boom lengths less than 110 ft. with power pinned fly extended, the rated loads are determined by boom angle only in the column headed by 110 ft. boom. For boom angles not shown, use rating of next lower boom angle.

D. For boom lengths less than 117 ft. with power pinned fly retracted and 32 ft. boom ext. erected, the rated loads are determined by boom angle only in the column headed by 117 ft. boom. For boom angles not shown, use rating of next lower boom angle.

E. For boom lengths less than 142 ft. with power pinned fly extended and 32 ft. boom ext. erected, the rated loads are determined by boom angle only in the column headed by 142 ft. boom. For boom angles not shown, use rating of next lower boom angle.

F. Boom angle is the included angle between horizontal and the axis of the boom base section after lifting rated load.

G. WARNING: For Krueger L.M.I. option - when using 32 ft. boom extension and/or power pinned fly, the Krueger L.M.I. rating will apply for full boom extension (power pinned fly extended) only.

A6-829-003001

NOTES FOR ON RUBBER CAPACITIES

Maximum Permissible Boom Length:
(a) 35 ft.
(b) 45 ft.
(c) 55 ft.

(1) Defined Arc - Left front track CL to right front track CL.
(2) Mechanical swing lock pin must be engaged.
Chart based on 29.5x25 (22 ply)/26.5x25 (26 ply) tires and 50/65 PSI cold inflation pressure. Loads must be reduced for lower inflation pressures.
Capacities appearing above the BOLD LINE are based on structural strength and tipping should not be relied upon as a capacity limitation.
Capacities do not exceed 85% of tipping loads in accordance with SAE J-765.
Capacities are applicable with machine on a firm level surface only.
32 ft. boom extension and extended power pinned section not permitted for on rubber lifts.

GROVE®

FULL HYDRAULIC

SELF-PROPELLED CRANE

JIB CAPACITIES IN POUNDS
24 ft. JIB and 32 ft. EXT. Combination

Main Boom Angle	Min. 5° Offset	17° Offset	Max. 30° Offset
76°	6,000	5,200	4,600
70	4,300	3,940	3,650
65	3,430	3,200	3,010
60	2,760	2,600	2,470
55	2,220	2,110	2,020

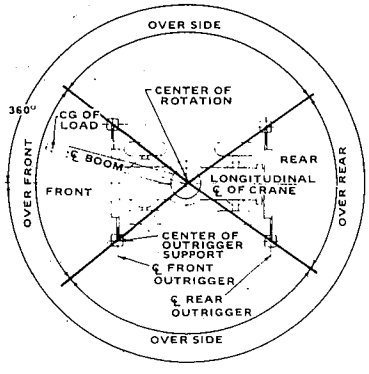
A6-829-001823G

Notes for Jib Capacities

1. 24 ft. jib and 32 ft. ext. combination may be used for single line lifting crane service only. Capacities are based on structural strength of 24 ft. jib and 32 ft. ext. combination at given main boom angle. When lifting with 24 ft. jib and 32 ft. ext., capacities must not exceed structural capacity of jib combination at given main boom angle or stability capacity of applicable boom length listed in boom capacity chart for actual working radius, whichever is less.
2. Maximum total length of boom including 32 ft. ext. for purpose of erecting 24 ft. jib below 10° is 92 ft.
3. WARNING: Operation of machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with jib occurs rapidly and without advance warning.
4. 24 FT. JIB WARNING: For total boom length including 32 ft. ext. greater than 92 ft. with 24 ft. jib in working position the boom angle must not be less than 50° since loss of stability will occur causing a tipping condition.

LIFTING AREA DIAGRAMS

ON OUTRIGGERS

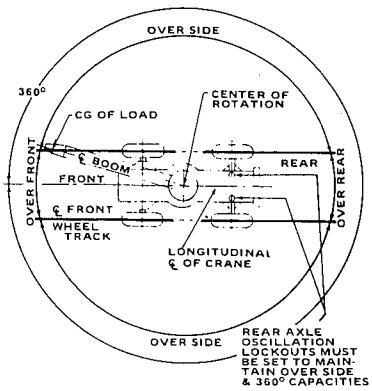


NOTE: BOLD LINES DETERMINE THE LIMITING POSITION OF ANY LOAD FOR OPERATION WITHIN WORKING AREAS INDICATED.

NOTE: OVER SIDE CAPACITIES CAN BE LIFTED IN THE OVER REAR AREA.

C6-829-001159-1

ON RUBBER



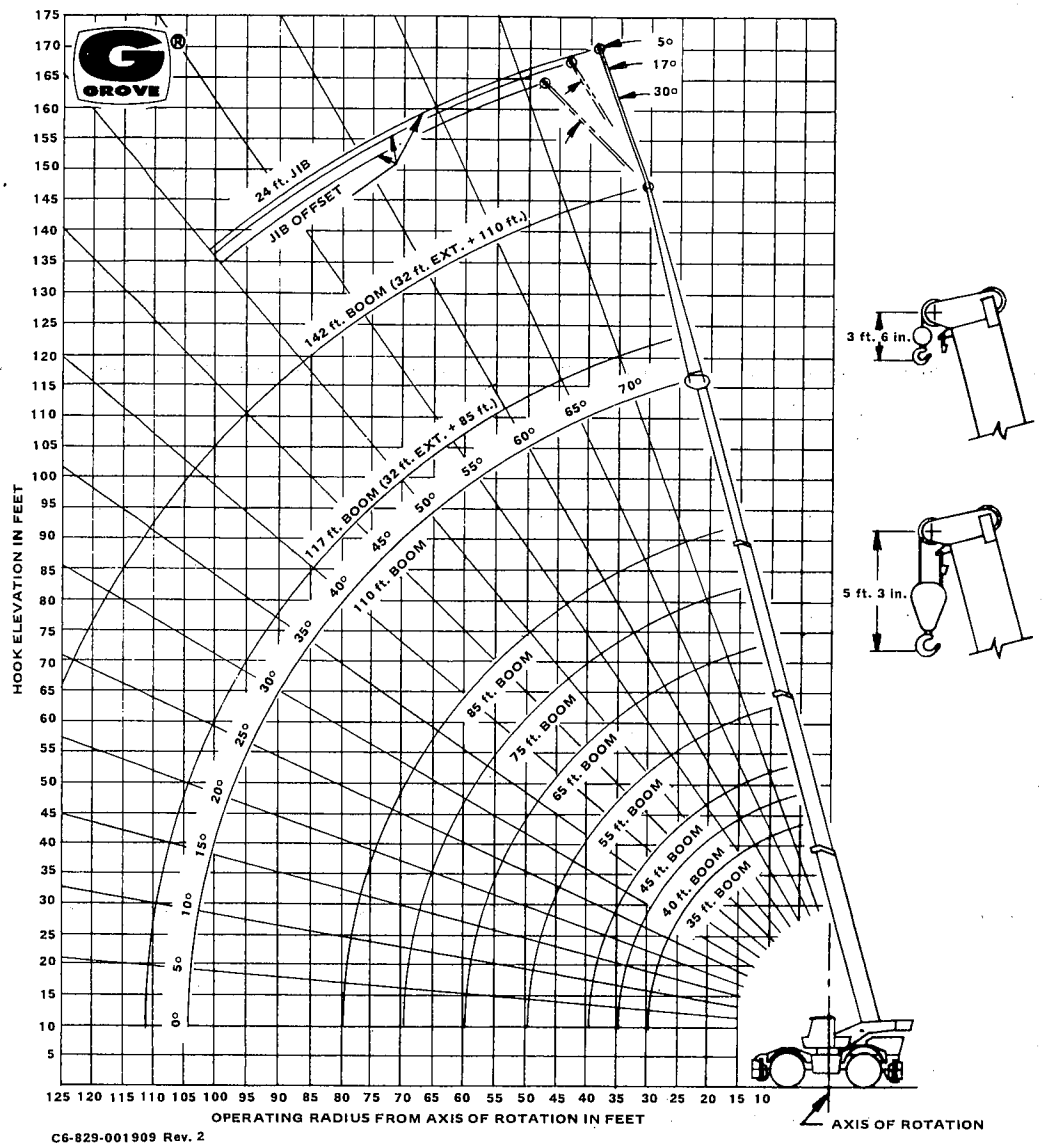
NOTE: BOLD LINES DETERMINE THE LIMITING POSITION OF ANY LOAD FOR OPERATION WITHIN ANY WORKING AREAS INDICATED.

NOTE: OVER SIDE CAPACITIES CAN BE LIFTED IN THE OVER REAR AREA.

C6-829-001158-1

GROVE® RT75S

RANGE DIAGRAM



C6-829-001909 Rev. 2

NOTES FOR LIFTING CAPACITIES

1. Do not exceed any rated lifting capacity. Rated lifting capacities are based on freely suspended loads with the machine leveled and standing on a firm supporting surface. Ratings with outriggers are based on outriggers being extended to their maximum position and tires raised free of crane weight before extending the boom or lifting loads.
2. Practical working loads for each particular job shall be established by the user depending on operating condition to include: the supporting surface, wind and other factors affecting stability, hazardous surroundings, experience of personnel, handling of load, etc. No attempt must be made to move a load horizontally on the ground in any direction.
3. Operating radius is the horizontal distance from the axis of rotation before loading to the centerline of the vertical hoist line or tackle with loads applied.
4. "On Rubber" lifting (if permitted) depends on proper tire inflation, capacity and condition. "On Rubber" loads may be transported at a maximum vehicle speed of 2.5 mi/hr (4 Km/hr) on a firm and level surface under conditions specified.
5. Jibs may be used for lifting crane service only. Jib capacities are based on structural strength of jib or main boom and on main boom angle.
6. Operation is not intended or approved for any conditions outside of those shown hereon. Handling of personnel from the boom is not authorized except with equipment furnished and installed by Grove Manufacturing Company.
7. For clamshell or concrete bucket operation, weight of bucket and load must not exceed 80% of rated lifting capacities.
8. Power-telescoping boom sections must be extended equally at all times. Long cantilever booms can create a tipping condition when in extended and lowered position.
9. The maximum load which may be telescoped is limited by hydraulic pressure, boom angle, boom lubrication, etc. It is safe to attempt to telescope any load within the limits of rated lifting capacity chart.
10. With certain boom and hoist tackle combinations, maximum capacities may not be obtainable with standard cable lengths.
11. With certain boom and load combinations, raising of load with boom lift cylinders may not be possible. Operational safety is not affected by this condition.
12. Keep load handling devices a minimum of 12 inches (30 cm) below boom head when lowering or extending boom.
13. If actual boom length and/or radius is between values listed, use lifting capacity for the next longer rated length and/or radius.
14. All load handling devices and boom attachments are considered part of the load and suitable allowances must be made for their combined weights.
15. Operation of this equipment in excess of rating charts or disregard of the instructions is hazardous and voids the warranty and manufacturer's liability.

A6-829-002565

WEIGHT REDUCTION FOR LOAD HANDLING DEVICES

32 ft. BOOM EXTENSION	
†STOWED -	402 lbs.
†ERECTED -	2,567 lbs.
24 ft. JIB & 32 ft. EXT. COMB.	
†ERECTED -	5,800 lbs.
††ERECTED -	1,200 lbs.

†Reduction of main boom capacities.
††Reduction of 32 ft. Ext. capacities.

HOOK BLOCK	
50 Ton, 4 Sheave	700 lbs.
15 Ton, 1 Sheave	310 lbs.
Auxiliary Boom Head	190 lbs.
5 Ton, Headache Ball	150 lbs.
7½ Ton, Headache Ball	300 lbs.
10 Ton, Headache Ball	500 lbs.

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.

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