



RT755

55 TON CAPACITY
34 ft. - 116 ft. BOOM
 (FULL POWER)
 PCSA CLASS 10-247
 85% OF TIPPING

RATED LIFTING CAPACITIES IN POUNDS ON RIGGERS FULLY EXTENDED - 360°

ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	Main Boom Length in Feet							32 ft. Ext. & 84 ft.	
	34	40	45	55	65	75	84		
10	110,000 (64)	90,000 (68)	82,000 (70.5)	80,250 (74.5)				See Warning Note 17	
12	99,000 (60)	90,000 (65)	82,000 (67.5)	75,000 (72.5)	67,000 (75.5)				
15	83,500 (54)	83,500 (60)	82,000 (63)	68,000 (69)	59,000 (72.5)				
20	64,350 (42.5)	64,350 (51)	64,300 (55.5)	55,750 (63)	49,000 (68)	43,000 (71.5)	39,350 (74)		
25	49,450 (27.5)	49,450 (41)	49,450 (47)	47,900 (57)	40,400 (63)	35,550 (67.5)	33,000 (70.5)	20,000 (76)	
30		39,600 (28)	39,600 (37)	39,600 (50)	34,350 (57.5)	31,000 (63)	27,800 (67)	18,400 (73.5)	
35	See Warning Note 16		30,900 (23.5)	30,900 (42.5)	29,750 (52)	26,550 (58.5)	23,900 (63)	17,000 (71)	
40				24,700 (33.5)	24,700 (46)	23,200 (53.5)	20,850 (59)	15,800 (68.5)	
45				20,230 (21.5)	20,230 (39)	20,230 (48.5)	18,300 (55)	14,650 (65.5)	
50					16,480 (31)	16,480 (43)	16,250 (50.5)	13,500 (63)	
55					13,840 (20)	13,840 (36.5)	13,840 (45.5)	12,450 (60)	
60						11,770 (29)	11,770 (40.5)	11,400 (57)	
65						10,150 (19)	10,150 (34.5)	10,400 (54)	
70							8,800 (27.5)	9,460 (50.5)	
75							7,470 (18)	8,600 (47.5)	
80								7,610 (44)	
85								6,680 (40)	
90								5,770 (36)	
95								4,920 (31)	
100								4,130 (25.5)	
105								3,320 (18.5)	
110								2,480 (2)	
Min. boom angle (deg.) for indicated length (no load)							0	0	
Max. boom length (ft.) at 0 deg. boom angle (no load)							84	116	

NOTE: Boom angles are in degrees. A6-829-005079 & -004950A

29.5x25 (22 ply) TIRES

Radius in Feet	Stationary Capacity	Stationary Capacity	Pick & Carry Cap. Up to 2.5 MPH
	Defined Arc (3) Over Front	360° Arc	Boom Centered (7) Over Front
10	64,000 (a)	49,750 (a)	58,410 (a)
12	55,800 (a)	41,950 (a)	51,180 (a)
15	46,200 (a)	33,070 (a)	42,910 (a)
20	37,000 (a)	21,210 (a)	33,380 (a)
25	27,700 (b)	14,100 (b)	27,080 (a)
30	19,230 (c)	10,100 (c)	19,230 (b)
35	14,840 (d)	7,300 (d)	11,480 (c)
40	11,900 (d)	5,360 (d)	9,610 (d)
45	9,620 (e)	3,860 (e)	8,010 (d)
50	7,680 (e)	2,660 (e)	6,540 (e)
55	6,130 (f)		5,300 (e)
60	4,940 (f)		4,300 (f)
65	3,960 (f)		3,460 (f)
70	3,200 (g)		2,800 (g)
75	2,450 (g)		2,110 (g)

A6-829-004931

NOTES FOR LIFTING CAPACITIES

Maximum permissible boom length:
 (a) 34 ft. (e) 65 ft.
 (b) 40 (f) 75
 (c) 45 (g) 84
 (d) 55

1. Capacity with 5...
2. Capacity...
3. Defining C...
4. Capacity...
5. Axle l... proper functi...
6. All r... hazard...
7. For p... lock s... capacity...
8. On r...
9. Creep... 1 mph

Front (No Load)	Min. boom angle (deg) for indicated length	Main Boom 84 ft.	32 ft. Ext. & Main
		0	10
360° (No Load)	Max. boom length (ft) at 0 deg. boom angle	83	113
	Min. boom angle (deg) for indicated length	0	40
	Max. boom length (ft) at 0 deg. boom angle	70	88

NOTES FOR LIFTING CAPACITIES

- GENERAL:**
1. Rated loads as shown on lift chart pertain to this machine as originally manufactured and equipped. Modifications to the machine or use of optional equipment other than that specified can result in a reduction of capacity.
 2. Construction equipment can be hazardous if improperly operated or maintained. Operation and maintenance of this machine shall be in compliance with the information in the operator's, parts, and safety manuals supplied with this machine. If these manuals are missing, order replacements from the manufacturer through the distributor.
 3. The operator and other personnel associated with this machine shall fully acquaint themselves with the latest applicable American National Standards Institute (ANSI) Safety Standards for cranes.
- SETUP:**
1. The machine shall be leveled on a firm supporting surface. Depending on the nature of the supporting surface, it may be necessary to have structural supports under the outrigger floats or tires to spread the load to a larger bearing surface.
 2. For outrigger operation, outriggers shall be fully extended with tires raised free of crane weight before operating the boom or lifting loads.
 3. If machine is equipped with front jack cylinder, the front jack cylinder shall be set in accordance with written procedure.
 4. If machine is equipped with extendable counterweight, the counterweight shall be fully extended before operation.
 5. Tires shall be inflated to the recommended pressure before lifting on rubber.
 6. With certain boom and hoist tackle combinations, maximum capacities may not be obtainable with standard cable lengths.
- OPERATION:**
1. Rated loads at rated radius shall not be exceeded. Do not tip the machine to determine allowable loads. For clamshell or concrete bucket operation, weight of bucket and load must not exceed 80% of rated lifting capacities.
 2. Rated loads do not exceed 85% of the tipping load as determined by Crane Stability Test Code J-765a.
 3. Rated loads include the weight of hook block, slings and auxiliary lifting devices and their weights shall be subtracted from the listed ratings to obtain the net load to be lifted.
 4. Load ratings are based on freely suspended loads. No attempt shall be made to move a load horizontally on the ground in any direction.
 5. Rated loads do not account for wind on lifted load or boom. It is recommended that when wind velocity is above 20 mph (32 km/h), rated loads and boom capacities shall be appropriately reduced.
 6. Rated loads are for lift crane service only.
 7. Do not operate at a radius or boom length where capacities are not listed. In these positions, the machine may overturn without any load on the hook.
 8. The maximum load which can be telescoped is not definable because of varying conditions in loadings and crane maintenance, but it is safe to attempt retraction within the limits of the capacity chart.
 9. When either boom length or radius or both are between values listed, the load shown at either the next larger radius or boom length shall be used.
 10. For safe operation, the user shall make due allowances for his particular conditions, such as: soft or uneven ground, out of level conditions, high side loads, pendulum action, jerking or sudden stopping of loads, adverse conditions, experience of personnel, two machine lifts, traveling over electric wires, etc. Side pull on boom or jib is extremely dangerous.
 11. Power telescoping boom sections must be extended equally at all times.
 12. Handling of personnel from the boom is not authorized except with equipment furnished and installed by Grove Manufacturing Company.
 13. Keep load handling devices a minimum of 12 inches (30 cm) below the ground when lowering or extending boom.

GROVE®

FULL HYDRAULIC SELF-PROPELLED CRANE

IN POUNDS

ON RUBBER CAPACITIES

ES

29.5x25 (28 ply) TIRES

Pick & Carry Cap. Up to 2.5 MPH
Boom Centered (7) Over Front
58,410 (a)
51,180 (a)
42,910 (a)
33,380 (a)
27,080 (a)
19,230 (b)
11,480 (c)
9,610 (d)
8,010 (d)
6,540 (e)
5,300 (e)
4,300 (f)
3,460 (f)
2,800 (g)
2,110 (g)

Radius in Feet	Stationary Capacity	Stationary Capacity	Pick & Carry Cap. Up to 2.5 MPH
	Defined Arc (3) Over Front	360° Arc	Boom Centered (7) Over Front
10	66,000 (a)	50,500 (a)	56,340 (a)
12	56,000 (a)	42,700 (a)	49,330 (a)
15	47,400 (a)	33,200 (a)	41,330 (a)
20	37,900 (a)	21,300 (a)	32,100 (a)
25	27,810 (b)	14,170 (b)	26,000 (a)
30	19,330 (c)	10,150 (c)	19,330 (b)
35	14,920 (d)	7,340 (d)	14,920 (c)
40	11,970 (d)	5,400 (d)	11,970 (d)
45	9,680 (e)	3,900 (e)	9,680 (d)
50	7,730 (e)	2,700 (e)	7,730 (e)
55	6,180 (f)		6,180 (e)
60	5,000 (f)		5,000 (f)
65	4,000 (f)		4,000 (f)
70	3,230 (g)		3,230 (g)
75	2,500 (g)		2,500 (g)

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NOTES FOR RUBBER CAPACITIES

- Capacities are in pounds and do not exceed 85% of tipping loads as determined by test in accordance with SAE J-765.
- Capacities are applicable to machine equipped with:

29.5x25 (22 ply)	Cold Inflation	2.5 MPH
29.5x25 (28 ply)	60 PSI	50 PSI
	75 PSI	65 PSI
- Defined Arc - Over front includes $\pm 6^\circ$ on either side of longitudinal centerline of machine (ref. drawing C6-829-003529).
- Capacities are applicable only with machine on firm level surface.
- Axle lockouts must be functioning before lifting on rubber. (Check automatic lockout system for proper functioning; refer to "Operation and Maintenance Manual" for description of a proper functioning axle lockout system.)
- All rubber lifting depends on proper tire inflation, capacity and condition. Capacities must be reduced for lower tire inflation pressures. See lifting capacity chart for tire used. Damaged tires are hazardous to safe operation of crane.
- For pick and carry operation, boom must be centered over front of machine, mechanical swing lock engaged, and load restrained from swinging. When handling loads in the structural range with capacities close to maximum ratings, travel should be reduced to creep speeds.
- On rubber lifting with power pinned fly extended, boom extension, or jib is not permitted.
- Creep - not over 200 feet (61 meters) of movement in any 30-minute period, and not exceeding 1 mph (1.6 kph).

IES

- As determined by SAE
- and auxiliary lifting devices
- attempts to obtain the net load
- attempt shall be made to
- boom. It is recommended
- loads and boom lengths
- capacities are not listed. At
- load on the hook.
- able because of variations
- attempt retraction and
- values listed, the smallest
- h shall be used.
- es for his particular job
- conditions, high winds,
- ing of loads, hazardous
- ts, traveling with loads,
- dangerous.
- lly at all times.
- l except with equipment
- y.
- 0 cm) below boom head
14. Loaded boom angles give an approximation of the operating radius at specific boom lengths. The boom angle before loading should be greater to account for deflection.
15. Capacities appearing above the bold line are based on structural strength and deflection should not be relied upon as a capacity limitation.
16. Capacities for the 34 ft. (10.4 m) 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. (12.2 m) boom length.
17. For boom lengths less than 116 ft. (35.4 m) with 32 ft. (9.8 m) boom extension erected, the rated loads are determined by boom angle only in the column headed by 116 ft. (35.4 m) boom. For boom angles not shown use rating of next lower boom angle. For this load column, the 32 ft. (9.8 m) boom extension operation mode is to be selected on the Krueger L.M.I. *

*WARNING: The Krueger L.M.I. readings are accurate only if all powered boom sections are fully extended.

DEFINITIONS:

1. Operating Radius: Horizontal distance from a projection of the axis of rotation to the supporting surface before loading to the center of the vertical hoist line tackle with load applied.
2. Loaded Boom Angle (Shown in Parenthesis on Main Boom Capacity Chart): the angle between the boom base section and the horizontal, after lifting rated load at the rated radius.
3. Working Area: Areas measured in a circular arc about the center line of rotation as shown on the working area diagram.
4. Freely Suspended Load: Load hanging free with no direct external force applied except by the lift cable.
5. Side Load: Horizontal force applied to the lifted load either on the ground or the air.

RT755

55 TON CAPACITY
34 ft. - 116 ft. BOOM
(FULL POWER)
PCSA CLASS 10-247
85% OF TIPPING

JIB CAPACITIES IN POUNDS

24 ft. "A" FRAME JIB

ON OUTRIGGERS - 360°

Boom Angle	5° Offset	17° Offset	30° Offset
76°	6,000	5,200	4,600
70	4,300	3,940	3,650
65	3,670	3,380	3,100
60	3,100	2,900	2,700
55	2,600	2,500	2,400
50	2,200	2,100	2,000

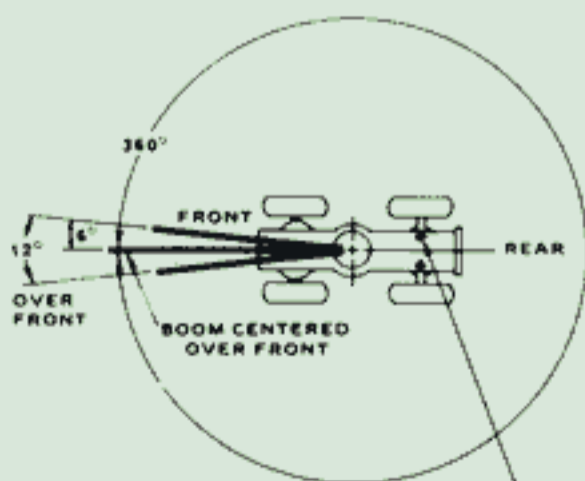
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NOTES FOR JIB CAPACITIES

1. All capacities are in pounds. Capacities are based on structural strength of 24 ft. jib and 32 ft. boom extension combination at given main boom angle regardless of main boom length.
2. **WARNING:** Operation of machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with jib occurs rapidly and without advance warning.
3. **24 ft. JIB WARNING:** For main boom length greater than 80 ft. with 32 ft. boom extension and 24 ft. jib in working position, the boom angle must not be less than 45° since loss of stability will occur causing a tipping condition. The boom angle is not restricted for main boom length equal to or less than 80 ft. This warning applies for jib erection purposes also.
4. **WARNING:** Lifting on rubber with 32 ft. boom extension or 24 ft. jib and 32 ft. boom extension combination is prohibited.

LIFTING AREA DIAGRAMS

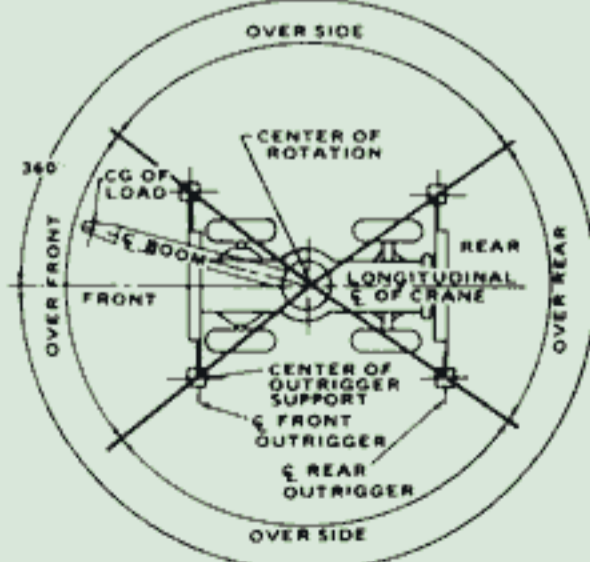
LIFTING AREA DIAGRAMS



REAR AXLE OSCILLATION LOCKOUTS MUST BE SET TO MAINTAIN 360° CAPACITIES.

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

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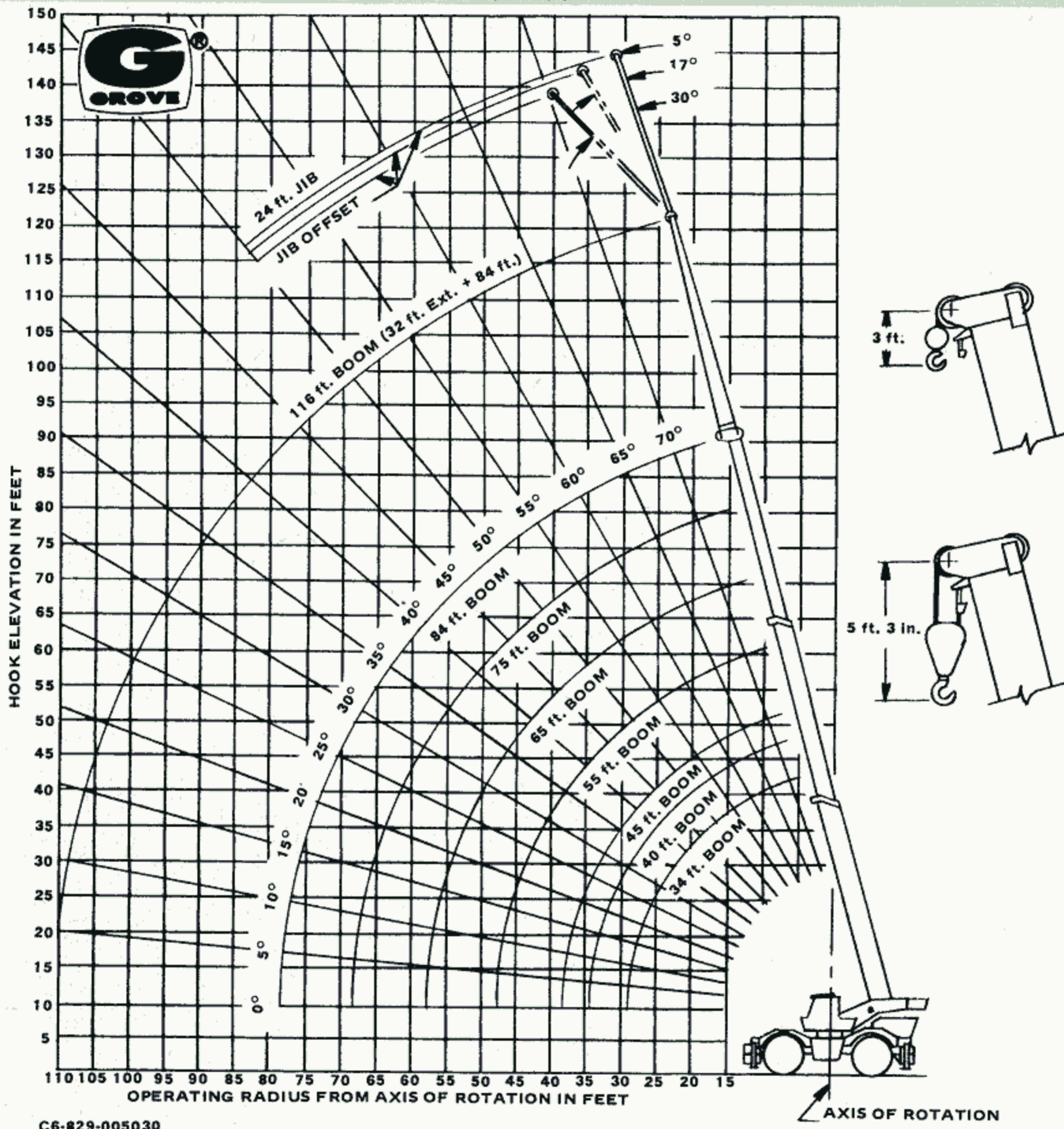


NOTE: BOLD LINES DETERMINE THE LIMITING POSITION OF ANY LOAD FOR OPERATION WITHIN WORKING AREAS INDICATED.

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

C6-829-001159

RANGE DIAGRAM



C6-829-005030

WEIGHT REDUCTION FOR LOAD HANDLING DEVICES

32 ft. BOOM EXTENSION

†Stowed	-	469 lbs.
†Erected	-	3,247 lbs.
24 ft. Jib & 32 ft. Boom Ext. Combination		
†Stowed	-	598 lbs.
†Erected	-	7,038 lbs.
††Erected	-	1,644 lbs.

HOOK BLOCK

55 Ton, 4 Sheave	1,255 lbs.
15 Ton, 1 Sheave	310 lbs.
Auxiliary Boom Head	220 lbs.
5 Ton Headache Ball	150 lbs.
7-1/2 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.

†Reduction of main boom capacities.

††Reduction of 32 ft. Ext. capacities