



# RT5

28 TON CAPACITY

32 ft. - 80 ft.

(FULL POWER)

PCSA CLASS 1

85% OF TIPPING - 0

75% OF TIPPING

## RATED LIFTING CAPACITY

32 ft. - 80 ft.

### ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	Main Boom Length in Feet								
	32	38	44	50	56	62	68	74	80
10	56,000 (63)	39,500 (67.5)	37,500 (71)	36,950 (74)					
12	41,300 (58.5)	37,000 (64)	36,000 (68.5)	35,000 (71.5)	32,400 (74)				
15	31,750 (52)	31,500 (59)	30,950 (64)	30,300 (67.5)	29,750 (70.5)	29,150 (73)			
20	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	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		15,050 (18.5)	15,050 (37)	15,050 (46)	15,050 (52.5)	15,050 (57.5)	15,050 (61)	14,900 (64)	14,550 (66.5)
35	See Warning Note 16		11,400 (21.5)	11,400 (37)	11,400 (45)	11,400 (51.5)	11,400 (56)	11,400 (59.5)	11,400 (62.5)
40				8,970 (24)	8,970 (37)	8,970 (45)	8,970 (50.5)	8,970 (54.5)	8,970 (58)
45					7,210 (25.5)	7,210 (37.5)	7,210 (44)	7,210 (49.5)	7,210 (53.5)
50						5,890 (28)	5,890 (37)	5,890 (43.5)	5,890 (48.5)
55							4,850 (28.5)	4,850 (37)	4,850 (43.5)
60								4,020 (14)	4,020 (37.5)
65									3,350 (30)
70									2,780 (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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### ON OUTRIGGERS FULLY EXTENDED - OVER FRONT

Radius in Feet	Main Boom Length in Feet								
	32	38	44	50	56	62	68	74	80
10	56,000 (63)	39,500 (67.5)	37,500 (71)	36,950 (74)					
12	41,300 (58.5)	37,000 (64)	36,000 (68.5)	35,000 (71.5)	32,400 (74)				
15	31,750 (52)	31,500 (59)	30,950 (64)	30,300 (67.5)	29,750 (70.5)	29,150 (73)			
20	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	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		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	See Warning Note 16		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				10,550 (24)	10,550 (37)	10,550 (45)	10,550 (50.5)	10,550 (54.5)	10,550 (58)
45					8,590 (25.5)	8,590 (37.5)	8,590 (44)	8,590 (49.5)	8,590 (53.5)
50						7,070 (28)	7,070 (37)	7,070 (43.5)	7,070 (48.5)
55							5,880 (28.5)	5,880 (37)	5,880 (43.5)
60								4,930 (14)	4,930 (37.5)
65									4,150 (30)
70									3,490 (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.

A6-829-006817 & -006832

14.00x24 TIRES

Radius in Feet	Stationary Capacity	Stationary Capacity
	Defined Arc (3) Over Front	360° Arc
10	23,100 (a)	19,850 (a)
12	21,250 (a)	17,100 (a)
15	18,750 (a)	12,900 (a)
20	14,850 (b)	7,970 (b)
25	10,100 (c)	4,890 (c)
30	7,410 (d)	3,310 (d)
35	5,480 (d)	2,230 (d)
40	4,080 (e)	1,470 (e)
45	3,120 (f)	930 (f)
50	2,470 (g)	
55	1,920 (h)	
60	1,420 (i)	
65	990 (i)	

A6-829-006832

Maximum Permissible  
 (a) 32.0 ft. (f)  
 (b) 38.0 ft. (g)  
 (c) 44.0 ft. (h)  
 (d) 50.0 ft. (i)  
 (e) 56.0 ft.

Front (No Load)	Min. boom angle (deg.) for Max. boom length (ft.) at 360° (No Load)

#### GENERAL:

- Rated loads as shown on capacity chart are for crane as manufactured and equipped. Modifications to crane or equipment other than that specified can affect rated capacity. The jib or boom extension supplied with crane is not to be used without the written approval of the manufacturer.
- Construction equipment can be hazardous. Operation and maintenance shall be in accordance with the Operator's and Safety Handbooks, Service Manual, and Safety Standards for cranes. If these manuals are missing, order them from the manufacturer.
- The operator and other personnel associated with the crane shall familiarize themselves with the latest applicable American Society of Mechanical Engineers Safety Standards for cranes.

#### SETUP:

- The crane shall be leveled on a firm supporting surface. If the supporting surface is not firm, it may be necessary to use cribbing or other means to provide strength under the outrigger floats or tires.
- For outrigger operation, outriggers shall be extended to the full rated capacity before operating the boom.
- When equipped with front jack cylinder, operation shall be in accordance with the written procedure.
- When equipped with extendable counterweights, counterweights shall be extended before operation.
- Tires shall be inflated to the recommended pressure.
- With certain boom and hoist tackle combinations, the rated load may be obtainable with standard cable lengths.
- Rotation resistant wire rope is best suited for use with the wire rope manufacturer for specific recommendations.
- Do not transport crane with boom extended.

#### OPERATION:

- Rated loads at rated radius shall not be used to determine allowable loads. For clamshell buckets, the rated load shall be 80% of rated lifting capacities.
- All rated loads have been tested to and meet the requirements of the American Society of Mechanical Engineers Cantilevered Boom Crane Structures - Method of Test. The tipping load as determined by SAE J190 shall be used to determine their combined weights shall be subtracted from the rated load which may be lifted.
- Load ratings are based on freely suspended loads. Do not lift a load horizontally on the ground in any direction.



# RT528B

**28 TON CAPACITY**  
**32 ft. - 80 ft. BOOM**  
**(FULL POWER)**  
**PCSA CLASS 10-89**  
**85% OF TIPPING - ON OUTRIGGERS**  
**75% OF TIPPING - ON RUBBER**

**GROVE**  
**FULL HYDRAULIC**  
**SELF-PROPELLED**

## RATED LIFTING CAPACITIES IN POUNDS

### 32 ft. - 80 ft. BOOM

#### 14.00x24 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	23,100 (a)	19,850 (a)	27,100 (a)
12	21,250 (a)	17,100 (a)	23,250 (a)
15	18,750 (a)	12,900 (a)	18,900 (a)
20	14,850 (b)	7,970 (b)	15,150 (a)
25	10,100 (c)	4,890 (c)	10,100 (a)
30	7,410 (d)	3,310 (d)	7,110 (b)
35	5,480 (d)	2,230 (d)	5,480 (c)
40	4,080 (e)	1,470 (e)	4,080 (d)
45	3,120 (f)	930 (f)	3,120 (e)
50	2,470 (g)		2,470 (f)
55	1,920 (h)		1,920 (g)
60	1,420 (i)		1,420 (g)
65	990 (i)		990 (h)

A6-829-006774

## ON RUBBER CAPACITIES

#### 16.00x25 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	28,750 (a)	25,450 (a)	31,750 (a)
12	25,600 (a)	18,850 (a)	27,350 (a)
15	21,850 (a)	12,950 (a)	22,400 (a)
20	15,400 (b)	8,010 (b)	15,400 (a)
25	10,400 (c)	4,990 (c)	10,400 (a)
30	7,580 (d)	3,510 (d)	7,580 (b)
35	5,670 (d)	2,320 (d)	5,670 (c)
40	4,370 (e)	1,610 (e)	4,370 (d)
45	3,420 (f)	940 (f)	3,420 (e)
50	2,610 (g)		2,610 (f)
55	2,030 (g)		2,030 (g)
60	1,530 (h)		1,530 (g)
65	1,070 (i)		1,070 (h)

A6-829-006834

#### Maximum Permissible Boom Length:

(a) 32.0 ft. (f) 62.0 ft.  
 (b) 38.0 ft. (g) 68.0 ft.  
 (c) 44.0 ft. (h) 74.0 ft.  
 (d) 50.0 ft. (i) 80.0 ft.  
 (e) 56.0 ft.

		Main Boom 80 ft.
Front (No Load)	Min. boom angle (deg.) for indicated length	0
	Max. boom length (ft.) at 0 deg. boom angle	80
360° (No Load)	Min. boom angle (deg.) for indicated length	23
	Max. boom length (ft.) at 0 deg. boom angle	56

#### NOTES FOR RUBBER CAPACITIES

- Capacities do not exceed 75% of tipping loads as determined by test.
- Capacities are applicable to machine equipped with:
 

14.00x24 (24 ply)	Cold Inf
16.00x25 (28 ply)	135 P
20.5x25 (24 ply)	100 P
	95 P
- Defined Arc - Over front includes  $\pm 6^\circ$  on either side of longitudinal.
- Capacities are applicable only with machine on firm level surface.
- Axle lockouts must be functioning before lifting on rubber. (Ch functioning: Refer to "Operation and Maintenance Manual" for lockout system).
- All rubber lifting depends on proper tire inflation, capacity and lower tire inflation pressures. See lifting capacity chart for tire operation of crane.
- For pick and carry operation, boom must be centered over front and load restrained from swinging. When handling loads in the maximum ratings, travel should be reduced to creep speeds.
- On rubber lifting with boom extension is not permitted.
- Creep - not over 200 ft. (61 m) of movement in any 30 minute period.

#### LIFTING CAPACITY NOTES

##### GENERAL:

- Rated loads as shown on capacity chart pertain to this crane as originally manufactured and equipped. Modifications to the crane or use of optional equipment other than that specified can result in a reduction of capacity. Use only the jib or boom extension supplied with this crane, do not substitute jibs or boom extensions without the written approval of Grove Mfg. Co.
- Construction equipment can be hazardous if improperly operated or maintained. Operation and maintenance shall be in compliance with the information in the Operator's and Safety Handbooks, Service and Parts Manuals supplied with this crane. If these manuals are missing, order replacements from the manufacturer.
- The operator and other personnel associated with this crane shall fully acquaint themselves with the latest applicable American National Standards Institute (ANSI) Safety Standards for cranes.

##### SETUP:

- The crane shall be leveled on a firm supporting surface. Depending on the nature of the supporting surface, it may be necessary to have structural supports of sufficient strength under the outrigger floats or tires to spread the load to a larger bearing surface.
- For outrigger operation, outriggers shall be fully extended with tires raised free of crane weight before operating the boom or lifting loads.
- When equipped with front jack cylinder, the front jack cylinder shall be set in accordance with the written procedure.
- When equipped with extendable counterweight, the counterweight shall be fully extended before operation.
- Tires shall be inflated to the recommended pressure before lifting on rubber.
- With certain boom and hoist tackle combinations, maximum capacities may not be obtainable with standard cable lengths.
- Rotation resistant wire rope is best suited for single line lifting operations. Consult the wire rope manufacturer for specific recommendations concerning multiple part reeving.
- Do not transport crane with boom extension or jib erected.

##### OPERATION:

- Rated loads at rated radius shall not be exceeded. Do not tip the machine to determine allowable loads. For clamshell operation, weight of load must not exceed 80% of rated lifting capacities.
- All rated loads have been tested to and meet minimum requirements of SAE J-1063 - Cantilevered Boom Crane Structures - Method of Test, and do not exceed 85% of the tipping load as determined by SAE J-765a Crane Stability Test Code.
- Rated loads include the weight of hook block, slings and auxiliary lifting devices and their combined weights shall be subtracted from the listed ratings to obtain the net load which may be lifted.
- Load ratings are based on freely suspended loads. No attempt shall be made to move a load horizontally on the ground in any direction.

- Rated loads do not account for wind or when wind velocity is above 20 MPH (32 km/h) appropriately reduced.
- Rated loads are for lift crane service only.
- Do not operate at a radius or boom length positions, the crane may overturn without warning.
- The maximum load which can be telescoped loadings and crane maintenance, but it is within the limits of the capacity chart.
- When either boom length or radius or boom load shown at either the next larger radius or boom length.
- For safe operation, the user shall make conditions, such as: soft or uneven ground, pendulum action, jerking or sudden experience of personnel, two machine lift Side pull on boom or jib is extremely dangerous.
- Power telescoping boom sections must be retracted and installed by Grove Manufacturer.
- Keep load handling devices a minimum of 10 ft. from all times.
- The boom angle before loading should be accounted for deflection.
- Capacities appearing above the bold line should not be relied upon as a capacity limit.
- Capacities for the 32 ft. (9.8 m) boom retracted. If boom is not fully retracted, use the 38 ft. (11.6 m) boom length.

##### DEFINITIONS:

- Operating Radius: Horizontal distance from the supporting surface before loading to the load with load applied.
- Loaded Boom Angle (Shown in Parenthesis): Angle between the boom base section and the boom at the rated radius with the rated boom length.
- Working Area: Areas measured in a circular pattern on the working area diagram.
- Freely Suspended Load: Load hanging from the hook except by the lift cable.
- Side Load: Horizontal force applied to the load.



# GROVE®

## FULL HYDRAULIC SELF-PROPELLED CRANE

### POUNDS

#### ON RUBBER CAPACITIES

##### 16.00x25 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	28,750 (a)	25,450 (a)	31,750 (a)
12	25,600 (a)	18,850 (a)	27,350 (a)
15	21,850 (a)	12,950 (a)	22,400 (a)
20	15,400 (b)	8,010 (b)	15,400 (a)
25	10,400 (c)	4,990 (c)	10,400 (a)
30	7,580 (d)	3,510 (d)	7,580 (b)
35	5,670 (d)	2,320 (d)	5,670 (c)
40	4,370 (e)	1,610 (e)	4,370 (d)
45	3,420 (f)	940 (f)	3,420 (e)
50	2,610 (g)		2,610 (f)
55	2,030 (g)		2,030 (g)
60	1,530 (h)		1,530 (g)
65	1,070 (i)		1,070 (h)

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##### 20.5x25 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	30,800 (a)	23,400 (a)	32,300 (a)
12	28,100 (a)	18,000 (a)	27,850 (a)
15	24,800 (a)	12,150 (a)	22,850 (a)
20	15,500 (b)	7,970 (b)	15,500 (a)
25	10,200 (c)	5,120 (c)	10,200 (a)
30	7,240 (d)	3,350 (d)	6,770 (b)
35	5,490 (d)	2,470 (d)	5,400 (c)
40	4,280 (e)	1,800 (e)	4,280 (d)
45	3,300 (f)	1,410 (f)	3,300 (e)
50	2,670 (g)		2,670 (f)
55	2,100 (g)		2,100 (g)
60	1,640 (h)		1,640 (h)
65	1,210 (i)		1,210 (i)

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#### NOTES FOR RUBBER CAPACITIES

- Capacities do not exceed 75% of tipping loads as determined by test in accordance with SAE J-765.
- Capacities are applicable to machine equipped with:

14.00x24 (24 ply)  
16.00x25 (28 ply)  
20.5x25 (24 ply)

Cold Inflation  
135 PSI  
100 PSI  
95 PSI

2.5 MPH  
135 PSI  
100 PSI  
80 PSI

- Defined Arc - Over front includes  $\pm 6^\circ$  on either side of longitudinal centerline of machine.
- 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 boom extension is not permitted.
- Creep - not over 200 ft. (61 m) of movement in any 30 minute period and not exceeding 1 mph (1.6 kph).

#### LIFTING CAPACITY NOTES

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- Rated loads do not account for wind on lifted load or boom. It is recommended when wind velocity is above 20 MPH (32 km/h), rated loads and boom lengths be appropriately reduced.
- Rated loads are for lift crane service only.
- Do not operate at a radius or boom length where capacities are not listed. At these positions, the crane may overturn without any load on the hook.
- The maximum load which can be telescoped is not definable because of variations in loadings and crane maintenance, but it is safe to attempt retraction and extension within the limits of the capacity chart.
- 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 safe operation, the user shall make due allowances for his particular job conditions, such as: soft or uneven ground, out of level conditions, high winds, side loads, pendulum action, jerking or sudden stopping of loads, hazardous conditions, experience of personnel, two machine lifts, traveling with loads, electric wires, etc. Side pull on boom or jib is extremely dangerous.
- Power telescoping boom sections must be extended equally at all times.
- Handling of personnel from the boom is not authorized except with equipment furnished and installed by Grove Manufacturing Company.
- Keep load handling devices a minimum of 18 inches (45.7 cm) below boom head at all times.
- The boom angle before loading should be greater than the loaded boom angle to account for deflection.
- Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.
- Capacities for the 32 ft. (9.8 m) boom length shall be lifted with boom fully retracted. If boom is not fully retracted, capacities shall not exceed those shown for the 38 ft. (11.6 m) boom length.

#### DEFINITIONS:

- 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 or tackle with load applied.
- Loaded Boom Angle (Shown in Parenthesis on Main Boom Capacity Chart): is the angle between the boom base section and the horizontal, after lifting the rated load at the rated radius with the rated boom length.
- Working Area: Areas measured in a circular arc about the center line of rotation as shown on the working area diagram.
- Freely Suspended Load: Load hanging free with no direct external force applied except by the lift cable.
- Side Load: Horizontal force applied to the lifted load either on the ground or in the air.



# RT528B

**28 TON CAPACITY**

**32 ft. - 80 ft. BOOM**

**(FULL POWER)**

**PCSA CLASS 10-89**

**85% OF TIPPING - ON OUTRIGGERS**

**75% OF TIPPING - ON RUBBER**

## BOOM EXTENSION CAPACITIES IN POUNDS

**30' FIXED EXTENSION  
ON OUTRIGGERS - 360°**

Main Boom Angle	0° OFFSET		15° OFFSET		30° OFFSET	
	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.
75°	31.8	10,350	37.2	7,660	42.8	5,310
70	40.0	8,790	45.2	5,990	50.5	4,770
65	48.0	6,780	53.0	4,950	57.8	4,090
60	55.7	5,430	60.2	4,190	64.8	3,570
55	62.8	4,080	67.1	3,450	71.2	2,950
50	69.6	3,170	73.3	2,730	77.0	2,370
45	75.8	2,520	79.0	2,210	82.2	1,950
40	81.3	2,040	84.1	1,820	86.8	1,630
35	86.2	1,680	88.4	1,530	90.6	1,380

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## NOTES FOR 30' FIXED EXTENSION

1. All capacities above the bold line are based on structural strength of boom extension and do not exceed 85% of tipping loads, in accordance with SAE J-765a.
2. 30 ft. (9.3 m) fixed length boom extension lengths may be used for double or single line lifting service.
3. Rated load is based on loaded main boom angle with reference to horizontal, regardless of main boom length. (Ref. radius is for fully extended boom length only.). **WARNING:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
4. Capacities listed are with fully extended outrigger only.
5. Warning for 30 ft. (9.3 m) boom extension: For main boom length greater than 78 ft. (23.8 m) with 30 ft. (9.3 m) fixed length boom extension in working position, the boom angle must not be less than 17° 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 78 ft. (23.8 m). This warning applies for boom extension erection purposes also.

## 30 ft. - 54 ft. TELE. BOOM EXTENSION

Main Boom Angle	30 ft. EXTENSION						42 ft. EXTENSION						54 ft. EXTENSION					
	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.
75°	31.8	10,000	37.2	7,300	42.8	4,950	35.9	7,700	43.8	5,090	51.7	3,750	39.6	6,150	50.7	3,750	61.8	2,690
70	40.0	8,430	45.2	5,630	50.5	4,410	45.2	6,950	52.7	4,360	60.2	3,300	49.8	5,340	60.4	3,300	70.8	2,480
65	48.0	6,420	53.0	4,590	57.8	3,730	54.1	5,240	61.2	3,550	68.2	2,800	59.8	4,380	69.7	2,840	79.5	2,180
60	55.7	4,910	60.2	3,830	64.8	3,210	62.7	4,130	69.2	2,950	75.7	2,410	69.3	3,420	78.4	2,340	87.5	1,860
55	62.8	3,570	67.1	2,950	71.2	2,460	70.7	3,160	76.7	2,480	82.6	1,925	78.4	2,750	86.6	1,970	94.7	1,470
50	69.6	2,640	73.3	2,230	77.0	1,880	78.2	2,320	83.6	1,840	88.8	1,440	86.8	2,010	94.1	1,505		
45	75.8	1,990	79.0	1,705	82.2	1,450	85.2	1,710	89.8	1,360			94.6	1,470	100.8	1,110		
40	81.3	1,510	84.1	1,310	86.8	1,120	91.5	1,240										

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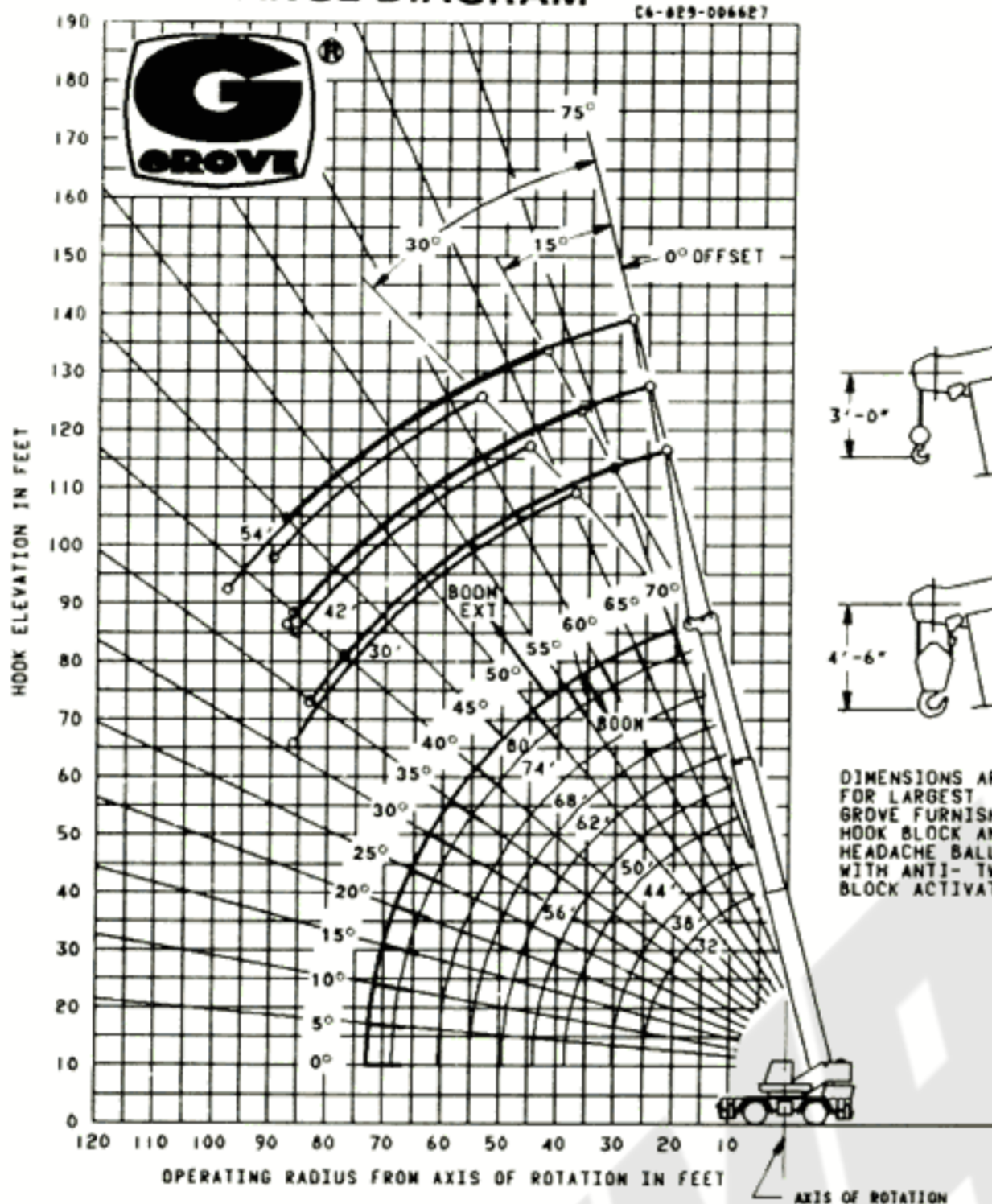
## NOTES WITH TELESCOPIC BOOM EXTENSION

### TELE. BOOM EXTENSION CAPACITY NOTES:

1. All capacities above the bold line are based on structural strength of boom extension and do not exceed 85% of tipping loads, in accordance with SAE J-765a.
2. 30 ft. (9.3 m), 42 ft. (12.8 m) & 54 ft. (16.4 m) boom extension lengths may be used for double or single line lifting service.
3. Rated load is based on loaded main boom angle with reference to horizontal, regardless of main boom length. (Ref. radius is for fully extended boom length only). **WARNING:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advance warning.
4. Capacities listed are with fully extended outriggers only.
5. \*30 ft. (9.3 m) & 42 ft. (12.8 m) BOOM EXTENSION WARNING: For main boom length greater than 62 ft. (18.9 m) with 30 ft. (9.3 m) or 42 ft. (12.8 m) tele. boom extension in working position, the boom angle must not be less than 40° 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 62 ft. (18.9 m).  
\*54 ft. (16.4 m) BOOM EXTENSION WARNING: For main boom length greater than 55 ft. (16.8 m) with 54 ft. (16.4 m) tele boom extension 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 55 ft. (16.8 m).  
\*This warning applies for boom extension erection also.



## RANGE DIAGRAM



### WEIGHT REDUCTIONS FOR LOAD HANDLING DEVICES

30 ft. TELE. EXT. with 32-80 ft. BOOM	
*Stowed -	296 lbs.
*Erected -	3,266 lbs.

30-54 ft. TELE. EXT. with 32-80 BOOM	
*Stowed -	417 lbs.
*Erected (Retracted) -	5,045 lbs.
*Erected (Extended) -	6,763 lbs.

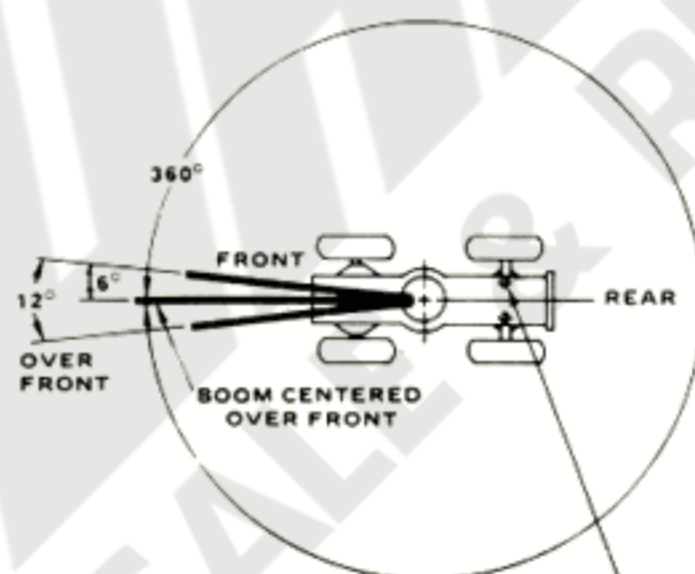
\*Reduction of main boom capacities.

### HOOKBLOCKS

30 Ton, 4 Sheave	570 lbs.
15 Ton, 2 Sheave	300 lbs.
12 Ton, 1 Sheave (10 5/8" TD)	270 lbs.
12 Ton, 1 Sheave (13 3/4" TD)	360 lbs.
Auxiliary Boom Head	145 lbs.
5 Ton Headache Ball	172 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.

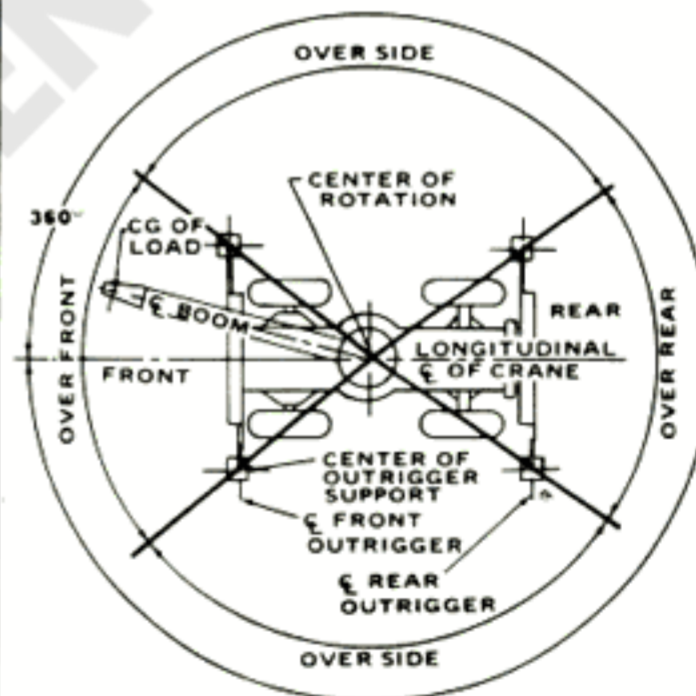
### LIFTING AREA DIAGRAMS



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

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