

# RT422

**22 TON CAPACITY**  
**27 ft. - 70 ft. BOOM**

**(FULL POWER)**

**85% OF TIPPING**

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

Radius in Feet	25 ft. LENGTH						34 ft. LENGTH						43 ft. LENGTH					
	0° OFFSET		15° OFFSET		30° OFFSET		0° OFFSET		15° OFFSET		30° OFFSET		0° OFFSET		15° OFFSET		30° OFFSET	
	Boom angle Ref.	Cap. lbs.	Boom angle Ref.	Cap. lbs.	Boom angle Ref.	Cap. lbs.	Boom angle Ref.	Cap. lbs.	Boom angle Ref.	Cap. lbs.	Boom angle Ref.	Cap. lbs.	Boom angle Ref.	Cap. lbs.	Boom angle Ref.	Cap. lbs.	Boom angle Ref.	Cap. lbs.
20	78.0	<b>*12,500</b>					78.0	<b>*8,500</b>					78.0	<b>*5,000</b>				
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	<b>*5,500</b>	74.0	7,170	78.0	<b>*5,500</b>			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	<b>*3,600</b>	72.0	4,020	78.0	3,000		
40	64.5	7,200	67.5	5,860	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	<b>*2,300</b>
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	4,510	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	55.5	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 obtainable boom angle.

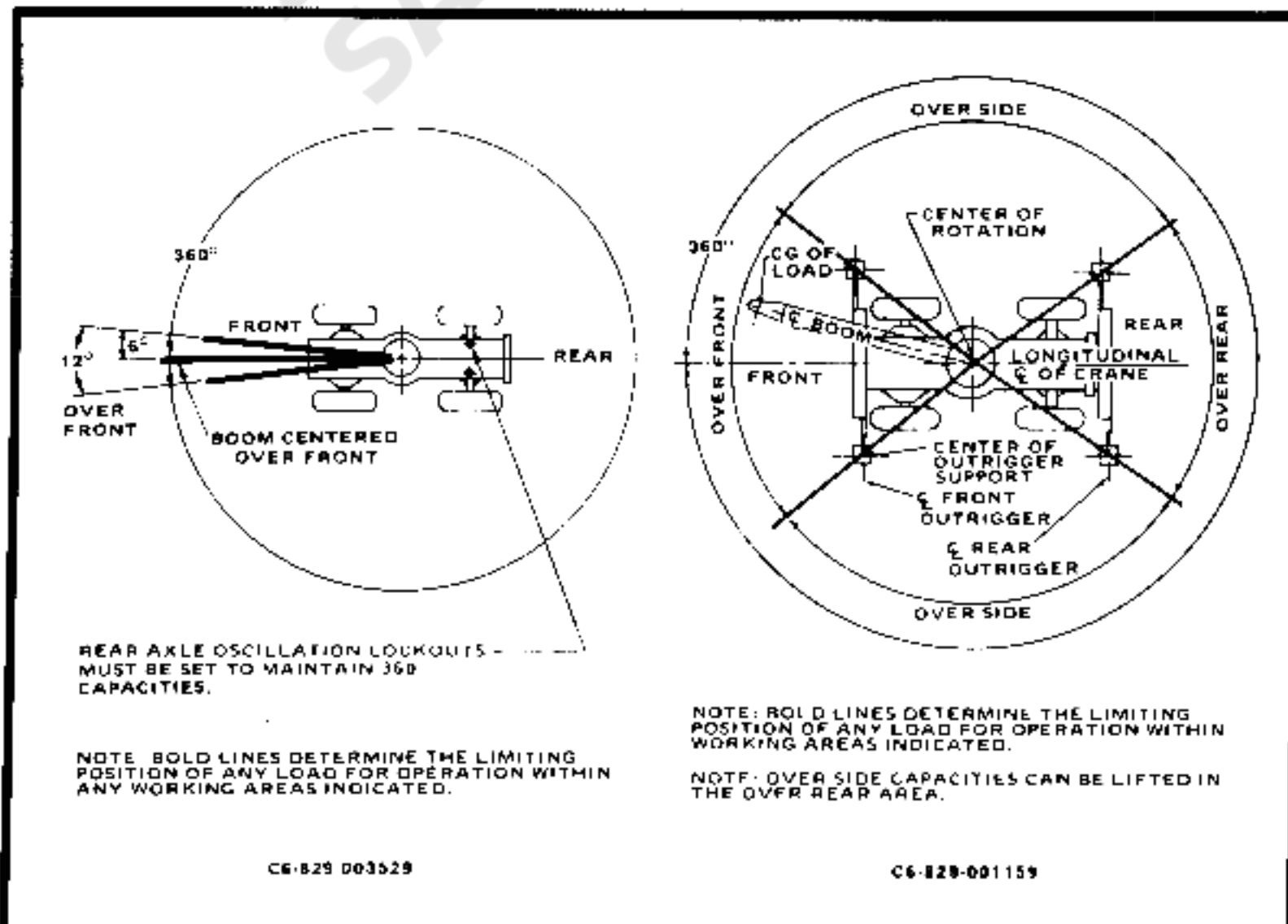
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## NOTES FOR LIFTING WITH 25 ft. FIXED EXTENSION OR 25 ft. - 43 ft. TELE. BOOM EXTENSION

- All capacities above the bold line are based on structural strength of boom extension and do not exceed 85% of tipping load, in accordance with SAE J765 OCT80.
- 25 ft. (7.6 m), 34 ft. (10.4 m) and 43 ft. (13.1 m) boom extension lengths may be used for double or single line lifting service. Double line lifting service is required when unit is equipped with a Krueger L.M.I.
- For main boom lengths less than fully extended with the boom extension erected, the rated loads are determined by boom angle. Use only the column which corresponds to the boom extension length and offset for which the machine is set up. For boom angles not shown, use the rating of the next lower boom angle.  
**WARNING:** Operation of this machine with heavier loads than the capacities listed is strictly prohibited. Machine tipping with boom extension occurs rapidly and without advanced warning.
- Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
- WARNING:** The Krueger L.M.I. will not compensate for reeving/rigging accessories on the main boom nose or auxiliary boom nose when programmed to monitor the boom extension. Remove all reeving/rigging accessories from main boom when using boom extension.
- Capacities listed are with outriggers fully extended and vertical jacks set only.
- \*BOOM EXTENSION WARNING:** For main boom length greater than 60 ft. (18.3 m) with 25 ft. - 43 ft. (7.6 - 13.1 m) tele. boom extension in working position, the boom angle must not be less than 30° 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 60 ft. (18.3 m).

\*This warning also applies for boom extension erection purposes.

## LIFTING AREA DIAGRAM





## ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	Main Boom Length in Feet					25 ft. Ext. & 70 ft.
	27	40	50	60	70	95
8	44,000 (64)	43,650 (73)	42,450 (76.5)			
9	41,000 (61.5)	41,000 (71.5)	39,850 (75.5)			See Warning Note 17
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)
25		13,300 (42)	13,300 (54.5)	13,300 (61.5)	13,300 (67)	10,750 (74.5)
30	See Warning Note 16	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)
Min. boom angle (deg.) for indicated length (No load)				0		0
Max. boom length (ft.) at 0 deg. boom angle (No Load)				70		95

NOTE: Boom angles are in degrees. A6-829-008252 & -008259

### GENERAL:

- Rated loads as shown on capacity chart pertain to this crane as shown. Modifications to the crane or use of optional equipment other than that shown shall not exceed the rated capacity. Use only the jib or boom extension supplied with this crane without the written approval of Grove Mfg. Co.
- Construction equipment can be hazardous if improperly operated or used. It shall be in compliance with the information in the Operator's and Maintenance Manuals supplied with this crane. If these manuals are missing, order them from Grove Mfg. Co.
- The operator and other personnel associated with this crane shall follow applicable American National Standards Institute (ANSI) Safety Standards.

### SETUP:

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

### OPERATION:

- Rated loads at rated radius shall not be exceeded. Do not tip the mast during clamshell operation, weight of load must not exceed 80% of rated lift capacity.
- All rated loads have been tested to and meet minimum requirements of ASME B30.2-1998 Boom Crane Structures - Method of Test, and do not exceed the limits set by SAE J765 OCT80 Crane Stability Test Code.
- Rated loads include the weight of hook block, slings and auxiliary lifting devices. These shall be subtracted from the listed ratings to obtain the net load which shall not exceed the rated capacity.
- Load ratings are based on freely suspended loads. No attempt shall be made to lift the ground in any direction.
- Rated loads do not account for wind on lifted load or boom. It is recommended that in winds in excess of 20 MPH (32 km/h), rated loads and boom lengths be appropriately reduced.

# RT422

**22 TON CAPACITY**  
**27 ft. - 70 ft. BOOM**  
**(FULL POWER)**  
**85% OF TIPPING**

## RATED LIFTING CAPACITIES IN POUNDS

### 27 ft. - 70 ft. BOOM

ON RUBBER TIRES

#### 14:00x24 TIRES

16:00x24 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
8	27,900 (a)	24,750 (a)	25,200 (a)
9	25,400 (a)	19,950 (a)	23,200 (a)
10	23,300 (a)	16,600 (b)	21,450 (a)
12	20,100 (a)	12,200 (b)	18,600 (a)
15	15,800 (b)	8,410 (b)	15,350 (a)
20	9,650 (c)	4,910 (d)	9,650 (b)
25	6,500 (c)	3,160 (e)	6,500 (c)
30	4,670 (d)	2,120 (e)	4,670 (c)
35	3,440 (e)	1,410 (e)	3,440 (d)
40	2,570 (e)	890 (e)	2,570 (d)
45	1,910 (e)		1,910 (e)
50	1,400 (e)		1,400 (e)
55	980 (e)		980 (e)

Radius in Feet	Stationary Capacity
	Defined Arc (3) Over Front
8	36,350 (a)
9	32,200 (a)
10	29,100 (a)
12	23,500 (a)
15	15,800 (b)
20	9,650 (c)
25	6,500 (c)
30	4,670 (d)
35	3,440 (e)
40	2,570 (e)
45	1,910 (e)
50	1,400 (e)
55	980 (e)

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#### Maximum Permissible Boom Length:

- (a) 27 ft.      (d) 60 ft.  
 (b) 40 ft.      (e) 70 ft.  
 (c) 50 ft.

- Capacities do not apply to 17.5x24 tires.
- Capacities are for 14:00x24 and 16:00x24 tires.

		Main Boom 70 ft.
Front (No Load)	Min. boom angle (deg.) for indicated length	23
	Max. boom length (ft.) at 0 deg. boom angle	60
360° (No Load)	Min. boom angle (deg.) for indicated length	48
	Max. boom length (ft.) at 0 deg. boom angle	40

- Defined Arc - (3) Over Front.
- Capacities apply to 14:00x24 and 16:00x24 tires upon as a capacity limitation.
- Capacities are for 14:00x24 and 16:00x24 tires.
- On rubber lifting devices.
- For pick and carry and load restraint, maximum rating.
- Axle lockouts must be functioning: Freely suspended load lockout system.
- All lifting devices must be inflated to proper pressure.
- Creep - not over.

#### NOTES FOR LIFTING CAPACITIES

originally manufactured and equipped. Any modification that specified can result in a reduction of lifting capacity. Do not substitute jibs or boom sections.

maintained. Operation and maintenance instructions are found in the Safety Handbooks, Service and Parts manuals. Obtain replacements from the manufacturer. Fully acquaint themselves with the latest standards for cranes.

on the nature of the supporting surface, it is essential that under the outrigger floats or tires to be raised free of crane weight before operation.

shall be set in accordance with the written instructions. The boom shall be fully extended before operation. Do not use rubber tires.

ties may not be obtainable with standard tires. For pick and carry operations, consult the wire rope manufacturer's recommendations.

ing operations. Consult the wire rope manufacturer's recommendations.

t reeving.

achine to determine allowable loads. For lifting capacities.

nts of SAE J1063 OCT80 - Cantilevered 85% of the tipping load as determined.

ifting devices and their combined weights which may be lifted.

l be made to move a load horizontally on a level surface.

commended when wind velocity is above 10 mph. Do not operate in rain or snow.

- Rated loads are for lift crane service only.
- Do not operate at a radius or boom length which will cause the crane to overturn without any load on the hook.
- The maximum load which can be telescoped must be maintained, but it is safe to attempt retraction.
- When either boom length or radius or both are at their maximum, the next larger radius or boom length shall be used.
- For safe operation, the user shall make due allowance for uneven ground, out of level conditions, high voltage power lines, hazardous conditions, experience of operator, etc. Side pull on boom or jib is extremely dangerous.
- Power telescoping boom sections must be extended fully.
- Handling of personnel from the boom is not recommended by Grove Manufacturing Company.
- Keep load handling devices a minimum of 18 inches from the ground.
- The boom angle before loading should be greater than 23 degrees.
- Capacities appearing above the bold line are limited by the boom length upon as a capacity limitation.
- Capacities for the 27 ft. (8.3 m) boom length shall be used when fully retracted, capacities shall not exceed those shown.
- For boom lengths less than 95 ft. (29 m) with a radius of 40 ft. (12.2 m) or less, capacities are determined by boom angle only in the column shown. Use the next lower boom angle. For this purpose, the boom angle is to be selected on the Krueger L.M.I. \*

#### \*WARNING: The Krueger L.M.I. readings are accurate.

#### DEFINITIONS:

- Operating Radius: Horizontal distance from the vertical hoist line to the center of the vertical hoist line before loading to the center of the vertical hoist line.
- Loaded Boom Angle (Shown in parenthesis or in bold type): Angle between the boom and the horizontal, after lifting the load.
- Working Area: Areas measured in a circular area diagram.
- Freely Suspended Load: Load hanging free with no contact with the crane.
- Side Load: Horizontal force applied to the lifting device.

# GROVE®

## FULL HYDRAULIC

# SELF-PROPELLED CRANE

**POUNDS**

### ON RUBBER CAPACITIES

#### 16:00x24 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
8	36,350 (a)	<b>24,750 (a)</b>	31,750 (a)
9	32,200 (a)	19,950 (a)	30,000 (a)
10	29,100 (a)	16,600 (b)	28,200 (a)
12	23,500 (a)	12,200 (b)	23,500 (a)
15	15,800 (b)	8,410 (b)	<b>15,800 (a)</b>
20	9,650 (c)	4,910 (d)	9,650 (b)
25	6,500 (c)	3,160 (e)	6,500 (c)
30	4,670 (d)	2,120 (e)	4,670 (c)
35	3,440 (e)	1,410 (e)	3,440 (d)
40	2,570 (e)	890 (e)	2,570 (d)
45	1,910 (e)		1,910 (e)
50	1,400 (e)		1,400 (e)
55	980 (e)		980 (e)

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#### 17.5x25 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
8	36,300 (a)	<b>24,750 (a)</b>	28,400 (a)
9	31,950 (a)	19,950 (a)	26,200 (a)
10	27,900 (a)	16,600 (b)	24,250 (a)
12	23,100 (a)	12,200 (b)	21,050 (a)
15	15,800 (b)	8,410 (b)	<b>15,800 (a)</b>
20	9,650 (c)	4,910 (d)	9,650 (b)
25	6,500 (c)	3,160 (e)	6,500 (c)
30	4,670 (d)	2,120 (e)	4,670 (c)
35	3,440 (e)	1,410 (e)	3,440 (d)
40	2,570 (e)	890 (e)	2,570 (d)
45	1,910 (e)		1,910 (e)
50	1,400 (e)		1,400 (e)
55	980 (e)		980 (e)

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### NOTES FOR RUBBER CAPACITIES

- Capacities do not exceed 85% of tipping loads as determined by test in accordance with SAE J765 OCT 80.
- Capacities are applicable to machines equipped with:
 

14:00x24 (16 ply)	Cold Inflation	4.0 KPH
16:00x24 (16 ply)	90 PSI	85 PSI
17.5x25 (20 ply)	80 PSI	65 PSI
	95 PSI	85 PSI
- Defined Arc - Over front includes  $\pm 6^\circ$  on either side of longitudinal centerline of machine.
- Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.
- Capacities are applicable only with machine on firm level surface.
- On rubber lifting with boom extension not permitted.
- 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.
- 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 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.
- Creep - not over 200 ft. (61 m) of movement in any 30 minute period and not exceeding 1 mph (1.6 kph).

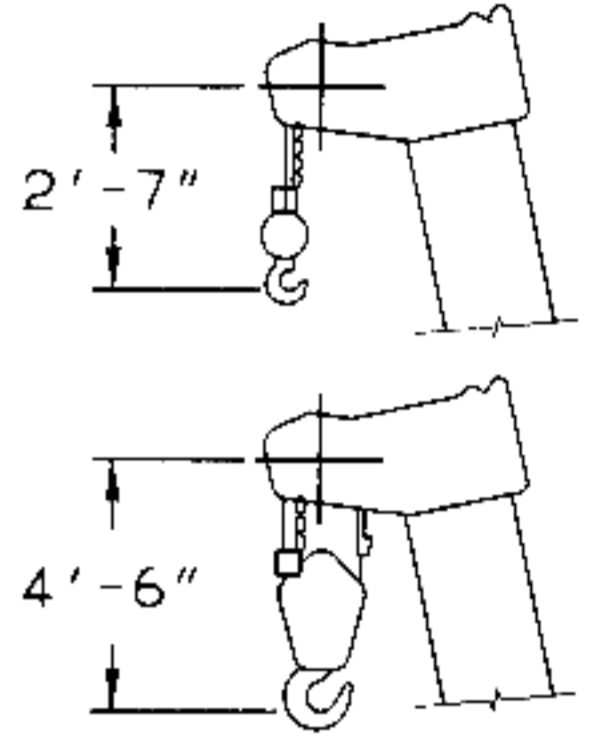
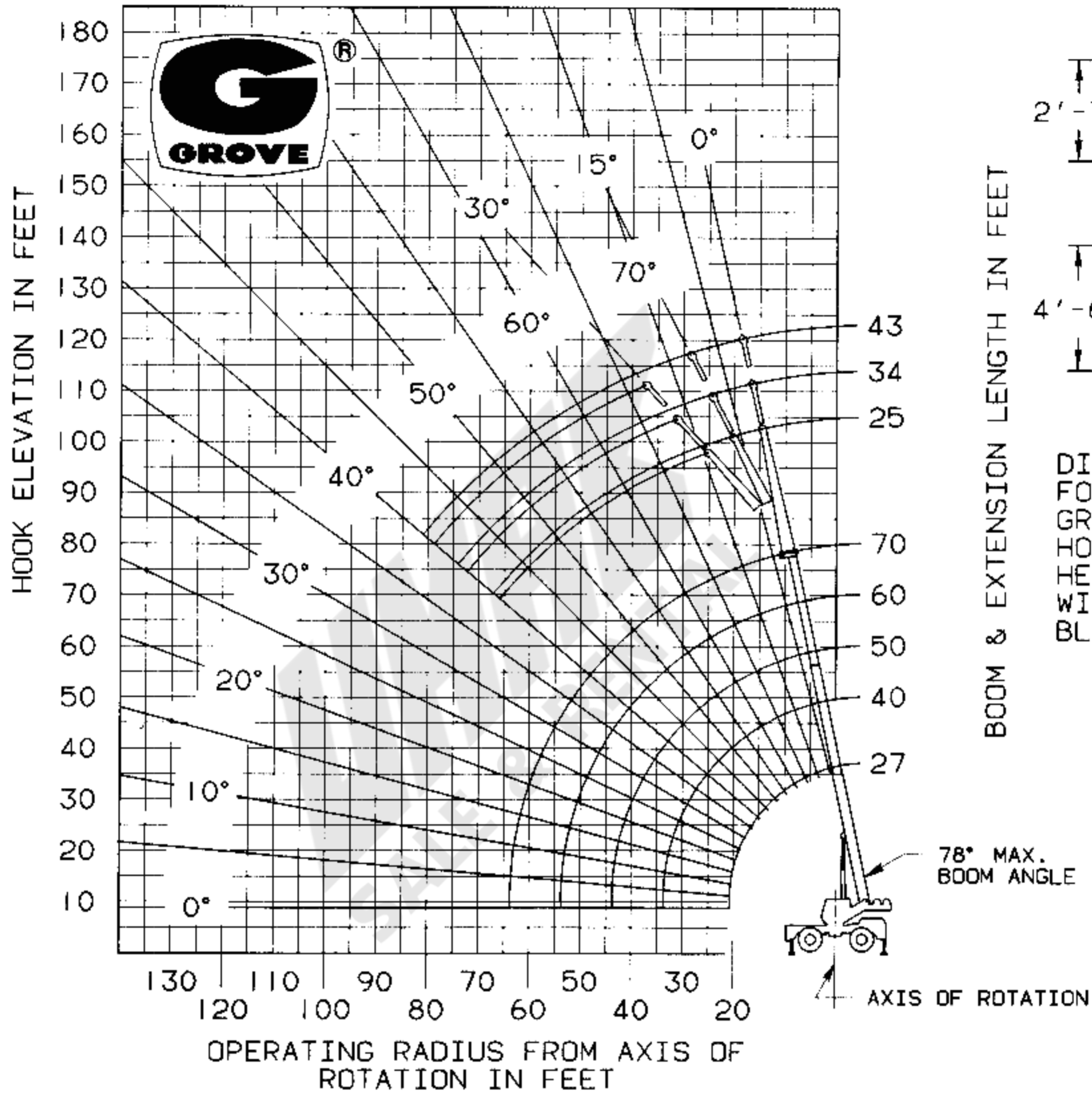
crane service only.  
 radius or boom length where capacities are not listed. At these positions, the crane may  
 load on the hook.  
 which can be telescoped is not definable because of variations in loadings and crane  
 safe to attempt retraction and extension within the limits of the capacity chart.  
 length or radius or both are between values listed, the smallest load shown at either the  
 boom length shall be used.  
 the user shall make due allowances for his particular job conditions, such as: soft or  
 level conditions, high winds, side loads, pendulum action, jerking or sudden stopping  
 conditions, experience of personnel, two machine lifts, traveling with loads, electric  
 boom or jib is extremely dangerous.  
 m sections must be extended equally at all times.  
 from the boom is not authorized except with equipment furnished and installed by  
 Company.  
 ices a minimum of 18 inches (45.7 cm) below boom head at all times.  
 e loading should be greater than the loaded boom angle to account for deflection.  
 above the bold line are based on structural strength and tipping should not be relied  
 ation.  
 . (8.3 m) boom length shall be lifted with the boom fully retracted. If the boom is not  
 ies shall not exceed those shown for the 40 ft. (12.2 m) boom length.  
 than 95 ft. (29 m) with the 25 ft. (7.6 m) boom extension erected, the rated loads are  
 angle only in the column headed by 95 ft. (29 m) boom. For boom angles not shown  
 er boom angle. For this load column the 25 ft. (7.6 m) boom extension operational  
 on the Krueger L.M.I.\*  
 L.M.I. readings are accurate only if all powered boom sections are fully extended.

horizontal distance from a projection of the axis of rotation to the supporting surface  
 center of the vertical hoist line or tackle with load applied.  
 Shown in parenthesis on main boom capacity chart): is the angle between the boom  
 horizontal, after lifting the rated load at the rated radius with the rated boom length.  
 measured in a circular arc about the center line of rotation as shown on the working

d: Load hanging free with no direct external force applied except by the lift cable.  
 force applied to the lifted load either on the ground or in the air.

# GROVE® RT422

## RANGE DIAGRAM



BOOM & EXTENSION LENGTH IN FEET

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

## WEIGHT REDUCTION FOR LOAD HANDLING DEVICES

25 ft. FIXED EXTENSION w/27 ft.-70 ft. BOOM	
†Stowed	- 294 lbs.
†Erected	- 1,471 lbs.
25 ft.-43 ft. TELE. BOOM EXTENSION w/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.
16 Ton, 2 Sheave	..... 462 lbs.
12 Ton, 1 Sheave	..... 360 lbs.
5 Ton Headache Ball	..... 172 lbs.
Auxiliary Boom Head	..... 145 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.



**GROVE MANUFACTURING COMPANY**

Division of Kilde, Inc.

**KILDE**

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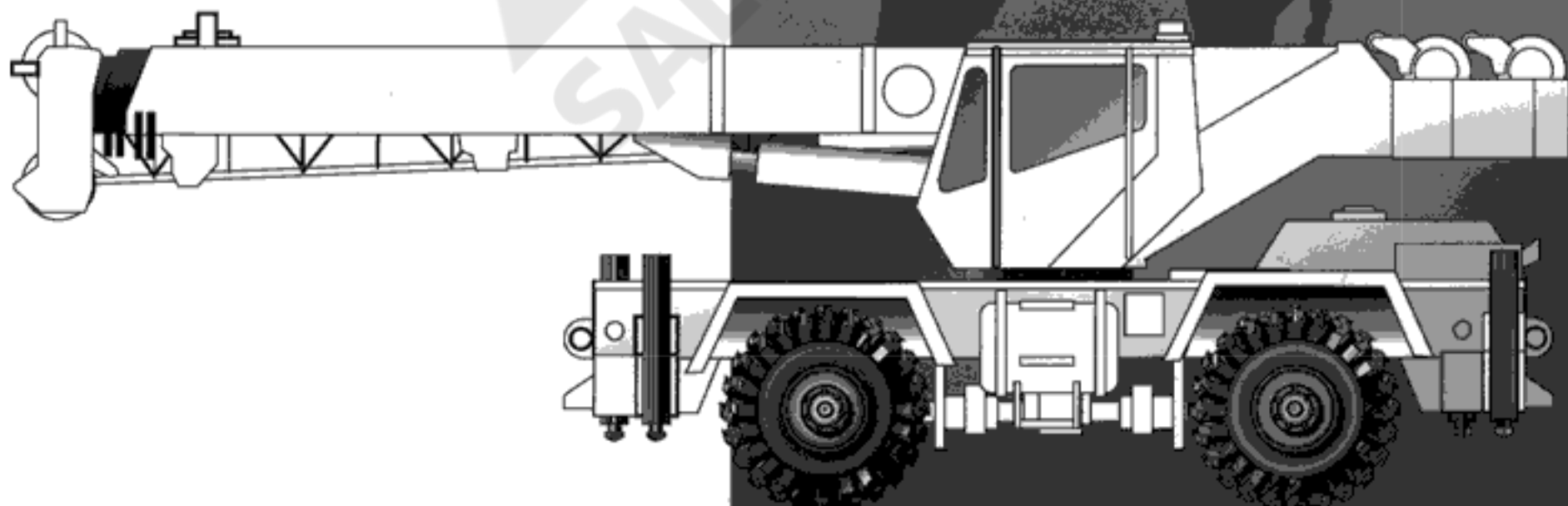
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**CRANE**

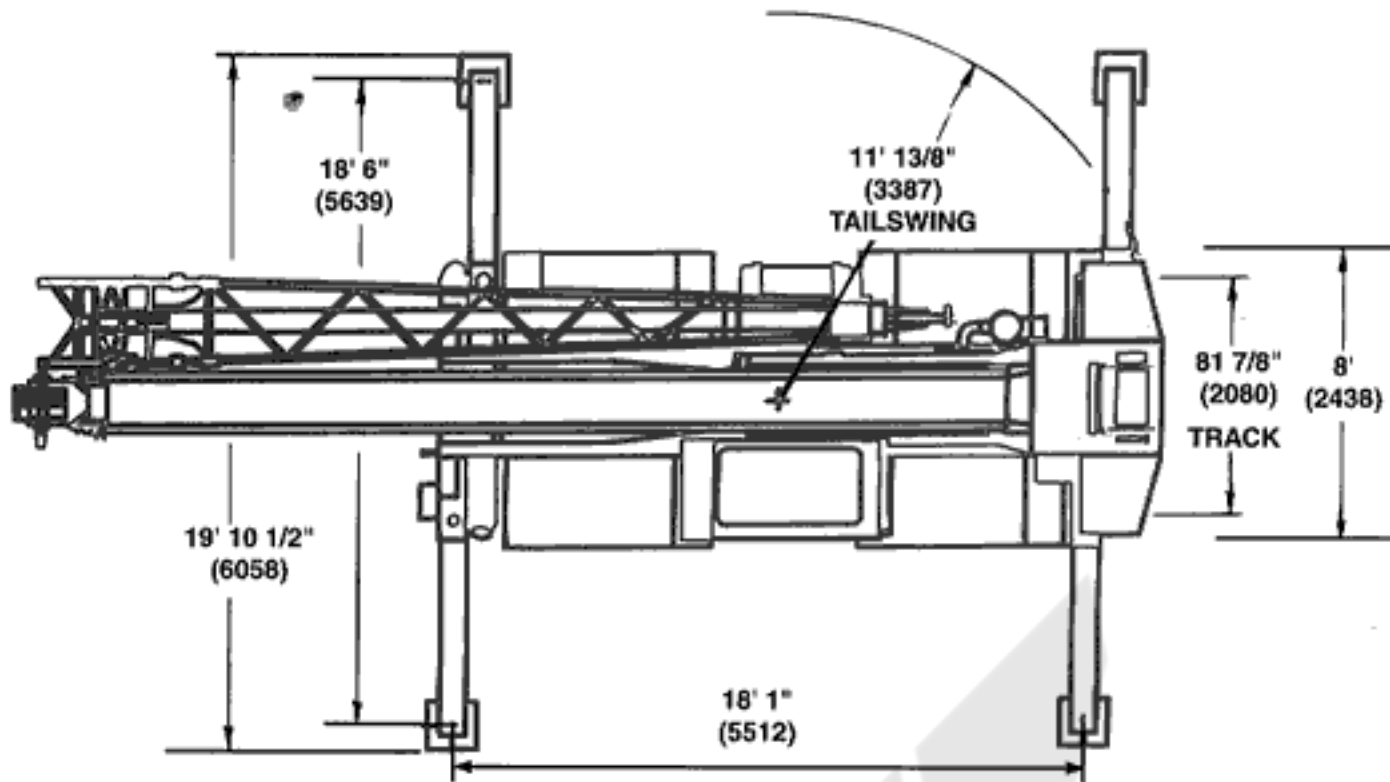
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# RT400 Series

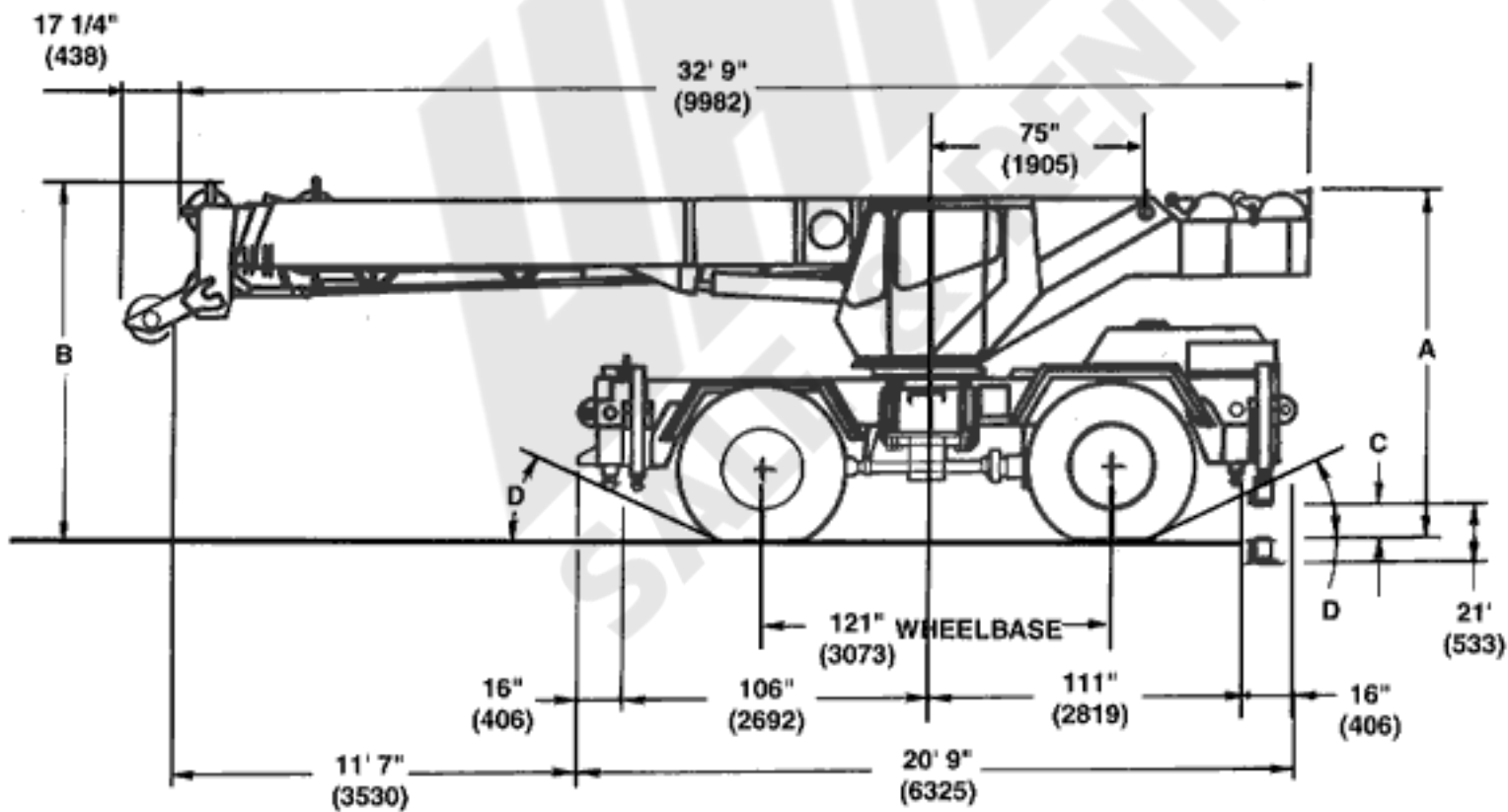


**Rough Terrain Hydraulic Cranes**

# Dimensions



TIRE SIZE	16:00 X 25	17.5 X 25
A	10' 1 1/4" (3080)	9' 11 1/2" (3035)
B	10' 5 1/2" (3188)	9' 11 1/2" (3035)
C	11' 1/2" (292)	9' 3/4" (248)
D	25°	24°
GROUND CLEARANCE	18" (457)	16 1/2" (650)



Turning Radius . . . . . 16' 2" (4928 mm)

Front Axle Load . . . . . 18,000 lbs. (8165 kg)

Rear Axle Load . . . . . 19,200 lbs. (8709 kg)

Gross Vehicle Weight . . . . . 37,200 lbs. (16 874 kg)

# Working Range



27-70 ft.  
(8.3-21.4 m)



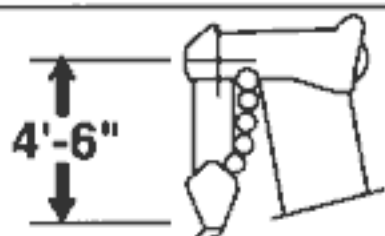
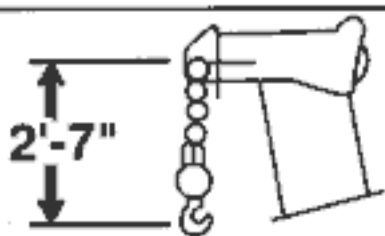
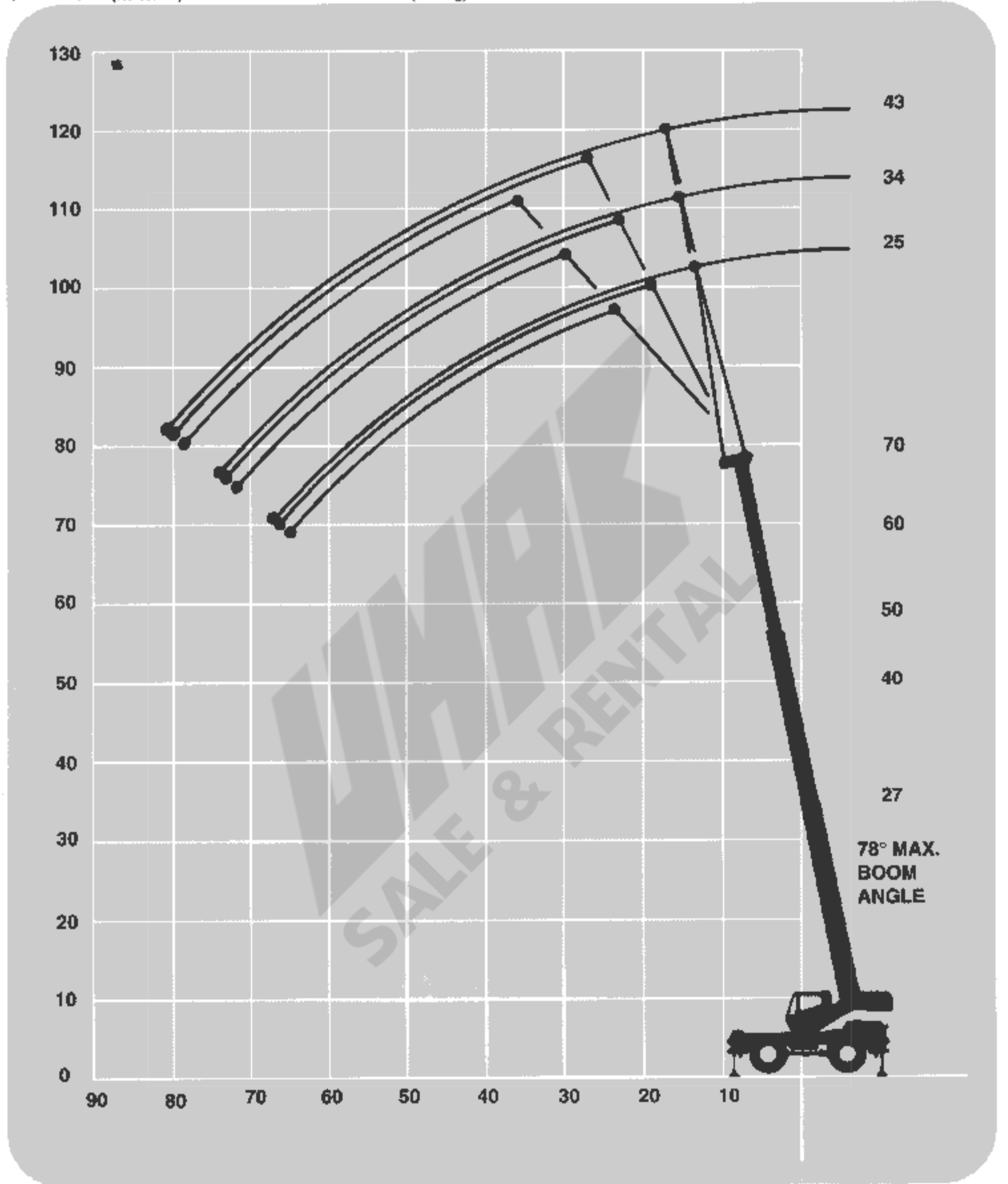
25-43 ft.  
(7.6-13.1 m)



3,925 lbs.  
(1780 kg)



360°



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



# Superstructure specifications

## Boom

27 ft. - 70 ft. ( 8.3 m - 21.4 m) three-section full power boom. Maximum tip height: 78 ft. (23.8 m).

## Fixed Swingaway Extension

25 ft. (7.6 m) lattice swingaway extension. Non-offsettable. Stows alongside base boom section.

Maximum tip height: 103 ft. (31.4 m).

## \*Optional Telescopic Swingaway Extension

25 ft. - 43 ft. (7.6 m - 13.1 m) telescoping lattice swingaway extension. Offsettable at 0°, 15° or 30°.

Stows alongside base boom section.

Maximum tip height: 121 ft. (36.9 m).

## Boom Nose

Three steel sheaves mounted on heavy duty tapered roller bearings with removable pin-type rope guards.

\*Optional removable auxiliary boom nose with removable pin type rope guard.

## Boom Elevation

One double acting hydraulic cylinder with integral holding valve provides elevation from -3° to +78°.

## Load Moment & Anti-Two Block System

Standard load moment and anti two block system with audio-visual warning and control lever lockout. These systems provide electronic display of boom angle, length, radius, tip height, relative load moment, maximum permissible load and load indication and warning of impending two-block condition.

## Cab

Full vision, all steel fabricated with acoustical lining and tinted safety glass throughout. Deluxe seat incorporates armrest mounted hydraulic single-axis controllers. Dash panel incorporates gauges for all engine functions. Other standard features include: cab circulating air fan, sliding side and rear windows, electric windshield wash/wipe, manual skylight wiper, swing horn, fire extinguisher and seat belt.

## Swing

Planetary swing with foot applied multi-disc brake. Spring applied, hydraulically released swing brake and plunger-type, 1 position, mechanical house lock, and a 360° positive swing lock, operated from cab. 360° continuous rotation.

Maximum speed: 2.4 RPM.

## Counterweight

3,925 lbs. (1780 kg) integral with superstructure. 955 lbs. (433 kg) slab in place of auxiliary hoist.

## Hydraulic System

Two main gear pumps with a combined capacity of 53.5 GPM (202.5 LPM). \*Optional pump disconnect with engine jogging switch.

Maximum operating pressure: 3500 PSI (241 bar).

Two individual valve banks.

Return line type filter with full flow by-pass protection and service indicator. 10 micron rated replaceable cartridge.

66 gallon (250 L) reservoir.

Remote-mounted oil cooler with thermostatically controlled electric motor driven fan.

System pressure test ports with quick release type fittings for each circuit.

## HOIST SPECIFICATIONS

### Main and Auxiliary Hoist

Planetary reduction with automatic spring applied multi-disc brake. Grooved drum. Electronic hoist drum rotation indicator and hoist drum cable followers.

Maximum Single Line Pull: 8,074 lbs. (3662 kg)

Maximum Single Line Speed: 254 FPM (74 m/min)

Maximum Permissible Line Pull: 8,074 lbs. (3662 kg)

Rope Diameter: 5/8 in. (16 mm)

Rope Length: 360 ft. (110 m)

Maximum Rope Stowage: 360 ft. (110 m)

*\*Denotes optional equipment*

# Carrier specifications

## Chassis

Box section frame fabricated from high-strength, low alloy steel. Integral outrigger housings and front/rear towing and tie down lugs.

## Outrigger System

Four hydraulic telescoping single-stage double box beam outriggers with inverted jacks and integral holding valves. Three position setting. All steel fabricated quick release type square outrigger floats, 16.5 in. (429 mm) square. Maximum outrigger pad load: 32,100 lbs. (14 561 kg).

## Outrigger Controls

Controls and crane level indicator located in cab.

## Engine

Cummins 4BT3.9 L diesel, six cylinders, turbocharged, 105 bhp (78 kW) (Gross) @ 2,800 RPM. Maximum torque 260 ft. lbs. (353 Nm) @ 1,700 RPM.

## Fuel Tank Capacity

40 gallons (151 L)

## Transmission

Full powershift with 6 forward and 6 reverse speeds. Rear axle disconnect for 4x2 travel.

## Electrical System

12-V - maintenance free battery.  
\*Dual batteries optional.

## Drive

4x4

## Steering

Full independent power steering.  
Front: Full hydraulic steering wheel controlled.  
Rear: Full hydraulic hand lever controlled.  
Provides infinite variations of 4 main steering modes: front only, rear only, crab and coordinated. Rear steer indicating gauge.  
\*Optional no-spin differential on rear axle (4x4).

## Axles

Front: Drive/steer with differential and planetary reduction hubs rigid mounted to frame.  
Rear: Drive/steer with differential and planetary reduction hubs pivot mounted to frame.

## Oscillation Lockouts

Automatic full hydraulic lockouts on rear axle permit oscillation only with boom centered over the front.  
\*Optional oscillation lockout override control.

## Brakes

Full hydraulic split circuit brakes operating on all wheels. Spring-applied, hydraulically released transmission-mounted parking brake.

## Tires

16.00x24-16PR grader type tubeless, or  
\*17.5x25-20PR earthmover type, tubeless.

## Lights

Full lighting package including turn indicators, head, tail, brake and hazard warning lights.

## Maximum Speed

25.9 MPH (41.7 kph)

## Maximum Gradeability

141.2% (Theoretical based on 38,300 lbs. [17 373 kg] GVW), 16.00x24 tires, pumps disengaged, 70 ft. (21.4 m) boom and 25-43 ft. (7.6-13.1 m) swingaway.

## Miscellaneous Standard Equipment

Full width steel fenders, dual rear view mirrors, hook-block tiedown, electronic back-up alarm, light package, front stowage well.

## \*Optional Equipment

- \* Auxiliary hoist
- \* Boom mounted worklights
- \* 360° flashing light
- \* Cab spotlight
- \* Tachometer
- \* Engine block heater
- \* Cold start aid (less canister)
- \* Hookblocks
- \* Electric skylight wiper
- \* Propane/diesel heater/defroster
- \* Tool kit
- \* Pintle hook front/rear
- \* High Speed Glide system
- \* Dual axis joystick controller
- \* Headache ball

*\*Denotes optional equipment*



27 -70 ft.  
(8.3-21.4 m)



3,925 lbs.  
(1780 kg)



100%



360°



85% Domestic (Pounds)

25 ft. Ext.  
& 70 ft.

(Feet)	27	40	50	60	70	95
8	44,000	43,650	42,450			
9	41,000	41,000	39,850			
10	38,000	38,000	37,550			
12	31,450	31,450	31,450	31,450		
15	24,300	24,300	24,300	24,300	22,000	
20	<u>18,000</u>	17,650	17,650	17,650	17,650	12,500
25		13,300	13,300	13,300	13,300	10,750
30		<u>10,400</u>	<u>10,400</u>	<u>10,400</u>	<u>10,400</u>	9,810
35			8,370	8,370	8,370	<u>8,930</u>
40			6,630	6,630	6,630	7,820
45				5,370	5,370	6,210
50				4,410	4,410	5,040
55					3,660	4,140
60					3,060	3,430
65						2,860

A6-829-008252 & -008259B

WMA  
SALE & RENTAL



27 -70 ft.  
(8.3-21.4 m)



3,925 lbs.  
(1780 kg)



50%



360°



85% Domestic (Pounds)

25 ft.  
Ext. &  
70 ft.

(Feet)	27	40	50	60	70	95
8	36,750	36,750	36,750			
9	33,900	33,900	33,900			
10	31,400	31,400	31,400			
12	27,250	27,250	27,250	27,250		
15	22,550	22,550	21,900	20,850	19,900	
20	13,350	13,350	13,350	13,350	13,300	12,500
25		9,060	9,060	9,060	9,060	9,440
30		6,590	6,590	6,590	6,590	7,260
35			4,950	4,950	4,950	5,720
40			3,860	3,860	3,860	4,580
45				3,020	3,020	3,700
50				2,380	2,380	2,990
55					1,870	2,350
60					1,460	1,800
65						1,340

A6-829-013333

WMA  
SALE & RENTAL



27 -70 ft.  
(8.3-21.4 m)



3,925 lbs.  
(1780 kg)



0%



360°



85% Domestic (Pounds)

(Feet)	27	40	50	60	70
8	26,750	26,200	24,250		
9	21,200	21,200	20,900		
10	17,400	17,400	17,400		
12	12,600	12,600	12,600	12,600	
15	8,660	8,660	8,660	8,660	8,660
20	5,290	5,290	5,290	5,290	5,290
25		3,510	3,510	3,510	3,510
30		2,410	2,410	2,410	2,410
35			1,670	1,670	1,670
40			1,120	1,120	1,120

A6-829-012059

**WMAAR**  
SALE & RENTAL

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.



25-43 ft.  
(7.6-13.1 m)

3,925 lbs.  
(1780 kg)

100%

360°



85% Domestic (Pounds)

(Feet)	25 ft. LENGTH			34 ft. LENGTH			43 ft. LENGTH		
	0° OFFSET	15° OFFSET	30° OFFSET	0° OFFSET	15° OFFSET	30° OFFSET	0° OFFSET	15° OFFSET	30° OFFSET
20	*12,500			*8,500			*5,000		
25	10,750	7,500		8,030			4,750		
30	9,810	6,870	*5,500	7,170	*5,500		4,360		
35	8,930	6,330	5,110	6,390	4,910	*3,600	4,020	3,000	
40	7,200	5,880	4,770	5,680	4,540	3,290	3,710	2,800	*2,300
45	5,670	5,450	4,490	5,040	4,180	2,930	3,420	2,650	2,210
50	4,510	4,510	4,260	4,590	3,840	2,650	3,170	2,510	2,160
55	3,600	3,600	3,600	4,010	3,510	2,430	2,940	2,400	2,100
60	2,860	2,860	2,860	3,260	3,200	2,250	2,730	2,300	2,030
65	2,260	2,260	2,260	2,650	2,650	2,100	2,540	2,210	1,970
70				2,130	2,130	1,970	2,360	2,130	1,890
75							2,140	2,060	1,820
80							1,780	1,780	1,730

\*This capacity is based upon maximum boom angle.

A6-829-008268A



25-43 ft.  
(7.6-13.1 m)

3,925 lbs.  
(1780 kg)

50%

360°



85% Domestic (Pounds)

Feet	25 ft. LENGTH			34 ft. LENGTH			43 ft. LENGTH		
	0° OFFSET	15° OFFSET	30° OFFSET	0° OFFSET	15° OFFSET	30° OFFSET	0° OFFSET	15° OFFSET	30° OFFSET
20	*12,100			*8,500			*5,000		
25	8,760	7,500		8,030			4,750		
30	6,570	6,570	*5,500	6,820	*5,500		4,360		
35	5,020	5,020	5,020	5,300	4,910	*3,600	4,020	3,000	
40	3,870	3,870	3,870	4,170	4,170	3,290	3,710	2,800	*2,300
45	2,990	2,990	2,990	3,290	3,290	2,930	3,420	2,650	2,210
50	2,280	2,280	2,280	2,590	2,590	2,590	2,840	2,510	2,160
55	1,680	1,680	1,680	2,030	2,030	2,030	2,280	2,280	2,100
60	1,170	1,170	1,170	1,540	1,540	1,540	1,810	1,810	1,810
65				1,100	1,100	1,100	1,410	1,410	1,410
70							1,070	1,070	1,070

\*This capacity is based upon maximum boom angle.

A6-829-012069

THIS CHART IS ONLY A GUIDE AND SHOULD NOT BE USED TO OPERATE THE CRANE. The individual crane's load chart, operating instructions and other instructional plates must be read and understood prior to operating the crane.



27 - 70 ft.  
(8.3 - 21.4 m)



3,925 lbs.  
(1780 kg)



Defined Arc  
Over Front

16.00 x 24 - 16PR Tires



85% Domestic (Pounds)

(Feet)	27	40	50	60	70
8	36,350				
9	32,200				
10	29,100	16,600			
12	20,750	16,600	9,950	8,900	
15	13,900	13,900	9,950	8,900	6,910
20	8,520	8,520	8,520	8,520	6,500
25		5,730	5,730	5,730	5,730
30		4,120	4,120	4,120	4,120
35			3,040	3,040	3,040
40			2,270	2,270	2,270
45				1,690	1,690
50				1,230	1,230
55					860

A6-829-009107



27 - 70 ft.  
(8.3 - 21.4 m)



3,925 lbs.  
(1780 kg)



360°

16.00 x 24 - 16PR Tires



85% Domestic (Pounds)

(Feet)	27	40	50	60	70
8	21,850				
9	17,600				
10	14,650	14,650			
12	10,750	10,750	8,900	8,900	
15	7,420	7,420	7,310	7,290	6,910
20	4,330	4,330	4,330	4,330	4,330
25		2,790	2,790	2,790	2,790
30		1,870	1,870	1,870	1,870
35			1,240	1,240	1,240
40			780	780	780

A6-829-009108



27 - 70 ft.  
(8.3 - 21.4 m)



3,925 lbs.  
(1780 kg)



Pick & Carry  
Up to 2.5 MPH



360°

16.00 x 24 - 16PR Tires



85% Domestic (Pounds)

(Feet)	27	40	50	60	70
8	31,750				
9	30,000				
10	28,200				
12	20,750				
15	<u>13,900</u>	<u>13,000</u>	12,950		
20	<u>8,520</u>	<u>8,520</u>	<u>8,520</u>	8,520	
25		5,730	<u>5,730</u>	<u>5,730</u>	5,730
30		4,120	4,120	<u>4,120</u>	4,120
35			3,040	<u>3,040</u>	3,040
40			2,270	2,270	<u>2,270</u>
45				1,690	1,690
50				1,230	1,230
55					860

A6-829-009109



27 - 70 ft.  
(8.3 - 21.4 m)



3,925 lbs.  
(1780 kg)



Defined Arc  
Over Front

17.5 x 25 - 20PR Tires



85% Domestic (Pounds)

(Feet)	27	40	50	60	70
8	36,300	33,000	29,150		
9	31,950	28,650	25,650		
10	27,900	25,250	22,850		
12	<u>20,750</u>	<u>20,200</u>	<u>18,550</u>	17,150	
15	<u>13,900</u>	13,900	13,900	<u>13,350</u>	12,500
20	<u>8,520</u>	<u>8,520</u>	<u>8,520</u>	<u>8,520</u>	<u>8,520</u>
25		5,730	5,730	5,730	5,730
30		4,120	4,120	4,120	4,120
35			3,040	3,040	3,040
40			2,270	2,270	2,270
45				1,690	1,690
50				1,230	1,230
55					860

A6-829-008932





27 - 70 ft.  
(8.3 - 21.4 m)



3,925 lbs.  
(1780 kg)



360°

17.5 x 25 - 20 PR Tires



85% Domestic (Pounds)

(Feet)	27	40	50	60	70
8	21,850	20,300	14,300		
9	17,600	17,600	12,800		
10	14,650	14,650	11,550		
12	10,750	10,750	9,520	9,470	
15	7,420	7,420	7,310	7,290	6,910
20	4,330	4,330	4,330	4,330	4,330
25		2,790	2,790	2,790	2,790
30		1,870	1,870	1,870	1,870
35			1,240	1,240	1,240
40			780	780	780

A6-829-008933



27 - 70 ft.  
(8.3 - 21.4 m)



3,925 lbs.  
(1780 kg)



Pick & Carry  
Up to 2.5 MPH



360°

17.5 x 25 - 20 PR Tires



85% Domestic (Pounds)

(Feet)	27	40	50	60	70
8	28,400	22,000	21,800		
9	26,200	20,150	20,000		
10	24,250	18,600	18,450		
12	20,750	15,950	15,850	14,200	
15	13,900	13,000	12,950	11,500	11,500
20	8,520	8,520	8,520	8,520	8,500
25		5,730	5,730	5,730	5,730
30		4,120	4,120	4,120	4,120
35			3,040	3,040	3,040
40			2,270	2,270	2,270
45				1,690	1,690
50				1,230	1,230
55					860

A6-829-008934

# Rated Lifting Capacities

**IMPORTANT NOTES:**

**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 SAE J1063 OCT90 - Cantilevered Boom Crane Structures - Method of Test, and do not exceed 85% of the tipping load on outriggers full extended and 50% extended, and 75% of the tipping load on outriggers 0% extended (fully retracted) and rubber, as determined by SAE J765 OCT90 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. Defined Arc  $\pm 6^\circ$  on either side of longitudinal centerline of machine.

4. Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.

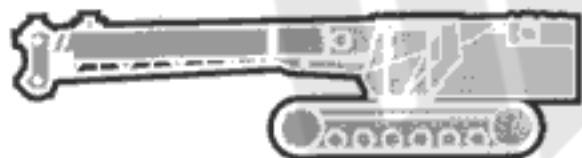
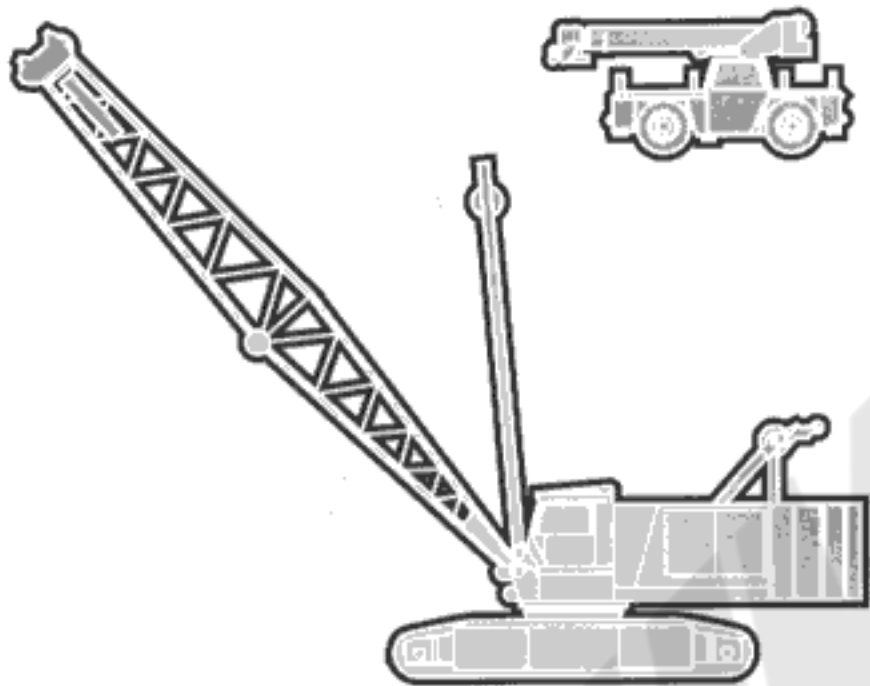
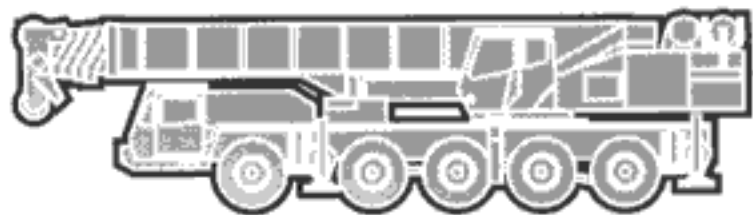
5. All capacities are for crane on firm, level surface. It may be necessary to have structural supports under the outrigger floats or tires to spread the load to a larger bearing surface.

6. 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.

7. Tires shall be inflated to the recommended pressure before lifting on rubber.

# Symbols Glossary

	Frame		Steering
	Outriggers		Transmission
	Outrigger Controls		Axles
	Engine		Brakes
	Fuel Tank Capacity		Tires
	Electrical System		Suspension
	Drive		360° Rotation
	Lights		Boom Elevation
	Cab		Swing
	Boom		Counterweight
	Fixed Swingaway		Oil
	Tele-Swingaway		Hydraulic System
	Jib		Hoist
	Boom Nose		Radius
	Boom Extension		Boom Length
	Speed		Hookblock
	Grade		Gear
	Lattice Extension		



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