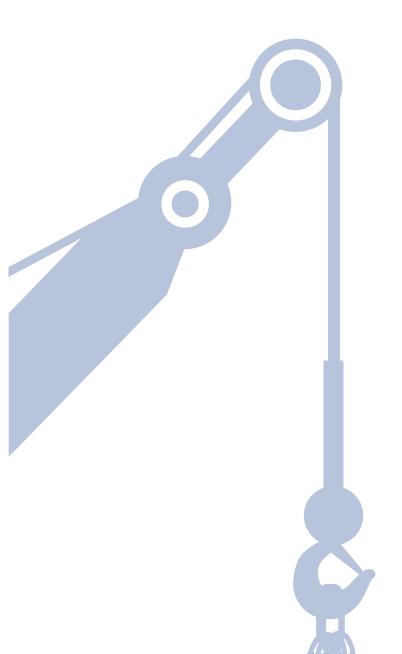


# LOAD CHARTS

for Use With

WRITTEN EXAMINATIONS



# Grove RT530E

Manitowoc Crane Group, by providing pages of one of its manuals, is not providing a substitute for training on a Manitowoc crane.

These pages are reproduced for illustration only and not as a substitute for reviewing the entire manual for a particular crane.

Make sure that you are fully trained on, and review the entire manual for, every crane you operate.

This load chart has been adapted from the original manufacturer's load chart for use in the NCCER Mobile Crane Certification Examination. It is not to be used for calculating loads, planning lifts, or for any other purpose.

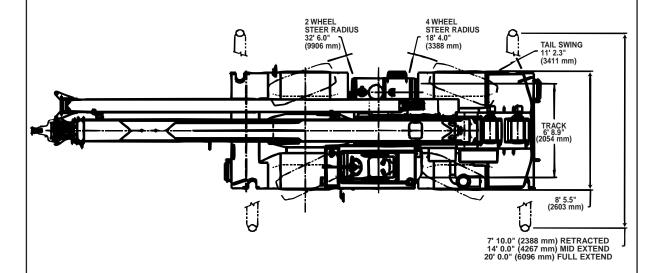
GROVE



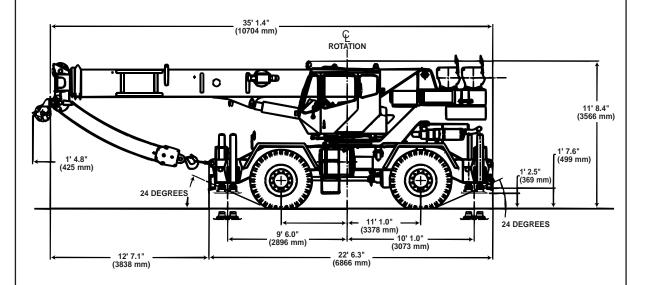


ROUGH TERRAIN HYDRAULIC CRANE

# **Dimensions**



Note: ( ) Reference dimensions in mm



# **RT530E Weights**

		GVW	h	<u>ront</u>		<u>Rear</u>
	lbs	kg	lbs	kg	lbs	kg
RT530E Basic Machine	54,424	24,687	25,066	11,370	29,358	13,317
ADD: 26 - 45 ft Tele swingaway	1,790	812	2,853	1,294	-1,063	-482
ADD: 26 ft swingaway	1,300	590	2,111	958	-811	-368
ADD: Aux Hoist w/rope	339	154	-127	-58	466	211
ADD: Aux boom nose	142	64	283	128	-141	-64
ADD: 30 ton (28mt) 3-sheave block						
(stowed)	580	263	611	277	-31	-14
ADD: 8.3 ton (7.5mt) headache ball						
(hanging from aux nose)	354	161	373	169	-19	-9
Remove: counterweight	-8,400	-3,810	2,668	1,210	-11,068	-5,020

# Working Range



Tele-Swingaway





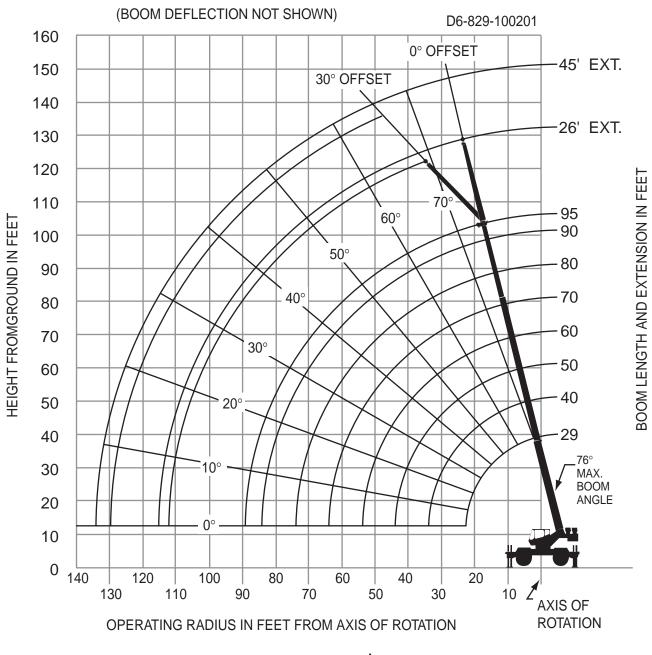


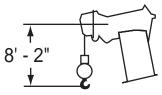
29 - 95 ft. (8.8-29m)

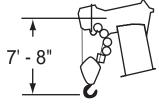
26 - 45 ft. (7.9-13.7m)

8,400 lbs. (3810 kg)

WORKING RANGE DIAGRAM







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

# Superstructure Specifications

#### Boom

29 ft. - 95 ft. (8.8 m - 29 m) four-section, full power boom. Maximum tip height: 102.5 ft. (31.2 m).

## \*Optional Fixed Swingaway Extension

26 ft. (7.92 m) offsettable swingaway extension. Offsettable at 0° and 30°. Stows alongside base boom section. Maximum tip height: 127.6 ft. (38.9 m).

# \*Optional Telescopic Swingaway Extension

26 ft. - 45 ft. (7.92 m - 13.7 m) telescoping offsettable swingaway extension. Offsettable at 0° and 30°. Stows alongside base boom section. Maximum tip height: 146 ft. (44.5 m).

### **Boom Nose**

Three metalic sheaves mounted on heavy duty tapered roller bearings with removable pin-type rope guards. Quick reeve type boom nose. \*Optional removable auxiliary boom nose with removable pin type rope guard. \*Four sheaves with optional 18 x 19 wire rope.

#### **Boom Elevation**

One double-acting hydraulic cylinder with integral holding valve provides elevation from -3° to +76°.

## **Load Moment**

# & Anti-Two Block System

Standard "Graphic Display" 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, load indication and warning of impending two-block condition. The standard Work Area Definition System allows the operator to pre-select and define safe working areas. If the crane approaches the pre-set limits, audio-visual warnings aid the operator in avoiding job-site obstructions.

### 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: hot water heater, cab circulating air fan, tilt telescoping steering wheel, sliding side and rear windows, sliding skylight with electric wiper, electric windshield wash/wipe, fire extinguisher, and seat belt.

## Swing

Planetary swing with foot applied multi-disc brake. Spring applied, hydraulically released swing brake and plunger-type, one position, mechanical house lock operated from cab.\*Optional 360° mechanical swing lock. Maximum speed: 3.0 RPM.

## Counterweight

8,400 lbs. (3810 kg) pinned to superstructure.

## **Hydraulic System**

Three main gear pumps with a combined capacity off 100 GPM (381 L/min).

Maximum operating pressure: 3500 PSI (26.2 MPa).

Two individual valve banks.

Return line type filter with full flow by-pass protection and service indicator. Replaceable cartridge with micron filtration rating of 5/12/16.

90 gallon (341 L) reservoir. Integral oil cooler. System pressure test ports.

# HOIST SPECIFICATIONS Main and Auxiliary Hoist Model HP15B-17G

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: 11,640 lbs.

(5280 kg)

Maximum Single Line Speed: 445 FPM

(136 m/min)

Maximum Permissible Line Pull:

w/standard 6 x 37 class rope: 11,770 lbs. (5339 kg) w/optional 18 x 19 class rope: 9,080 lbs. (4119 kg)

Rope Diameter: 5/8 in.

(16 mm)

Rope Length: 450 ft.

(137 m)

Rope Type:

6 x 37 class EIPS IWRC

\*Optional 18 x 19 class rotation resistant

Maximum Rope Stowage: 750 ft.

(228 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 outrigger floats, 16.5 in. (419 mm) square.

Maximum outrigger pad load: 48,900 lbs. (22 498 kg)

## **Outrigger Controls**

Controls and crane level indicator located in cab.

## **Engine**

Cummins 6BT 5.9L diesel, six cylinders, turbo-charged, 152 bhp (113 kW) (Gross) @ 2,500 RPM. Maximum torque: 414 ft. lbs. (561 Nm) @ 1,600 RPM.

## **Fuel Tank Capacity**

58 gallons (220 L)

#### **Transmission**

Full powershift with 6 forward and 6 reverse speeds. Front axle disconnect for 4 x 2 travel.

# **Electrical System**

Two 12 V - maintenance free batteries. 12 V starting and lighting.

### **Drive**

4 x 4

## **Steering**

Fully independent power steering:

Front: Full hydraulic steering wheel controlled.

Rear: Full hydraulic switch controlled.

Provides infinite variations 4 main steering modes: front only, rear only, crab and coordinated. Rear steer indicating gauge.

#### **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.

### **Brakes**

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

#### **Tires**

20.5 x 25-24PR bias earthmover type.

\*16.00 x 25-28PR bias earthmover type.

## Lights

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

## **Maximum Speed**

24 MPH (39 km/h)

## **Gradeability (Theoretical)**

70% (Based on 58,000 [26 309 kg] GVW) 20.5 x 25 tires, pumps engaged, 95 ft. (29 m) boom, and tele-swingaway.

## **Miscellaneous Standard Equipment**

Full width steel fenders, dual rear view mirrors, hookblock tiedown, electronic back-up alarm, light package, front stowage well, tachometer, rear wheel position indicator, hot water heater, hoist mirrors, engine distress A/V warning system. Auxiliary hoist control valve arrangement (less hoist).

## \*Optional Equipment

- \* AUXILIARY HOIST PACKAGE (includes Model HP15B-17G auxiliary hoist with electronic hoist drum rotation indicator, hoist drum cable follower, 450 ft. [137 m] of 5/8 in. [16 mm] 18 x 19 class wire rope, auxiliary single sheave boom nose, and 7.5 ton non-swivel headache ball).
- \* ENGINE COLD WEATHER PACKAGE (includes ether injection cold start aid - less canister, and immersion type engine block heater, 120 V, 1500 watt).
- \* AIR CONDITIONING PACKAGE (includes hydraulic driven air conditioning, and skylight sunscreen).
- \* CHASSIS OPTION PACKAGE (includes battery disconnect switch, and cab-controlled cross axle differential locks front and rear).
- \*AUXILIARY LIGHTING PACKAGE (includes cab mounted, 360° rotation spotlight, cab mounted amber flashing light, and dual base boom mounted floodlights).
- \*CONVENIENCE PACKAGE (includes in cab LMI light bar).
- \*Pintle hook rear
- \*Full length aluminum decking
- \*CE mark conformance
- \*15 ton 2 sheave hookblock

<sup>\*</sup>Denotes optional equipment

# Rated Lifting Capacities In Pounds 29 ft. - 95 ft. Boom On Outriggers Fully Extended - 360°

Radius			Maii	n Boom L	ength in	Feet		
in Feet	29	40	50	60	70	80	90	95
10	60,000 (60.5)	48,000 (69.5)	45,000 (74.5)					
12	54,650 (56)	48,000 (66.5)	44,950 (72)	*37,000 (76)				
15	42,850 (47.5)	43,800 (61.5)	40,000 (68)	36,000 (72)	*27,400 (76)	*21,000 (76)		
20	30,700 (30)	31,650 (53)	32,100 (61.5)	29,500 (67)	27,400 (71)	21,000 (73.5)	*17,000 (76)	*15,500 (76)
25		24,050 (42.5)	24,500 (54.5)	24,000 (61.5)	23,100 (66.5)	19,000 (70)	16,500 (72.5)	15,300 (74)
30		18,800 (29)	19,250 (47)	19,550 (56)	19,600 (61.5)	15,900 (66)	14,100 (69)	13,100 (70.5)
35			15,550 (38)	15,850 (49.5)	16,000 (56.5)	13,800 (61.5)	12,700 (65.5)	11,400 (67.5)
40			12,800 (26)	12,950 (42.5)	12,700 (51.5)	12,000 (57.5)	10,700 (62)	10,000 (64)
45				10,450 (34.5)	10,300 (46)	10,400 (53)	9,300 (58.5)	8,800 (60.5)
50				8,610 (23.5)	8,500 (39.5)	8,600 (48)	8,100 (54.5)	7,900 (57)
55					7,170 (32)	7,200 (43)	7,100 (50)	7,100 (53)
60					6,000 (22)	6,030 (37)	6,100 (45.5)	6,100 (49)
65						5,080 (30)	5,100 (40.5)	5,100 (44.5)
70						4,270 (20.5)	4,300 (35)	4,300 (40)
75							3,650 (28.5)	3,700 (34.5)
80							3,100 (20)	3,100 (28)
85								2,600 (20)
					ed length			0
NOTE: ()	Maximur	n boom le	ength (ft.)	at 0° boo	m angle	(no load)		95

NOTE: () Boom angles are in degrees.

\*This capacity is based on maximum boom angle.

Lifting Capacities at Zero Degree Boom Angle On Outriggers Fully Extended - 360°									
Boom	Boom Main Boom Length in Feet								
Angle	29	40	50	60	70	80	90	95.2	
0 deg.	0 deg. 24,200 15,800 11,000 7,430 4,800 3,400 2,400 2,100 (22.8) (33.8) (43.8) (53.8) (63.8) (73.8) (83.8) (89)								

NOTE: () Reference radii in feet.

# On Rubber Capacities With 20.5 X 25 Tires

# Stationary Capacities 360°

# Stationary Capacities Defined Arc Over Front (See Note 3, pg. 8)

Radius	Ma	ain Boom L	ength in Fe	eet
in Feet	29	40	50	60
10	25,550 (60.5)	25,550 (70)	*16,450 (76)	
12	20,600 (56)	20,600 (66.5)	16,450 (72)	
15	14,350 (47.5)	14,350 (62)	14,350 (68)	14,350 (72.5)
20	8,280 (30)	8,280 (53)	8,280 (61.5)	8,280 (67)
25		5,330 (42.5)	5,330 (54.5)	5,330 (61.5)
30		3,630 (29)	3,630 (47)	3,630 (56)
35			2,500 (38)	2,500 (49.5)
40			1,690 (26)	1,690 (42.5)
45				1,090 (34.5)
Min. boor	n angle for in	dicated length	n (no load)	34°
Max. boo	m length at 0	° boom angle	(no load)	50 ft.

NOTE: () Boom angles are in degrees.

<sup>\*</sup>This chart is based upon maximum boom angle.

Lifting Capacity at Zero Degree On Rubber - 360°								
Boom Main Boom Length in Feet								
Angle	29	40	50					
0°	6,110 (22.8)	2,730 (33.8)	1,210 (43.8)					

NOTE: Reference radii in feet.

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Radius	Ma	ain Boom L	ength in Fe	eet
Feet	29	40	50	60
10	30,100 (60.5)	26,550 (70)	16,450 (74.5)	
12	26,550 (56)	22,100 (66.5)	16,450 (72)	
15	22,100 (47.5)	22,100 (62)	16,450 (68)	16,450 (72.5)
20	16,050 (30)	16,050 (53)	16,050 (61.5)	16,050 (67)
25		11,005 (42.5)	11,005 (54.5)	11,005 (61.5)
30		8,060 (29)	8,060 (47)	8,060 (56)
35			6,110 (38)	6,110 (49.5)
40			4,720 (26)	4,720 (42.5)
45				3,680 (34.5)
50				2,870 (23.5)
Min. boor	m angle for in	dicated length	n (no load)	0°
Max. boo	m length at 0	° boom angle	(no load)	60 ft.

NOTE: () Boom angles are in degrees.

Lifting Capacity at Zero Degree On Rubber Stationary- Defined Arc Boom Centered Over Front						
Boom	Main Boom Length in Feet					
Angle	29	40	50	60		
0° 12,700 6,500 3,890 2,360 (22.8) (33.8) (43.8) (53.8)						

NOTE: Reference radii in feet.

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## On Rubber Capacities With 20.5 X 25 Tires (continued)

## Pick & Carry Capacities (Up To 2.5 MPH) Boom Centered Over Front (See Note 7)

Radius	Ma	ain Boom L	ength in Fe	eet			
in Feet	29	40	50	60			
10	25,900 (60.5)	25,900 (70)	18,250 (74.5)				
12	22,350 (56)	22,350 (66.5)	18,250 (72)				
15	18,250 (47.5)	18,250 (62)	18,250 (68)	13,350 (72.5)			
20	13,350 (30)	13,350 (53)	13,350 (61.5)	13,350 (67)			
25		10,350 (42.5)	10,350 (54.5)	10,350 (61.5)			
30		8,060 (29)	8,060 (47)	8,060 (56)			
35			4,810 (38)	4,810 (49.5)			
40			3,770 (26)	3,770 (42.5)			
45				2,930 (34.5)			
50				2,240 (23.5)			
Min. boon	Min. boom angle for indicated length (no load)						
Max. boo	m length at 0	° boom angle	(no load)	60 ft.			

NOTE: () Boom angles are in degrees.

Lifting Capacity at Zero Degree On Rubber Pick & Carry - Boom Centered Over Front							
Boom	Ma	ain Boom L	ength in Fe	et			
Angle	29	40	50	60			
0° 11,400 5,090 3,110 1,800 (22.8) (33.8) (43.8) (53.8)							

NOTE: Reference radii in feet.

A6-829-100276A

NOTES TO ALL RUBBER CAPACITY CHARTS:

- 1. Capacities are in pounds and do not exceed 75% of tipping loads as determined by test in accordance with SAE J765.
- 2. Capacities are applicable to machines equipped with 20.5x25 (24 ply) bias ply tires, at 75 psi cold inflation pressure.
- 3. Defined Arc Over front includes 6° on either side of longitudinal centerline of machine (ref. drawing 06-829-008529).
- Capacities appearing above the bold line are based on structural strength and tipping should not be relied upon as a capacity limitation.
- 5. Capacities are applicable only with machine on firm level surface.
- On rubber lifting with boom extensions not permitted.
- 7. 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.
- 8. Axle lockouts must be functioning when lifting on rubber.
- 9. 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.
- 10. Creep Not over 200ft. of movement in and 30 minute period and not exceeding 1mph.

# 26 ft. - 45 ft. Tele Offsettable Boom Extension On Outriggers Fully Extended - 360°

Radius	**26 ft. L	ENGTH	45 ft. L	ENGTH
in Feet	0° OFFSET	30° OFFSET	0° OFFSET	30° OFFSET
30	*8,200 (76)			
35	8,200 (73.5)		*5,250 (76)	
40	8,200 (71)	*5,780 (76)	5,250 (75)	
45	8,120 (68.5)	5,780 (73.5)	4,940 (73)	
50	7,350 (66)	5,360 (71)	4,540 (71)	
55	6,370 (63)	4,750 (68)	4,150 (68.5)	*2,730 (76)
60	5,670 (60.5)	4,290 (65)	3,890 (66)	2,730 (74.5)
65	4,820 (57.5)	3,870 (62)	3,740 (64)	2,730 (72)
70	4,200 (54.5)	3,530 (59)	3,600 (61.5)	2,580 (69.5)
75	3,680 (51.5)	3,230 (56)	3,470 (59)	2,520 (67)
80	3,080 (48.5)	3,000 (52.5)	3,240 (56.5)	2,460 (64)
85	2,520 (45)	2,780 (49)	3,050 (54)	2,420 (61.5)
90	2,050 (41)	2,410 (45)	2,820 (51)	2,390 (58.5)
95	1,670 (37)	1,970 (40.5)	2,480 (48.5)	2,370 (55.5)
100	1,370 (32.5)	1,580 (35.5)	2,090 (45.5)	2,310 (52)
105	1,020 (27.5)		1,740 (42)	2,000 (49)
110			1,430 (38.5)	1,580 (45)
115			1,150 (35)	1,260 (40.5)
120			900 (30.5)	
for indicated length (no load)	24°	30°	30°	30°
Max. boom length at 0° boom angle (no load)	80	ft.	80	ft.

NOTE: () Boom angles are in degrees.

A6-829-100272A

#### **BOOM EXTENSION CAPACITY NOTES:**

- 1. All capacities above the bold line are based on structural strength of boom extension.
- 2. 26ft. and 45ft. boom extension lengths may be used for single line lifting service.
- 3. Radii listed are for a fully extended boom with the boom extension erected. For main boom lengths less than fully extended, 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 configured. For boom angle 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 prophibited. Machine tipping with boom extension occurs rapidly and without advance warning.

- 4. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
- 5. Capacities listed are with outriggers fully extended and verticle jacks set only.

<sup>\*</sup>This capacity based on maximum boom angle.

<sup>\*\*26</sup> ft. capacities are also applicable to fixed offsettable ext. However, the LMI codes will change for 0° and 30° offset, respectively.

# Rated Lifting Capacities In Pounds 29 ft. - 95 ft. Boom On Outriggers 0% Extended (7 ft. 10 in. Spread) - 360°

Radius			Maii	n Boom L	ength in l	Feet		
in Feet	29	40	50	60	70	80	90	95
10	34,700 (60.5)	32,400 (69.5)	30,400 (74.5)					
12	26,200 (56)	25,400 (66.5)	24,100 (72)	*22,900 (76)				
15	17,750 (47.5)	17,550 (61.5)	17,550 (68)	17,250 (72)	*16,550 (76)	*10,900 (76)		
20	10,650 (30)	10,600 (53)	10,650 (61.5)	10,750 (67)	11,000 (71)	10,900 (73.5)	*10,500 (76)	*10,350 (76)
25		6,930 (42.5)	7,020 (54.5)	7,170 (61.5)	7,350 (66.5)	7,560 (70)	7,610 (72.5)	7,490 (74)
30		4,670 (29)	4,780 (47)	4,950 (56)	5,080 (61.5)	5,240 (66)	5,390 (69)	5,480 (70.5)
35			3,270 (38)	3,450 (49.5)	3,550 (56.5)	3,660 (61.5)	3,780 (65.5)	3,850 (67.5)
40			2,170 (26)	2,370 (42.5)	2,440 (51.5)	2,520 (57.5)	2,620 (62)	2,670 (64)
45				1,550 (34.5)	1,600 (46)	1,660 (53)	1,740 (58.5)	1,780 (60.5)
50							1,050 (54.5)	1,080 (57)
0.1A (lb)	660	610	580	560	550	540	540	530
Minimur		gle (°) for ir no load)	ndicated	33 43 51 53 55			55	
Maximu	angle (ı	ngth (ft.) at no load)	0° boom			50		

NOTE: () Boom angles are in degrees.

\*This capacity is based on maximum boom angle.

Lifting Capacities at Zero Degree Boom Angle On Outriggers 0% Extended - 360°								
Boom	Boom Main Boom Length in Feet							
Angle	29	40	50					
0 deg.	0 deg. 8,310 3,390 1,480 (22.8) (33.8) (43.8)							

NOTE: ( ) Reference radii in feet.

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# 26 ft. - 45 ft. Tele-Offsettable Boom Extension On Outriggers 50% Extended (14.0 ft. Sread) - 360°

Radius	**26 ft. l	ENGTH	45 ft. LENGTH		
in Feet	0° OFFSET	30° OFFSET	0° OFFSET	30° OFFSET	
30	*8,200 (76)				
35	8,200 (73.5)		*5,250 (76)		
40	6,940 (71)	*5,780 (76)	5,250 (75)		
45	5,580 (68.5)	5,780 (73.5)	4,940 (73)		
50	4,490 (66)	5,360 (71)	4,540 (71)		
55	3,600 (63)	4,350 (68)	4,150 (68.5)	*2,730 (76)	
60	2,860 (60.5)	3,430 (65)	3,490 (66)	2,730 (74.5)	
65	2,190 (57.5)	2,670 (62)	2,870 (64)	2,730 (72)	
70	1,610 (54.5)	2,030 (59)	2,340 (61.5)	2,580 (69.5)	
75	1,120 (51.5)	1,490 (56)	1,840 (59)	2,520 (67)	
80		1,020 (52.5)	1,400 (56.5)	2,260 (64)	
85			1,020 (54)	1,760 (61.5)	
90				1,310 (58.5)	
0.1A (lb.)	570	540	500	460	
Min. boom angle for indicated length (no load)	44°	46°	48°	49°	
Max. boom length at 0° boom angle (no load)	60	) ft.	60	) ft.	

NOTE: () Boom angles are in degrees.

A6-829-100273A

<sup>\*</sup>This capacity based on maximum boom angle.

<sup>\*\*26</sup> ft. capacities are also applicable to fixed offsettable ext. However, the LMI codes will change for 0° and 30° offset, respectively.

# Rated Lifting Capacities In Pounds 29 ft. - 95 ft. Boom On Outriggers 50% Extended (14.0 ft. Spread) - 360°

Radius	Main Boom Length in Feet							
Feet	29	40	50	60	70	80	90	95
10	60,000 (60.5)	48,000 (69.5)	45,000 (74.5)					
12	53,300 (56)	48,000 (66.5)	44,950 (72)	*37,000 (76)				
15	42,100 (47.5)	40,500 (61.5)	38,350 (68)	36,000 (72)	*27,400 (76)	*21,000 (76)		
20	23,950 (30)	23,850 (53)	23,900 (61.5)	24,050 (67)	23,200 (71)	21,000 (73.5)	*17,000 (76)	*15,500 (76)
25		15,850 (42.5)	15,950 (54.5)	16,150 (61.5)	16,350 (66.5)	16,400 (70)	15,950 (72.5)	15,300 (74)
30		11,350 (29)	11,500 (47)	11,650 (56)	11,800 (61.5)	12,000 (66)	12,150 (69)	12,100 (70.5)
35			8,620 (38)	8,820 (49.5)	8,930 (56.5)	9,050 (61.5)	9,190 (65.5)	9,260 (67.5)
40			6,610 (26)	6,820 (42.5)	6,900 (51.5)	6,990 (57.5)	7,100 (62)	7,150 (64)
45				5,350 (34.5)	5,400 (46)	5,470 (53)	5,550 (58.5)	5,600 (60.5)
50				4,220 (23.5)	4,260 (39.5)	4,310 (48)	4,370 (54.5)	4,410 (57)
55					3,350 (32)	3,390 (43)	3,430 (50)	3,460 (53)
60					2,600 (22)	2,640 (37)	2,670 (45.5)	2,700 (49)
65						2,020 (30)	2,050 (40.5)	2,060 (44.5)
70						1,490 (20.5)	1,520 (35)	1,530 (40)
75							1,070 (28.5)	1,080 (34.5)
0.1A (lb.)	660	610	580	560	550	540	540	530
Minimum boom angle (°) for indicated length (no load)						15	20	
Maximum boom length (ft.) at 0° boom angle (no load)						8	80	

NOTE: () Boom angles are in degrees.

\*This capacity is based on maximum boom angle.

	Li		pacities a			oom Ang - 360°	gle	
Boom	Main Boom Length in Feet							
Angle	29	40	50	60	70	80		
0 deg.	18,800 (22.8)	9,000 (33.8)	5,400 (43.8)	3,480 (53.8)	2,100 (63.8)	1,130 (73.8)		

NOTE: () Reference radii in feet.

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# Weight Reductions For Load Handling Devices

26 ft. Offsettable Boom Extension				
*Erected - 2,960 lbs.				
26 ft 45 ft. Tele. Boom Extension				
*Erected (Retracted) - 4,220 lbs				
*Erected (Extended) - 5,780 lbs				

\*Reduction of main boom capacities

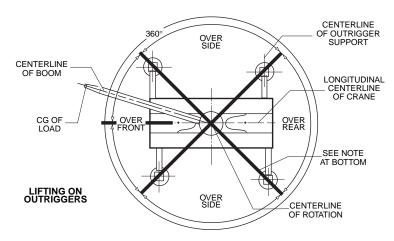
Auxiliary Boom Nose	142 lbs.			
Hookblocks and Headache Balls:				
30 Ton, 3 Sheave	580 lbs.+			
15 Ton, 2 Sheave	425 lbs.+			
7.5 Ton Overhaul Ball	354 lbs.+			
7.5 Ton Headache Ball	338 lbs.+			

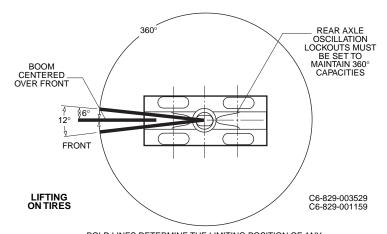
<sup>+</sup>Refer to rating plate for actual weight.

When lifting over swingaway and/or jib combinations, deduct total weight of all load handling devices reeved over main boom nose directly from swingaway or jib capacity.

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.

# **Diagram Of Working Area**





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

**Line Pulls And Reeving Information** 

Hoists	Cable Specs.	Permissible Line Pulls	Nominal Cable Length
Main & Aux. Solution Resistant Min. Breaking Str. 45,400 lb.		9,080 lb.	450 ft.
Main	5/8" (16 mm) 6x37 Class, EIPS, WRC Special Flexible Min. Breaking Str. 41,200 lb.	11,770 lb.	450 ft.

# Tire Inflation - PSI(BAR)

_					
	Size (Front & Rear)	Load Range	TRA Code	Lifting Service And General Travel Static, Creep & 2.5 MPH (4.0 km/h)	Extended Travel
	20.5 x 25	24 PR	E-3	75 (5.2)	70 (4.8)



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