

GROVE®

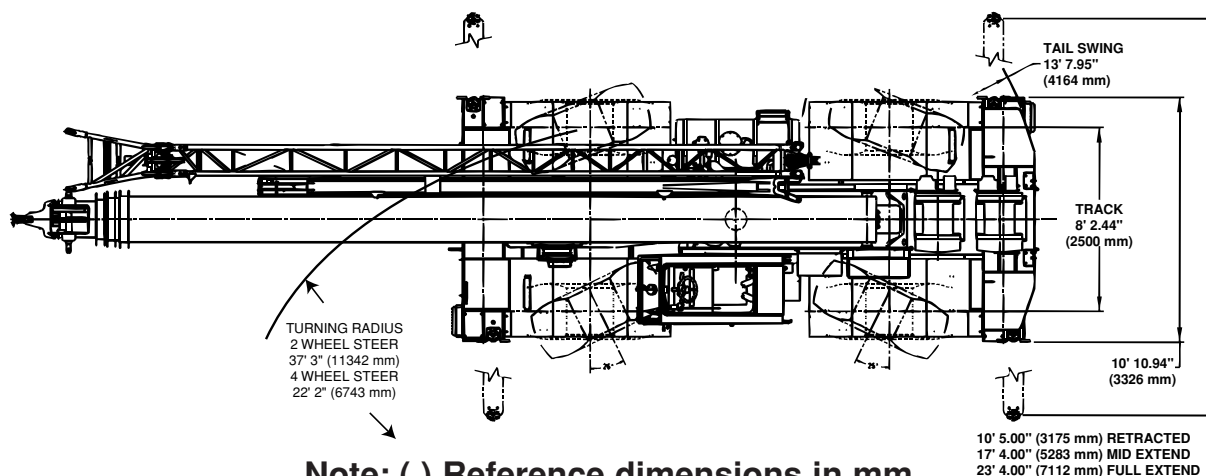
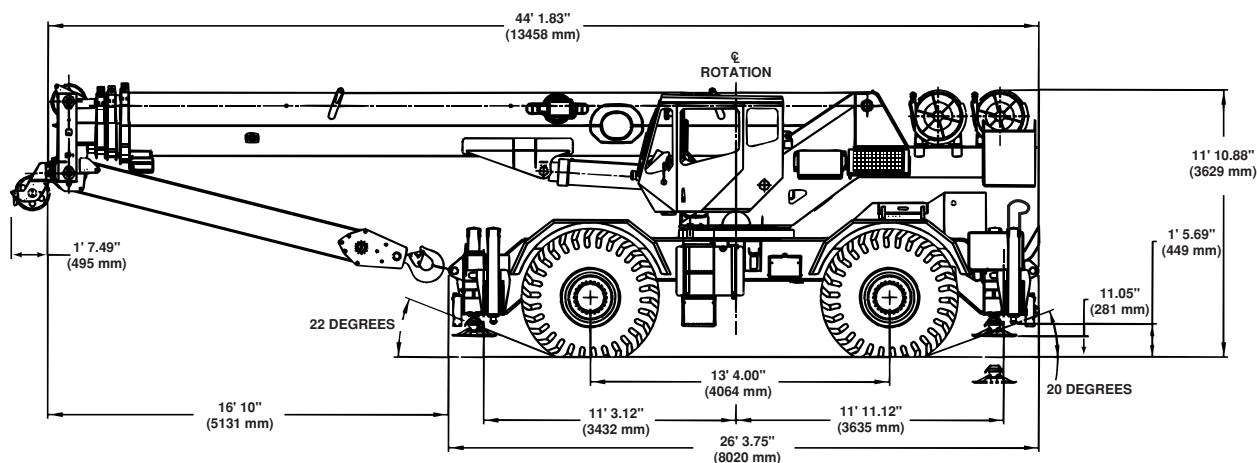
RT700E SERIES



ROUGH TERRAIN HYDRAULIC CRANE



Dimensions



Note: () Reference dimensions in mm

Weights

GVW

Front

Rear

	lbs	kg	lbs	kg	lbs	kg
RT760E Basic Machine	83,683	37,959	40,130	18,203	43,553	19,756
ADD: 33 - 56 ft Bi-fold swingaway	2,340	1,061	3,686	1,672	-1,346	-611
ADD: 33 ft swingaway	1,640	744	2,880	1,306	-1,240	-562
ADD: Aux Hoist w/rope	625	284	-230	-104	855	388
ADD: Aux boom nose	130	59	374	170	-244	-111
ADD: 60 ton (55mt) 5-sheave block (stowed in trough)	1,250	567	1,250	567	0	0
ADD: 50 ton (45mt) 3-sheave block (stowed in trough)	1,000	454	1,000	454	0	0
ADD: 8.3 ton (7.5mt) headache ball (hanging from aux nose)	347	157	565	256	-218	-99
Remove: counterweight	-12,150	-5,511	4,784	2,170	-16,934	-7,681

Working Range



36 - 110 ft.
(11 - 33.5 m)

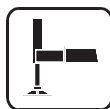


33 - 56 ft.
(10.1 - 17.1 m)

Bi-fold Swingaway



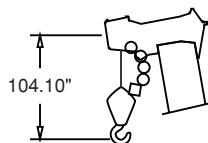
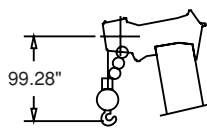
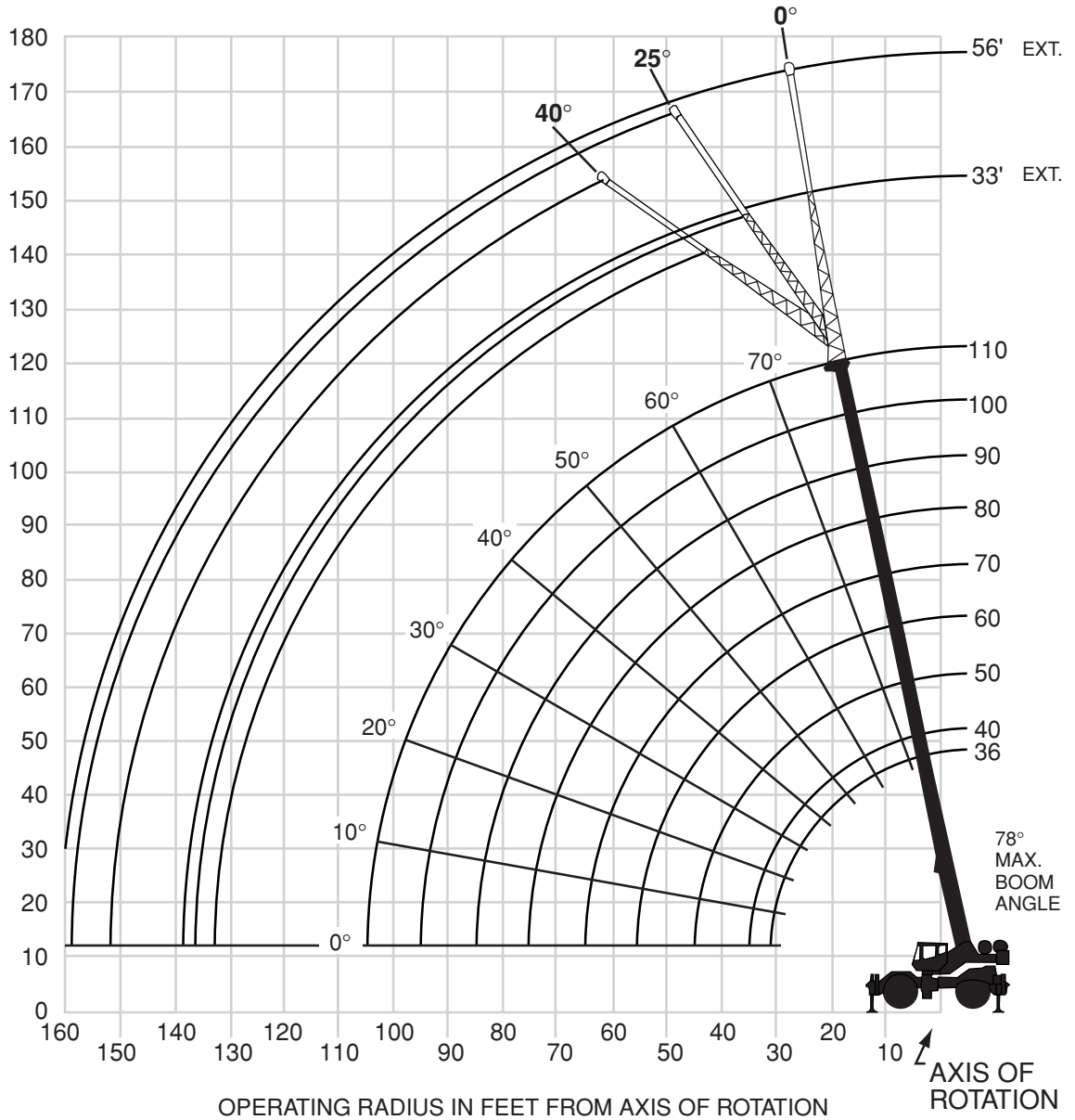
12,150 lbs.
(5511 kg)



100%



360°



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

Superstructure Specifications

Boom

36 ft. - 110 ft. (11 m - 33.5 m) four-section, full-power sequenced synchronized boom.
Maximum tip height: 119 ft. (36.4 m).

*Optional Fixed Swingaway Extension

33 ft. (10.1 m) offsettable lattice swingaway extension. Offsettable at 0°, 25° and 45°. Stows alongside base boom section. Maximum tip height: 150 ft. (45.8 m).

*Optional Bi-Fold Swingaway Extension

33 ft. - 56 ft. (10.1 m - 17.1 m) bi-fold lattice swingaway extension. Offsettable at 0°, 25° and 45°. Stows alongside base boom section. Maximum tip height: 174.5 ft. (53.2 m).

*Optional 20 ft. (6.1 m) or 40 ft. (12.2 m)

Installs between boom nose and bi-fold extension, non-stowable. Maximum tip height: 194 ft. (59.1 m)-20 ft. insert, 214 ft. (65.2 m)-40 ft. insert.

Boom Nose

Three nylatron sheaves (four with 60-ton rating) mounted on heavy-duty tapered roller bearings with removable pin-type rope guards. (Four and five sheaves respectively with optional 18 x 19 wire rope.) Quick-reeve type boom nose.

*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 "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, sliding side and rear windows, sliding skylight with electric wiper and sunscreen, 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: 2.5 RPM.

Counterweight

12,150 lbs. (5511 kg) pinned to superstructure.

Hydraulic System

Three main gear pumps with a combined capacity of 103 GPM (391 L/min), 135 GPM (511 L/min) with optional air conditioning.
Maximum operating pressure: 4000 psi (27.6 MPa).
Two individual post pressure compensated 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. 132 gallon (500 L) reservoir. Integral oil cooler. System pressure test ports.

Hoist Specifications

Main and Auxiliary Hoist: Grove Model H030G-16G

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: 18,180 lbs
(8 246 kg)

Maximum Single Line Speed: 588 FPM
(179 m/min)

Maximum Permissible Line Pull:
16,800 lbs. (7 620 kg) w/standard 6 x 37 class rope
12,920 lbs. (5 879 kg) w/optional 18 x 19 class rope

Rope Diameter: 3/4 in. (19 mm)

Rope Length: 500 ft. (152 m)
*Optional 550 ft. (168 m) 18 x 19 class rope

Rope Type:
6 x 37 class EIPS IWRC
*Optional 18 x 19 class rotation resistant

Maximum Rope Stowage: 694 ft. (211 m)

Optional H030G-26G Main Hoist

Rope: 650' (198 m)
6 x 37 class rope
Stowage: 1193 ft. (355 m)

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 settings, 100%, 50% and fully retracted. All steel fabricated, quick-release type round outrigger floats, 24 in. (610 mm) diameter. Maximum outrigger pad load: 80,700 lbs (36,606 kg).

Outrigger Controls

Controls and crane level indicator located in cab.

Engine

Cummins 6CT 8.3L diesel, six cylinders, turbocharged, 215 bhp (160 kW) (Gross) @ 2,500 rpm. Maximum torque: 610 ft. lbs. (827 N-m) @ 1,500 RPM.

Fuel Tank Capacity

72 gallons (273 L)

Transmission

Full powershift with 6 forward and 6 reverse speeds (3 speeds hi and 3 speeds low). Front axle disconnect for 4 x 2 travel.

Electrical System

Two 12-volt maintenance free batteries. 12-volt starting and lighting, circuit breakers.

Drive

4 x 4

Steering

Fully independent power steering:

Front: Full hydraulic, steering wheel controlled.

Rear: Full hydraulic, switch controlled.

Provides infinite variations of 4 main steering modes: front only, rear only, crab and coordinated.

Rear steer centered indicating light.

4 wheel turning radius - 22 ft. 2 in. (6.7 m).

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 8" (20.3 cm) oscillation only with boom centered over the front.

Brakes

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

Tires

29.5 x 25 - 28PR bias earthmover type.

*29.5R25 radial earthmover type.

Lights

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

Maximum Speed

23 MPH (37 km/h).

Gradeability (Theoretical)

75% (Based on 89,000 lbs. [40 370 kg] GVW) 29.5 x 25 tires, pumps engaged, 110 ft. (33.6 m) boom, and bi-fold extension.

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, 36,000 BTU hot water heater, hoist mirrors, engine distress A/V warning system. Auxiliary hoist control valve arrangement (less hoist). Ether injection cold start aid (less canister) and immersion type engine block heater, 120V 1500 watt.

*Optional Equipment

*AUXILIARY HOIST PACKAGE (includes Model HO30G-16G auxiliary hoist with electronic hoist drum rotation indicator, hoist drum cable follower, 500 ft. (152 m) of 3/4 in. (19 mm) 18 X 19 class wire rope, auxiliary single sheave boom nose.)

*AIR CONDITIONING PACKAGE (includes hydraulic driven 28,500 BTU air conditioning)

*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)

*"CE" Mark Conformance (includes European boom, battery disconnect switch, 3rd wrap indicator, electric emergency auxiliary steering, dual axis joystick controllers)

*Cross axle differential locks (front and rear)

*Full-length aluminum decking

*Manual pump disconnect

*Pintle hook - rear

*360 degree NYC style positive swinglock

*Rubber mat for stowage trough

*PAT datalogger

*Aluminum fender protectors

*Battery disconnect switch

**Denotes optional equipment*

RT750E MAIN BOOM RATED LIFTING CAPACITIES IN POUNDS
36 FT. - 110 FT. BOOM
ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	#0001								
	Main Boom Length in Feet								
	36	40	50	**60	70	80	90	100	110
10	100,000 (69)	84,400 (72)	80,200 (76)	*62,500 (78)					
12	100,000 (65.5)	84,400 (68.5)	80,200 (73.5)	62,500 (77)	*36,800 (78)				
15	85,400 (59.5)	82,700 (63.5)	80,200 (70)	61,000 (74)	36,800 (76.5)	*36,800 (78)	*31,000 (78)		
20	65,700 (49)	65,000 (55)	64,300 (63.5)	50,650 (69)	36,800 (72)	36,800 (75)	31,000 (77)	*29,100 (78)	*24,000 (78)
25	52,800 (36)	52,450 (45)	51,850 (56.5)	41,800 (63.5)	36,800 (68)	34,000 (71)	30,000 (73.5)	27,000 (76)	24,000 (77.5)
30		42,150 (31.5)	39,600 (48.5)	38,000 (57.5)	33,400 (63)	29,000 (67)	25,300 (70.5)	24,200 (72.5)	22,000 (75)
35			31,750 (40)	29,750 (51.5)	28,700 (58)	25,000 (63)	22,200 (67)	21,750 (69.5)	20,000 (72)
40			24,450 (28)	24,750 (45)	23,600 (53)	22,000 (59)	20,200 (63)	19,000 (66.5)	18,500 (69)
45				19,750 (37)	19,700 (47.5)	18,800 (54.5)	17,800 (59.5)	17,300 (63)	17,300 (66.5)
50				16,000 (26.5)	16,750 (41)	16,500 (49.5)	16,000 (55.5)	16,000 (60)	16,000 (63.5)
55					13,650 (33.5)	14,300 (44.5)	14,100 (51)	14,100 (56.5)	14,100 (60)
60					11,150 (24)	12,000 (38.5)	12,200 (47)	12,200 (52.5)	12,200 (57)
65						10,100 (31.5)	10,800 (42)	10,600 (48.5)	10,600 (53.5)
70						8,480 (22.5)	9,410 (36.5)	9,000 (44.5)	9,000 (50)
75							8,100 (30)	7,800 (40)	7,800 (46.5)
80							6,920 (21.5)	6,600 (34.5)	6,600 (42.5)
85								5,800 (28.5)	5,800 (38)
90								5,000 (20.5)	5,000 (33)
95									4,440 (27.5)
100									3,880 (19.5)
Minimum boom angle (°) for indicated length (no load)									0
Maximum boom length (ft.) at 0° boom angle (no load)									110

NOTE: () Boom angles are in degrees.

#LMI operating code. Refer to LMI manual for operating instructions.

*This capacity is based on maximum boom angle.

Lifting Capacities at Zero Degree Boom Angle On Outriggers Fully Extended - 360°									
Boom Angle	Main Boom Length in Feet								
	36	40	50	**60	70	80	90	100	110
0°	29,050 (29.8)	24,450 (34.2)	17,050 (44.2)	11,950 (54.6)	9,400 (64.2)	7,310 (74.2)	6,050 (84.2)	4,660 (94.2)	3,350 (104.2)

NOTE: () Reference radii in feet.

** Boom length is with inner-mid fully extended and outer-mid & fly fully retracted.

A6-829-101070

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.

RT760E MAIN BOOM RATED LIFTING CAPACITIES IN POUNDS
36 FT. - 110 FT. BOOM
ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	#0001								
	Main Boom Length in Feet								
	36	40	50	**60	70	80	90	100	110
10	120,000 (69)	84,400 (72)	80,200 (76)	*62,500 (78)					
12	100,000 (65.5)	84,400 (68.5)	80,200 (73.5)	62,500 (77)	*36,800 (78)				
15	85,400 (59.5)	82,700 (63.5)	80,200 (70)	61,000 (74)	36,800 (76.5)	*36,800 (78)	*31,000 (78)		
20	65,700 (49)	65,000 (55)	64,300 (63.5)	50,650 (69)	36,800 (72)	36,800 (75)	31,000 (77)	*29,100 (78)	*24,000 (78)
25	52,800 (36)	52,450 (45)	51,850 (56.5)	41,800 (63.5)	36,800 (68)	34,000 (71)	30,000 (73.5)	27,000 (76)	24,000 (77.5)
30		42,150 (31.5)	39,600 (48.5)	38,000 (57.5)	33,400 (63)	29,000 (67)	25,300 (70.5)	24,200 (72.5)	22,000 (75)
35			31,750 (40)	29,750 (51.5)	28,700 (58)	25,000 (63)	22,200 (67)	21,750 (69.5)	20,000 (72)
40			24,450 (28)	24,750 (45)	23,600 (53)	22,000 (59)	20,200 (63)	19,000 (66.5)	18,500 (69)
45				19,750 (37)	19,700 (47.5)	18,800 (54.5)	17,800 (59.5)	17,300 (63)	17,300 (66.5)
50				16,000 (26.5)	16,750 (41)	16,500 (49.5)	16,000 (55.5)	16,000 (60)	16,000 (63.5)
55					13,650 (33.5)	14,300 (44.5)	14,100 (51)	14,100 (56.5)	14,100 (60)
60					11,150 (24)	12,000 (38.5)	12,200 (47)	12,200 (52.5)	12,200 (57)
65						10,100 (31.5)	10,800 (42)	10,600 (48.5)	10,600 (53.5)
70						8,480 (22.5)	9,410 (36.5)	9,000 (44.5)	9,000 (50)
75							8,100 (30)	7,800 (40)	7,800 (46.5)
80							6,920 (21.5)	6,600 (34.5)	6,600 (42.5)
85								5,800 (28.5)	5,800 (38)
90								5,000 (20.5)	5,000 (33)
95									4,440 (27.5)
100									3,880 (19.5)
Minimum boom angle (°) for indicated length (no load)									0
Maximum boom length (ft.) at 0° boom angle (no load)									110

NOTE: () Boom angles are in degrees.

#LMI operating code. Refer to LMI manual for operating instructions.

*This capacity is based on maximum boom angle.

Lifting Capacities at Zero Degree Boom Angle On Outriggers Fully Extended - 360°									
Boom Angle	Main Boom Length in Feet								
	36	40	50	**60	70	80	90	100	110
0°	29,050 (29.8)	24,450 (34.2)	17,050 (44.2)	11,950 (54.6)	9,400 (64.2)	7,310 (74.2)	6,050 (84.2)	4,660 (94.2)	3,350 (104.2)

NOTE: () Reference radii in feet.

A6-829-101070

** Boom length is with inner-mid fully extended and outer-mid & fly fully retracted.

RT700E SERIES 33 FT. - 56 FT. BI-FOLD SWINGAWAY BOOM EXTENSION ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	33 ft. LENGTH			56 ft. LENGTH		
	0° OFFSET	25° OFFSET	45° OFFSET	0° OFFSET	25° OFFSET	45° OFFSET
	#0021	#0022	#0023	#0041	#0042	#0043
30	11,650 (77.5)					
35	11,650 (75.5)			*6,700 (78)		
40	10,850 (73.5)	*8,500 (78)		6,700 (76.5)		
45	10,000 (71.5)	8,500 (76.5)	*5,000 (78)	6,500 (74.5)		
50	9,430 (69.5)	8,500 (74)	5,000 (76.5)	6,400 (73)		
55	8,780 (67.5)	7,850 (72)	5,000 (74.5)	6,300 (71.5)	*5,100 (78)	
60	8,130 (65)	7,200 (70)	5,000 (72)	6,200 (69.5)	5,100 (77)	
65	7,620 (63)	6,750 (67.5)	4,850 (70)	5,850 (67.5)	5,100 (75)	*3,000 (78)
70	7,110 (61)	6,300 (65)	4,700 (67.5)	5,500 (66)	5,100 (73)	3,000 (77)
75	6,700 (58.5)	5,950 (63)	4,600 (65)	5,200 (64)	4,800 (71)	3,000 (75)
80	6,300 (56)	5,600 (60.5)	4,500 (62.5)	4,900 (62)	4,500 (69)	3,000 (72.5)
85	5,880 (53.5)	5,250 (58)	4,450 (59.5)	4,600 (60)	4,100 (67)	2,800 (70.5)
90	5,460 (51)	4,900 (55)	4,400 (57)	4,300 (58.5)	3,700 (65)	2,600 (68.5)
95	4,880 (48.5)	4,650 (52.5)	4,190 (54)	4,000 (56)	3,450 (62.5)	2,450 (66)
100	4,300 (45.5)	4,400 (49.5)	3,980 (51)	3,700 (54)	3,200 (60.5)	2,300 (63.5)
105	3,830 (42.5)	4,020 (46.5)	3,720 (47.5)	3,450 (52)	3,050 (58)	2,150 (61)
110	3,360 (39.5)	3,650 (43)		3,200 (49.5)	2,900 (55.5)	2,000 (58.5)
115	2,880 (36)	3,150 (39.5)		2,950 (47.5)	2,750 (53)	1,940 (55.5)
120	2,400 (32)	2,650 (35)		2,700 (45)	2,600 (50.5)	1,890 (53)
125	1,970 (27.5)	2,200 (30.5)		2,400 (42)	2,370 (47.5)	1,840 (49.5)
130	1,550 (22)			2,100 (39.5)	2,150 (44.5)	
135				1,850 (36.5)	1,950 (41.5)	
140				1,600 (33)	1,750 (37.5)	
145				1,350 (29.5)	1,450 (33.5)	
150				1,100 (25)		
Minimum boom angle (°) for indicated length (no load)	21	25	45	25	28	45
Maximum boom length (ft.) at 0° boom angle (no load)	100			90		

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 J765.
 2. 33 ft. and 56 ft. 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 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 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 vertical jacks set only.


NOTE: () Boom angles are in degrees.

A6-829-101043


#LMI operating code. Refer to LMI manual for operating instructions.

*This capacity is based upon maximum boom angle.


Working Range



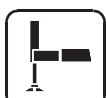
36 - 110 ft.
(11 - 33.5 m)




Bi-fold Swingaway
20 & 40 ft.
INSERTS



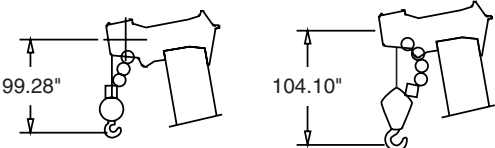
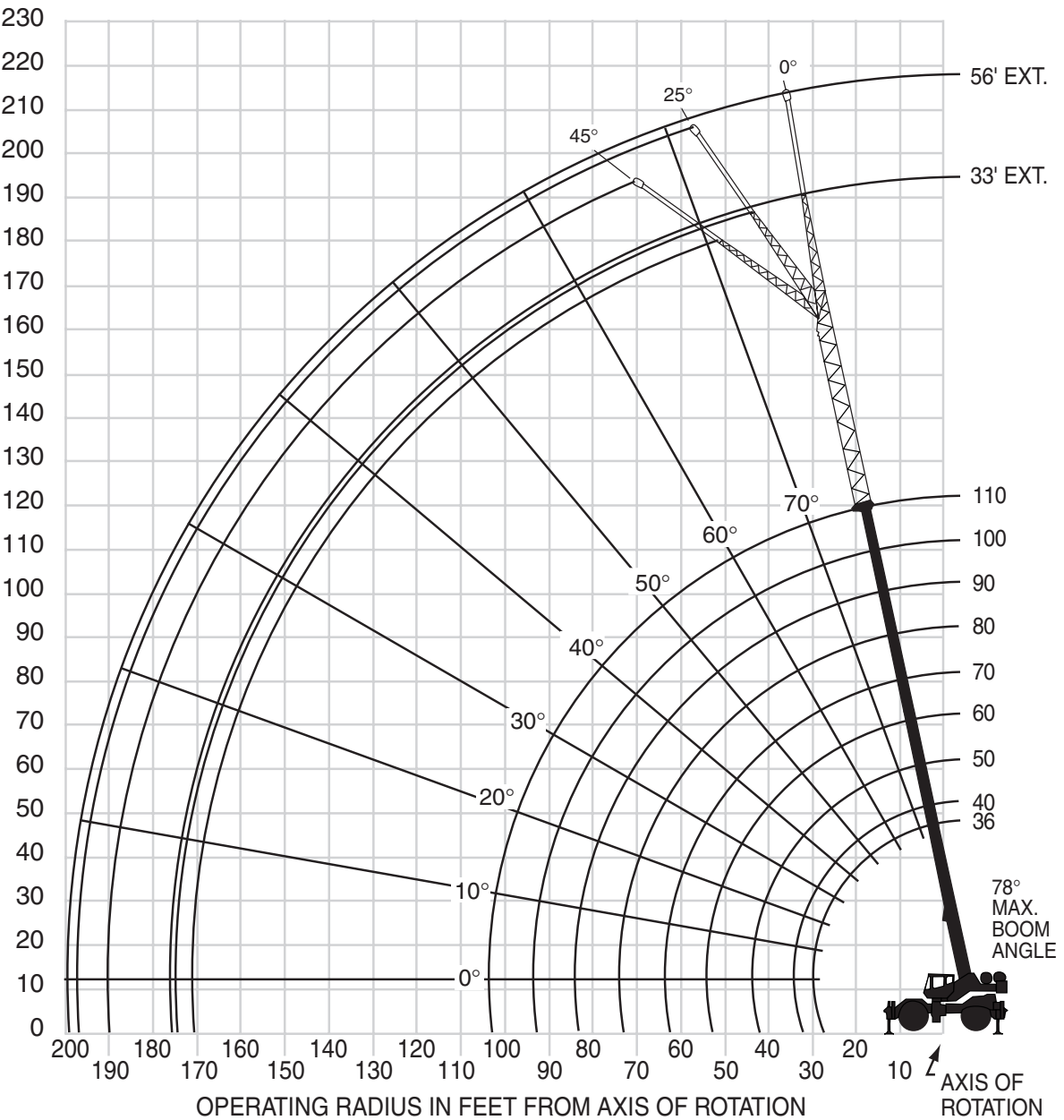
12,150 lbs.
(5511 kg)



100%



360°



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

33 FT. - 56 FT. FOLDING BOOM EXTENSION + 20 FT. INSERT ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	33 ft. LENGTH			56 ft. LENGTH		
	0° OFFSET	25° OFFSET	45° OFFSET	0° OFFSET	25° OFFSET	45° OFFSET
	#0064	#0065	#0066	#0084	#0085	#0086
35	*9,360 (78)					
40	9,360 (77)			*6,300 (78)		
45	8,480 (75.5)	*7,480 (78)		6,300 (77.5)		
50	7,680 (73.5)	7,070 (77.5)	*5,880 (78)	6,000 (76.5)		
55	6,990 (71.5)	6,470 (76)	5,880 (77.5)	5,990 (75)		
60	6,390 (70)	5,970 (74)	5,480 (76.5)	5,980 (73.5)	*4,840 (78)	
65	5,890 (68)	5,570 (72)	5,080 (74.5)	5,510 (72)	4,840 (77.5)	
70	5,390 (66)	5,070 (70)	4,780 (72.5)	5,010 (70)	4,440 (76.5)	
75	4,990 (64)	4,770 (68)	4,480 (70.5)	4,560 (68.5)	4,050 (74.5)	*3,760 (78)
80	4,650 (62)	4,400 (66)	4,190 (68.5)	4,170 (67)	3,870 (73)	3,460 (76.5)
85	4,300 (60)	4,150 (64)	3,890 (66)	3,820 (65)	3,570 (71)	3,260 (74.5)
90	4,000 (58)	3,850 (62)	3,690 (64)	3,520 (63.5)	3,320 (69.5)	2,960 (73)
95	3,760 (55.5)	3,650 (59.5)	3,500 (61.5)	3,220 (61.5)	3,070 (67.5)	2,770 (71)
100	3,510 (53.5)	3,410 (57.5)	3,300 (59.5)	2,980 (60)	2,880 (66)	2,570 (69)
105	3,260 (51)	3,210 (55)	3,100 (57)	2,780 (58)	2,680 (64)	2,460 (67)
110	3,070 (48.5)	3,020 (52.5)	2,930 (54.5)	2,530 (56)	2,480 (62)	2,340 (65)
115	2,870 (46)	2,870 (50)	2,780 (51.5)	2,340 (54)	2,280 (60)	2,200 (63)
120	2,730 (43.5)	2,730 (47)		2,190 (52)	2,140 (58)	2,050 (60.5)
125	2,530 (40.5)	2,580 (44)		2,000 (50)	1,990 (55.5)	1,910 (58.5)
130	2,210 (37.5)	2,440 (41)		1,850 (48)	1,850 (53.5)	1,810 (56)
135	1,850 (34.5)	2,150 (37.5)		1,720 (45.5)	1,750 (51)	1,670 (53.5)
140	1,510 (30.5)	1,750 (34)		1,610 (43)	1,610 (48.5)	
145	1,200 (26.5)				1,520 (46)	
150					1,370 (43)	
Minimum boom angle (°) for indicated length (no load)	20	25	45	40	41	45
Maximum boom length (ft.) at 0° boom angle (no load)	90			70		

NOTE: () Boom angles are in degrees.

A6-829-101371A

#LMI operating code. Refer to LMI manual for operating instructions.

*This capacity is based upon maximum boom angle.

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-765.
2. 33 ft. and 56 ft. folding boom extension lengths may be used for single line lifting service only.
3. For main boom lengths less than 110 ft. 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 rating of the next lower boom angle.
4. **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.
5. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
6. Capacities listed are with outriggers properly extended and vertical jacks set only.

33 FT. - 56 FT. FOLDING BOOM EXTENSION + 40 FT. INSERT ON OUTRIGGERS FULLY EXTENDED - 360°

Radius in Feet	33 ft. LENGTH			56 ft. LENGTH		
	#0064	#0065	#0066	#0084	#0085	#0086
	0° OFFSET	25° OFFSET	45° OFFSET	0° OFFSET	25° OFFSET	45° OFFSET
45	6,560 (78)					
50	5,960 (76)			4,510 (78)		
55	5,360 (74.5)	5,860 (78)		4,210 (77.5)		
60	4,860 (73)	5,260 (76.5)	*5,170 (78)	3,910 (76)		
65	4,370 (71)	4,870 (75)	4,670 (77.5)	3,710 (74.5)		
70	3,970 (69.5)	4,370 (73)	4,270 (75.5)	3,410 (73)	*3,710 (78)	
75	3,670 (67.5)	4,070 (71.5)	3,980 (73.5)	3,220 (71.5)	3,420 (77.5)	
80	3,270 (66)	3,670 (69.5)	3,680 (72)	2,820 (70)	3,120 (76)	
85	2,980 (64)	3,370 (68)	3,380 (70)	2,520 (68.5)	2,820 (74.5)	2,730 (77.5)
90	2,780 (62.5)	3,080 (66)	3,080 (68)	2,320 (66.5)	2,620 (72.5)	2,530 (76)
95	2,480 (60.5)	2,880 (64)	2,890 (66)	2,030 (65)	2,330 (71)	2,340 (74.5)
100	2,290 (58.5)	2,580 (62)	2,690 (64)	1,830 (63.5)	2,130 (69.5)	2,140 (72.5)
105	2,090 (56.5)	2,390 (60)	2,390 (62)	1,630 (62)	1,930 (68)	1,940 (71)
110	1,900 (54.5)	2,190 (58)	2,200 (60)	1,440 (60)	1,730 (66)	1,740 (69)
115	1,700 (52.5)	2,000 (56)	2,100 (58)	1,240 (58.5)	1,540 (64.5)	1,550 (67)
120	1,600 (50.5)	1,800 (54)	1,910 (55.5)	1,140 (57)	1,340 (62.5)	1,450 (65)
125	1,410 (48)	1,700 (51.5)	1,710 (53)		1,240 (61)	1,260 (63.5)
130	1,310 (46)	1,510 (49.5)	1,520 (50.5)		1,050 (59)	1,160 (61.5)
135	1,120 (43.5)	1,420 (47)	1,420 (48)			
140	1,030 (41)	1,220 (44.5)				
145		1,130 (41.5)				
150		1,040 (38.5)				
No Load Stability Data						
Min. boom angle at 110' boom length	37°	37°	45°	54°	56°	58°
Max. boom length at 0° boom angle	70 ft.			40 ft.		

NOTE: () Boom angles are in degrees.

A6-829-101581

*This capacity is based upon maximum boom angle.

#LMI operating code. Refer to LMI manual for instructions.

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-765.
2. 33 ft. and 56 ft. folding boom extension lengths may be used for single line lifting service only.
3. For main boom lengths less than 110 ft. 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 rating of the next lower boom angle.
4. **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.
5. Boom angle is the angle above or below horizontal of the longitudinal axis of the boom base section after lifting rated load.
6. Capacities listed are with outriggers properly extended and vertical jacks set only.

ON RUBBER CAPACITIES

STATIONARY CAPACITIES

360°

Radius in Feet	#9005				
	Main Boom Length in Feet				
	36	40	50	*60	70
10	45,300 (69)	39,700 (72)			
12	41,750 (65.5)	39,700 (68.5)	29,600 (73.5)		
15	29,350 (59.5)	26,450 (63.5)	26,450 (70)	26,450 (74)	
20	17,800 (49)	17,650 (55)	17,050 (63.5)	16,250 (69)	16,250 (72)
25	11,750 (36)	11,700 (45)	11,350 (56.5)	10,850 (63.5)	10,850 (68)
30		8,040 (31.5)	7,820 (48.5)	7,470 (57.5)	7,470 (63)
35			5,400 (40)	5,120 (51.5)	5,120 (58)
40			3,660 (28)	3,200 (45)	3,430 (53)
45				1,000 (37)	2,150 (47.5)
50					1,150 (41.0)
Lifting Capacities at Zero Degree Boom Angle On Rubber - Stationary 360					
Boom Angle	Main Boom Length in Feet				
	36	40	50	*60	70
0°	8,180 (29.7)	5,890 (34.2)	2,170 (44.2)		

Note: () Reference radii in feet.

A6-829-101048

#LMI operating code. Refer to LMI manual for instructions.

*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

STATIONARY CAPACITIES

DEFINED ARC OVER FRONT (See Note pg. 10)

Radius in Feet	#9005				
	Main Boom Length in Feet				
	36	40	50	*60	70
10	45,300 (69)	42,850 (72)	29,600 (76)		
12	43,650 (65.5)	41,350 (68.5)	29,600 (73.5)		
15	38,300 (59.5)	36,300 (63.5)	29,600 (70)	20,900 (74)	17,300 (76.5)
20	31,150 (49)	29,550 (55)	25,900 (63.5)	20,900 (69)	17,300 (72)
25	24,100 (36)	24,150 (45)	21,800 (56.5)	18,800 (63.5)	17,300 (68)
30		17,400 (31.5)	17,200 (48.5)	15,300 (57.5)	15,300 (63)
35			12,800 (40)	12,500 (51.5)	11,000 (58)
40			9,720 (28)	9,390 (45)	9,390 (53)
45				7,090 (37)	7,090 (47.5)
50				5,310 (26.5)	5,310 (41)
55					3,870 (33.5)
60					3,170 (24)
Lifting Capacities at Zero Degree Boom Angle On Rubber - Defined Arc Over Front					
Boom Angle	Main Boom Length in Feet				
	36	40	50	*60	70
0°	17,600 (29.7)	13,600 (34.2)	7,750 (44.2)	4,010 (54.6)	2,670 (64.2)

Note: () Reference radii in feet.

A6-829-101047

#LMI operating code. Refer to LMI manual for instructions.

*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

ON RUBBER CAPACITIES (cont'd.)

PICK & CARRY CAPACITIES (UP TO 2.5 MPH) - BOOM CENTERED OVER FRONT (See note 7)

Radius in Feet	#9006				
	Main Boom Length in Feet				
	36	40	50	*60	70
10	42,500 (69)	37,600 (72)	30,700 (76)		
12	42,500 (65.5)	37,600 (68.5)	30,700 (73.5)	23,450 (77)	
15	37,600 (59.5)	37,600 (63.5)	30,700 (70)	19,700 (74)	16,250 (76.5)
20	32,950 (49)	32,900 (55)	30,700 (63.5)	19,700 (69)	16,250 (72)
25	24,100 (36)	24,150 (45)	23,850 (56.5)	19,700 (63.5)	16,250 (68)
30		17,400 (31.5)	17,200 (48.5)	16,800 (57.5)	16,250 (63)
35			12,800 (40)	12,500 (51.5)	12,500 (58)
40			9,720 (28)	9,390 (45)	9,390 (53)
45				7,090 (37)	7,090 (47.5)
50				5,310 (26.5)	5,310 (41)
55					3,870 (33.5)
60					3,090 (24)
Lifting Capacities at Zero Degree Boom Angle On Rubber - Pick & Carry					
Boom Angle	Main Boom Length in Feet				
	36	40	50	*60	70
0°	17,600 (29.7)	13,600 (34.2)	7,750 (44.2)	4,010 (54.6)	2,670 (64.2)

Note: () Reference radii in feet.

A6-829-101049

#LMI operating code. Refer to LMI manual for instructions.

*60 ft. boom length is with inner-mid extended and outer-mid & fly retracted.

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 29.5x25 (28 ply) tires at 65 psi cold inflation pressure.
3. Defined Arc - Over front includes 6° on either side of longitudinal centerline of machine (ref. drawing C6-829-003529).
4. 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.
6. 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 200 ft. of movement in any 30 minute period and not exceeding 1 mph.

WEIGHT REDUCTIONS FOR LOAD HANDLING DEVICES

33 FT. - 56 FT. FOLDING BOOM EXTENSION	
*33 ft. Extension (Erected) -	5,080 lb.
*56 ft. Extension (Erected) -	11,330 lb.

*Reduction of main boom capacities
(no deduct required for stowed boom extension)

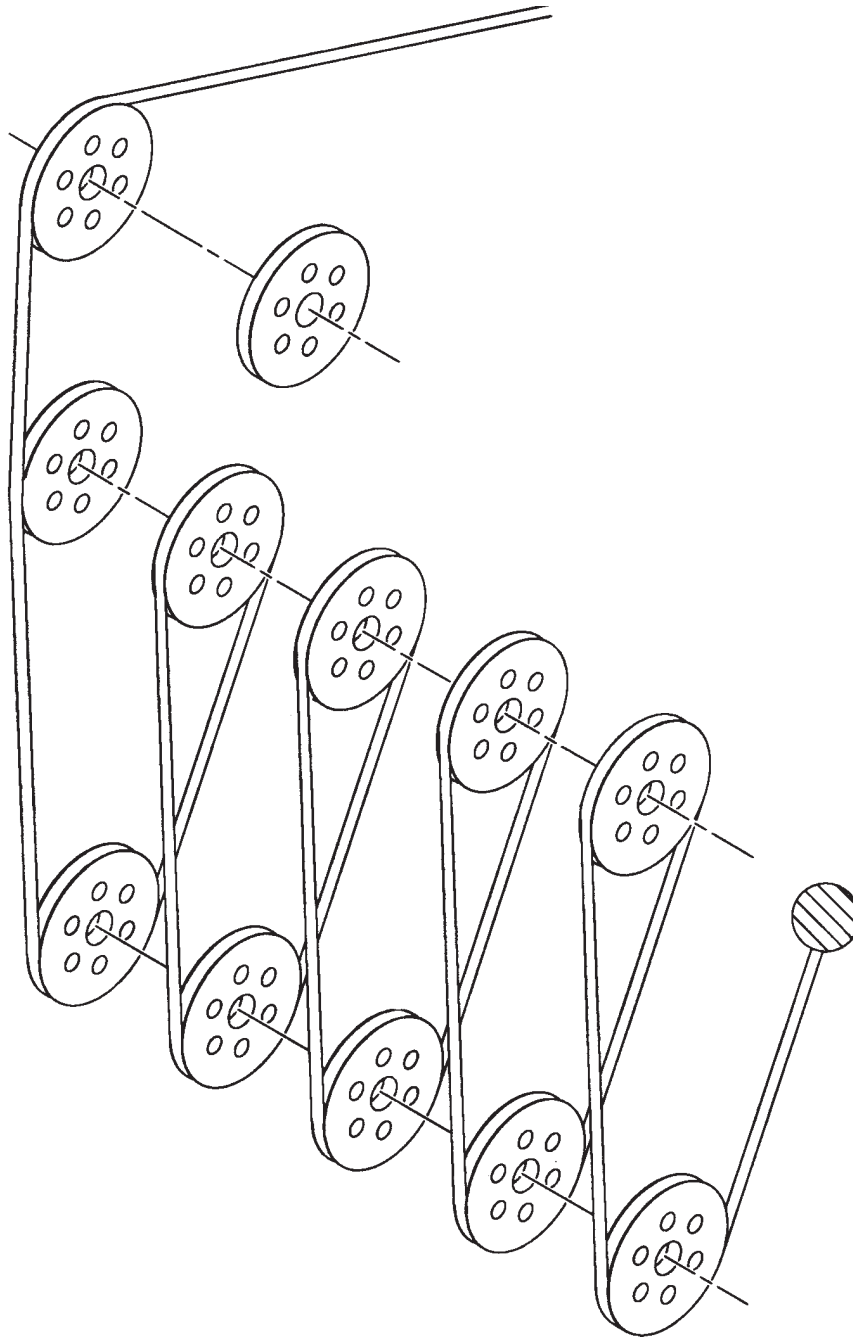
AUXILIARY BOOM NOSE	137 lb.
HOOKBLOCKS and HEADACHE BALLS:	
60 Ton, 5 Sheave	1250 lb.+
50 Ton, 4 Sheave	1000 lb.+
50 Ton, 3 Sheave*	1000 lb.+
8.3 Ton Headache Ball (non-swivel)	350 lb.+
8.3 Ton Headache Ball (swivel)*	370 lb.+

* DO NOT use with 18x19 class of rope.

+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.

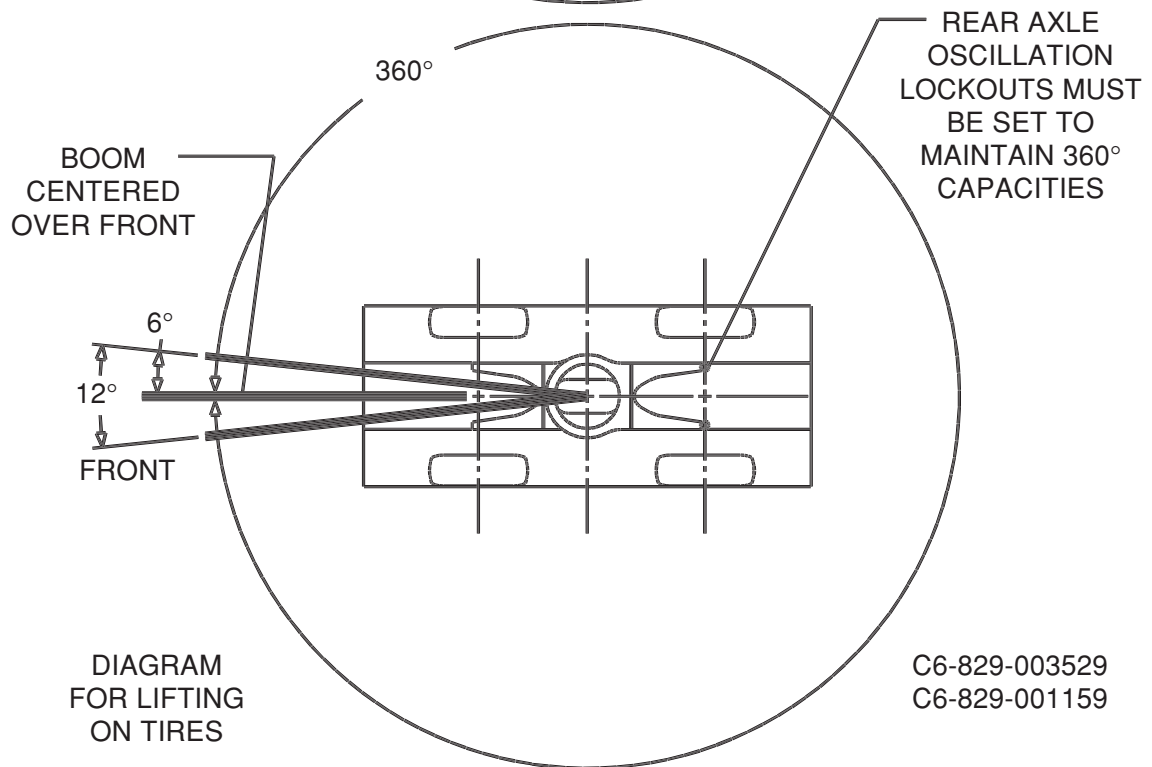
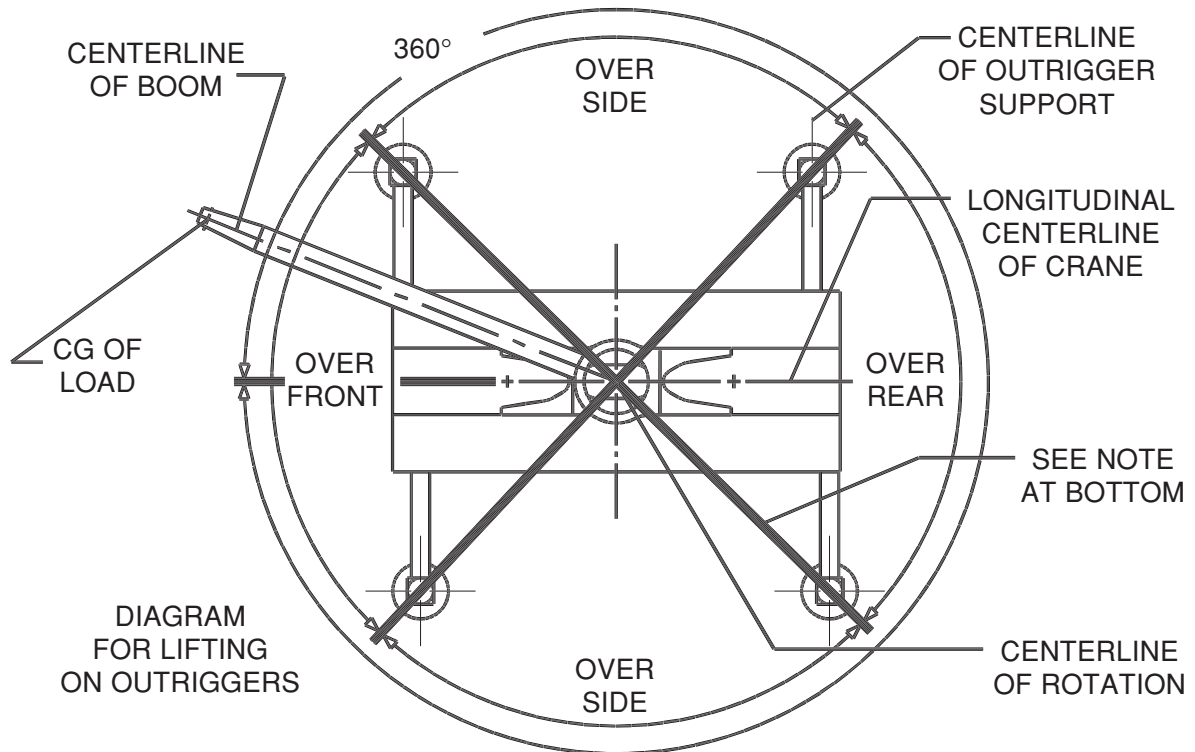
NOTE: All load handling devices and boom attachments are considered part of the load and suitable allowances **MUST BE MADE** for their combined weights. Weights are for Grove furnished equipment.



LINE PULLS AND REEVING INFORMATION

HOISTS	CABLE SPECS.	PERMISSIBLE LINE PULLS	NOMINAL CABLE LENGTH
Main & Aux.	3/4" (19 mm) 18x19 Class Rotation Resistant Min. Breaking Str. 64,600 lb.	12,920 lb.	550 ft.
Main	3/4" (19 mm) 6x37 Class, EIPS, IWRC Special Flexible Min. Breaking Str. 58,800 lb.	16,800 lb.	500 ft.

WORKING AREA DIAGRAM

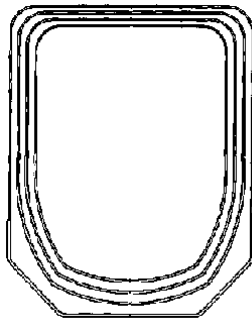


BOLD LINES DETERMINE THE LIMITING POSITION OF ANY LOAD FOR OPERATION WITHIN WORKING AREAS INDICATED

RT700E Features and Benefits



- ▶ 110 ft. (33.5 m) Four-section full power MEGAFORM™ boom with "quick reeve" boom nose



- ▶ Optional aluminum decking & fenders for walking surface area



- ▶ Hot water heater cab with defroster, sliding skylight with sunscreen, armrest-mounted single axis controls & easy access circuit breakers for comfort



- ▶ Optional 33-56 ft. (10.1-17.1 m) bifold swingaway extension; Maximum tip height: 174.5 ft. (53.2 m); Maximum working radius: 150 ft. (45.7 m)



- ▶ Optional 20 ft. (6.1 m) or 40 ft. (12.2 m) swingaway extension insert; Maximum tip height: 20 ft.--194 ft. (59.1 m); 40 ft.--214 ft. (65.2 m)

Constant improvement and engineering progress make it necessary that we reserve the right to make specification, equipment, and price changes without notice. Illustrations shown may include optional equipment and accessories and may not include all standard equipment.

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Grove Worldwide - World Headquarters

1565 Buchanan Trail East

P.O. Box 21

Shady Grove, Pennsylvania 17256-0021, U.S.A.

Tel: (717) 597-8121

Fax: (717) 597-4062

www.groveworldwide.com