



RT745

Rough-terrain hydraulic crane

- Maximum tip height 165 ft. (50.3m) stowable
- 56 ft. (17.1m) telescopic swingaway offsets to 30°
- Up to 27 tons (24.5 tonnes) pick and carry capacity
- 4x4 wheel drive with four wheel steer



Superstructure specifications

Boom	33 ft. to 80 ft. (10.1m-24.4m) three section trapezoidal† full power boom. Telescopic sections slide on adjustable and replaceable Nylatron wear pads. Maximum Tip Height: 88 ft. (26.8m).
Optional Boom	34 ft. to 104 ft. (10.4m-31.7m) four section trapezoidal† boom consisting of a base section, two full power sections and one power pinned section. Maximum Tip Height: 112 ft. (34.1m).
Swingaway Extension (3 section boom)	32 ft. (9.8m) lattice swingaway boom extension stows alongside base boom section. Maximum Tip Height: 120 ft. (36.6m).
Swingaway Extension (4 section boom)	32 ft. (9.8m) lattice swingaway boom extension with integral offset mechanism, offsettable at 0°, 15° or 30°. Stows alongside base boom section when not in use. Maximum Tip Height: 142 ft. (43.3m).
Optional Jib (3 section boom)	24 ft. (7.3m) A-frame attaches to the 32 ft. (9.7m) swingaway, offsettable at 5°, 17° and 30°. Stows beneath the swingaway extension. Maximum Tip Height: 142 ft. (43.3m).
Optional Telescopic Swingaway Extension (4 section boom)	32 ft. to 44 ft. or 56 ft. (9.8m to 13.4m or 17.1m) telescopic lattice swingaway extension with integral offset mechanism, offsettable at 0°, 15° or 30°. Stows alongside of base boom section. Maximum Tip Height: 165 ft. (50.3m).
Boom Nose	Four sheaves mounted on heavy duty tapered roller bearings with removable pin-type rope guards. *Optional auxiliary boom nose.
Boom Elevation	Dual, double acting hydraulic cylinders with integral holding valves provides elevation from -4° to 76°.
Load Moment & Anti-Two Block System	Standard load moment and anti-two block system with audio-visual warning and control lever lockout to alert operator of impending two-block condition. Electronic display of boom angle, length, radius, tip height, relative load moment, maximum permissible load and load indication is provided.
Cab	Full vision, all steel fabricated with acoustical lining and tinted safety glass throughout. Complete driving controls and engine instrumentation. Dash mounted control levers for all craning functions. Other standard features include: hinged skylight, sliding left side door and sliding right side window, electric windshield wash-wipe, propane heater, circulating air fan, fire extinguisher, seat belt.
Swing	Ball bearing swing circle with 360° continuous rotation. Grove planetary glide-swing with foot applied multi-disc brake. Spring applied hydraulically released parking brake and plunger type 2 position mechanical house lock operated from cab. Maximum speed: 2.6 RPM.
Counterweight	Integral with turntable mast.

HYDRAULIC SYSTEM

Pumps	4 main gear pumps, combined capacity 146 GPM (553 LPM) driven by carrier engine through P.T.O. Standard pump disconnect.
Valves	Precision four way double acting control valves, 4 individual valve banks permit simultaneous control of multiple crane functions.
Filter	Return line type, full flow with bypass protection and service indicator. Replaceable cartridge, with micron filtration rating of 15/30/38.
Reservoir	154 gallons (583 L) with spin-on breather filter, external sight gauge, clean out access, strap mounted to frame.
Oil Cooler	Remote mounted with Cummins and Detroit, radiator mounted with Caterpillar.
Pressure Check Panel	System pressure test panel permits easy verification of circuit pressures.

HOIST SPECIFICATIONS

Power up and down equal speed, planetary reduction with automatic spring applied multi-disc brake. Electronic hoist drum rotation indicator.

		Main and *Auxiliary Hoist Grove H030B-16	
Make/Model		High Range	Low Range
Maximum single line speed	Bottom layer	386 FPM (118m/min)	193 FPM (59m/min)
	Intermediate layer	448 FPM (137m/min)	224 FPM (68m/min)
	Top layer	510 FPM (155m/min)	255 FPM (78m/min)
Maximum single line pull	Bottom layer	8,161 lbs. (3702 kg)	16,322 lbs. (7402 kg)
	Intermediate layer	7,028 lbs. (3187 kg)	14,056 lbs. (6375 kg)
	Top layer	6,172 lbs. (2799 kg)	12,344 lbs. (5598 kg)
Maximum permissible single line pull		12,920 lbs. (5860 kg)	
w/5:1 Strength Factor		3/4 in. (19mm) 18x19 class	
Maximum rope stowage		508 ft. (155m)	
		3/4 in. (19mm)	
		Note: 500 ft. (152.4m) of wire rope supplied with standard unit.	
Hoist option		Hoist drum cable followers.	

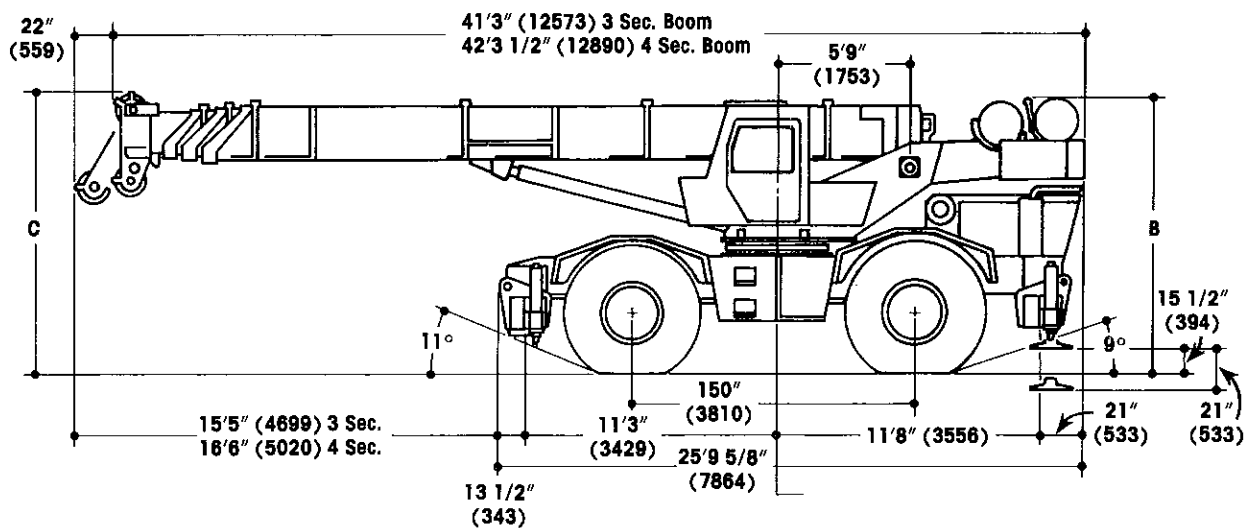
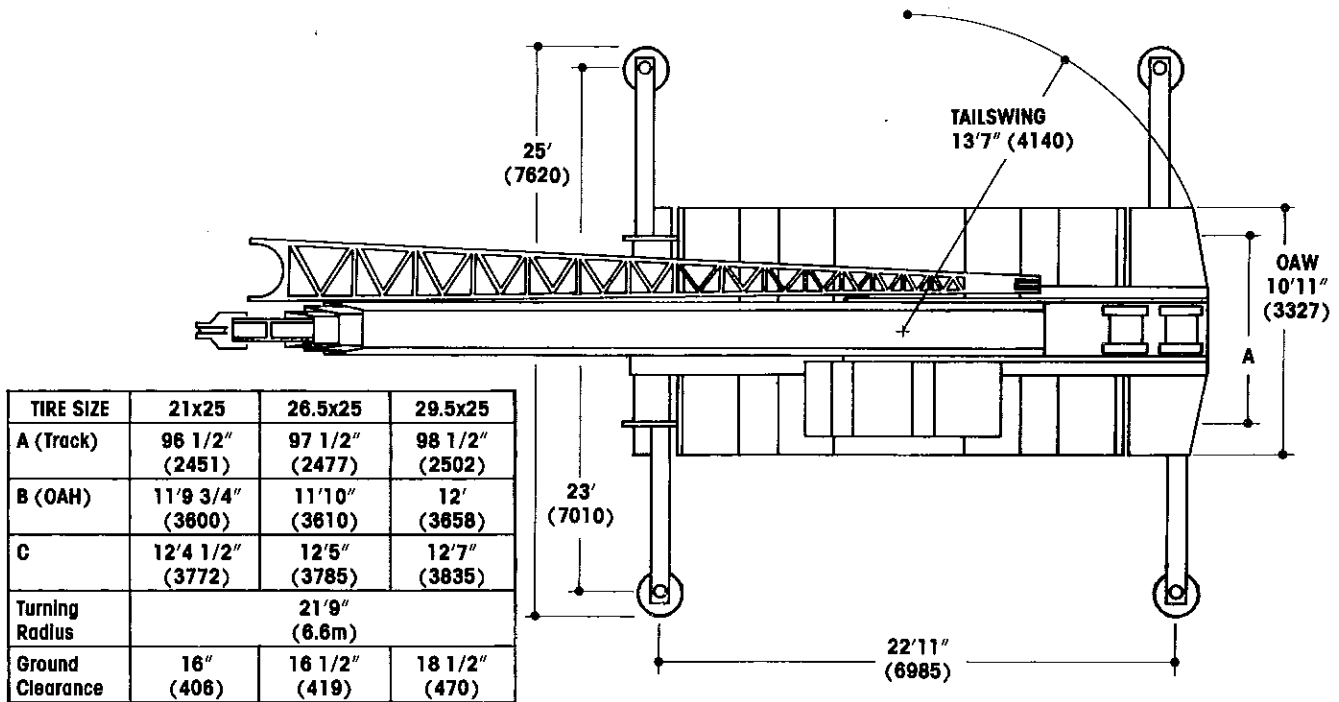
†Patented Grove feature or patent pending.
*Denotes optional equipment.

Carrier specifications

Frame	High strength alloy steel all welded box-type construction with integral outrigger housings and front/rear lifting, towing and tie down lugs.
Outrigger System	Hydraulic single stage double box telescopic beam and jack outriggers with integral holding valves. All steel fabricated quick release type outrigger floats, 24" (610mm) diameter.
Outrigger Controls	Located in cab on right side console requires two hand operation. Crane level indicator located in cab.
Engine	Detroit Diesel 8.2L eight cylinder turbo-charged water cooled diesel, 198 bhp (149 kw) (Gross) @ 2,600 RPM. Maximum torque 442 ft. lbs. (61 kg/m) @ 1,700 RPM.
Optional Engine	Cummins 6BTA5.9 six cylinder turbo-charged water cooled diesel - 5.9 L, 192 bhp (143 kw) (Gross) @ 2,800 RPM. Maximum torque 458 ft. lbs. (63 kg/m) @ 1,700 RPM.
Optional Engine	CAT 3208 eight cylinder naturally aspirated water cooled diesel, 195 bhp (145 kw) (Gross) @ 2,600 RPM. Maximum torque 489 ft. lbs. (68 kg/m) @ 1,200 RPM.
Fuel Tank Capacity	60 gallons (227 L)
Electrical System	Two (four with Cummins and CAT) 12 volt maintenance free batteries, 625 CCA @ 0 degree F. 24 volt starting.
Drive	4 x 4
Steering	Fully independent power steering: Front: Full hydraulic controlled by steering wheel. Rear: Full hydraulic hand lever controlled. Provides infinite variations of 4 main steering modes - front only, rear only, crab and coordinated. Rear wheel steer indicator.
Transmission	Remote mounted powershift with 6 speeds forward and 6 reverse, 3 in high range, 3 in low range. Rear axle disconnect for 4x2 travel.
Axles	Front: Drive-steer with differential and planetary reduction hubs rigid mounted to the chassis. Rear: Drive-steer with differential and planetary reduction hubs, pivot mounted at the center of chassis frame, providing up to 10" (254mm) oscillation. Optional: *No-spin differential on rear axle.

Oscillation Lockouts	Automatic full hydraulic lockouts on rear axle permits oscillation only with boom centered over the front. *Optional oscillation lock-out override control.
Tires	Standard 21.00x25-24PR earthmover type tubeless.
Optional Tires	*26.5x25-26PR earthmover type tubeless; 29.5x25-22PR earthmover type tubeless.
Brakes	Dual braking system, full air operating on all four wheels. Spring-applied, air released parking brake operating on all four wheels.
Lights	Full lighting package including turn indicators, head, tail, brake and hazard warning lights.
Maximum Speed	20.3 MPH (32.7 kph)
Maximum Gradeability	128% theoretical based on 84,500 lbs. (38,329 kg) GVW. 21.00 x 25 tires, pump disengaged, 80 ft. (24.4m) boom plus 32 ft. (9.8m) swingaway.
Gross Vehicle Weight & Axle Loads	BASIC STANDARD MACHINE (3 Section Boom) Front 36,845 lbs. (16,713 kgs) Rear 41,855 lbs. (18,985 kgs) G.V.W. 78,700 lbs. (35,698 kgs) BASIC STANDARD MACHINE (4 Section Boom) Front 40,108 lbs. (18,193 kgs) Rear 40,592 lbs. (18,413 kgs) G.V.W. 80,700 lbs. (36,606 kgs)
Miscellaneous Standard Equipment	Full width steel fenders, dual rear view mirrors, hookblock tiedown sling, electronic back-up alarm, light package, front stowage well.
Optional Equipment	* Auxiliary hoist * Worklights * 360° rotating beacon * Cab spotlight * Outrigger spin locks * Engine block heater * Manual skylight wiper * Hookblocks * Tow winch (front mounted-maximum single line pull - 15,000 lbs. (6,804 kg); maximum speed - 75 ft/min) * Spare wheel assembly * Tire inflation kit * Tool kit * Pintle hook front/rear * Diesel heater/defroster

†Patented Grove feature or patent pending.
*Denotes optional equipment.



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Constant improvement and engineering progress makes 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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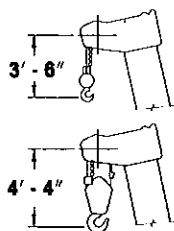
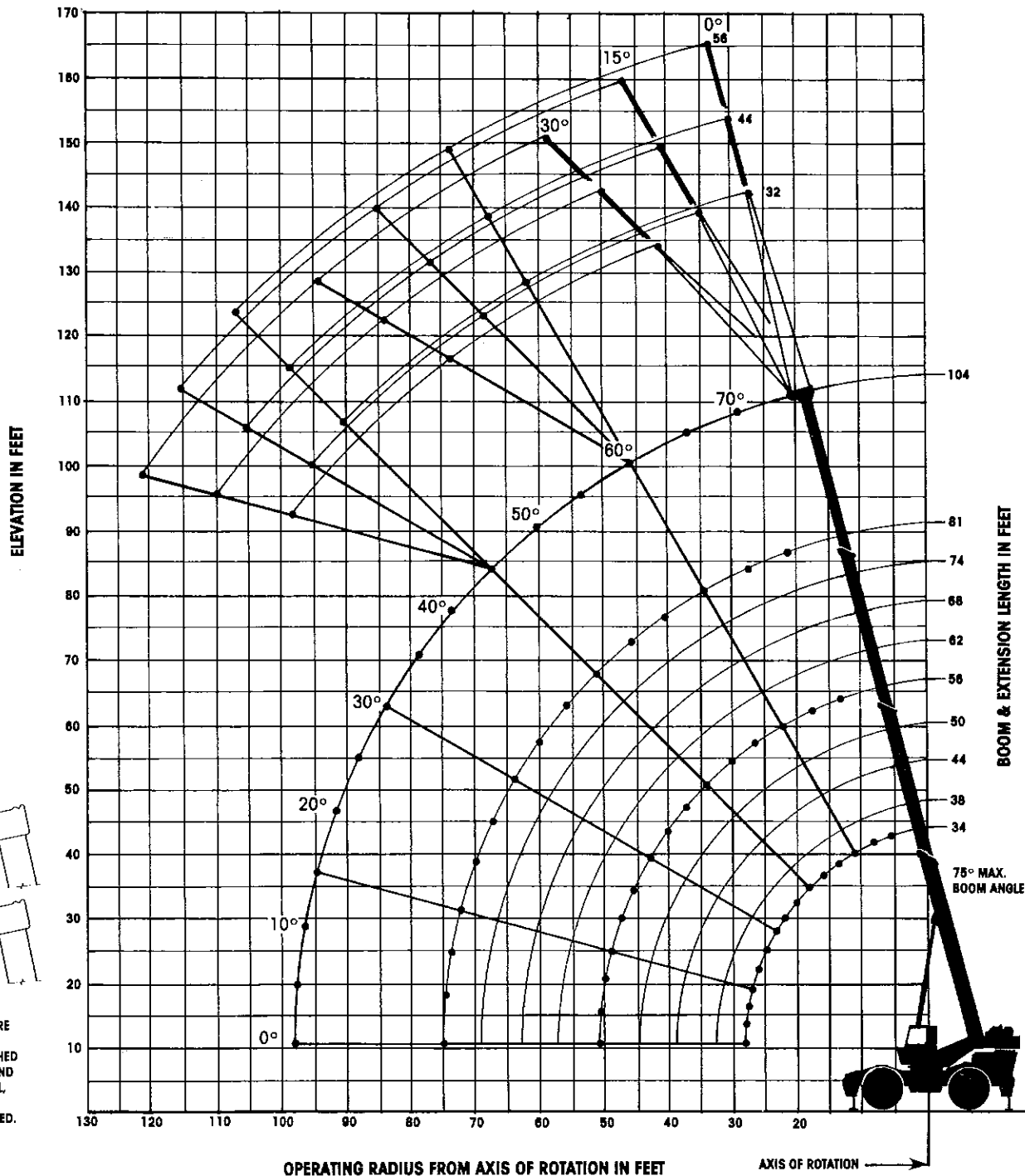
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RT745

85% Domestic/34 ft.-136 ft. Power Pinned Boom

RANGE DIAGRAM
(UNLADEN BOOM)



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

RATED CAPACITIES ON OUTRIGGERS

32 FT. OFFSETTABLE EXTENSION (ON OUTRIGGERS - 360°)

Main Boom Angle (Deg.)	0° OFFSET		15° OFFSET		30° OFFSET	
	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.
POWER PINNED FLY RETRACTED						
75	25.5	18,200	31.6	10,300	36.6	6,900
70	34.6	14,900	40.4	9,000	45.0	6,400
65	43.4	12,200	48.9	8,000	53.0	6,100
60	45.8	10,200	57.0	7,100	60.6	5,600
55	59.8	8,800	64.6	6,600	67.6	5,400
50	67.4	7,900	71.7	6,100	74.1	5,100
45	74.4	7,020	78.2	5,700	80.0	5,000
POWER PINNED FLY EXTENDED						
75	35.8	11,000	41.6	8,500	46.0	6,400
70	46.6	9,200	52.2	7,500	56.4	5,900
65	57.1	7,800	62.4	6,500	66.2	5,500
60	67.2	6,600	72.1	5,700	75.6	5,100
55	76.7	5,700	81.3	5,000	84.3	4,700
50	85.7	5,000	89.8	4,400	92.4	4,200
45	94.0	4,220	97.6	3,700	99.8	3,410

A6-829-008562 & -008563

WEIGHT REDUCTIONS FOR LOAD HANDLING DEVICES

32 ft. Extension with 34 ft.- 104 ft. Boom	
*Stowed -	884 lbs.
*Erected -	5,730 lbs.

32 ft. - 56 ft. Tele. Ext. with 34 ft.- 104 ft. Boom	
*Stowed -	1,038 lbs.
*Erected (rel.) -	7,268 lbs.
*Erected (ext.) -	9,367 lbs.

*Reduction of main boom capacities

HOOKBLOCKS:	
45 Ton, 3 Sheave	1,102 lbs.
15 Ton, 1 Sheave	290 lbs.
Auxiliary Boom Head	220 lbs.
10 Ton Headache Ball	560 lbs.
7 1/2 Ton Headache Ball	338 lbs.
5 Ton Headache Ball	172 lbs.

CAPACITIES FOR 32 FT.-56 FT. TELE. OFFSETTABLE EXTENSION (ON OUTRIGGERS - 360°)

Main Boom Angle (Deg.)	32 ft. EXTENSION						44 ft. EXTENSION						56 ft. EXTENSION					
	0° OFFSET		15° OFFSET		30° OFFSET		0° OFFSET		15° OFFSET		30° OFFSET		0° OFFSET		15° OFFSET		30° OFFSET	
	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.	Rad. Ref. ft.	Cap. lbs.
POWER PINNED FLY RETRACTED																		
75	25.5	17,500	31.6	9,600	36.6	6,500	30.3	11,700	40.0	6,400	47.3	4,500	35.1	8,900	48.5	4,800	57.1	3,200
70	34.6	14,200	40.4	8,300	45.0	5,800	40.5	9,400	49.8	5,200	56.4	3,900	46.1	7,100	58.9	4,200	66.8	2,800
65	43.4	11,500	48.9	7,300	53.0	5,400	50.3	7,700	59.1	4,800	65.1	3,700	56.8	5,700	68.8	3,600	76.0	2,600
60	51.8	9,500	57.0	6,500	60.6	5,000	59.7	6,400	68.0	4,500	73.3	3,600	67.0	4,800	78.2	3,200	84.6	2,500
55	59.8	8,100	64.6	5,900	67.6	4,700	68.7	5,200	76.4	4,100	80.9	3,400	76.7	4,000	87.0	2,800	92.5	2,400
50	67.4	7,200	71.7	5,400	74.1	4,400	77.1	4,800	84.1	3,800	87.8	3,300	85.8	3,400	95.1	2,600	99.6	2,300
45	74.4	6,500	78.2	5,000	80.0	4,300	84.9	4,500	91.2	3,600	94.0	3,200	94.2	3,200	102.4	2,500	106.0	2,200
POWER PINNED FLY EXTENDED																		
75	35.8	10,300	41.6	7,800	46.0	6,000	41.5	8,700	50.9	5,800	57.7	4,200	47.4	7,000	58.6	4,400	67.3	3,000
70	46.6	8,500	52.2	6,800	56.4	5,300	53.3	7,100	62.5	5,200	68.6	3,900	60.0	5,900	70.9	3,800	78.7	2,700
65	57.1	7,100	62.4	5,800	66.2	4,800	64.8	5,900	73.6	4,600	79.0	3,700	72.2	5,000	82.6	3,300	89.5	2,500
60	67.2	5,900	72.1	5,100	75.6	4,500	75.8	4,900	84.2	4,100	88.7	3,400	83.9	4,200	93.8	3,000	99.6	2,400
55	76.7	5,000	81.3	4,300	84.3	4,000	86.3	4,000	94.1	3,600	97.8	3,000	95.0	3,400	104.3	2,600	109.0	2,100
50	85.7	4,300	89.8	3,700	92.4	3,500	96.1	3,400	103.3	3,100	106.1	2,700	105.4	2,700	114.0	2,400	117.5	2,000
45	94.0	3,500	97.6	3,200	99.8	2,930	105.3	2,900	111.8	2,460	113.6	2,290	115.0	2,400	122.9	2,160	125.1	1,900

A6-829-008201A & -008232A

ON OUTRIGGERS FULLY EXTENDED - 360°

Radius In Feet	Main Boom Length in Feet (Power Pinned Fly Retracted)										Power Pin. Fly Ext. & Bt. ll.
	34	38	44	50	56	62	68	74	81	104	
10	90,000 (63.5)	73,750 (67)	69,950 (70.5)	68,200 (73)	63,350 (76)						See Warning Note 17
12	75,000 (60)	73,750 (63.5)	66,700 (67.5)	61,600 (70.5)	57,150 (73)	53,750 (75)					
15	62,000 (53.5)	62,000 (58.5)	58,050 (63.5)	54,000 (67)	51,000 (70)	46,650 (72)	43,850 (74)	40,850 (75.5)			
20	47,300 (42)	47,300 (49)	47,300 (55.5)	43,950 (60.5)	40,550 (64)	38,000 (67)	35,700 (69.5)	33,100 (71)	30,000 (74)		
25	36,000 (26)	36,000 (37.5)	36,000 (47)	36,000 (53.5)	34,050 (58)	31,800 (62)	29,900 (65)	27,800 (67)	25,200 (70)	21,800 (75.5)	
30		29,000 (21.5)	29,000 (37)	29,000 (46)	29,000 (52)	27,100 (56.5)	25,600 (60)	23,500 (63)	21,500 (66)	18,800 (72.5)	
35			23,800 (23.5)	23,800 (37)	23,800 (45)	23,500 (50.5)	22,250 (55)	20,350 (58.5)	18,650 (62)	16,400 (69.5)	
40	See Warning			19,200 (25.5)	19,200 (37)	19,200 (44)	19,200 (49.5)	17,800 (53.5)	16,200 (58)	14,500 (66.5)	
45	Note 16				15,900 (26.5)	15,900 (36.5)	15,900 (43.5)	15,750 (48.5)	14,250 (53.5)	12,750 (63.5)	
50					13,150 (8)	13,150 (27.5)	13,150 (36.5)	13,150 (43)	12,600 (48.5)	11,300 (60.5)	
55						11,200 (13)	11,200 (28.5)	11,200 (36.5)	11,200 (43.5)	10,000 (57)	
60							9,560 (16.5)	9,560 (29)	9,560 (37.5)	9,060 (53.5)	
65								8,000 (19)	8,000 (31)	8,150 (50)	
70									6,670 (22.5)	7,360 (46)	
75										6,660 (42)	
80										6,040 (37)	
85										5,380 (32)	
90										4,450 (25.5)	
95										3,580 (17)	
	Minimum boom angle (deg.) for indicated length (no load)										0
	Maximum boom length (ft.) at 0 deg. boom angle (no load)										81
											104

Note: Boom angles are in degrees.

A6-829-008671 & -002135E

NOTES FOR LIFTING CAPACITIES

NOTES FOR LIFTING CAPACITIES

1. All rated loads have been tested to and meet minimum requirements of SAE J1 063 OCT80 - Cantilevered Boom Crane Structures - Method of Test, and do not exceed 85% of the tipping load on outriggers (75% of the tipping load on rubber) as determined by SAE J765 OCT80 Crane Stability Test Code.
2. This chart is intended as a guide only. The individual crane's load chart operating instructions and other instruction plates give details of the conditions under which the crane may be operated safely. ALL OF THESE INSTRUCTIONS MUST BE READ AND UNDERSTOOD PRIOR TO OPERATING THE CRANE.
3. 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.
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. For outrigger operation, ALL outriggers shall be fully extended with tires raised free of ground before raising the boom or lifting loads.
8. Tires shall be inflated to the recommended pressure before lifting on rubber.
9. Unless otherwise stated, capacities are with powered boom sections equally extended.
10. When a load indicator is fitted certain capacities may be modified to compensate for indicator characteristics.

Maximum Permissible Boom Lengths:

- | | |
|------------|------------|
| (a) 34 ft. | (f) 62 ft. |
| (b) 38 ft. | (g) 68 ft. |
| (c) 44 ft. | (h) 74 ft. |
| (d) 50 ft. | (i) 81 ft. |
| (e) 56 ft. | |

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GROVE MANUFACTURING COMPANY

Division of Kidde, Inc.

KIDDE

Shady Grove, Pennsylvania 17256-0021

FORM NO.: LC-RT745-136P.P.-Dom.

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RATED CAPACITIES ON RUBBER

21.00x25 TIRES

Radius in Feet	Stationary Capacity Defined Arc (3) Over Front	Stationary Capacity 360 Degree Arc	Pick & Carry Cap. Up to 2.5 MPH Boom Centered (7) Over Front
10.0	64,000 (a)	46,700 (a)	56,500 (a)
12.0	58,350 (a)	36,550 (a)	49,100 (a)
15.0	50,500 (a)	26,450 (a)	40,650 (a)
20.0	32,400 (a)	16,800 (b)	30,900 (a)
25.0	21,600 (b)	11,250 (c)	21,600 (a)
30.0	15,850 (c)	7,640 (d)	15,850 (b)
35.0	11,850 (c)	5,290 (e)	11,850 (c)
40.0	9,080 (d)	3,590 (f)	9,080 (d)
45.0	7,010 (f)	2,310 (g)	7,010 (e)
50.0	5,420 (g)	1,300 (h)	5,420 (e)
55.0	4,160 (g)		4,160 (f)
60.0	3,130 (h)		3,130 (g)
65.0	2,280 (h)		2,280 (h)
70.0	1,570 (i)		1,570 (i)

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26.5x25 TIRES

Radius in Feet	Stationary Capacity Defined Arc (3) Over Front	Stationary Capacity 360 Degree Arc	Pick & Carry Cap. Up to 2.5 MPH Boom Centered (7) Over Front
10.0	55,810 (a)	43,040 (a)	48,220 (a)
12.0	52,230 (a)	37,470 (a)	42,060 (a)
15.0	46,000 (a)	27,150 (a)	35,010 (a)
20.0	31,910 (a)	16,470 (b)	30,320 (a)
25.0	21,400 (b)	10,520 (c)	21,400 (a)
30.0	15,530 (c)	7,020 (d)	15,530 (b)
35.0	11,580 (c)	4,880 (e)	10,260 (c)
40.0	8,830 (d)	3,350 (f)	8,150 (d)
45.0	6,910 (f)	2,220 (f)	6,580 (e)
50.0	5,380 (g)	1,270 (h)	5,230 (e)
55.0	3,980 (g)		3,980 (f)
60.0	3,020 (h)		2,970 (g)
65.0	2,250 (h)		2,200 (h)
70.0	1,560 (i)		1,170 (i)

A6-829-0048238

29.5x25 TIRES

Radius in Feet	Stationary Capacity Defined Arc (3) Over Front	Stationary Capacity 360 Degree Arc	Pick & Carry Cap. Up to 2.5 MPH Boom Centered (7) Over Front
10.0	58,980 (a)	46,600 (a)	52,100 (a)
12.0	55,200 (a)	37,940 (a)	45,410 (a)
15.0	50,170 (a)	27,080 (a)	37,780 (a)
20.0	33,400 (a)	16,500 (b)	30,540 (a)
25.0	22,740 (b)	11,050 (c)	22,740 (a)
30.0	15,970 (c)	7,440 (d)	15,970 (b)
35.0	11,550 (c)	5,160 (e)	11,500 (c)
40.0	9,120 (d)	3,610 (f)	9,120 (d)
45.0	7,060 (f)	2,290 (g)	7,060 (e)
50.0	5,520 (g)	1,370 (h)	5,520 (e)
55.0	4,280 (g)		4,280 (f)
60.0	3,210 (h)		3,210 (g)
65.0	2,360 (h)		2,360 (h)
70.0	1,700 (i)		1,700 (i)

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