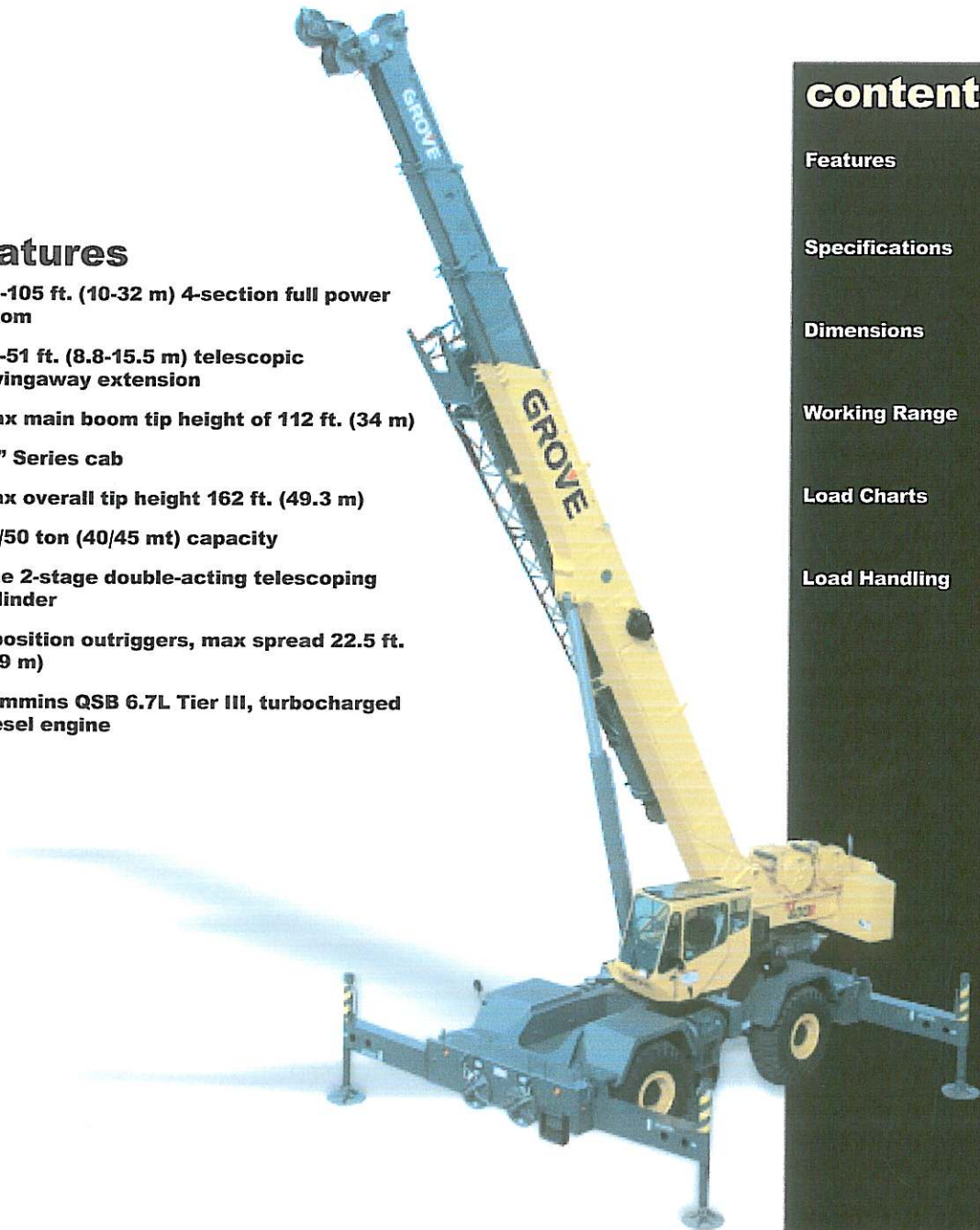


# GROVE RT600E

## product guide

### features

- 33-105 ft. (10-32 m) 4-section full power boom
- 29-51 ft. (8.8-15.5 m) telescopic swingaway extension
- Max main boom tip height of 112 ft. (34 m)
- "E" Series cab
- Max overall tip height 162 ft. (49.3 m)
- 40/50 ton (40/45 mt) capacity
- One 2-stage double-acting telescoping cylinder
- 3 position outriggers, max spread 22.5 ft. (6.9 m)
- Cummins QSB 6.7L Tier III, turbocharged diesel engine



### contents

Features	2
Specifications	3
Dimensions	5
Working Range	6
Load Charts	7
Load Handling	11



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Rough Terrain Hydraulic Crane

# specifications

## Superstructure

### Boom

33 ft. - 105 ft. (10.1 m - 32 m) four-section, full-power synchronized boom.  
Maximum tip height: 112 ft. (34.1 m).

### \*Optional Fixed Swingaway Extension

29 ft. (8.8 m) offsettable lattice swingaway extension. Offsettable at 0°, 25° and 45°. Stows alongside base boom section.  
Maximum tip height: 141.5 ft. (43.1 m).

### \*Optional Telescopic Swingaway Extension

29 ft. - 51 ft. (8.8 m - 15.5 m) telescoping lattice swingaway extension. Offsettable at 0°, 25° and 45°. Stows alongside base boom section. Maximum tip height: 162 ft. (49.3 m).

### Boom Nose

Three nylatron 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.

### Boom Elevation

One double-acting hydraulic cylinder with integral holding valve provides elevation from -2° 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 system defaults to 360° on rubber chart. The standard Work Area Definition System allows the operator to pre-select and define 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/defroster, cab circulating air fan, sliding side and rear windows, sliding skylight with electric wiper and sunscreen, electric windshield wash/wipe, fire extinguisher, seat belt and circuit breakers.

### 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

12,250 lbs. (5 556 kg) pinned to superstructure.

### Hydraulic System

Three main gear pumps with combined capacity of 103 GPM (391 L/min), 135 GPM (511 L/min) with optional air conditioning. Maximum operating pressure: 3500 psi (26.2 MPa)

Return line type filter with full flow by-pass protection and service indicator. Replaceable cartridge with micron filtration rating of 5/12/16. 134 gallon (509 L) reservoir. Hydraulic oil cooler. System pressure test ports. Manual hyd. pump disconnect.

### Hoist Specifications Main and Auxiliary Hoist: Model HP30G

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  
16,800 lbs. (7 620 kg) w/optional 35 x 7 class rope

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

Rope Length: 450 ft. (137 m)

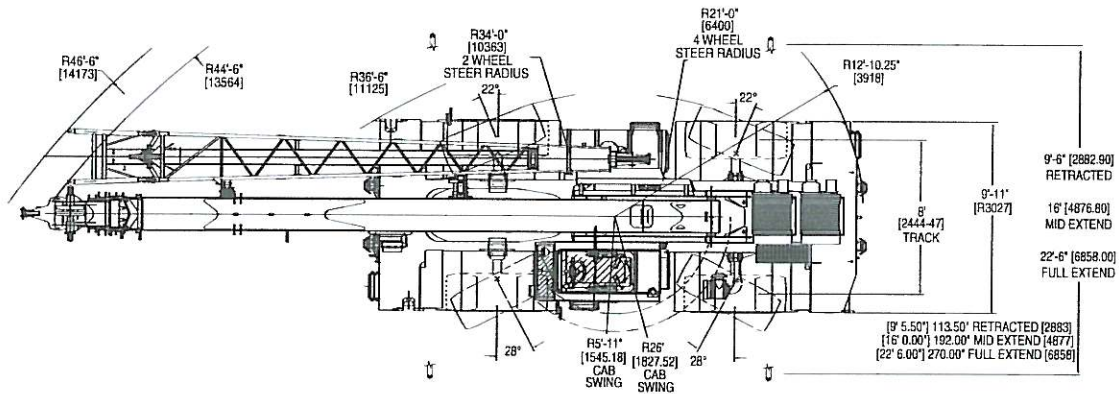
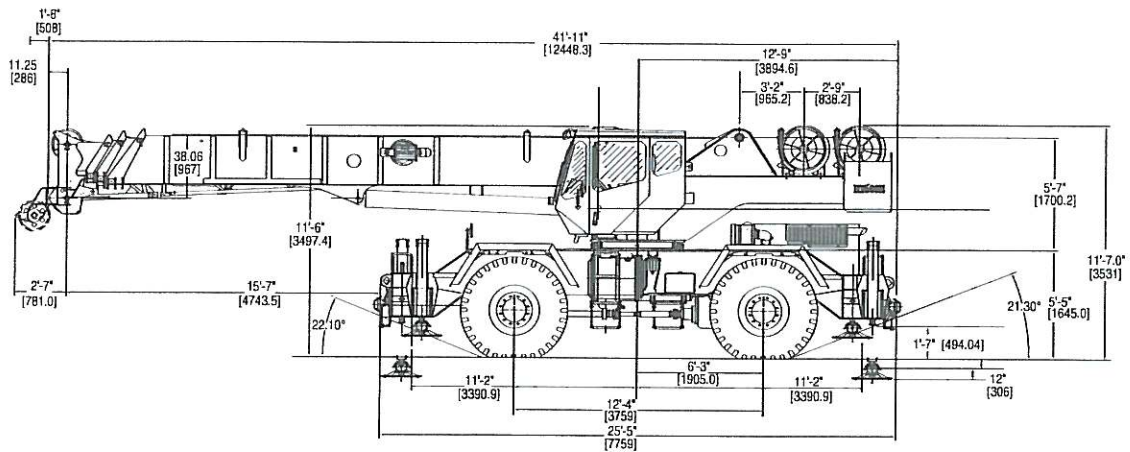
Rope Type: 6 x 37 Class EIPS IWRC  
Optional: 35 x 7 class rotation resistant

Maximum Usable Rope Stowage: 694 ft. (211 m)

RT 600E

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# dimensions



Note: [ ] Reference dimensions in mm

## Weights

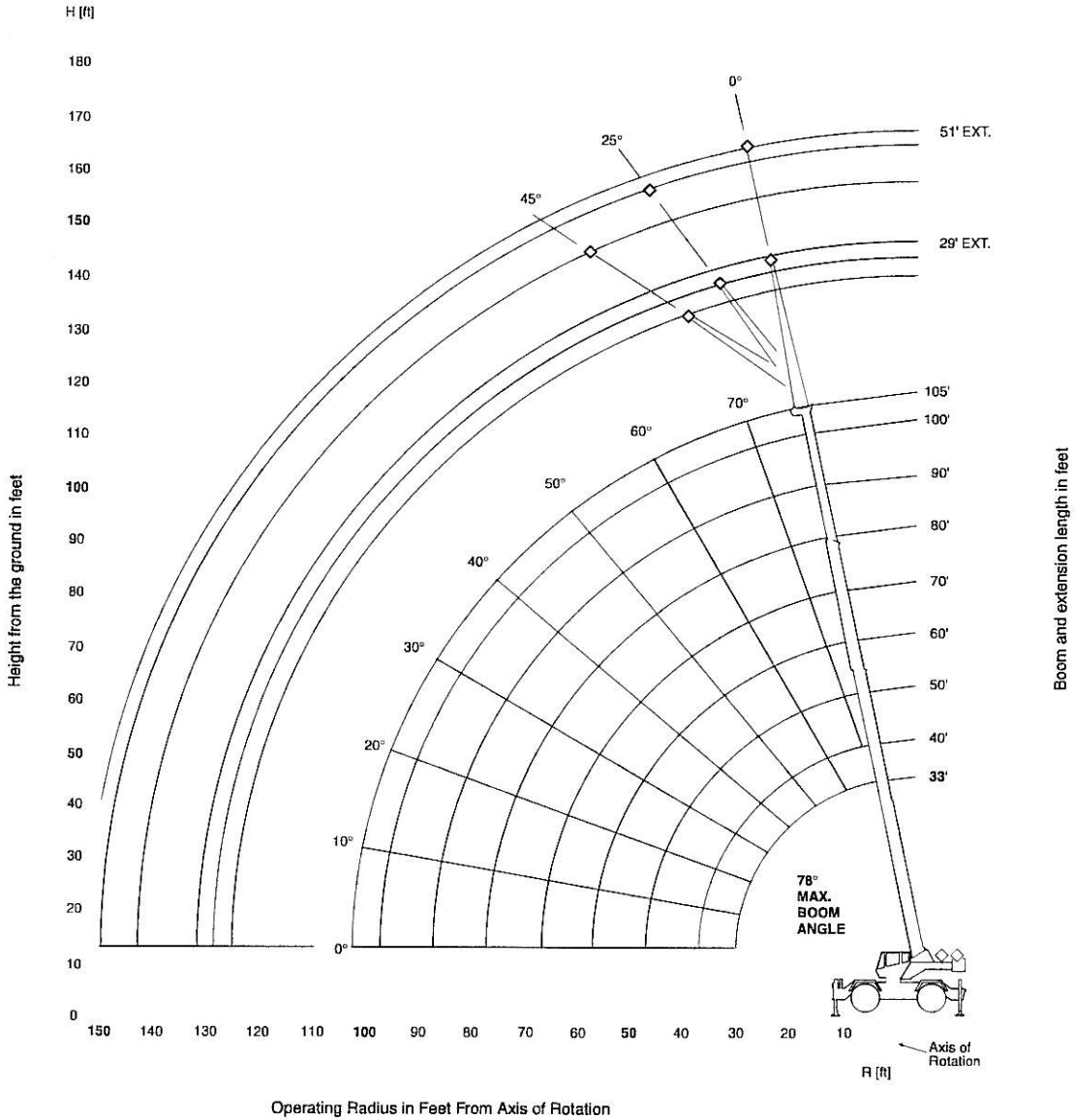
	GVW		Front		Rear	
	lb.	kg	lb.	kg	lb.	kg
<b>RT600E Basic Machine</b>	71,691	32,519	32,934	14,939	38,757	17,580
<b>ADD:</b> 29 - 51 ft. tele swingaway	2,109	957	3,456	1,568	-1,347	-611
<b>ADD:</b> 29 ft. swingaway	1,493	677	2,506	1,137	-1,013	-459
<b>ADD:</b> Auxiliary hoist cable	563	255	-213	-97	775	352
<b>ADD:</b> Auxiliary boom nose	131	59	358	162	-227	-103
<b>ADD:</b> 40 ton (35 mt) 3 sheave hookblock (stowed in trough)	800	363	822	373	-22	-10
<b>ADD:</b> 50 ton (45 mt) 3 sheave hookblock (stowed in trough)	1,000	454	1,027	466	-27	-12
<b>ADD:</b> 8.3 ton (7.5 mt) headache ball (hanging from aux. nose)	370	168	643	292	-273	-124
<b>Remove:</b> Counterweight	-11,250	-5,103	4,570	2,073	-15,820	-7,176

RT600E

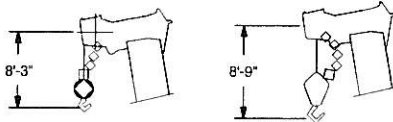
# working range

## Working range - 105 ft. Main Boom

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RT 600E



Dimensions are for Largest Grove furnished Hook Block and Headache Ball, with Anti-Two Block Activated.

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.

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# RT650E load chart



Feet	33	40	50	60	70	80	90	100	105
10	100,000 (69.5)	80,550 (73.5)	67,250 (77)						
12	87,100 (65.5)	79,150 (70.5)	64,200 (75)	*56,100 (78)					
15	69,050 (59.5)	69,550 (65.5)	59,950 (71)	51,800 (75)	45,200 (77.5)				
20	50,500 (47.5)	50,950 (57)	51,400 (64.5)	44,500 (69.5)	38,550 (73)	34,450 (75.5)	*31,400 (78)		
25	38,300 (32)	38,850 (47)	39,350 (58)	39,650 (64.5)	37,100 (68.5)	29,850 (72)	27,250 (74.5)	21,000 (76.5)	18,350 (77.5)
30		30,700 (34.5)	31,200 (50.5)	31,500 (58.5)	31,700 (64)	26,350 (68)	24,100 (71)	21,000 (73.5)	18,350 (74.5)
35			25,450 (41.5)	25,750 (52.5)	26,000 (59)	23,650 (64)	21,500 (67.5)	19,150 (70)	18,350 (71.5)
40	See Note 16		20,850 (30.5)	21,200 (46)	21,600 (54)	21,350 (59.5)	19,400 (64)	16,650 (67)	17,300 (68.5)
45				17,100 (38)	17,350 (48.5)	17,300 (55)	17,300 (60)	14,650 (64)	15,750 (65.5)
50				13,950 (28)	14,150 (42.5)	14,200 (50.5)	14,200 (56)	13,000 (60.5)	14,300 (62.5)
55					11,700 (35)	11,750 (45.5)	11,850 (52)	11,900 (57)	12,000 (59)
60					9,730 (26)	9,870 (39.5)	9,980 (47.5)	10,100 (53.5)	10,150 (55.5)
65						8,300 (33)	8,440 (42.5)	8,600 (49.5)	8,680 (52)
70						6,960 (24.5)	7,170 (37.5)	7,340 (45.5)	7,430 (48.5)
75							6,080 (31)	6,290 (40.5)	6,390 (44.5)
80							5,130 (23)	5,380 (35.5)	5,490 (40)
85								4,580 (29.5)	4,720 (35)
90								3,880 (22)	4,020 (29)
95									3,400 (21.5)
Minimum boom angle (°) for indicated length (no load)									0
Maximum boom length (ft.) at 0° boom angle (no load)									105

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							
	33	40	50	60	70	80	90	100
0°	16,250 (28.2)	12,500 (35)	8,760 (45)	6,290 (55)	4,510 (65)	3,160 (75)	2,110 (85)	1,260 (95)

NOTE: ( ) Reference radii in feet.

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RT600E

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