



**GROVE**  
**CRANE**

A GROVE WORLDWIDE COMPANY

# RT700B Series

Rough-Terrain Hydraulic Crane Specifications



 iSkysoft  
PDF Editor



# Superstructure specifications

<b>Boom</b>	35 ft. to 110 ft. (10.6m - 33.5m) four section trapezoidal full power boom. Telescoping is sequenced-synchronized with single lever control. Telescoping sections slide on adjustable and replaceable low friction wear pads. Maximum Tip Height: 118 ft. (35.9m).
<b>Optional Boom</b>	*Optional 34 ft. to 84 ft. (10.3m - 25.6m) three section trapezoidal full power telescopic boom. Maximum Tip Height: 92 ft. (28m). (Note: Consult factory for availability.)
<b>Telescopic Swingaway Extension</b>	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 base boom section when not in use. Maximum Tip Height: 173 ft. (52.7m).
<b>Optional Fixed Swingaway Extension Boom Nose</b>	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: 149 ft. (45.4m). Four 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.
<b>Boom Elevation</b>	One double acting hydraulic cylinder with integral holding valve provides elevation from -3° to 78°.
<b>Load Moment &amp; Anti-Two Block System</b>	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, load indication and warning of impending two-block condition.
<b>Cab</b>	Full vision, all steel fabricated with acoustical lining and tinted safety glass throughout. Deluxe seat incorporates armrest mounted hydraulic single axis controls. Dash panel incorporates gauges for all engine functions. Other standard features include: telescoping tilt steering wheel, sliding side and rear windows, electric windshield wash-wipe, circulating air fan, electric skylight wiper, fire extinguisher, seatbelt and ashtray.
<b>Swing</b>	Ball bearing swing circle with 360° continuous rotation. Grove planetary glide-swing with foot applied multi-disc wet brake. Spring applied hydraulically released parking brake and plunger type, I position, mechanical house lock operated from cab. Maximum speed: 2.8 RPM.
<b>Counterweight</b>	Integral with superstructure, 7,686 lbs. (3486 kg). 1,900 lbs. (861 kg) slab I.P.O. auxiliary hoist.

## HYDRAULIC SYSTEM

<b>Pumps</b>	3 main gear pumps, combined capacity 118 GPM (447 LPM) driven by carrier engine through P.T.O. Standard pump disconnect with engine jogging switch. System operating pressure 3500 PSI (241 bar).
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<b>Valves</b>	Precision four way double acting pilot operated control valves, 3 individual valve banks permit simultaneous control of multiple crane functions.
<b>Filter</b>	Return line type <sup>®</sup> full flow with bypass protection and service indicator. Replaceable cartridge with micron filtration rating of 5/12/16.
<b>Reservoir</b>	100 gallon (378.5 L) with spin-on breather filter, external sight gauge, oil temperature gauge, clean out access, strap mounted to frame.
<b>Oil Cooler</b>	Remote mounted with thermostatically controlled electric motor driven fan.
<b>Pressure Check Panel</b>	System pressure test panel with quick release type fittings for each circuit.

## HOIST SPECIFICATIONS

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

Main and *Auxiliary Hoist Grove HO30D-16G			
Make/Model		High Range	Low Range
<b>Maximum single line speed</b>	1st Layer	403 FPM (123m/min)	212 FPM (65m/min)
	2nd Layer	438 FPM (134m/min)	231 FPM (70m/min)
	3rd Layer	474 FPM (144m/min)	250 FPM (76m/min)
	4th Layer	509 FPM (155 m/min)	268 FPM (82 m/min)
	5th Layer	545 FPM (166 m/min)	287 FPM (87 m/min)
	6th Layer	580 FPM (177 m/min)	306 FPM (93 m/min)
<b>Maximum single line pull</b>	1st Layer	9,079 lbs. (4118 kg)	18,159 lbs. (8237 kg)
	2nd Layer	8,345 lbs. (3785 kg)	16,691 lbs. (7571 kg)
	3rd Layer	7,721 lbs. (3502 kg)	15,442 lbs. (7004 kg)
	4th Layer	7,183 lbs. (3258 kg)	14,367 lbs. (6517 kg)
	5th Layer	6,716 lbs. (3046 kg)	13,432 lbs. (6092 kg)
	6th Layer	6,305 lbs. (2860 kg)	12,611 lbs. (5720 kg)
<b>Maximum permissible line pull</b>		12,920 lbs. (5860 kg)	
<b>w/5:1 strength factor</b>		3/4 in. (19mm) 18x19 class	
<b>Maximum rope stowage</b>		690 ft. (210m) 3/4 in. (19mm)	
		Note: 500 ft. (152.4m) length of wire rope supplied with basic standard unit.	

\*Denotes optional equipment

# Carrier specifications

<b>Frame</b>	High strength alloy steel all welded box section design with integral outrigger housings and front/rear lifting, towing and tie down lugs.
<b>Outrigger System</b>	Hydraulic single stage double box telescopic beam and 'inverted' jack outriggers with integral holding valves. All steel fabricated quick release type outrigger floats, 24" (610mm) diameter. Maximum outrigger pad load 60,026 lbs. (27227 kg).
<b>Outrigger Controls</b>	Located in cab on front dash panel requires two hand operation. Crane level indicator located in cab.
<b>Engine</b>	Cummins 6BTA5.9 six cylinder turbo-charged water cooled diesel - 5.9L, 177 bhp (132 kw) (Gross) @ 2,500 RPM. Maximum torque 447 ft. lbs. (61.8 kg/m) @ 1,500 RPM.
<b>Fuel Tank Capacity</b>	60 gallons (227 L)
<b>Electrical System</b>	Two 12-volt - maintenance free batteries, 815 CCA @ 0 degree F. 12 volt starting/lighting.
<b>Drive</b>	4 x 4
<b>Steering</b>	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 steer indicating gauge.
<b>Transmission</b>	Engine mounted full powershift with 6 forward and 3 reverse speeds. Front axle disconnect for 4x2 travel.
<b>Axles</b>	Front: Drive-steer with differential and planetary reduction hubs rigid mounted to the chassis frame. *Optional no-spin differential. Rear: Drive-steer with differential and planetary reduction hubs pivot mounted at the center of chassis frame providing up to 12" oscillation (305mm).
<b>Oscillation Lockouts</b>	Automatic full hydraulic lockouts on rear axle permit oscillation only with boom centered over the front. *Optional oscillation lockout override control.
<b>Brakes</b>	Full hydraulic, split circuit operating on all wheels. Spring-applied, hydraulically released front axle mounted parking brake.
<b>Tires</b>	23.5R25 Radial Earthmover type, tubeless.
<b>Lights</b>	Full lighting package including turn indicators, head, tail, brake and hazard warning lights.
<b>Maximum Speed</b>	24 MPH (39 kph)
<b>Maximum Gradeability</b>	90.8% (Theoretical based on 66,180 lbs. 130020 kg GVW). 23.5R25 tires, pumps disengaged, 110 ft. (33.5m) boom, plus 32 ft. to 56 ft. (9.8m-17.1m) telescopic swingaway.

<b>Gross Vehicle Weight &amp; Axle Loads</b>	STANDARD MACHINE Front: 33,020 lbs. (14978 kg) Rear: 33,160 lbs. (15042 kg) G.V.W.: 66,180 lbs. (30020 kg)
<b>Miscellaneous Standard Equipment</b>	Full width steel fenders, dual rear view mirrors, hookblock tiedown sling, electronic back-up alarm, light package, front stowage well, tachometer, cold start aid (less canister), rear wheel position indicator, hydraulic cab heater, hoist mirrors, engine distress AV warning system.
<b>Optional Equipment</b>	<ul style="list-style-type: none"> <li>* Auxiliary hoist</li> <li>* Worklights boom mounted</li> <li>* 360° flashing light</li> <li>* Cab spotlight</li> <li>* Engine block heater</li> <li>* Hookblocks/headache balls</li> <li>* Tow winch - front mounted-maximum pull - 15,000 lbs. (6804 kg); maximum speed - 92 FPM (28m/min)</li> <li>* Spare wheel assembly</li> <li>* Tool kit</li> <li>* Pintle hook front/rear</li> <li>* High Speed Glide† system</li> <li>* Air conditioning (optional order)</li> <li>* Dual axis joystick controllers</li> <li>* Propane/diesel heater</li> <li>* LMI light bar</li> <li>* Emergency steer pump</li> <li>* Opening skylight with electric wiper</li> <li>* 360° positive swing lock</li> </ul>

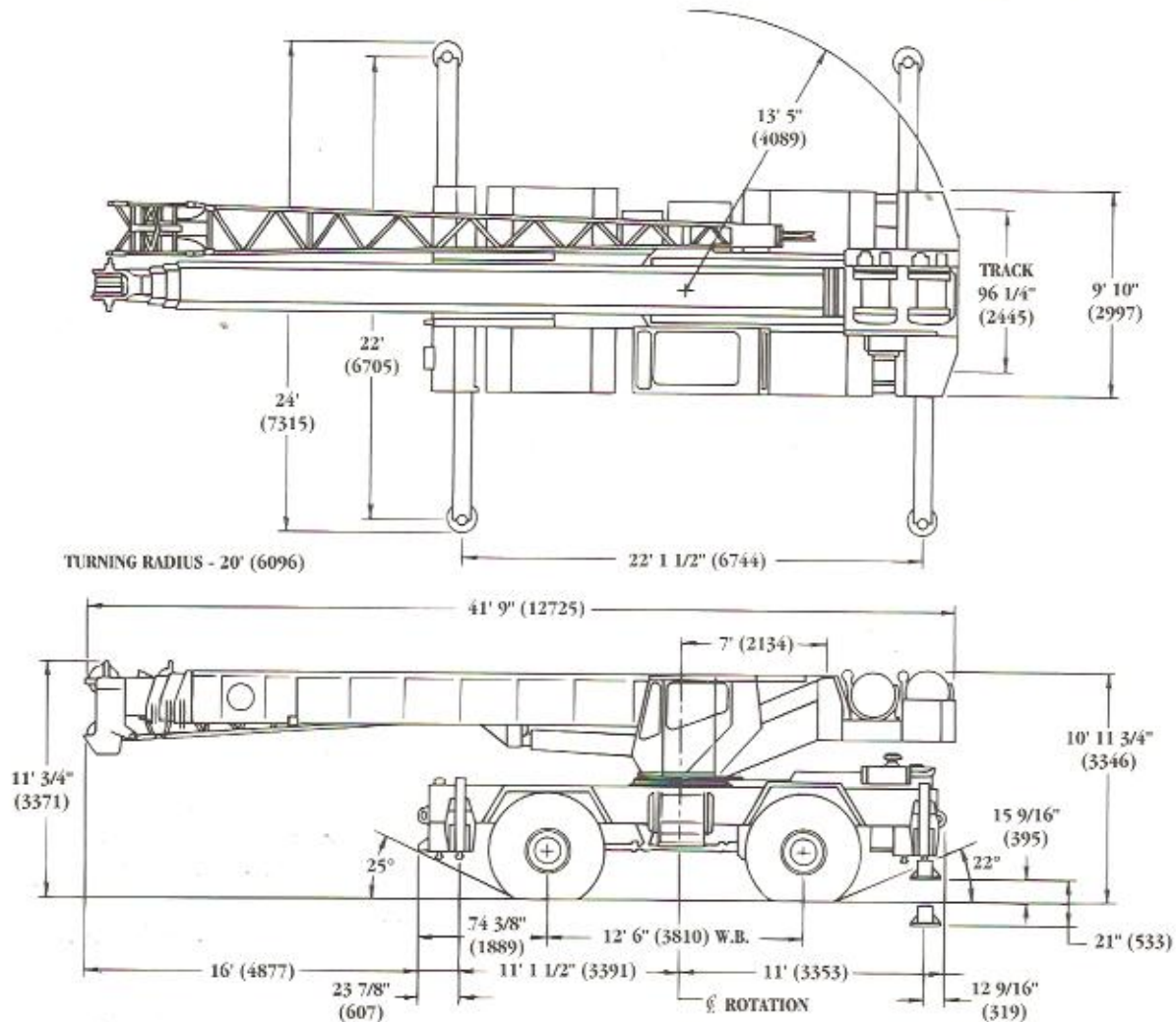
†Patented Grove feature or patent pending.

\*Denotes optional equipment.



# Dimensions

# RT700B Series



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