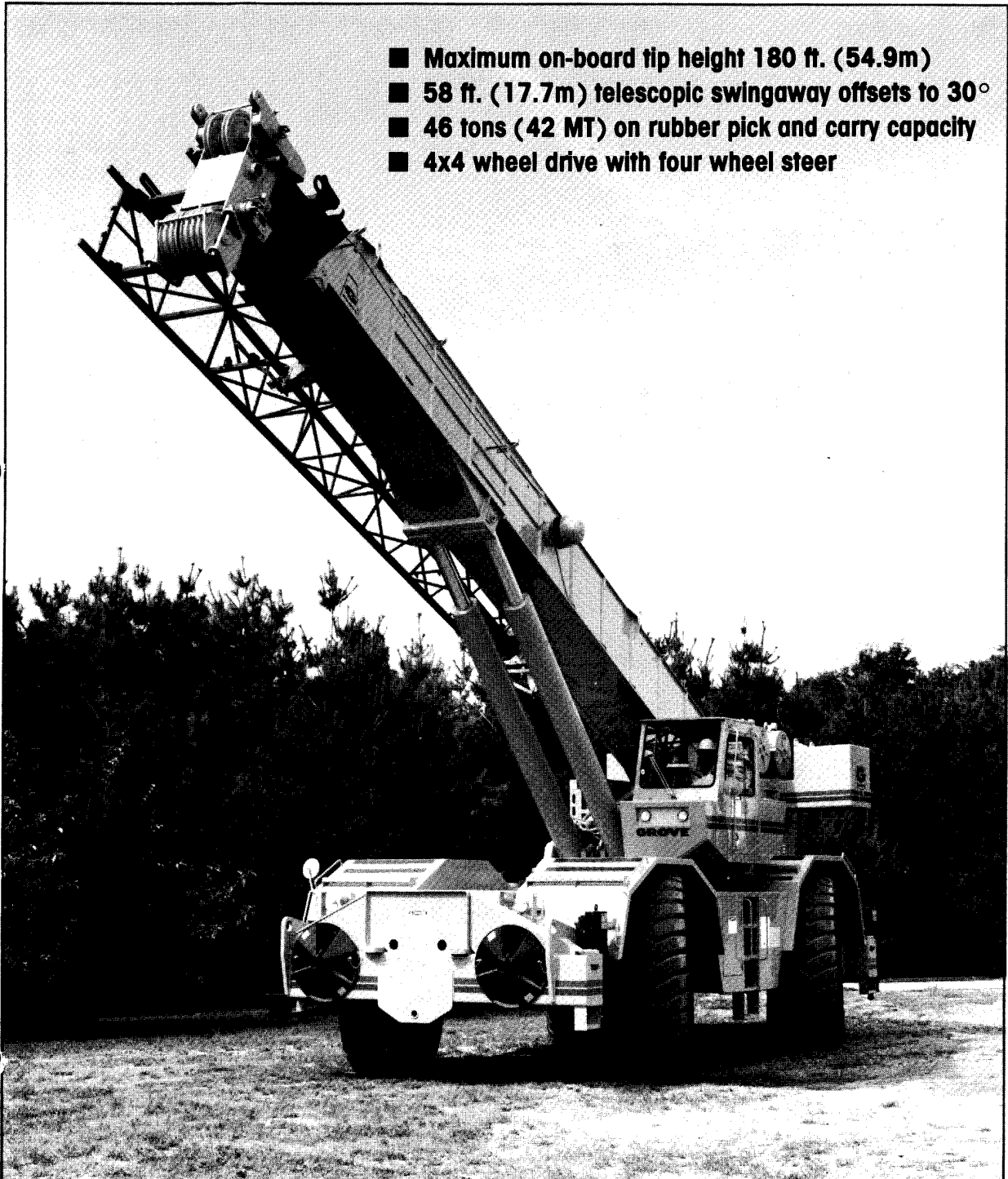




RT990

Rough-terrain hydraulic crane

- Maximum on-board tip height 180 ft. (54.9m)
- 58 ft. (17.7m) telescopic swingaway offsets to 30°
- 46 tons (42 MT) on rubber pick and carry capacity
- 4x4 wheel drive with four wheel steer



Superstructure specifications

Boom	36 ft. to 114 ft. (11.0m - 34.7m) total length four section Trapezoidal† full power boom. Telescoping sections slide on adjustable and replaceable Nylatron wear pads. Maximum Tip Height: 124 ft. (37.7m).
Swingaway Extension	33 ft. (10.0m) lattice swingaway boom extension stows alongside base boom section when not in use, offsettable at 2°, 15° or 30°. Maximum Tip Height: 155 ft. (47.2m).
Optional Telescopic Swingaway	33 ft.-58 ft. (10m-17.7m) telescopic lattice swingaway extension with offset links, offsettable at 2°, 15° or 30°. Stows alongside base boom section when not in use. Maximum Tip Height - 180 ft. (54.8m).
Optional Jib	14 ft. (4.3m) lattice sections combine with a 32 ft. (9.8m) tip section to provide 46 ft. (14m), 60 ft. (18.2m), 74 ft. (22.5m) and 88 ft. (26.8m) jib lengths. Jib is cable suspended and can be offset at 5°, 17° and 30°. Maximum Tip Height - 208 ft. (63.4m).
Boom Nose	Seven 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.
Boom Elevation	Two double acting hydraulic cylinders with integral holding valves provides elevation from -4° to 80°.
Anti-Two Device	Standard audio-visual warning device to alert operator of impending two-block condition with control lever lockout system. Also includes selective electronic display of boom angle and length with high and low angle presets.
Optional LMI	*Optional Load Moment Indicator provides display of boom angle, length, radius, tip height, relative load moment, permissible load and actual load with control lever lockout.
Cab	Full vision, all steel fabricated with accoustical lining and tinted safety glass throughout. Dash panel incorporates gauges for all engine functions. Other standard features include: hinged skylight, sliding left side door and sliding right side window, electric windshield wash-wipe, circulating air fan, fire extinguisher, seat belt. *Optional items: manual skylight wiper, propane heater/defroster.
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 hand operated 360° mechanical house lock operated from cab. Maximum speed: 2 RPM.

Counterweight	Removable, bolted to turntable mast.
HYDRAULIC SYSTEM	
Pumps	Six main gear pumps, combined capacity 254.9 GPM (964 LPM) driven by carrier engine through P.T.O. with pump disconnect.
Valves	Precision four way double acting control valves, 6 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 of 7/17/22.
Reservoir	375 gallon (1,419 L) with spin-on breather filter, external sight gauge, clean out access, strap mounted to frame.
Oil Cooler	Remote mounted with thermostatically controlled hydraulic motor driven fan.
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 and electronic drum rotation indicator.

		Main and *Auxiliary Hoist Grove H030B-26	
Make/Model		High Range	Low Range
Maximum single line speed	Bottom layer	426 FPM (130m/min)	213 FPM (65m/min)
	Intermediate layer	496 FPM (151m/min)	248 FPM (75m/min)
	Top layer	564 FPM (172m/min)	282 FPM (86m/min)
Maximum single line pull	Bottom layer	8,161 lbs. (3701 kg)	16,322 lbs. (7403 kg)
	Intermediate layer	7,028 lbs. (3187 kg)	14,056 lbs. (6375 kg)
	Top layer	6,172 lbs. (2799 kg)	12,344 lbs. (5596 kg)
Maximum permissible line pull w/5:1 F.O.S.		12,920 lbs. (5860 kg)	
Maximum rope stowage	832 ft. (254m) 3/4 in. (19mm)		
Hoist option	Hoist drum cable followers. Note: 800 ft. (244m) length of wire rope supplied with basic standard unit.		

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



Carrier specifications

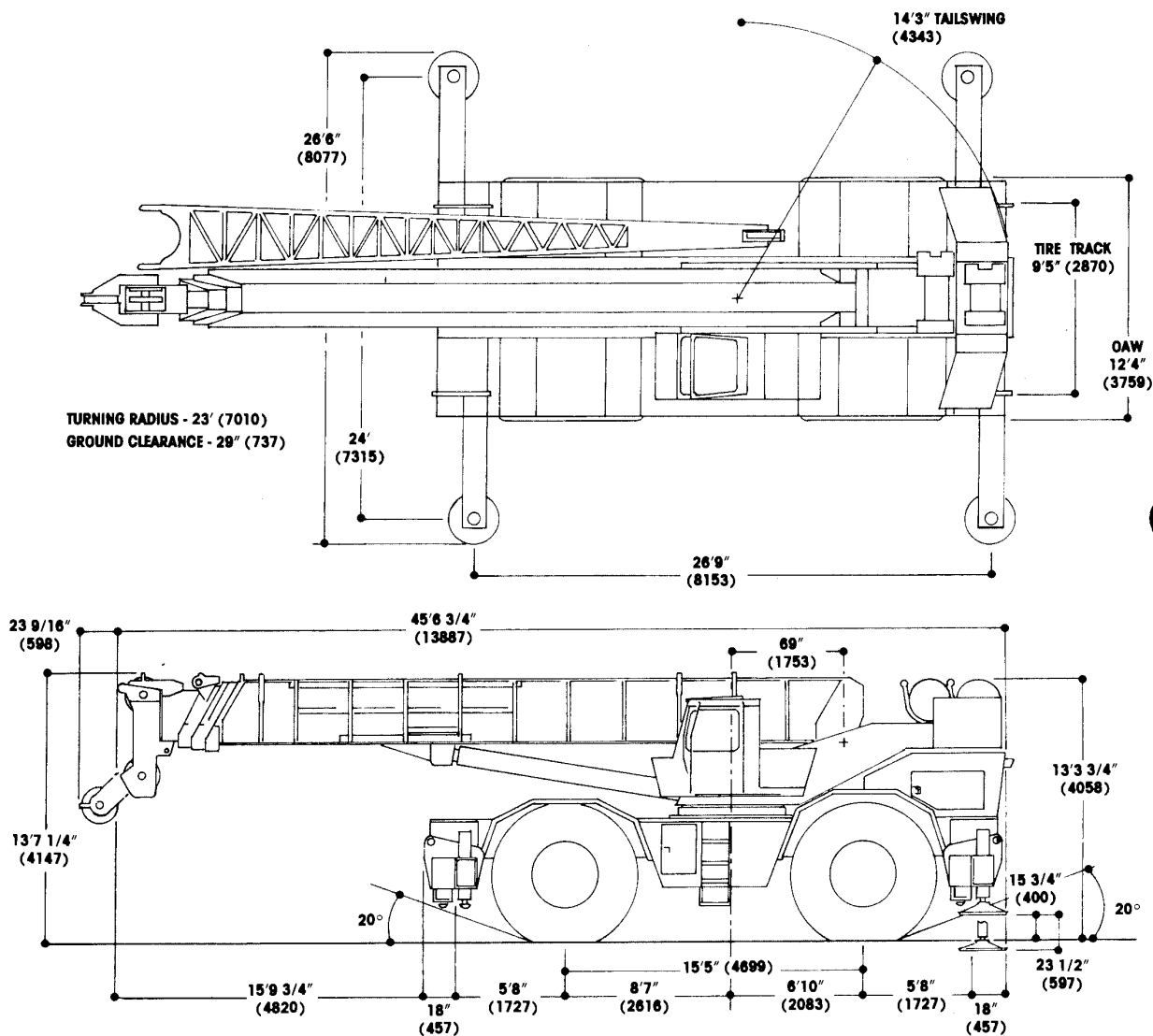
Frame	High strength alloy steel all welded box-type construction with integral outrigger housings and front/rear lifting, towing and tie down lugs.
Outrigger System	Hydraulic single stage double box telescopic beam and jack outriggers with integral holding valves. All steel fabricated quick release type outrigger floats, 30.5" (775mm) diameter.
Outrigger Controls	Located in cab on right side console requires two hand operation. Crane level indicator located in cab.
Engine	Detroit Diesel 6-71T six cylinder turbo-charged water cooled diesel, 280 bhp (209 kw) (Gross) @ 2,100 RPM. Maximum torque 757 ft. lbs. (105 kg/m) @ 1,400 RPM.
Optional Engine	CAT 3306TA six cylinder turbo-charged water cooled diesel, 262 bhp (195 kw) (Gross) @ 2,100 RPM. Maximum torque 740 ft. lbs. (102 kg/m) @ 1,400 RPM.
Optional Engine	Cummins NT-855 six cylinder turbo-charged water cooled diesel, 250 bhp (186 kw) (Gross) @ 2,100 RPM. Maximum torque 750 ft. lbs. (104 kg/m) @ 1,500 RPM.
Fuel Tank Capacity	100 gallons (379 L)
Electrical System	Four 12 volt - maintenance free batteries, 475 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 12" oscillation (305mm). 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. Oscillation lockout override control.
Tires	33.25 x 35 - 32 PR (E-3) Earthmover type, tubeless.
Brakes	Dual braking system, full air operating on all wheels. Spring-applied, air released parking brake operating on all wheels.
Lights	Full lighting package including turn indicators, head, tail, brake and hazard warning lights.
Maximum Speed	16.2 MPH (26.0 kph)
Maximum Gradeability	77.2% (Theoretical based on 140,000 lbs. (63,492 kg) GVW. 33.25 x 25 tires, pump disengaged.
Gross Vehicle Weight & Axle Loads	BASIC STANDARD MACHINE Front 70,050 lbs. (31,775 kgs) Rear 66,350 lbs. (30,046 kgs) G.V.W. 136,400 lbs. (61,871 kgs)
Miscellaneous Standard Equipment	Full width steel fenders, dual rear view mirrors, hookblock tiedown sling, electronic back-up alarm, light package, air dryer, tire inflation kit, hydraulic oil temperature gauge.
Optional Equipment	* Hookblocks * Spare wheel assembly * Pintle hook front/rear * Tow winch - front mounted * Worklights * Cab spotlight * Low oil pressure, high water temp. A/V warning system * Mechanical outrigger spinlocks * 360° rotating beacon * Engine block heater * Tool kit * Dual base boom mounted floodlights

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

Dimensions

RT990



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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 standard equipment.

GROVE MANUFACTURING COMPANY

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KIDDE

Shady Grove, Pennsylvania 17256-0021

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