

GROVE[®]

FULL HYDRAULIC SELF-PROPELLED CRANE

MODEL RT59S

15-Ton Capacity

FEATURES

- * 30,000 lbs. Capacity at 12 ft.
- * Turntable — mounted cab swings with the boom
- * 103 ft. Maximum tip height with jib
- * Hydraulic outriggers provide 16 ft. 3 in. spread. Beams and jacks are independently controlled from superstructure cab.
- * Four-wheel drive . . . four-wheel steer with four steering modes . . . four-wheel brakes.





SPECIFICATIONS

BOOMS — 28 ft. - 70 ft., 3 section, full power telescoping.

*24 ft. - 60 ft., 3 section, full power telescoping.

*24 ft. - 78 ft., 4 section, power telescoping, 2 full power and 1 power pinned section.

Boom telescope sections are individually controlled. Each boom section is supported on graphite impregnated nylatron wear pads. Side adjustable wear pads provided to eliminate metal to metal contact of inner boom sections. Pendulum boom angle indicator on cab side of boom. Integral holding valves on each telescope cylinder.

BOOM NOSE — Three sheaves mounted on heavy duty needle bearings. Removable pin type rope guards allow easy reeving. Rope dead end on one side of boom nose.

BOOM ELEVATION — Dual double-acting cylinders with integral holding valves; 0° to 75° elevation.

***JIBS** — 19 ft. "Stowaway" for 24 ft. - 60 ft. and 24 ft. - 78 ft. booms. 23 ft. "Stowaway" for 28 ft. - 70 ft. boom. All jibs have self-equalizing suspension and jib backstops. 19 ft. jib may be offset to 30°, 23 ft. jib to 26°.

SWING — Ball bearing swing circle, 360° continuous rotation. "Grove planetary swing" with automatic disc swing brake and cab controlled positive (plunger type) turntable lock. Swing speed 3.14 RPM.

CAB — Turntable mounted, full vision, all steel, fully enclosed with laminated safety glass windows throughout. Hinged skylight, left side door with lock, side and rear sliding windows with locks. Full length control levers, fully adjustable operator's seat. Complete engine instrumentation and driving controls. Combination hand and foot throttle. All crane superstructure and outrigger controls, propane heater (less tank), electric windshield wiper, domelight, front cab mounted work lights 2-3/4 lb. dry type fire extinguisher.

CAB INSTRUMENTATION — Engine oil pressure gage, engine water temperature gage, voltmeter, electric fuel gage, air pressure gage, transmission and torque converter oil temperature gage, engine hourmeter, low air pressure visual warning indicator.

OUTRIGGERS — Hydraulic, double-box integral with main frame; telescoping beams, enclosed vertical jacks with integral check valves and mechanical pin locks. Beams extend to 16 ft. 3 in. centerline to centerline. Independent or simultaneous control in-out-up-and-down. Outrigger controls in operator's cab. Sequence control arrangement eliminates accidental outrigger actuation.

MAIN FRAME — All welded construction with full depth longitudinals braced by crossmembers. Frame reinforced at critical points to insure a rigid turntable mounting.

TRANSMISSION AND TORQUE CONVERTER — Engine mounted converter, 2.91 stall ratio with PTO for hydraulic pumps. Remote mounted full powershift transmission with rear axle disconnect.

SPEEDS — 6 forward and 6 reverse.

TURNING RADIUS — 18 ft.

AXLES — Front: Planetary drive with dual steering cylinders mounted rigid to frame. Rear: Planetary drive with dual steering cylinders mounted to allow 0 in. to 9.5 in. oscillation.

OSCILLATION LOCKOUTS — Automatic hydraulic on rear axle. Allows oscillation only with boom over front.

SERVICE BRAKES — Full Air on all four wheels. Size: 20¼x4 Total Lining Area: 644 in² (161 in.² per wheel)

PARKING BRAKE — Front axle equipped with "Fail safe" spring set emergency and parking brakes.

STEERING — Front: Power assist hydraulic control. Rear: Full hydraulic, tiller bar control. Independent front and rear steer control allows maximum maneuverability.

TIRES — 16:00x24 - 16 ply loader-grader type, tubeless.
*20.5x25 - 20 ply wide base, earthmover type, tubeless.

HYDRAULIC SYSTEM —

RESERVOIR — 90 gallon capacity, all steel welded construction with integral baffles, dipstick and magnetic drain plug.

FILTER — Return line replaceable cartridge with by-pass protection. 10 micron rating.

PUMPS — 3 main gear pumps 112.5 GPM combined capacity. Separate pump for front steer - 18.7 GPM. Pump disconnect lever operated from carrier deck.

CONTROL VALVES — Precision four-way double-acting with integral load check, main and circuit relief valves. Three individual valve banks permitting simultaneous independent control of three crane functions. Maximum operating pressure 2500 PSI.

OIL COOLER — Full flow, fin and tube, oil to air.

POWER DISTRIBUTION — (Main hoist, auxiliary hoist); (Boom elevation, rear steer, main hoist boost, telescope mid); (Telescope fly, outrigger, swing) (Front steer)

MISCELLANEOUS STANDARD EQUIPMENT — Tool box and storage well, hydraulic and fuel step tanks.

ENGINE SPECIFICATIONS

MAKE & MODEL TYPE BORE & STROKE DISPLACEMENT HORSEPOWER (NET) GOVERNED RPM TORQUE (NET) ELECTRICAL SYSTEM COMBUSTION SYSTEM	Cummins Diesel V-504C 8 Cylinder OHV 4.625 in. x 3.75 in. 504 cu. in. 142 @ 2600 RPM 2600 RPM 287 lbs. ft. @ 2600 RPM 12 Volt, Neg. Ground 4 Cycle, Naturally Aspirated	*Ford Gas 391 V8 Cylinder OHV 4.05 in. x 3.79 in. 391 cu. in. 168 @ 2800 RPM 2800 RPM 346 lbs. ft. @ 2100 RPM 12 Volt, Neg. Ground 4 Cycle, Naturally Aspirated	*Detroit Diesel 4-53N 4 Cylinder OHV 3.875 in. x 4.50 in. 212 cu. in. 112 @ 2800 RPM 2800 RPM 257 lbs. ft. @ 1800 RPM 12 Volt, Neg. Ground 2 Cycle with Blower	*Caterpillar 3145 Diesel 8 Cylinder OHV 4.5 in. x 4.1 in. 522 cu. in. 117 @ 2800 RPM 2800 RPM 299 lbs. ft. @ 1600 RPM 12 Volt, Neg. Ground 4 Cycle, Naturally Aspirated
COOLING SYSTEM FUEL CAPACITY ALTERNATOR BATTERY AIR CLEANER AIR COMPRESSOR HOURMETER	Liquid 50 Gallons 55 Amp, 12 Volt (2) 204 A.H., 12 Volt Dry Type 13.2 CFM Yes	Liquid 50 Gallons 38 Amp, 12 Volt (1) 62 A.H., 12 Volt Oil Bath 7.25 CFM Yes	Liquid 50 Gallons 55 Amp, 12 Volt (2) 204 A.H., 12 Volt Dry Type 7.25 CFM Yes	Liquid 50 Gallons 55 Amp, 12 Volt (1) 275 A.H., 12 Volt Dry Type 12 CFM Yes

WORKING WEIGHTS

Standard Machine with	GVW (lb.)	Front (lb.)	Rear (lb.)
28 to 70 ft. Boom	47,980	28,620	19,440
24 to 60 ft. Boom	46,820	24,160	22,660
24 to 78 ft. Boom	48,425	27,400	21,025

NOTE: Weights may vary plus or minus 3% due to manufacturing tolerances.



SPECIFICATIONS

HOIST SPECIFICATIONS

DESCRIPTION: Power up and down, equal speed planetary reduction with integral automatic brake.		
HOIST DATA	MAIN HOIST Grove Model 15H-16	AUXILIARY HOIST Grove Model 15S-11
Drum Dimensions	12 in. diameter 16 in. length 17.5 in. flange dia.	12 in. diameter 11 in. length 17.5 in. flange dia.
Performance	Single Line Speed 460FPM (Max.) Single Line Pull 8880 lb. (Max.)	Single Line Speed 255FPM (Max.) Single Line Pull 8880 lb. (Max.)
Drum Rope Storage Capacity	**720 ft. of ½ dia. Rope (Max.)	490 ft. of ½ dia. Rope (Max.)
Permissible Single Line Rope Pull	½ in. 6x37 Class - 7200 lb. ½ in. 19x7 Class - 6150 lb.	½ in. 6x37 Class - 7200 lb. ½ in. 19x7 Class - 6150 lb.

**6th layer of rope not recommended for hoisting operations.

SPEED AND GRADEABILITY

Forward Drive	Transmission Range	Gear Shift	Maximum Speed (MPH)	Gradeability @ Stall (%)	Tractive Effort at Stall (lbs.)
4 Wheel Drive	Low	1st	3.1	85	33,032
4 Wheel Drive	Low	2nd	5.8	39.5	17,449
4 Wheel Drive	Low	3rd	14.7	12.3	6,392
2 Wheel Drive	High	1st	6.8	30.2	13,890
2 Wheel Drive	High	2nd	12.8	14.4	7,325
2 Wheel Drive	High	3rd	27.1*	4.0	2,688

NOTE: Performance based on 45,000 GVW and standard SAE engine rating conditions using standard tires, transmissions and axles. Performance data may vary plus or minus 10% due to variations in engine performance and vehicle weights.

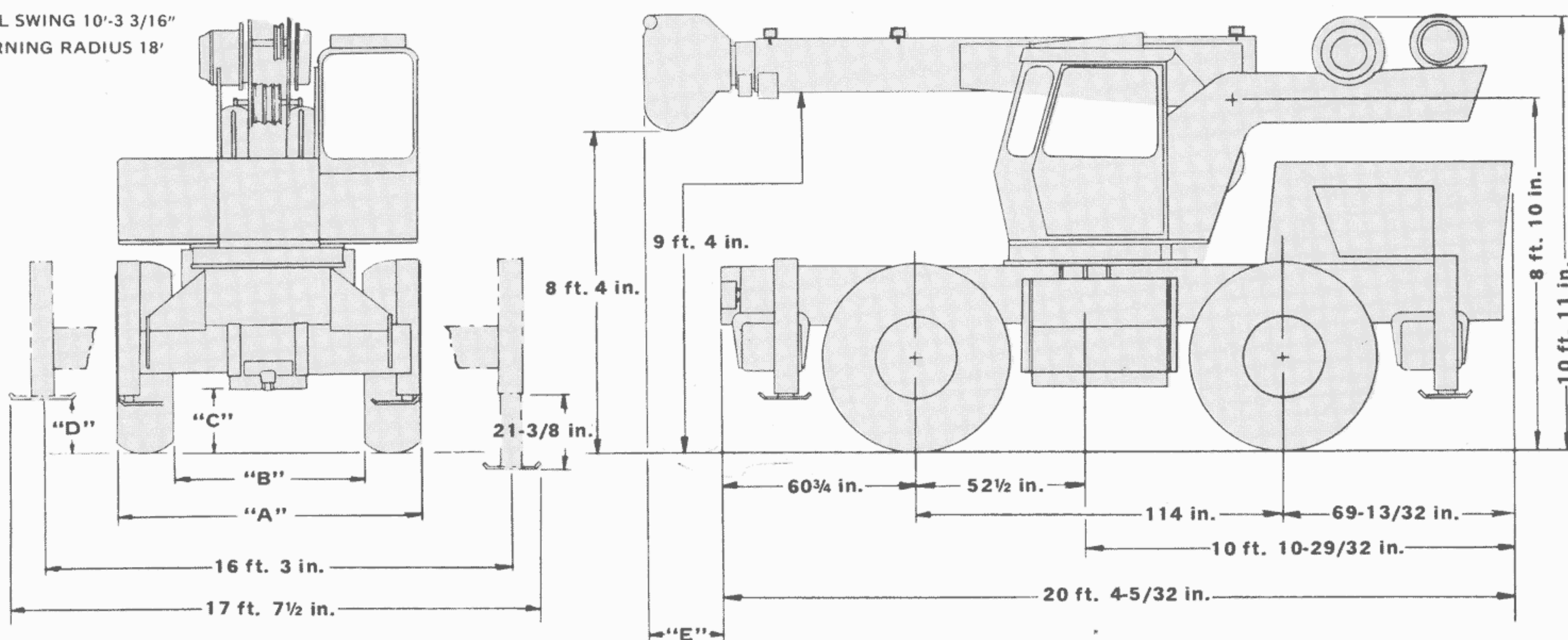
*Max speed obtained with GMC 4-53 engine & crane operating on positive grade.

DIMENSIONS

SIDE VIEW	"E"
24 - 60 ft. Boom	11 ft. 11 5/16 in.
28 - 70 ft. Boom	15 ft. 11 5/16 in.
24 - 78 ft. Boom	11 ft. 9 in.

FRONT VIEW TIRE SIZE	"A"	"B"	"C"	"D"
16:00 x 24	95.64 in.	59.36 in.	17 in.	13 7/16 in.
20:5 x 25	103.09 in.	59.15 in.	17 3/4 in.	14 1/4 in.

TAIL SWING 10'-3 3/16"
TURNING RADIUS 18'



*DENOTES OPTIONAL EQUIPMENT.

Constant improvement and engineering progress makes it necessary that we reserve the right to make specification, equipment and price changes without notice.

MORE VERSATILE MORE PROFITABLE for a wider variety of lifting & handling jobs!

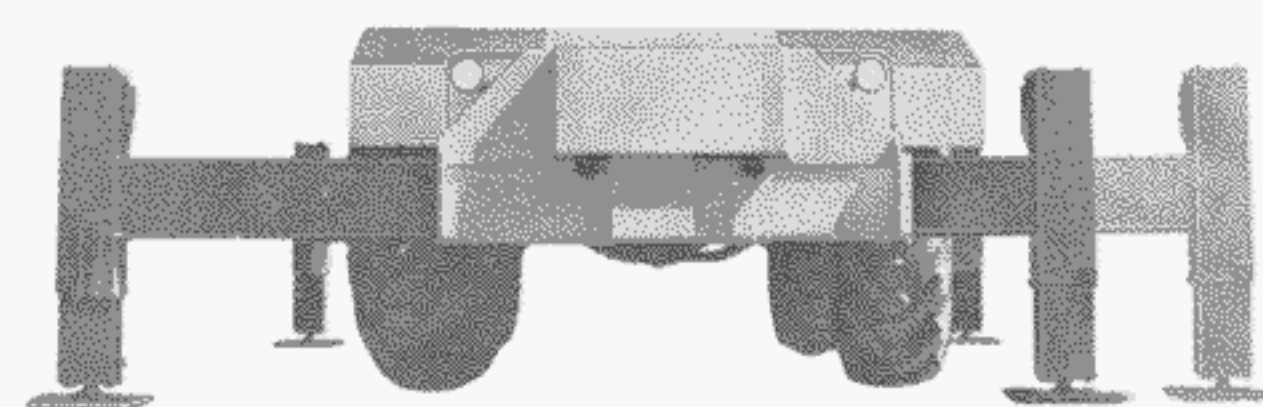
THE PREFERENCE FOR GROVE CRANES among profit-minded users reflects the users need for the versatility and advanced design engineering offered in all Grove Hydraulic Cranes. They add up to profit-making performance . . . a measurable value that tells him he is getting his money's worth on his Grove Crane investment. That's why the smart crane buyers have made Grove their **NUMBER ONE CHOICE**.

A FULL LINE OF HYDRAULIC CRANES . . . in addition to a full line of rough terrain cranes, Grove also offers a complete line of carrier-mounted cranes including an 80-ton model with a boom tip height of 206'. Ask your Grove Distributor for details.



HYDRAULIC CRANES

GROVE MANUFACTURING COMPANY
A Division of Walter Kidde & Company, Inc.
Shady Grove, Pa. 17256



Rugged box-beam type hydraulic outriggers with vertical long-thrust jacks are individually controlled and may be set to match operating situations.

ADDITIONAL FEATURES

BOOM & JIB OPTIONS

Main Boom	Main Boom Tip Height	Jib Length	Tip Height with Jib
*24 - 60 ft.	66 ft.	19 ft.	85 ft.
28 - 70 ft.	76 ft.	23 ft.	97 ft.
*24 - 78 ft.	85 ft.	19 ft.	103 ft.

- CHOICE OF 4 ENGINES
- TWO TIRE OPTIONS

*Optional equipment

