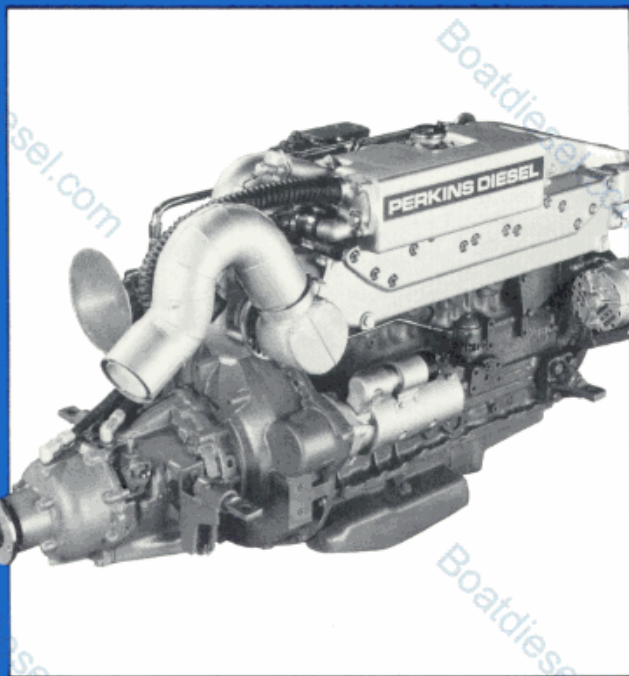


Perkins MARINE ENGINES

T6.3544(M)



Range 4 165

Range 4 diesels are no ordinary marine diesel engines. They are power packages built for performance and designed to be the best marine engines ever built with excellent power to weight ratio, quieter operation, space efficient low profile design and excellent service accessibility. All these features are designed to provide the finest power for your pleasure.

165 bhp

General Data

Bore and Stroke: 3.875 in x 5.0 in

No. of cylinders: 6, in-line

Displacement: 354.0 cu in

Cycle: 4

Aspiration: Turbocharged

Intermittent shaft horsepower: 145 shp

Combustion system: Direct injection

Compression ratio: 15.5:1

Rotation: LH

Fuel pump: Rotary distributor type

Governing: Mechanical

Cooling: Heat exchanger fresh water cooled

Weight: 1262 lb

Electrical: 12 volt, 61 amp alternator

Power take off: Full engine torque from front end extension shaft

Installation angle: 0° to 17°

*Engine as delivered from factory will be set to produce the intermittent horsepower rating.

 **Perkins**
Engines

T6.3544(M) MARINE DIESEL

Design Features and Standard Equipment

Cylinder Block—High-strength cast iron alloy for long engine life. Cylinder block is strengthened with additional ribbing and the introduction of an integral push rod chamber, adding rigidity, reducing engine noise and vibration for longer engine life and greater reliability.

Cylinder Liners—Press-fit, centrifugally-cast iron dry-type liners. Easily replaceable.

Cylinder Heads—High strength cast iron alloy with fully-machined intake and exhaust ports for increased performance. Dual valve springs resist heat and corrosion. Exhaust valves have hardened chrome alloy seats for trouble-free operation.

Combustion System—Direct fuel injection system into toroidal combustion chamber in the piston crown. Specially developed to meet stringent exhaust emission requirements. Ensures fast starting, maximum fuel economy and top performance.

Crankshaft—Heavy-duty forged chrome/molybdenum steel with special "tuffrided" and polished finish for improved efficiency. Statically and dynamically balanced.

Main Bearings—Seven prefit precision main bearings, thin-walled, steel-backed, aluminum/tin-lined. Retained by heavy-duty cast iron bearing caps.

Pistons and Rings—Aluminum alloy controlled expansion pistons with steel skirt inserts. Three rings—two compression, one scraper. The pistons are pressure oil-cooled. Designed to reduce noise and improve fuel economy.

Connecting Rods—Molybdenum steel alloy with high-strength H-section shank. Fitted with precision aluminum/tin-lined big-end bearings and lead/bronze small-end bushings. Fully floating piston pins.

Valves—High silicon chromium valve steel intake valves and chromium manganese nickel valve steel exhaust valves for excellent heat resistance and long in-service life.

Camshaft—Heavy-duty cast iron alloy with case-hardened cams. Four pressure-lubricated supporting bearings. Cams and tappets splash-lubricated.

Timing Drive—Positive drive gear train with precision-machined all steel helical gears for trouble-free performance. Pro-

vision is made for precise fuel pump timing adjustment.

Patented "Multicooler"—A new concept in component packaging. The corrosion resistant aluminum casting embodies inlet manifold, exhaust manifold, heat exchanger, header tank and thermostat housing. Exhaust manifold is cooled by engine fresh water and the inlet manifold is air-jacketed to prevent heat transfer from the hot water. The one piece high-strength casting simplifies servicing, reduces the overall weight of the engine, and makes it more compact.

Fuel System—Rotary distributor-type fuel injection pump assures even fuel distribution to all cylinders for smooth performance from idle to full power. Automatic advance and retard mechanism ensures fast starts and even acceleration throughout the entire speed range. Injectors are easily accessible on the cylinder head for maintenance.

Turbocharger—Designed to meet marine specifications. Low-silhouette, compact design. Exceptionally quiet and cooled by engine fresh water.

EGA Coolers—Assembly consisting of engine oil cooler and gearbox oil cooler. Each unit may be separated for service. Raw water is circulated through the tubes.

Lubrication System—High capacity, full-pressure feed, rotary pump-driven lubrication system. Control valve in-pump body maintains constant optimum pressure for efficient lubrication. Full-flow, spin-on no-slip filter.

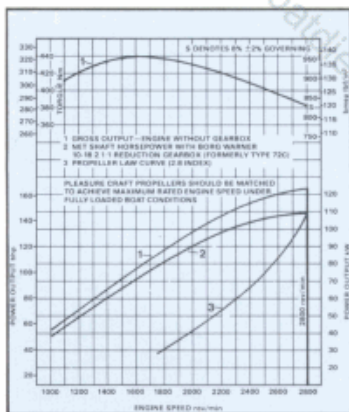
Cooling System—Thermostatically controlled. Engine-mounted fresh and raw water pumps. Full-depth, full-circumference cylinder circulation for efficient cooling. Twin thermostats for added security.

Electrical Equipment—12-volt, 61-amp alternator and 12-volt Delco starter mounted as standard. Plug-in wiring harness.

Power Take-Off Provision—Front end of crank pulley accepts stub shaft for P.T.O.

Engine Mounts—Twin type flexible rubber "trunnion" mountings at rear allow greater ease of installation and reduced costs. The mounting provides adjustment to accept a variety of mounting positions.

165 bhp at 2800 rpm



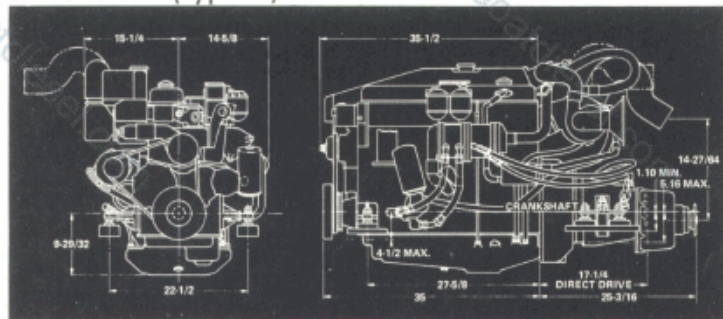
Range 4 165 Performance

These graphs indicate the performance of the Perkins Range 4 165 T6.3544(M) diesel engine with fuel system, water pumps, lubricating oil pump, and air cleaner in place. Optional equipment power losses are not included in these ratings.

Optional Equipment

- Front Power Take-off—2" diameter x 3 1/2" extension shaft bolted to serrated steel crankshaft pulley allows full engine torque axial accessory drives. Single- and dual-groove pulleys available.
- Marine Gears—Warner T72 series for pleasure boats and light commercial boats. Equivalent Twin Disc or Hurth gears also available.
- Marine Gear Reductions—up to 3:1 ratio.
- Exhaust Outlet—Dry exhaust kit.
- Deluxe Instrument Panel—Includes oil pressure gauge, water temperature gauge, voltmeter, tachometer and hourmeter, on-off key switch, push button start, push button stop and instrument lights controlled by on-off switch.
- Wiring Extension Harnesses—Available in 10 ft., 20 ft. and 30 ft. lengths, panel to engine harness.
- Safety Features—Electrically operated stop solenoid complete with all brackets.
- Engine Warning System—Safety alarm switches for oil press. and water temp.
- Crankcase Oil Drain—Sump pump kit.
- Tachometer Drive—Mechanical drive.

Dimensions (typical)



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