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, quiet 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: 4, inline
Displacement: 354 cu.in
Cycle: 4
Aspiration: Turbocharged
*Intermittent shaft horsepower: 145 bhp
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.
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 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 with integral 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 “ruffled” and polished finish for improved efficiency. Statically and dynamically balanced.

Main Bearings—Seven parallel precision main bearings, thin-walled, steel-backed, chromium-plated. Retained by heavy duty carbon steel bearing caps.

Pistons and Rings—Aluminum alloy controlled expansion pistons with steel ring inserts. Three rings—two compression, one scraper. The pistons are precision 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/linen-lined big-end bearings and lead/bronze small-end bushings. Fully floating piston pins.

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

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

Timing Drive—Positive drive gear train with precision-machined all-steel helical gears for trouble-free performance. Provision is made for precise fuel pump timing adjustment.

Patented "Multicooler"—A new concept in component packaging. The corrosion-resistant aluminum casting embodies intake manifold, exhaust manifold, heat exchanger, header tank and thermostat housing. Exhaust manifold is cooled by engine fresh water and the inlet manifold is all-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.

E.G.A. Coolers—Assembly consisting of engine oil cooler and gearbox oil cooler. Each unit may be arranged 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, high-capacity oil filter.


Power Take-Off Provision—Front end of crankshaft pulley accepts stub shaft for P.T.O. Engine Mounts—Twin type flexible rubber "laminated" mountings at rear allow greater ease of installation and reduced costs. The mounting provides adjustment to accept a variety of mounting positions.

Range 4 165

Performance

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

Optional Equipment

- Front Power Take-off—2½ inch diameter x 3½ inch extension shaft bolted to serrated steel crankshaft pulley allows full engine torque axial accessory drives. Single and double-groove pulleys available.
- Marine Gear—Warner 72 series for pleasure boats and light commercial boats. Equivalent Twin Disc or North series also available.
- Exhaust Outlet—Dry exhaust kit.
- Deluxe Instrument Panel—Includes oil pressure gauge, water temperature gauge, voltmeter, tachometer and hour-meter, on-off key switch, push button stop and instrument lights controlled by on-off switch.
- Warning Extension Harness—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, water and temperature.
- Crankcase Oil Drain—Sump pump kit.
- Tachometer Drive—Mechanical drive.