## MARINE ENGINE

<table>
<thead>
<tr>
<th></th>
<th>TA 85°F (30°C) Water to A/C</th>
<th>BHP (metric)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum (Flywheel)</td>
<td></td>
<td>360</td>
</tr>
<tr>
<td>@ 2200 RPM</td>
<td></td>
<td>365</td>
</tr>
<tr>
<td>Intermittent (Flywheel)</td>
<td></td>
<td>300</td>
</tr>
<tr>
<td>@ 2200 RPM</td>
<td></td>
<td>304</td>
</tr>
<tr>
<td>Continuous (Flywheel)</td>
<td></td>
<td>240</td>
</tr>
<tr>
<td>@ 2000 RPM</td>
<td></td>
<td>243</td>
</tr>
<tr>
<td>Continuous (Shaft)</td>
<td></td>
<td>233</td>
</tr>
<tr>
<td>@ 2000 RPM</td>
<td></td>
<td>236</td>
</tr>
<tr>
<td>Approx. Fuel Consumption</td>
<td></td>
<td>12.7</td>
</tr>
<tr>
<td>@ Full Cont. Shaft HP</td>
<td></td>
<td>48.2</td>
</tr>
</tbody>
</table>

*For Maximum & Intermittent Applications, consult Factory*

## DESCRIPTION

Four stroke cycle, Diesel
Number of cylinders: In-Line 6
Bore and stroke: inches: 4.75 x 6.00
millimeters: 121 x 152
Displacement: cu. in.: 638
liters: 10.5
Low idle speed: 650 RPM
Engine Rotation: SAE Standard
Approximate dry weight: lb: 2865
kg: 1300
Engine: 780
Marine gear: 354
Total: 3645
1650
STANDARD EQUIPMENT INCLUDES*:

- Air Cleaner, Single-Stage, dry, round-type
- Breather, Crankcase
- Control, Fuel Ratio
- Cooler, Lubricating Oil
- Filters, Fuel, Lubricating Oil
- Flywheel and Flywheel Housing SAE No. 1
- Gauge, Fuel Pressure
- Governor, Hydra-mechanical
- Lifting Eyes
- Paint, Caterpillar yellow
- Pumps, Fuel Priming, Fuel Transfer
- Pumps, Water, Auxiliary, Sea Water, Gear-driven, Rotary, Self-Priming (not included with keel cooling arrangement)
- Auxiliary, Fresh Water, Gear-driven, Centrifugal, Non-Self-Priming (separate circuited engine only)
- Jacket Water, Gear-driven, Centrifugal
- SAE Standard Rotation
- Service Meter
- Supports
- Thermostats and Housing
- Variable Timing, automatic
- Vibration Damper
- Cooler, Marine Gear Oil
- Drive, Tachometer, SAE Standard
- Electric Starting and Charging Alternator
- Gear, Reverse and Reduction, Twin Disc MG509, includes shaft flange.
- Glow Plugs, 24-volt
- Heat Exchanger, installed, fixed tube bundle (not included for keel cooling)
- Manifolds, Exhaust, dry with watercooled jackets
- Tank, Expansion

*Option of Engine only can be specified

ATTACHMENTS

- Air cleaner service indicator.
- Engine mounted controls, positive locking, left-side, vernier option, remote actuated controls, single cable left-side, remote mounted controls
- Solenoid shut-off control, for use with or without Woodward PSG governor.
- Single and twin lever pilot house controls, cable and fittings.
- Exhaust elbow, 90°, water cooled exhaust elbows.
- Mufflers for horizontal and vertical installation.
- Electric gauges, oil pressure and water temperature, mechanical hour meter gauge for instrument panel mounting, dual tachometer drive.
- Engine mounted and pilot house mounted instrument panels, for single and twin engine installations, flexible shafting.
- Auxiliary drive, gear driven.
- Front enclosed clutch, Twin Disc, front end stub shaft.
- Alarm switches, for oil pressure and water temperature.
- Air starting, air compressor, air receiver and reduction valve.
- Battery sets, charging generators and alternators.
- Bilge pump drive, bilge and deck washing pump, oil pan pump.
STANDARDS:

GENERAL: All BHP ratings are at SAE J816 Standard conditions — 29.38 in Hg (746 mm) and 85°F (30°C). All HP (Metric) ratings are at DIN 6270 Standard conditions — 736 mm (28.97 in Hg) and 20°C (68°F).

Shaft ratings are net output ratings; i.e., the capabilities of the engine equipped with air cleaners, fuel, lube oil, jacket water pumps and marine gear.

INTERMITTENT is the horsepower and speed capability in applications having variable speed and/or load requirements.

CONTINUOUS is the horsepower and speed capability that can be utilized without interruption or load cycling.

OTHER RATINGS: Published intermittent and continuous ratings are a general guide for worldwide use over a broad application range. Other ratings, yielding higher performance and economic return, are available to meet the requirements of particular application.

FUEL FACTS: Fuel consumption applies to standard marine engine based on fuel oil having a gross heat value of 19,500 BTU per pound (10,830K-cal/Kg) and weighing 7.12 pounds per U.S. gallon (855 gm/lt).

MARINE GEAR SPECIFICATIONS

TWIN-DISC MG509

☐ Adjustment-free oil-bathed multiple-disc sintered metal clutches . . . hydraulically controlled . . . separate clutch pack for forward and reverse.

☐ Gears in constant mesh, full power for both forward and reverse duty . . . twinning flexibility

☐ Lubricant strained and cooled before entering pressurized system

☐ Hardened, ground and honed spur-tooth gears.

☐ Come-Home lock-up feature.

☐ Warranted by Caterpillar.

☐ Certification by major marine classification societies is available.

☐ Auxiliary-power engine configurations can be specified. Consult your application specialist.

Materials and specifications are subject to change without notice.