C12 Marine Propulsion Engine Commercial Applications



ENGINE SPECIFICATIONS

| CONFIGURATION | In-line 6, 4-stroke cycle diesel | BORE x STROKE | 130 mm x 150 mm / | | |
|--------------------|----------------------------------|---|-----------------------------|--|--|
| EMISSIONS | IMO I, IMO II | | 5.1 in x 5.9 in | | |
| | | REFILL CAPACITY | 28 L (7.5 gal) | | |
| RATED ENGINE SPEED | 1800, 2100, 2300 rpm | LUBE OIL SYSTEM W/ OIL FILTER CHANGE | | | |
| DISPLACEMENT | 12 L (732 cu in) | OIL CHANGE INTERVAL | 250 hrs | | |
| ASPIRATION | Turbocharged - aftercooled | ROTATION | Counterclockwise | | |
| GOVERNOR | Electronic | (from flywheel end) | | | |
| FLYWHEEL HOUSING | SAE No. 1 (113 teeth) | COOLING | Heat exchanger and combined | | |

KEY FEATURES & BENEFITS

- Advanced electronically controlled unit injection fuel system, resulting in an environmentally friendly engine with
 outstanding performance and fuel economy
- Ease of serviceability and maintenance
- Redesigned exhaust manifold provides a smoother passage for improved exhaust gas flow to the turbocharger which leads to
 more usable energy and lower exhaust temperatures.
- Global dealer network for unparalleled support
- Wide range of optional equipment to meet your commercial or pleasure craft needs.
- Easy upgrade from the 3196 engines with the same footprint, physical size and connection points

STANDARD EQUIPMENT

- Water-cooled turbocharger and exhaust manifold
- Electronic diagnostics and fault logging
- Gear-driven sea water pump (self-priming)
- Corrosion-resistant sea water aftercooler
- 12V or 24V electrical system
- Engine oil cooler
- Primary fuel filters
- Combined circuit keel cooling or integrated heat exchanger
- RH and LH locations service options for fuel and oil filters, as well as dipstick location for easily accessible service
- Compatible with Cat® displays
- Electronic control system has additional capacity for extra capabilities

OPTIONAL ATTACHMENTS

- Alternators 24V / 60 or 105 amp, 12V / 105 amp
- Transmission gear oil cooler (engine mounted for HEX)
- Additional engine and transmission sensor packages
- "Plug and play" instrument panels and montioring for engine operating parameters
- Electric starting motors 12V or 24V
- Air starting motor
 - Jacket water heater
 - Fuel cooler
 - PTO Drives V-belt pulley stack, stub shaft

RATINGS & FUEL CONSUMPTION

IMO II

| Rating | mhp | bhp | bkW | rpm | U.S. g/h | g/bkW-hr | IMO | U.S. EPA | EU | China |
|--------|-----|-----|-------|------|----------|----------|-----|----------|----|-------|
| А | 345 | 340 | 253.5 | 1800 | 16.1 | 204.4 | П | NC | NC | NC |
| В | 390 | 385 | 287 | 1800 | 18.0 | 201.9 | П | NC | NC | NC |
| C | 460 | 454 | 338.5 | 2100 | 21.3 | 202.2 | П | NC | NC | NC |
| C | 498 | 491 | 366 | 2300 | 23.3 | 205.0 | I | NC | NC | NC |
| D | 578 | 570 | 425 | 2300 | 27.0 | 204.9 | I | NC | NC | NC |
| E | 608 | 600 | 447.5 | 2300 | 28.4 | 204.0 | I | NC | NC | NC |
| Е | 669 | 660 | 492 | 2300 | 33.0 | 215.6 | П | NC | NC | NC |
| E | 715 | 705 | 526 | 2300 | 35.0 | 214.0 | П | NC | NC | NC |

Rating Definitions:

A Rating (Unrestricted Continuous): Typical Applications: For Vessels operating at rated load and rated speed up to 100% of the time without interruption or load cycling (80% to 100% load factor).

Typical operation ranges from 5000 to 8000 hours per year.

B Rating (Heavy Duty): Typical applications: For vessels operating at rated load and rated speed up to 80% of the time with some load cycling (40% to 80% load factor).

Typical operation ranges from 3000 to 5000 hours per year.

C Rating (Maximum Continuous): Typical applications: For vessels operating at rated load and rated speed up to 50% of the time with cyclical load and speed (20% to 80% load factor).

Typical operation ranges from 2000 to 4000 hours per year.

D Rating (Intermittent Duty): Typical applications: For vessels operating at rated load and rated speed up to 16% of the time (up to 50% load factor). Typical operating ranges from 1000 to 3000 hours per year.

E Rating (High Performance): Typical applications: For vessels operating at rated load and rated speed up to 8% of the time (up to 30% load factor). Typical operation ranges from 250 to 1000 hours per year.

ENGINE DIMENSIONS & WEIGHT

| LENGTH | 62.0 in / 1574 mr | n | | | | |
|-------------------------------|-------------------|-----------|----------|------------|-------|----------------|
| HEIGHT | 39.5 in / 1005 mr | n | | | | |
| WIDTH | 38.1 in / 969 mm | | | | | <u>Bft</u> |
| DRY WEIGHT | 2588 lb / 1174 kg | | | | | |
| | | | | Right Side | Front | |
| | | | | 8 T | 03 | Q |
| | | | [01] | | | - ; [01] |
| Preliminary Engine Dimensions | | | | | | - |
| (1) Lenght to Flyv | vheel Housing | 1573.9 mm | 61.96 in | | | |
| (2) Width | | 968.6 mm | 38.13 in | | | |
| (3) Height | | 1008.7 mm | 39.71 in | | | |
| Weight, Net Dry (| approx) | 1174 kg | 2,588 lb | | | |

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