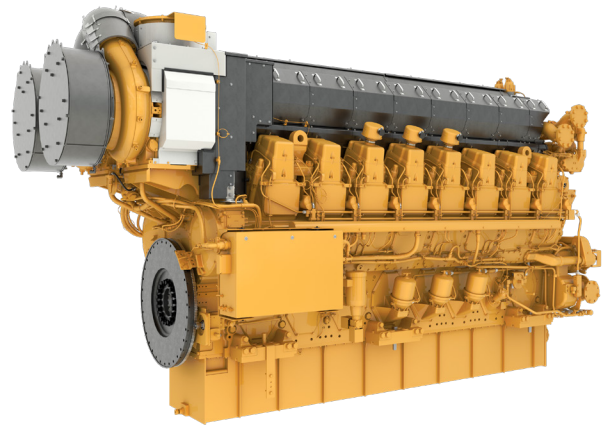


# C280

## Marine Propulsion Engine Commercial Governmental Applications



### ENGINE SPECIFICATIONS

|                           |                               |  |                                       |
|---------------------------|-------------------------------|--|---------------------------------------|
| <b>CONFIGURATION</b>      | Vee 16, 4-Stroke Cycle diesel | <b>BORE X STROKE</b>   | 280 mm x 300 mm / 11.0 in x 11.8 in   |
| <b>EMISSIONS</b>          | IMO II                        | <b>REFILL CAPACITY<br/>LUBE OIL SYSTEM<br/>W/OIL FILTER CHANGE</b> | 1200 L (317 gal)                      |
| <b>RATED ENGINE SPEED</b> | 1000 rpm                      | <b>OIL CHANGE INTERVAL</b>   | 900 hours                             |
| <b>DISPLACEMENT</b>       | 296 L (18,062 cu in)          | <b>ROTATION<br/>(FROM FLYWHEEL END)</b>                            | Counterclockwise and counterclockwise |
| <b>ASPIRATION</b>         | Turbocharged - aftercooled    | <b>COOLING</b>   | Separate circuit aftercooler          |
| <b>GOVERNOR</b>           | A4 ECU                        |  |                                       |
| <b>FLYWHEEL HOUSING</b>   | N/A                           |  |                                       |

### KEY FEATURES & BENEFITS

- Advanced combustion design uses the optimum configurations and cylinder geometry
- Contains the latest combustion iron to minimize visible smoke while meeting IMO-II requirements
- Electronic governing control unit minimizes fuel consumption and monitors engine operating parameters
- Updated head design for improved thermal capability to meet the increased rating (6.5 MW)
- Updated air shut off for compatibility with higher compressor outlet temperatures
- Optimized nozzle geometry and electronic injection control for improved fuel delivery
- Updated thermal management heat shields to meet SOLAS requirements and improve durability.
- Improved part load/part speed performance
- Cold mode start strategy and programmable low idle
- Global dealer network expertise support
- Industry-leading warranty coverage for factory packaged components
- Durable core engine design with over 46 million operating hours
- Ease of serviceability and maintenance

### STANDARD EQUIPMENT

- Duplex fuel and oil filters
- Centrifugal oil filters
- Electronically controlled fuel injectors (EUI fuel system)
- Fuel transfer pump
- Gear driven coolant and oil pumps
- Oil pressure regulating valve
- SOLAS Compliant hard heat shield system
- Dual A4 ECM with rigid wiring harness
- 1.5% speed margin for waterjet specification
- Explosion relief valves
- Air starters
- Six point engine mounting feet

### OPTIONAL ATTACHMENTS

- Connections for driven equipment
- Air shutoff valve
- Air driven or electric pre/post-lube pump
- Jacket water heaters, Lube oil heater
- Oil mist detector
- Front or rear drive capability
- LECP II/III Panels and CMD 5/8/13 displays
- Marine alarm and protection monitoring system
- MCS Certification
- Cold weather boost control valve
- RH/LH service options & RH/LH water connection options

# RATINGS & FUEL CONSUMPTION

## C280

| Rating | mhp  | bhp  | bkW  | RPM         | U.S. gal/hr | g/bkWh | IMO | U.S. EPA | EU | China |
|--------|------|------|------|-------------|-------------|--------|-----|----------|----|-------|
| MC/FCV | 8158 | 8046 | 6000 | <b>1000</b> | 389         | 207.2  | II  | NC       | NC | NC    |
| MC*    | 8834 | 8713 | 6500 | <b>1000</b> | 405         | 200.8  | II  | NC       | NC | NC    |

\*MC for specific applications. Please consult A&I team with application details.

### Rating Definitions:

**Maximum Continuous (MC) Rating** is generally used for vessel applications involving varying loads. The engine power actually produced is limited by application guidelines, leaving a power reserve for unusual operating conditions. Operating time at loads above the Continuous Service Rating for a given rpm is limited to one hour in 12 or 8.3% of total operating hours.

**FCVR – Fast Commercial Vessel Rating:** 85% of operating hours at rated speed, 15% of hours at less than 50% rated power. TBO approximately 20,000 – 25,000 hours. The propulsion system design should consider heavy ship conditions, sea state, hull fouling, and propulsion system power losses for the proper match between engine end prop/jet.

## ENGINE DIMENSIONS & WEIGHT

**LENGTH (APPROX.)** 224 in / 5690 mm

**HEIGHT (APPROX.)** 134 in / 3404 mm

**WIDTH (APPROX.)** 80 in / 2032 mm

**DRY WEIGHT (APPROX.)** 68343 lb / 31000 kg

