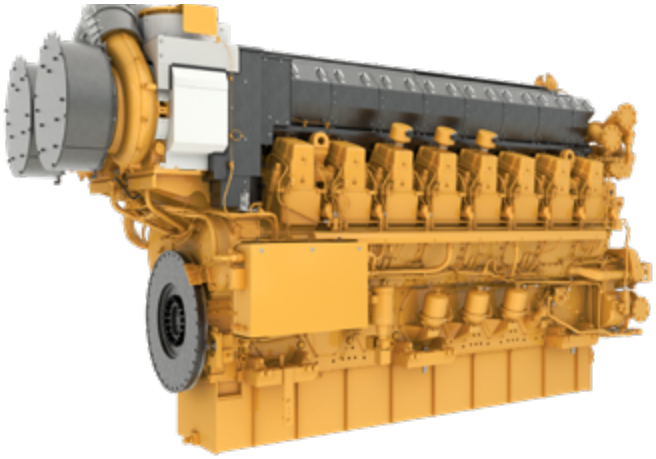
C280-16 Marine Propulsion Engine Commercial Applications



ENGINE SPECIFICATIONS

CONFIGURATION	V 16, 4-Stroke Cycle Diesel
EMISSIONS	IMO II
RATED ENGINE SPEED	1000 rpm
DISPLACEMENT	296 L (18,062 cu in)
ASPIRATION	Turbocharged - Aftercooled
GOVERNOR	A4 ECU
FLYWHEEL HOUSING	N/A

BORE X STROKE	280 mm x 300 mm / 11.0 in x 11.8 in
REFILL CAPACITY LUBE OIL SYSTEM W/OIL FILTER CHANGE	1200 L (317 gal)
OIL CHANGE INTERVAL	900 hours
ROTATION (FROM FLYWHEEL END)	Clockwise and Counterclockwise
COOLING	Separate Circuit Aftercooler

KEY FEATURES & BENEFITS

- Advanced combustion design uses the optimized configurations and cylinder geometry
- Contains the latest engine configuration to reduce visible smoke while meeting IMO-II requirements
- Electronic governing control unit reduces 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

STANDARD EQUIPMENT

- Electronically controlled fuel injectors (EUI fuel system)
- Fuel transfer pump
- Duplex fuel and oil filters
- Centrifugal oil filters
- Gear driven coolant and oil pumps
- Oil pressure regulative valve
- Air starters
- Dual A4 ECMs with rigid wiring harness
- 1.5% speed margin for waterjet specification
- Explosion relief valves
- Six point engine mounting feet
- Updated thermal management hard heat shield system to meet SOLAS requirements and improve durability
- Improved part load/part speed performance
- Cold mode start strategy and programmable low idle
- Durable core engine design with over 100 million operating hours and thousands of engines sold
- Ease of serviceability and maintenance

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/h	g/bkWh	IMO	U.S. EPA	EU	China
MC/FCV	8158	8046	6000	**1000**	389	207.2	II	NC	NC	NC
**	8834	8713	6500	**1000**	405	200.8	II	NC	NC	NC

** Special rating request only. For applications with CPP optimized to 85% of rated power.

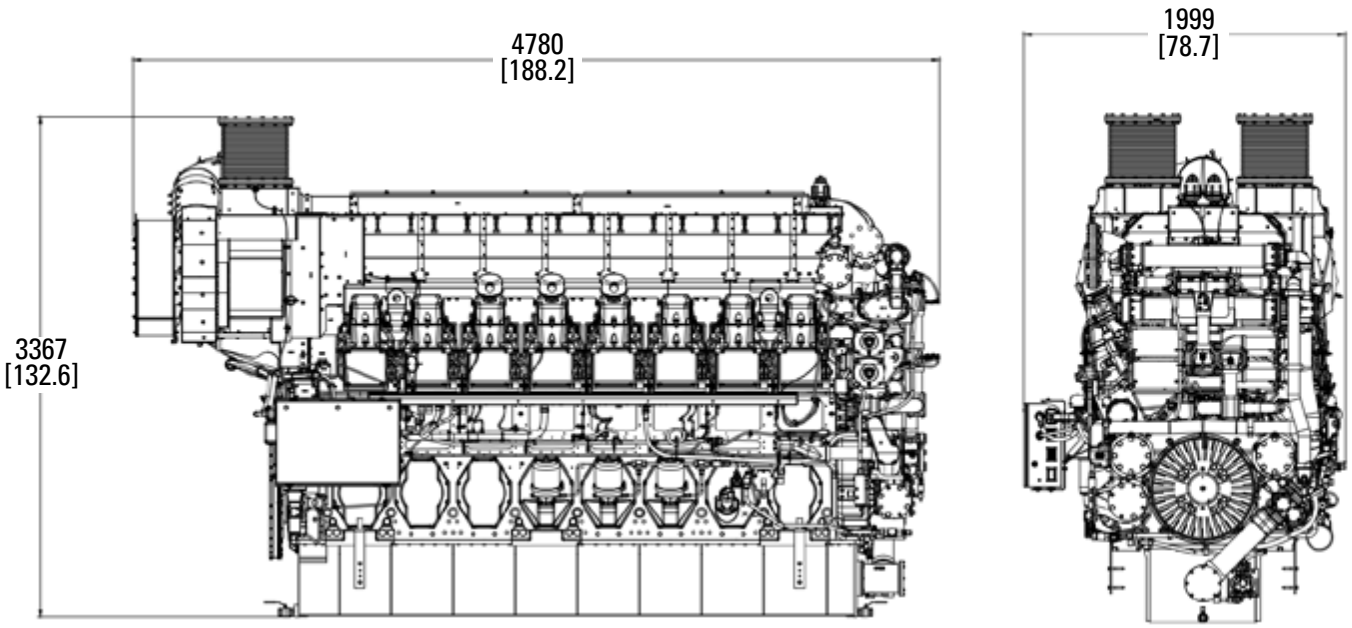
Rating Definitions:

Maximum Continuous (MC) Rating is generally used for vessel applications involving varying loads. The engine power 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 1 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.)	188.2 in / 4780 mm
HEIGHT (APPROX.)	132.6 in / 3367 mm
WIDTH (APPROX.)	78.7 in / 1999 mm
DRY WEIGHT (APPROX.)	68343 lb / 31000 kg



LEHM22786-00