

Image shown may not reflect actual configuration

Cat® 3516E High Output

Marine Propulsion Engine

Commercial Applications

The Cat® 3516E High Output (HO) commercial propulsion engine is engineered for demanding workboat operations that require immediate response, sustained power, and operational flexibility. With high torque at low rpm, rapid throttle response, and ratings up to 4023 bhp (3000 kW) the 3516E (HO) delivers power on demand while simplifying vessel integration and supporting evolving emissions requirements across global operating environments.

Features and Benefits:

ENGINE DESIGN

- Advanced combustion and sequential air system designed for optimized engine performance, acceleration, and efficiency
- engine performance, acceleration, and efficiency
- Optimized Power Density (Rated Power vs. Weight) and Streamlined Engine Packaging (L x W x H)
- Enhanced control of fuel injection optimized through crank timing and the latest A5 ECM technology
- Utilizes a closed-loop air-assisted DEF dosing strategy that contributes to efficient mixing and control, extended service life before replacement, and adapts to varying urea concentration levels
- Optimized fuel injector nozzle geometry and electronic injection control for improved fuel economy
- Improved low speed torque capability designed for tug and hybrid configurations
- Global dealer service network for service in any location

POWER ON DEMAND

- Sequential turbocharging boosts low-RPM torque for more confident handling in demanding workboat applications. Fast throttle response helps to ensure immediate power when needed, while a high power-density design supports heavy loads and continuous, high-intensity operation.

SIMPLE INSTALLATION

- Water-cooled exhaust manifolds reduce heat rejection to atmosphere and reduces engine room ventilation needs. A smaller footprint allows flexible layouts, while a self-cleaning oil filter lowers maintenance effort and costs.

FLEXIBLE EMISSIONS

- Switchable IMO II / III capability (when equipped) cuts aftertreatment wear and fluid use when IMO III isn't needed. IMO III-ready design minimizes future upgrade costs with no major exhaust, stability, or structural changes.

Specifications

Configuration	V 16, 4 -Stroke-Cycle Diesel	Bore x Stroke	170 mm x 215 mm / 6.69 in x 8.46 in
Emissions	IMO II / III Switchable	Refill Capacity	250 Hr. Shallow Sump: 189 L / 50 US gal
Rated Engine Speed	1800 rpm	Lube Oil System w/ Oil Filter Change	1000 Hr. Deep Sump: 798 L / 211 US gal
Displacement	78.1 L (4766 in³)	Oil Change Interval	250 hours (Shallow Sump) 1000 hours (Deep Sump)
Aspiration	Sequential Turbocharged / Aftercooled	Rotation (from flywheel end)	Clockwise or Counterclockwise
Governor	Electronic (A5 ECM)	Cooling	Heat Exchanger or Keel Cooled
Flywheel Housing	SAE No. 00 with SAE No. 00 Flywheel (183 teeth)		



Ratings and Fuel Consumption

Commercial Propulsion Engines

Rating	mhp	bhp	bkW	rpm	U.S. g/h	g/bkW-hr	IMO	U.S. EPA	EU	China
C	3195	3151	2350	1800	147.9	202.6	II/III	NC ¹	NC	NC
D	3549	3500	2610	1800	165.6	204.1	II/III	T4 ¹	NC	NC
D	3807	3755	2800	1800	178.1	204.6	II/III	T4 ¹	NC	NC
D	4079	4023	3000	1800	192.3	206.2	II/III	T4 ¹	NC	NC

¹ Contact factory for T4 availability

ISO 3046 / fluid consumption tolerance of -0 /+5 %

Rating Definition Generator Sets and Auxiliary Engines:

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.

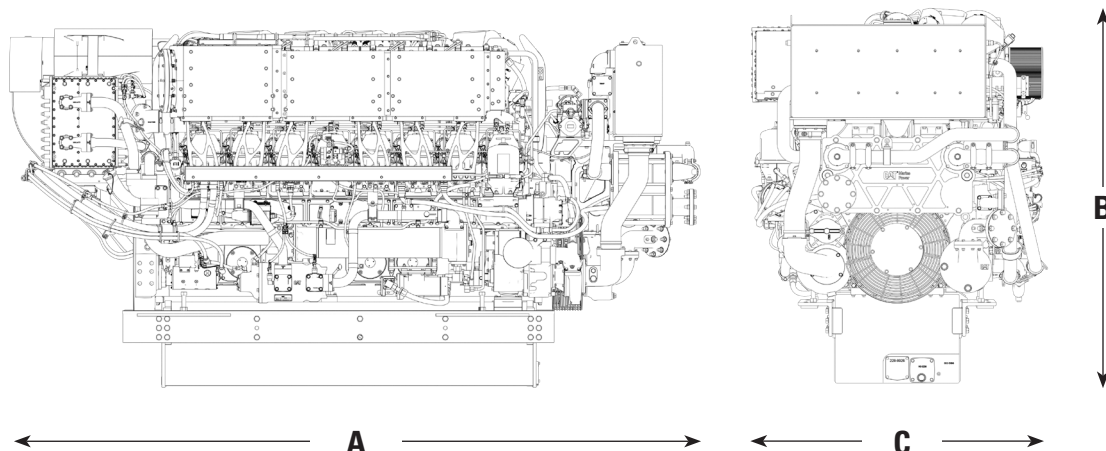
D Rating (Intermittent Duty)

Typical Applications: For Vessels operating at rated load and rated speed up to 16% of the time (up to 50% load factor).

Typical operation ranges from 1000 to 3000 hours per year.

Dimensions

All dimensions are approximate.



A Length (Approx)	4140 mm	123.0 in	C Width (Approx)	1800 mm	71.0 in
B Height (Approx)	2263 mm	89.0 in	Dry Weight (Approx)	11500 kg	25353 lb

Note: Do not use for installation design. See general dimension drawings for detail. Weights and dimensions are approximations.

Standard and Optional Equipment

Standard Equipment

- Corrosion-resistant aftercooler core
- Dual A5 engine control modules with electronic unit injection and low pressure fuel system
- Sequential water-cooled turbochargers
- Water-cooled exhaust manifold
- Vibration damper and guard
- Duplex fuel filtration
- Self-cleaning (maintenance free) & centrifugal oil filtration
- Serviceable hard heat shields
- Meets SOLAS regulations
- LECP2 instrument control panel

Optional Equipment

- Rear-mounted plate-type heat exchanger
- SCAC and Jacket Water expansion tank
- Marine Classification Society compliance
- Power take-off
- Certified Marine alarm and protection system
- LECP3 instrument control panel
- Sea water auxiliary pump
- Mounting rails
- CW or CCW rotation
- Closed crankcase ventilation

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

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