



The 3512C High Displacement marine engines are now available in a wide range of ratings that meet EPA Marine Tier 3 and IMO II regulations without any additional aftertreatment. These new propulsion, auxiliary, and DEP engines, designed and built from the current 3512C and 3516C platforms, have minimal dimensional and weight changes in comparison. Owning and operating costs are also very similar. For the specific fuel consumption of each rating please refer to the performance data. New features include stainless steel exhaust heat shields, closed crankcase ventilation system, and EPA Tier 3 compliance.

Specifications

Power Rating

Power Range	1340-2366 bhp (1000-1765 kW)
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Engine Specifications

Speed Range	1600-1800 rpm	
Emissions	EPA Tier 3, IMO II	
Aspiration	TTA	
Bore	170 mm	6.69 in
Stroke	215 mm	8.46 in
Displacement	58.6 L	3574 in ³
Rotation (from flywheel end)	Counterclockwise or Clockwise	
Configuration	Vee 12, 4-Stroke-Cycle Diesel	

Dimensions & Weights

Minimum Dry Weight	7488 kg	16508 lb
Minimum Length	2465 mm	104.2 in
Maximum Length	2465 mm	104.2 in
Minimum Height	2222.6 mm	87.5 in
Maximum Height	2222.6 mm	87.5 in
Minimum Width	2037 mm	80.2 in
Maximum Width	2037 mm	80.2 in

Benefits and Features

Making Your Investment Work Harder

Uses advanced predictive modeling software to select best nozzle configurations and combustion cylinder geometry, Stainless steel exhaust manifold and turbo heat shields, Closed crankcase ventilation system, Dual camshafts, Reduced aftercooler heat load for smaller heat exchanger requirements

DRIVING DOWN TOTAL COST OF OWNERSHIP

A wide range of power ratings available, No aftertreatment technology required, Fuel consumption nominal rated BSFC

COMMITTED TO SUSTAINABLE DEVELOPMENT

Modified piston bowl shape to improve combustion and reduce emissions, Uses K-factor injector to align with predictive model analysis, Better electronic injection control using crank timing vs. cam timing, EPA Marine Tier 3/IMO Tier II Emissions Compliant, Lower IMAT = Lower NOx

IMPROVING WORKFORCE EFFICIENCY

Electronic governing (A4 ECU), Instrument panel shipped loose with Color Marine Power Display (MPD), Cold mode start strategy, Programmable low idle, Optional marine alarm and protection system

FULLY INTEGRATED MARINE POWER SOLUTION

Single-source support, Caterpillar warranty for all factory packaged components, Industry-leading one-year warranty on parts

Standard Equipment

Air Inlet System

- Separate circuit aftercooler core, corrosion resistant coated (air side)
- Powercore air cleaner

Control System

- Dual Caterpillar A4 Electronic Engine Control with Electronic Unit Injector Fuel System
- Rigid Wiring Harness (10 amp DC power required to drive Electronic Engine Control Module)

Exhaust System

- 3500C engines:

Fuel System

- Fuel transfer pump
- Electronically Controlled Unit Injectors

Instrumentation

- Electronic service meter, instrument panel (24V), start/stop switch, emergency stop button, maintenance due light, diagnostic light, warning light, maintenance clear switch, start motor magnetic switch, 15 and 3A breakers

Lube System

- Crankcase breather groups, Top mounted
- Oil filler and dipstick, LH or RH
- Oil pump, gear type
- 250 or 1000 hour sump oil pan

Mounting System

- 3500C engines:

Power Takeoffs

- Accessory drives: Lower RH, lower LH
- Front housing, two-sided

Protection System

- A4 Electronic Monitoring System provides customer programmable engine derating strategies to protect against adverse operating conditions
- Emergency stop push button (located in Electronic Instrument Panel)
- Safety shutoff protection:

General

- Vibration damper and guard
- Lifting eyes
- NOTE: Engines for heat exchanger cooling do NOT include heat exchange

Flywheel and Flywheel Housing

- Flywheel, SAE No. 00, 183 teeth
- Flywheel housing, SAE No. 00

Cooling System

- Oil cooler
- Thermostats and housing, Full open temperature 92 C (198 F)
- Jacket water pump, gear driven, centrifugal
- Auxiliary fresh water pump
- Aftercooler system: If using glycol, up to maximum 20% glycol concentration is allowed

Instrumentation

- Graphical Unit (Color Marine Power Display) for analog or digital of:

Optional Equipment

Air Inlet System

- Air Inlet Adapters

Charging System

- Battery Chargers
- Charging Alternator

Control System

- Throttle Control

Cooling System

- Coolant Shunt Tank
- Cooling System Options

Exhaust System

- Flexible Fittings
- Elbows
- Flanges
- Flange and Exhaust Expanders
- Mufflers

Fuel System

- Fuel Cooler Heat Exchanger - Sea Water
- Primary Fuel Filter
- Fuel Level Switch
- Rigid Fuel Lines
- Flexible Fuel Lines

Instrumentation

- Communication Modules
- Color Marine Power Display System
- Pilot House Instrument Panels
- Marine Gear Sensors

Lube System

- Sump Pumps
- Lubricating Oil

Power Take-Offs

- Stub Shafts
- Crankshaft Pulleys
- Damper Guard
- Flexible Coupling and Guards

Marine Society Requirements

- Green Passport Documentation
- Spray Shielding

Protection System

- Shutoff and Alarm Contactors

Spare Parts Kits

Special Appearance Packages

- Special Appearance Packages with Chrome Covers
- Yacht Class Finish

Starting System

- Air Starting Motor Options
- Battery Sets - 24 Volt - Dry
- Battery Rack

Mounting System

- Engine Supports
- Vibration Isolation Mountings

Transitional Vibration Analysis

Paints

- Paint Color Options



Packing

- Shrink Wrap Protection
- Storage Preservation with Glycol Solution/Vapor Corrosion Inhibitor
- Export Boxing
- Export Packaging

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