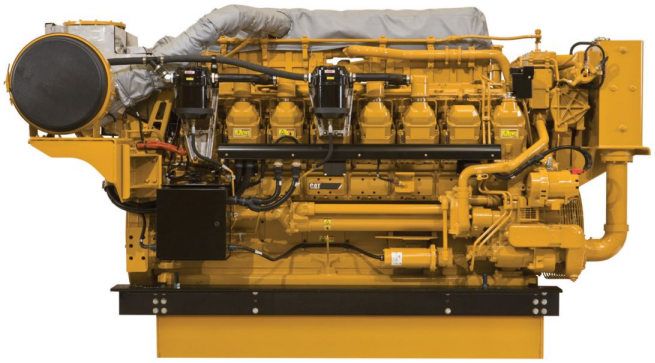
3516C Marine Propulsion Engine

Marine



The 3516C propulsion engine is available with a wide range of ratings that meet IMO II regulations without any additional aftertreatment. These engines provide efficient operation with electronic governing, cold mode start strategy, and programmable low idle to minimize fuel consumption. The 3516C engine also incorporates a closed crankcase ventilation system to lower emissions.

Specifications

Power Rating	
Power Range	1650-3386 bhp (1230-2525 bkW)

Engine Specifications		
Speed Range		1200-1800 rpm
Configuration		Vee 16, 4-Stroke-Cycle Diesel
Aspiration		TTA
Bore	215 mm	8.46 in
Stroke	170 mm	7.48 in
Displacement	78 L	4765 in3
Rotation (from flywheel end)		Counterclockwise or clockwise
Emissions		IMO II

Dimensions & Weights		
Minimum Length	3637 mm	143.1 in
Maximum Length	3761 mm	148 in
Minimum Width	2037 mm	80.2 in
Maximum Width	2142 mm	84.3 in
Minimum Height	1967 mm	77.4 in
Maximum Height	2150 mm	84.6 in
Minimum Dry Weight	7961 kg	17550 lb

Benefits and Features

Complete Solution for Your Marine Application'

• Single-source for support and service • Industry-leading warranty coverage for factory packaged components • Global dealer network for service in any location

Efficient Operation

• Instrument panel with cold mode start strategy and programmable low idle • Electronic governing control unit minimizes fuel consumption and monitors engine operating parameters • Optional alarm and protection system

Improved Performance and Function

• Standard marine twin turbocharger configuration. • More reserved power for superior part load performance at continuous ratings • Turbos tuned for high power and excellent fuel consumption

Environmentally Conscious

• Closed crankcase ventilation system and redesigned piston for improved efficiency and lower emissions • Optimal nozzle geometry and electronic injection control for improved fuel delivery • EPA Marine Tier 3/IMO Tier II Emissions Compliant

Standard Equipment

Air Inlet System

• Corrosion resistant separate circuit freshwater aftercooled, powercore air cleaner

Control System

• Dual Caterpillar® A3 Electronic Control Unit (ECU) LH with electronic unit injector fuel system rigid wiring harness (10 amp DC power required to drive ECU)

Cooling System

• Gear-driven centrifugal auxiliary sea water pump, geardriven centrifugal jacket water pump, expansion tank for commercial engines, coolant shunt tank on lightweight engines, engine oil cooler, thermostats and housing.

ECU Functions

• Programmable low idle, SAEJ1939 data link, Cat® data link, engine diagnostics, general alarm relay, programmable parameters (system application and tattletales), Caterpillar ET service tool interface, remote shutdown, shutdown notify, load feedback, overspeed shutdown, overspeed verify

Exhaust System

• Dry gas-tight exhaust manifolds with heat shields, dual turbochargers with watercooled bearings and heat shield. Wastegate on select ratings

Fuel System

• Electronically controlled unit injectors, simplex fuel filter (RH) with service indicators, fuel transfer pump

Instrumentation

• Marine Power Display of: Engine oil pressure, engine water temperature, fuel pressure, engine speed, fuel consumption, overspeed shutdown notification light, prelube and shutdown override

Lube System

• Gear-driven pump, top-mounted dual crankcase breather groups, simplex oil filter, oil filler and dipstick

Power Take-Offs

• Accessory drive, two-sided front housing

Protection System

• Emergency stop pushbutton, safety shutoff, oil pressure, and water temperature

General

• Two lifting eyes mounted to cylinder heads, Caterpillar yellow paint, parts books and maintenance manuals, shrink-wrap.

ISO Certification

- Factory-designed systems built at Caterpillar ISO 9001:2000 certified facilities.

Optional Equipment

Air Inlet System

- Air Cleaner Removal
- Remote Air Inlet Adapters

Charging System

- Battery Chargers
- Charging Alternators

Control System

- Throttle Position Sensor
- Throttle Synchronization

Cooling System

- Water Level Switch Gauge
- Coolant Level Sensors
- Connections
- Keel Cooling Conversions
- Heat Exchangers
- Auxiliary Water Pumps
- Sea Water Pump Removal
- Coolant Shunt Tanks
- Air Separator
- Marine Gear Cooling

Exhaust System

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

Fuel System

- Fuel Cooler
- Fuel Priming Pumps
- Flexible Fuel Lines
- Rigid Fuel Lines
- Primary Fuel Filter
- Fuel level switch

Instrumentation

- PL1000T Communication Module
- PL1000E Communication Module
- Customer Interface
- Thermocouples
- Remote Panel Display
- Remote Cylinder Temperature Display
- Pilot House Instrument Panels
- Marine Gear Sensors
- Engine Vision Display System

Lube System

- Oil Pan
- Oil Pan Accessories
- Sump Pumps
- Prelubrication Options
- Lubricating Oil
- CENTRIFUGAL OIL FILTER

Mounting System

- Engine Supports
- Vibration Isolation Mountings

Power Take-Offs

- Flexible Coupling and Guards
- Front Housing Accessories
- Upper Left Hand Front Location:
- Upper Right Hand Front Location:
- Upper Right Hand Rear Location:
- Lower Left Hand Front Location:
- Lower Left Hand Rear Location:
- Front Housing Accessory Drives
- Upper LH Accessory Drive
- Upper RH Accessory Drive
- Front Power Take Offs
- Crankshaft Pulleys
- Damper Guard Removals

Protection System

- Air Inlet Shutoffs
- Switches and Contactors
- Explosion Relief Valve
- Sensors

Spare Parts Kits

- Parts Kits
- Pump Kits
- Fuel Transfer
- Lube Oil

Special Appearance

- Chrome Plated Relief Valves
- Black Air Cleaners

Starting System

- Starting Motors or Barring Device
- Air Starting Motors Options
- Starting Aids
- Battery Sets - 24 Volt - Dry
- Battery Rack

General

- Tool Set
- Caterpillar Datalink Wire