



The 3516B Marine Generator Set incorporates a separate circuit aftercooling (SCAC) or sea water aftercooling (SWAC) system for all configurations. The primary advantage of the SCAC system is reduced aftercooler corrosion since no sea water circulates through the aftercooler. Many other improvements on these engines contribute to minimizing owning and operating costs. A strengthened fuel injection actuation system and rear gear train maintain reliability and durability while providing higher injection pressures. The 3516B also features thermo-laminated heat shields on all marine configurations to maintain surface temperatures below Marine Classification Society regulations.

Specifications

Generator Set Specifications	
Minimum Rating	1180 eKW (1475 kVA)
Maximum Rating	1825 eKW (2281 kVA)
Frequency	50 Hz or 60 Hz
Speed	1000 rpm, 1200 rpm, 1500 rpm, 1800 rpm
Emissions/Fuel Strategy	IMO I, IMO II (1600 eKW @ 50 hz only)

Engine Specifications		
Configuration	Vee 16, 4-Stroke-Cycle Diesel	
Bore	170 mm	6.7 in
Stroke	190 mm	7.5 in
Displacement	69 l	4210 in ³

Generator Set Dimensions	
Weight	11354 kg (25030 lb) to 13538 kg (29845 lb)
Length	5076 mm (199.8 in) to 5611 mm (220.9 in)
Width	1703 mm (67.1 in) to 2144 mm (84.4 in)
Height	2053 mm (80.8 in) to 2100 mm (82.7 in)

Benefits and Features

Improved fuel economy

Reduced visible and gaseous emissions

Enhanced diagnostic and monitoring capabilities

Increased rated output with no reduction in reliability

Standard Equipment

AIR INLET SYSTEM

- Separate Circuit aftercooler core, corrosion resistant coated (air side) Air cleaner, regular duty Dual Turbochargers, 152 mm (6 in) OD straight connection

CONTROL SYSTEM

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

COOLING SYSTEM

- Oil cooler Thermostats and housing, full open temperature 92 C (198 F) Jacket water pump, gear driven, centrifugal Auxiliary fresh water pump Expansion tank Auxiliary sea water pump, centrifugal, non-self-priming

EXHAUST SYSTEM

- Dry gas tight exhaust manifolds with heat shields Dual Turbochargers with watercooled bearings and heat shields Exhaust outlet, vertical, 305 mm (12 in) round flanged outlet on engines @ 1500 or 1800 rpm Exhaust outlet, vertical, 203 mm (8 in) round flanged outlet on engines @ 1200 or 1000 rpm

FLYWHEELS & FLYWHEEL HOUSINGS

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

FUEL SYSTEM

- Fuel filter, RH, with service indicators
- Fuel transfer pump
- Electronically Controlled Unit Injectors

INSTRUMENTATION

- Overspeed shutdown notification light
- Emergency stop notification light
- Prelube override
- Shutdown override
- Graphical Unit (Marine Power Display) for analog or digital display of:
 - Engine oil pressure, Engine water temperature, Fuel pressure System, DC voltage, Air inlet restriction, RH & LH exhaust temperature, Fuel filter differential, Oil filter differential, Service meter, Engine speed, Instantaneous Fuel Consumption, Total Fuel Consumed, Engine Control Switch (4 position), Alarms are prioritized, Overspeed shutdown notification light, Emergency stop notification light, Prelube override, Shutdown override

LUBE SYSTEM

- Crankcase breather, Top mounted Oil filter, RH Oil filler and dipstick, RH Deep sump oil pan Oil pump, gear type

MOUNTING SYSTEM

- Rails, engine mounting, engine length, industrial type, 254 mm (10 in), C-channel

POWER TAKE-OFFS

- Accessory drive Lower RH, Lower LH Front housing, Two-sided

PROTECTION SYSTEM

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

GENERAL

- Vibration damper and guard Paint, Caterpillar Yellow engine with black rails. Lifting eyes

- NOTE: 1. Engines for heat exchanger cooling do NOT include heat exchanger. 2. When used with competitive generator, a TVA is recommended. An alternative vibration damper may be required. 3. Engine is wired for auto start stop.

Optional Equipment

AIR INLET SYSTEM

- Air Cleaner Removal
- Remote Air Inlet Adapters

CHARGING SYSTEM

- Battery Chargers
- Charging Alternators

CONTROL SYSTEM

- Load Sharing module
- Local speed throttle control

COOLING SYSTEM

- Water level switch gauge
- Coolant level sensors
- Connections
- Keel Cooling Conversions
- Radiator cooling conversion
- Heat exchangers
- Auxiliary water pumps
- Sea water pump removal
- Air separator

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

GENERATORS AND GENERATOR ATTACHMENTS

- Low voltage connection
- Generator conversion
- RFI filter
- Bearing temperature detectors (RTD)
- Manual voltage control
- Air filter

INSTRUMENTATION

- PL1000T Communication Module
- PL1000E Communication Module
- Customer Interface Box
- Thermocouples
- Remote panel display
- Remote cylinder temperature display

LUBE SYSTEM

- Oil Pan
- Oil pan accessories
- Sump pumps
- Prelubrication Options
- Lubricating oil
- Centrifugal Oil Filter

MOUNTING SYSTEM

- Vibration isolators
- Rails

POWER TAKE-OFFS

- Flywheel guard
- Flexible coupling
- Coupling hub
- Front housing accessories
- Upper left hand front location
- Upper left hand rear location
- Upper right hand front location:
- Upper right hand rear location
- Lower left hand front location
- Front housing accessory drives
- Front power take-offs
- Crankshaft pulleys
- Damper guard removals

PROTECTION SYSTEM

- Air inlet shutoffs
- Switches and contactors
- Explosion relief valve
- Sensors

SPARE PART KITS

- Engine Parts Kits

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

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