



The C8.7's sophisticated fuel delivery system allows the use of a radial, belt-driven supercharger in addition to the conventional turbocharger; this feature eliminates smoke and reduces lugging, while delivering phenomenal low-end torque and impressive fuel economy. . FPT (Fiat Powertrain Technologies) Industrial's advancements in second-generation common rail fuel injection systems paired with an innovative air management system allows the compact C8.7 to develop an impressive 650 mhp @ 2300 rpm while meeting EPA Tier 3 Commercial, EPA Tier 3 Recreational, IMO II, and EU Stage IIIA (EU IW) emissions standards.

Specifications

Ratings		
Power Range	478 bkW	641 bhp

Engine Specifications		
Speed Range	2300 rpm	
Configuration	In-line 6, 4-Stroke-Cycle Diesel	
Aspiration	TSA	
Bore	117 mm	4.6 in
Stroke	135 mm	5.3 in
Displacement	8.7 L	531 in ³
Rotation (from flywheel end)	Counterclockwise	
Emissions	EPA Tier 3 Recreational & Commercial, IMO II, EU Stage IIIA (EU IW)	

Dimensions & Weights		
Length of Engine	1218 mm	47.9 in
Width of Engine	881 mm	38.7 in
Height	984 mm	38.7 in
Engine Dry Weight (approx.)	1041 kg	2295 lb

Benefits and Features

Electronic Controlled Supercharger

Provides industry-leading torque and throttle response at low speeds, while maintaining fuel efficiency at high speeds

Closed Crankcase Ventilation System

Improves engine room cleanliness

Common rail fuel system

Enables optimum combustion and low emissions

Serviceability

Single access point improves serviceability

Grid Heater

Allows improved cold weather starting

Cat® displays

Compatibility with Cat® displays

Engine Control Panel

Available engine-mounted display panel with start, stop, and engine diagnostics

Electrical Advantages

12V or 24V electrical system

Remote Monitoring

gplink ready for remote monitoring

Standard Equipment

AIR INLET SYSTEM

- Supercharger, electronically controlled belt driven
- Air cleaner/fumes disposal (closed system)
- Turbochargers, jacket water cooled
- Aftercooler condensate drain

CONTROL SYSTEM

- Cold mode start strategy
- PWM secondary throttle
- Cold mode start strategy
- Electronic diagnostics and fault logging
- Engine and transmission monitoring (temperature, pressure)
- Electronic fuel/air ratio control
- Engine Protection Mode for extended ambient conditions
- Three types of throttle inputs (CAN, PWM, and 0-5V)
- 70-pin customer connector

COOLING SYSTEM

- Sea water pump, bronze impeller, gear driven, for HEX cooled engines only
- Sea water aftercooled
- Jacket water pump, belt driven
- JW Heat Exchanger - Corrosion resistant shell and tube style
- Fuel cooler
- Expansion tank
- Thermostat housing (fully open temp 95 C)

- 63mm hose bead raw water inlet
- 50 mm hose bead raw water outlet

EXHAUST SYSTEM

- Water-cooled exhaust manifold & turbocharger
- 90mm ID round flanged exhaust outlet

FLYWHEELS & FLYWHEEL HOUSINGS

- Flywheel Housing, SAE No. 1 - With M10 Threads
- Flywheel, SAE 14, 149 teeth - With M12 Threads
- SAE standard rotation

FUEL SYSTEM

- High Pressure Common Rail fuel system
- High pressure fuel system pump with integral low pressure fuel transfer pump
- Primary fuel filter, remote mounted with integrated electric priming pump
- Secondary fuel filter, Rear mounted for LH and RH Service

LUBE SYSTEM

- Crankcase breather, closed crankcase ventilation
- Oil filter, cartridge style, Rear mounted for LH and RH service
- Oil cooler
- Oil pan, center sump
- Oil pump, gear driven
- Dipstick, RH service on Port, LH service on Starboard

MOUNTING SYSTEM

- Front and rear support brackets

GENERAL

- Front belt and damper guard
- Lifting eyes
- RH or LH service options
- Upper front-facing customer wiring connector and Service Tool connection

PROTECTION SYSTEM

- Electronic Engine Monitoring System provides engine de-rate strategies to protect against adverse operating conditions

PAINTS

- Engines are painted Matterhorn white with pleasure craft finish includes epoxy primer with polyurethane topcoat. Fuel lines, water lines and clamps and wiring harness will be unpainted. Standard decals and informational films will be installed. Shipped loose parts will be shipped as received from suppliers. Heat sensitive components have a textured black finish.

Optional Equipment

CONTROL SYSTEM



- Instrument Panels

INSTRUMENTATION

- Transmission Sensors

MOUNTING SYSTEM

- Vibration isolation mounting

The International System of Units (SI) is used in this publication. CAT, CATERPILLAR, their respective logos, ADEM, EUI, S-O-S, "Caterpillar Yellow" and the "Power Edge" trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.