



The C7.1 marine propulsion engine is ideal for recreational boating applications, specifically smaller vessels and motoryachts ranging from 25 -60 feet in size. The engine features a common rail fuel system enabling optimum combustion and low emissions. The engines provide noticeably quiet operation due to reduced combustion noise through advanced electronic control. Additionally, no visible smoke is emitted from the C7.1 engines during operation.

Specifications

Ratings	
Power Range	298 kW - 373 kW (400 bhp - 500 bhp)

Engine Specifications		
Speed Range	2900 rpm	
Configuration	In-line 6, 4-Stroke-Cycle Diesel	
Aspiration	Turbocharged, aftercooled	
Bore	105 mm	4.13 in
Stroke	135 mm	5.31 in
Displacement	7.01 L	427.16 in ³
Rotation (from flywheel end)	Counterclockwise	
Emissions	EPA Tier 3 Recreational, IMO II, RCD 2016	

Dimensions & Weights		
Length of Engine	1394 mm	54.9 in
Width of Engine	798 mm	31.4 in
Height	876 mm	34.5 in
Engine Dry Weight (approx.)	750 kg	1653 lb

Benefits and Features

Reliability & Durability

Superior response time and acceleration for better maneuverability and safety; Grid heater for improved cold weather starting; Electrical advantages with 12V or 24V electrical system; Highest standard paint quality

Easy to use

Compatible with Cat® Displays to monitor all vessel operations; Available engine-mounted display panel with start, stop, and engine diagnostic; Single access point improves serviceability; Wiring harnesses with a woven cover provide more attractive serviceable components; gplink ready for remote monitoring

Environment friendly

No visible smoke on start up or underway; The common rail fuel system enables optimum combustion and low emissions; Reduced combustion noise through advanced electronic control; Closed crankcase ventilation system improves engine room cleanliness; Electronically controlled supercharger provides industry-leading torque and throttle response at low speeds, while maintaining fuel efficiency at high speeds

Standard Equipment

AIR INLET SYSTEM

- 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, gear driven, for HEX cooled engines only
- Sea water aftercooled
- Jacket water pump, gear driven
- JW Heat Exchanger - Corrosion resistant shell and tube style
- Fuel cooler
- Expansion tank
- Thermostat housing
- 63mm hose bead raw water inlet
- 50 mm hose bead raw water outlet
- Integrated gear oil cooler

EXHAUST SYSTEM

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

FLYWHEELS & FLYWHEEL HOUSINGS

- Flywheel Housing, SAE No. 3 - With M10 Threads
- Flywheel, SAE 11 1/2, with 3/8 UNF 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
- Secondary fuel filter, LH top service location

LUBE SYSTEM

- Crankcase breather, closed crankcase ventilation
- Oil filter, LH top service location
- 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
- 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

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