



The C18 ACERT marine propulsion engine has high performance commercial application ratings of 814-1015 mhp (803-1001 bhp) at 2100-2300 rpm that meet U.S. EPA Tier 3, IMO II, and EU Stage IIIA emissions regulations. In addition to meeting the stricter EPA Tier 3 emissions, this engine now offers a fresh water aftercooled option for the commercial propulsion and auxiliary engines and genset packages. From fishing to offshore and everything in between, you can be confident that we have the solution to fit your needs.

Specifications

Ratings	
Power Range	814-1015 mhp, 803-1001 bhp, 599-747 bkW

Engine				
Speed Range	2100-2300 rpm			
Emissions	EPA Tier 3, IMO II, EU Stage IIIA			
Aspiration	TA,TTA			
Bore	145 mm	5.7 in		
Stroke	183 mm	7.2 in		
Displacement	18.1	1106 in³		
Rotation from Flywheel End	Counterclockwise			
Configuration	In-line 6, 4-Stroke-Cycle Diesel			

Dimensions & Weights		
Maximum Length	1931 mm	76 in
Minimum Length	1854 mm	73 in
Maximum Dry Weight	1950 kg	4299 lb
Minimum Height	1198 mm	47.2 in
Maximum Width	1204 mm	47.4 in
Minimum Dry Weight	1814 kg	4000 lb
Maximum Height	1300 mm	51.2 in
Minimum Width	1134 mm	44.6 in

Benefits and Features

Separate circuit aftercooling system

The primary advantage of the separate circuit aftercooling system (SCAC) is that no sea water circulates through the aftercooler

Cat C18 ACERT High Performance Propulsion Engine (Tier 3) Marine



Emissions

EPA Tier 3 compliant, IMO II and EU IWW compliant

Cooling system

Heat exchanger and Keel cooled options for all ratings

Turbo Configurations

Single turbo configurations for all ratings

Competitive size and weight

Marine Certifications

All major MCS type approvals available from factory

Standard Equipment

AIR INLET SYSTEM

- Separate circuit after-cooled (SCAC)
- Open Crankcase Ventilation (OCV) system
- · Turbocharger, jacket water cooled
- Turbocharger inlet, 152 mm (6 in) OD straight connection

COOLING SYSTEM

- · Separate Circuit After-Cooling (SCAC) for both HEX and Keel cooled engines
- Engine JW and SCAC Shell & Tube Heat Exchangers for HEX cooled engines
- SCAC pump, gear driven, for HEX cooled engines only
- · Jacket water pump, gear driven
- Sea water pump, bronze impeller, gear driven
- SCAC and JW shunt tanks for maintaining proper pump inlet pressures

EXHAUST SYSTEM

- Water-cooled exhaust manifold & turbocharger
- 152 mm (6 in) round flanged outlet

FLYWHEELS & FLYWHEEL HOUSINGS

- Flywheel Housing, SAE No. 0
- Flywheel, 18 inch, 136 teeth
- SAE standard rotation
- SAE No. 1, Flywheel: 14 inch, 113 teeth

FUEL SYSTEM

- · Front service simplex fuel system
- Fuel transfer pump, gear driven
- · Manual fuel priming pump
- · Hybrid fuel line design

LUBE SYSTEM

• Front service simplex oil system

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- Center sump oil pan:
- Front and top service oil filler locations
- Front service dipstick
- · Oil pump, gear driven

POWER TAKE-OFFS

- Poly-V groove for alternator drive
- NOTE: There are no standard power take-offs available

GENERAL

- Front damper guard
- Front service engine
- · Common electrical bonding point
- · Engine does not ship with zinc components
- Engine is certified to D2/E2 emissions cycles
- CERTIFIED TO 2013 EPA TIER 3 AND IMO II MARINE COMMERCIAL PROPULSION (E3 CYCLE) EMISSION STANDARDS
- CERTIFIED TO EU STAGE IIIA AND CCNR STAGE II (E3 CYCLE) EMISSIONS STANDARDS.
- NOTE: Ratings listed below can also be used in Recreational / Pleasure Craft applications.

CONTROL SYSTEM

- Programmable low idle
- WOSR (Wide Operating Speed Range) available for EPA Tier 3 B and C Ratings
- Adjustable High Idle (TEL) EPA Tier 3 WOSR Ratings Only
- · Electronic diagnostics and fault logging
- Engine and transmission monitoring (speed, temperature, pressure)
- · Electronic fuel/air ratio contro
- Engine Protection Mode for extended ambient conditions EPA Tier 3 Ratings Only
- Torque Limiting functionality for WOSR ratings only
- 70-pin customer connector
- Three types of throttle inputs (primary/ secondary PWM, 0-5V, 4-20mA +/-

Optional Equipment

EXHAUST SYSTEM

- Dry Elbows
- Water-Cooled Elbows
- Flexible Fitting
- Flange
- Muffler
- Muffler Spark Arresting

CHARGING SYSTEM

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Marine



- Battery Chargers
- Charging Alternators
- Alternator Mounting Group
- Ammeter

CONTROL SYSTEM

- MECP I
- CATERPILLAR ALARM AND PROTECTION

COOLING SYSTEM

• AUX EXPANSION TANK FLANGE KIT

FUEL SYSTEM

- Duplex Fuel Filters
- Flexible Fuel Lines
- Fuel Cooler
- Primary Fuel Filters

INSTRUMENTATION

- Instrument Panels
- OEM Wiring Harness
- Engine to Engine Harness
- Gauges
- Transmission Sensors
- · Oil Level Sensor

LUBE SYSTEM

- Duplex Oil Filters
- Transmission Oil Cooler
- Sump Pump

MOUNTING SYSTEM

- Vibration Isolators
- Front Support
- Rear Support

POWER TAKE-OFFS

- NOTE: PTO OPTIONS REQUIRE TORSIONAL VIBRATION ANALYSIS
- Crankshaft Pulleys
- Front Stub Shaft
- Hydraulic Pump Drive Adapter
- Front Enclosed Clutch

PROTECTION SYSTEM

- · Marine Classification Society and SOLAS
- · Marine Classification Society and Fire Resistance

Cat C18 ACERT High Performance Propulsion Engine (Tier 3) Marine



STARTING SYSTEM

- STARTING SYSTEM Electric Starting Motors Single 24 Volt
- · Air Starting Motor
- · Air Start Accessories
- Starting Aids JW Heaters
- Battery Sets 24 Volt Dry

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.