Marine Propulsion and Auxiliary Engines

C280

CATERPILLAR®

C280

Established ratings deliver reliable power

Continuous and maximum continuous ratings at 900 and 1000 rpm are available in 6, 8, 12, and 16 cylinder configurations, similar to the 3600 series.

Honest, usable power results in overhaul intervals of 40,000 hours.

Intelligent electronics

The advanced ADEM™ A3 electronic control system lets your C280 engine work smarter and harder. Its microprocessor actually thinks for the engine and responds accordingly. From governing to air-to-fuel ratio control, the ADEM A3 platform integrates and streamlines precise engine management, providing:

- An electronic display, replacing a mechanical gauge
- Tighter control over key parameters for cleaner, more efficient operation
- Simplified diagnostics/troubleshooting
- Expanded monitoring capabilities/ greater engine protection
- Compatibility with GMS display system
- Maintenance-free
- CAN J1939 data link

New Electronic Unit Injection (EUI) fuel system

Provides variable injection timing and duration to optimize combustion at any given speed and load. This proven fuel system technology is the result of more than 20 years of Caterpillar experience and leadership in revolutionary fuel systems design.

Improved fuel efficiency

- Industry-leading Caterpillar® fuel system expertise provides lower specific fuel consumption, particularly at part load, while virtually eliminating transient smoke and emissions
- Lowered partial load fuel consumption as much as one to two percent

Environmentally friendly

Meets current EPA and IMO emissions standards, with the capability to meet future EPA and IMO Tier 2 emissions standards.

MAKING A GREAT ENGINE EVEN BETTER

Durable and reliable

C280 engines incorporate 20 years of proven component reliability and durability from the 3600 series with a sophisticated, yet well-proven, modern electronic fuel injection system.

Worldwide parts & service

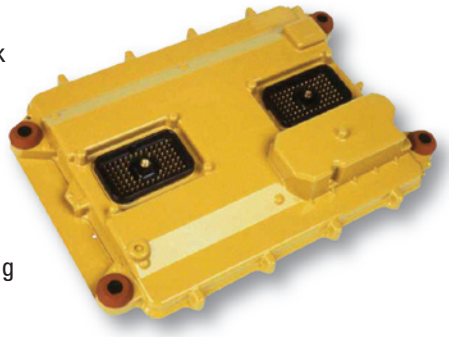
More than 2,100 dealer outlets with Caterpillar factory-trained dealer technicians service every aspect of your engine. Most parts orders are filled within 24 hours.

C280 FEATURES

A3 ECU

Advantages:

- CAN J1939 data link
- Waterproof connectors
- Maintenance-free
- Backup ECU for redundant governing



Electronic Advantages:

- Load feedback
- Programmable droop
- Adjustable gain
- Adjustable fuel/air ratio control
- Histograms of engine operation
- Cat Messenger display presents diagnostics and other engine parameters

Data Advantages through J1939 Link:

- Engine speed
- Boost pressure
- Throttle position
- Fuel consumption rate
- Inlet manifold temperature
- Diagnostic codes and events
- Configuration
- Desired engine speed
- Battery voltage
- Engine load
- Lifetime totals — engine hours, fuel burned, idle fuel, idle hours
- Trip totals — average fuel rate, idle fuel, idle hours, engine hours, fuel burned, trip reset

Customer Interface Panel

Advantages:

- Interfaces with standard Cat® Marine Monitoring System (PLC in Price List)
- Provides visual indication of ECU functionality
- Accepts 4 — 20 mA or PWM remote throttle speed input
- Marine alarm and protection

Electronic Unit Injectors

Advantages:

- "Drop-in" installation
- No threaded fuel connections
- High pressure inside injector only
- Does not require double wall fuel lines or leak collection device

- Injector synchronization not required

C280 TECHNICAL DATA

Bore — mm (in)	280 (11.0)
Stroke — mm (in)	300 (11.8)
Displacement — L (cu in)	18.5 (1127)
Rated Speed	900-1000 rpm
Compression Ratio	13:1
Peak Firing Pressure — bar (psi)	173 (2509)
Piston Speed — m/s (ft/s)	9.0-10.0 (29.5-32.8)
Configuration	I-6, I-8, V-12, V-16
Ratings — kW (hp)	1730-5420 (2320-7270)

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