



**Industrial Engine**  
205-280 kW/  
275-375 bhp

**C9 ACERT®**  
1800-2200 rpm



Image shown may not reflect actual engine

## CATERPILLAR® ENGINE SPECIFICATIONS

I-6, 4-Stroke-Cycle Diesel	
Bore (mm, in)	112.0 mm, 4.41 in.
Stroke (mm, in)	149.0 mm, 5.87 in.
Displacement	8.8 liters, 537 cu.in.
Aspiration	Turbocharged/ATAAC
Compression Ratio	16:3
Rotation (from flywheel end)	Counterclockwise
Cooling System	13.9 liters, 3.7 gallons
Lube Oil System (refill)	32.0 liters, 8.5 gallons
Weight, Net Dry (approximate kg, lb)	776 kg, 1711 lb.

## FEATURES

### Emissions

Meets Tier 3, Stage IIIA emission requirements. Tier 3 refers to EPA (U.S.) standards. Stage IIIA refers to European standards.

### Worldwide Supplier Capability

Caterpillar

- Casts engine blocks, heads, and cylinder liners
- Machines critical components
- Assembles complete engine

Ownership of these manufacturing processes enables Caterpillar to produce high quality, dependable product.

Factory-designed systems built at Caterpillar ISO 9001:2000 certified facilities.

### Testing

Prototype testing on every model:

- proves computer design
- verifies system torsional stability
- tests functionality on every model

Every Caterpillar engine is dynamometer tested under full load to ensure proper engine performance.

### Full Range of Attachments

Wide range of bolt-on system expansion attachments, factory designed and tested

### Unmatched Product Support Offered Through Worldwide Caterpillar Dealer Network

More than 1,500 dealer outlets

Caterpillar factory-trained dealer technicians service every aspect of your industrial engine

99.7% of parts orders filled within 24 hours worldwide

Caterpillar parts and labor warranty

Preventive maintenance agreements available for repair before failure options

Scheduled Oil Sampling program matches your oil sample against Caterpillar set standards to determine:

- internal engine component condition
- presence of unwanted fluids
- presence of combustion by-products

### Web Site

For all your industrial power requirements, visit [www.cat-industrial.com](http://www.cat-industrial.com).



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## STANDARD ENGINE EQUIPMENT

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### Air Inlet System

- Air to air aftercooled (ATAAC)
- Turbocharged

### Control System

- Electronic governing, PTO speed control
- Programmable ratings
- Cold mode start strategy
- Automatic altitude compensation
- Power compensation for fuel temperature
- Programmable low and high idle and total engine limit
- Electronic diagnostics and fault logging
- Engine monitoring system
- J1939 Broadcast (diagnostic and engine status)
- ADEM™ A4

### Cooling System

- Thermostats and housing, vertical outlet
- Jacket water pump, centrifugal
- Water pump, inlet

### Exhaust System

- Exhaust manifold, dry
- Optional exhaust outlet

### Flywheels and Flywheel Housing

- SAE No. 1 Flywheel housing

### Fuel System

- HEUI™ injection
- Fuel filter, secondary (2 micron high performance)
- Fuel transfer pump
- Fuel priming pump
- ACERT® Technology

### Lube System

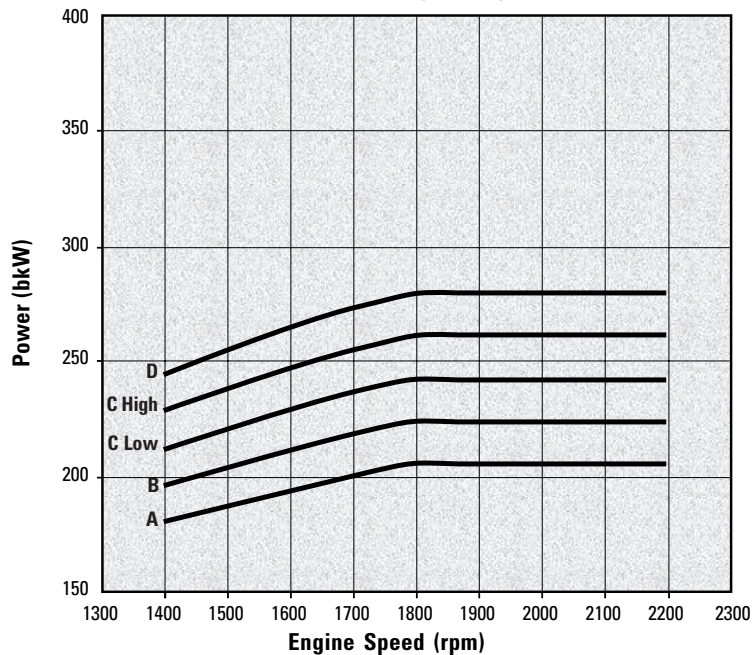
- Crankcase breather
- Oil cooler
- Oil filler
- Oil filter
- Oil pan front sump
- Oil dipstick
- Oil pump (gear driven)

### General

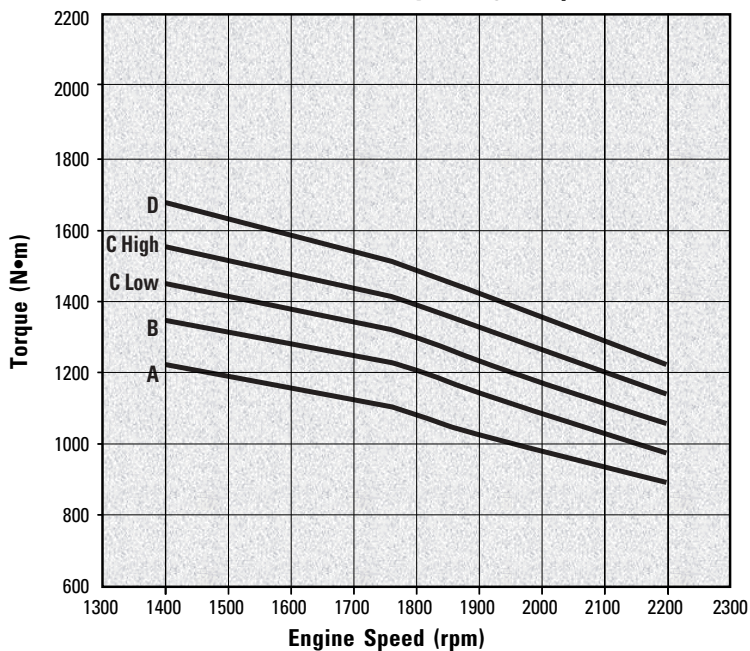
- Paint, Caterpillar Yellow
- Vibration damper
- Lifting eyes

## PERFORMANCE CURVES

**Performance Curves by Rating (Power)**



**Performance Curves by Rating (Torque)**



## DIMENSIONS

Length	mm (in)	1198 (47)
Width	mm (in)	819 (32)
Height	mm (in)	1002 (39)



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### INDUSTRIAL RATINGS AND CONDITIONS

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**IND - A (Continuous)** Continuous heavy duty service where the engine is operated at maximum power and speed up to 100% of the time without interruption or load cycling.

**IND - B** For service where power and/or speed are cyclic (time at full load not to exceed 80%).

**IND - C (Intermittent)** Intermittent service where maximum power and/or speed are cyclic (time at full load not to exceed 50%).

**IND - D** For service where maximum power is required for periodic overloads.

**Engine Performance** Engine performance is corrected to inlet air standard conditions of 99 kPa (29.31 in Hg) dry barometer and 25° C (77° F) temperature. These values correspond to the standard atmospheric pressure and temperature as shown in SAE J1995.

Performance measured using a standard fuel with fuel gravity of 35 degrees API having a lower heating value of 42 780 kJ/kg (18,390 Btu/lb) when used at 29° C (84.2° F) where the density is 838.9 g/liter (7.001 lb/U.S. gal).

The corrected performance values shown for Caterpillar engines will approximate the values obtained when the observed performance data is corrected to SAE J1995, ISO 3046-2 and 8665 and 2288 and 9249 and 1585, EEC 80/1269 and DIN 70020 standard reference conditions.