CATERPILLAR®

Industrial Engine 597-858 bkW/ 800-1150 bhp

C27 ACERT™

1800-2100 rpm

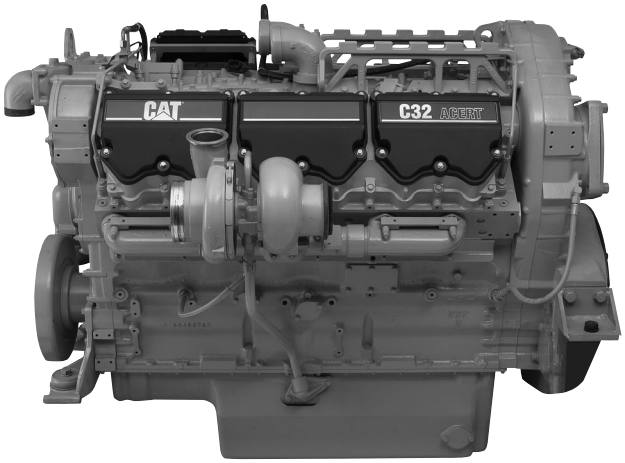


Image shown may not reflect actual engine

CATERPILLAR® ENGINE SPECIFICATIONS

V-12, 4-Stroke-Cycle Diesel

Bore . . . . . 137.7 mm (5.42 in.)
Stroke. . . . . 152.4 mm (6.0 in.)
Displacement . . . . . 27.0 L (1648 in^3)
Aspiration. . . . . Turbocharged Aftercooled
Compression Ratio 18:1
Rotation (from flywheel end) . . . Counterclockwise
Engine Weight, Net Dry (approximate)
with standard equipment . . . . . 2367 kg (5218 lbs.)

FEATURES

Emissions

Meets Tier 2 emissions requirements. Tier 2 refers to EPA (U.S.) 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 1,800 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 additional information on all your power requirements, visit www.cat-industrial.com.

STANDARD ENGINE EQUIPMENT

Air Inlet System
- Air-to-air aftercooled (ATAAC)
- Twin turbo

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

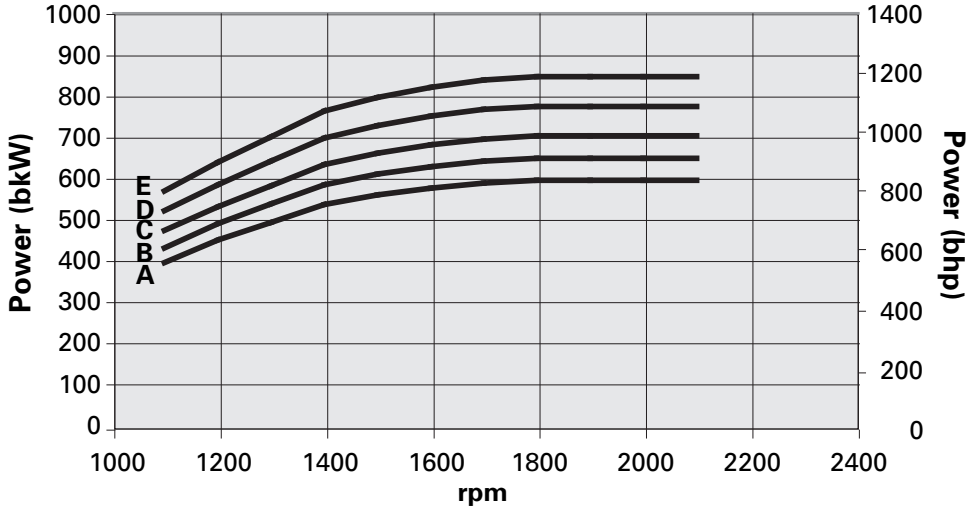
Flywheels and Flywheel Housing
- SAE No. 0 or SAE No. 1 flywheel housing

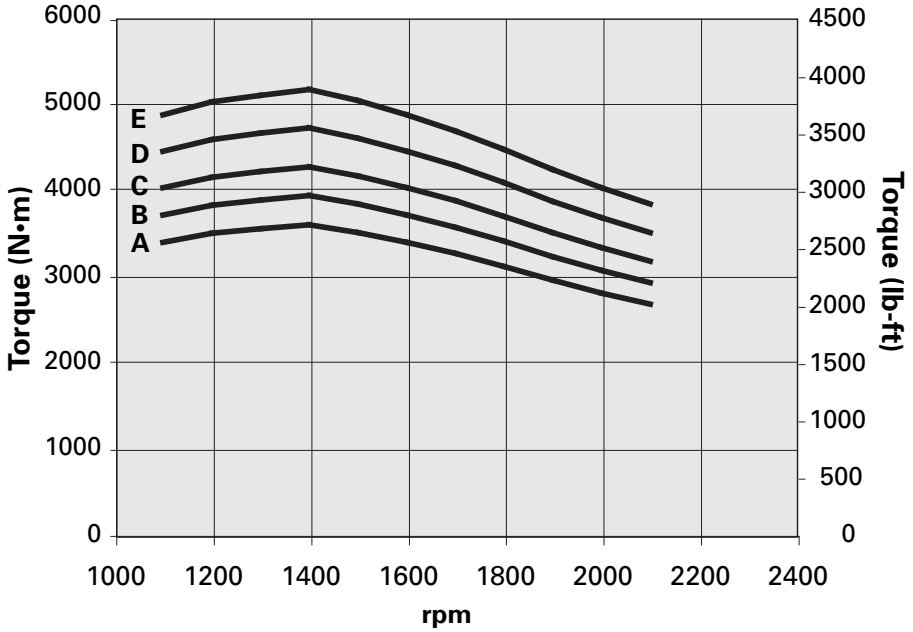
Fuel System
- MEUI injection
- Fuel filter, secondary (2 micron high performance)
- Fuel transfer pump
- Fuel priming pump
- ACERT™ Technology

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





Length	2083 mm (82 in.)
Width	1473 mm (58 in.)
Height	1499 mm (59 in.)

CATERPILLAR®

Industrial Engine

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INDUSTRIAL RATINGS AND CONDITIONS

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.

IND-E
For service where maximum power is required for a short time for initial starting or sudden overload. For emergency service where standard power is unavailable.

Ratings are based on SAE J1995, inlet air standard conditions of 99 kPa (29.31 in. Hg) dry barometer and 25°C (77°F) temperature. Performance measured using a standard fuel with fuel gravity of 35° API having a lower heating value of 42,780 kJ/kg (18,390 btu/lb) when used at 29° C (84.2° F) with a density of 838.9 g/L.

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, 8665, 2288, 9249, and 1585, EEC 80/1269 and DIN 70020 standard reference conditions.

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