



C18 ACERT™ Petroleum Engine Tier 4 Final 563 & 597 kW/755 & 800 bhp @ 1800 rpm

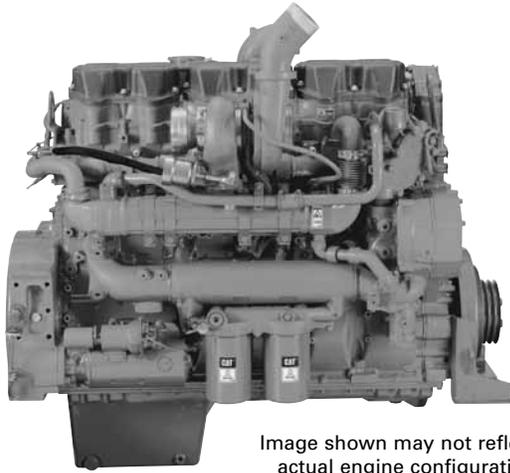


Image shown may not reflect actual engine configuration

CAT® ENGINE SPECIFICATIONS

I-6, 4-Stroke-Cycle Diesel

Emissions.....	U.S. EPA Tier 4 Final
Peak Torque at Speed.....	3710 N•m (2736 lb-ft) @ 1300 rpm*
Bore	145 mm (5.7 in)
Stroke	183 mm (7.2 in)
Displacement	18.1 L (1104.5 in ³)
Aspiration	Turbocharged-Aftercooled
Governor and Protection	Electronic ADEM™ A4
Engine Weight, Net Dry (approximate)	1580 kg (3482 lbs)
Capacity for Liquids	
Lube Oil System (refill)	40-74 L (42.3-78 U.S. qts)
Cooling System.....	26.9 L (28.4 U.S. qts)
Oil Change Interval	250-500 hours
Rotation (from flywheel end)	Counterclockwise
Flywheel and Flywheel Housing	SAE No. 0 or SAE No. 1
Flywheel Teeth	136 (SAE 0), 113 (SAE 1)

*D-rating

FEATURES

Emissions

- Designed to meet U.S. EPA Tier 4 Final emissions requirements.
- On-engine NOx reduction system with optimized piston, ring, liner, and fuel system configuration to reduce NOx while minimizing in-cylinder sooting
- Aftertreatment features diesel oxidation catalyst
- Meets Tier 4 Final emissions requirements four years early, achieving environmental benefits earlier than required

Engine Design

- Proven reliability and durability
- Broad operating speed range
- High power density
- PTO drive options provide flexible access to auxiliary power for pumps and other needs

Low Total Cost of Ownership

- Maintenance-free aftertreatment
- Optimized fuel consumption
- 250- to 500-hour oil change intervals enable low maintenance costs

Advanced Digital Engine Management

ADEM A4 control system providing integrated ignition, speed governing, protection, and controls, including detonation-sensitive variable ignition timing. ADEM A4 has improved: user interface, display system, shutdown controls, and system diagnostics.

Custom Packaging

For any petroleum application, trust Caterpillar to meet your exact needs with a factory custom package. Cat engines, generators, enclosures, controls, radiators, transmissions, aftertreatment solutions — anything your project requires — can be custom designed and matched to create a one-of-a-kind solution. Custom packages are globally supported and are covered by a one-year warranty after startup.

Fuel & Oil

Requires Ultra Low Sulfur Diesel (ULSD) containing a maximum of 15 ppm sulfur, and new oil formulations to support the new technology. Designed to accommodate B20 biofuel.

Transmissions

- Caterpillar has a full line of engine-transmission packages that can be fully integrated with your axle, hydraulics, and operator interface.
- C18 ACERT™ Caterpillar optimized transmission matches: CX35-P800

Product Support Offered Through Global Cat Dealer Network

- More than 2,200 dealer outlets
- Cat factory-trained dealer technicians service every aspect of your petroleum engine
- Cat parts and labor warranty

Preventive maintenance agreements available for repair-before-failure options

S•O•SSM program matches your oil and coolant samples against Caterpillar set standards to determine:

- Internal engine component condition
- Presence of unwanted fluids
- Presence of combustion by-products
- Site-specific oil change interval

Over 80 Years of Engine Manufacturing Experience

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

- Cast engine blocks, heads, cylinder liners, and flywheel housings
- Machine critical components
- Assemble complete engine

Web Site

For all your petroleum power requirements, visit www.catoilandgas.cat.com.



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STANDARD ENGINE EQUIPMENT

Air Inlet System

Turbocharged Aftercooled

Control System

Electronic control system, over-foam wiring harness, automatic altitude compensation, power compensated for fuel temperature, configurable software features, engine monitoring system SAE J1939 broadcast and control, integrated Electronic Control Unit (ECU) remote fan control

Cooling System

Vertical outlet thermostat housing, centrifugal water pump

Exhaust System

Dry exhaust manifold, Diesel Oxidation Catalyst (DOC)

Flywheels and Flywheel Housing

SAE 0 and SAE 1 flywheel housing

Fuel System

MEUI injection; primary fuel filter, secondary fuel filters, fuel transfer pump, electronic fuel priming

Lube System

Open crankcase ventilation system, oil cooler, oil filler, oil filter, oil dipstick, oil pump (gear driven), choice of sumps (front, rear, high-capacity center, and high-capacity front)

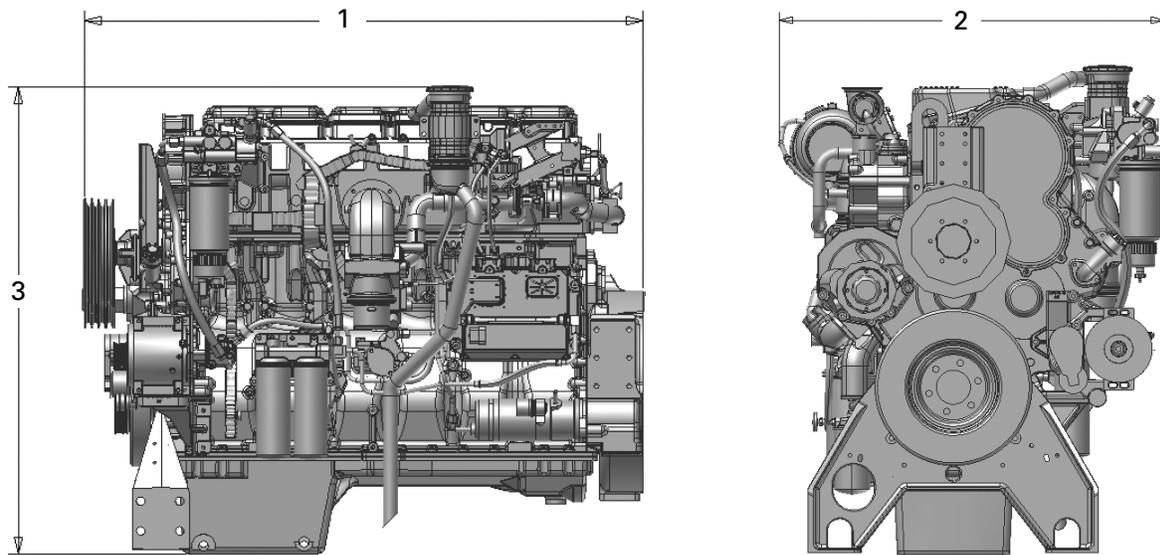
Power Take Off

SAE B and SAE C drives available, engine power can also be taken from the front of the engine on some applications

General

Paint: Cat yellow; vibration damper; lifting eyes

DIMENSIONS



(1) Length — 1530.3 mm (60.2 in) (2) Width — 960.5 mm (37.8 in) (3) Height — 1281.9 mm (50.5 in)

Note: Final dimensions dependent on selected options

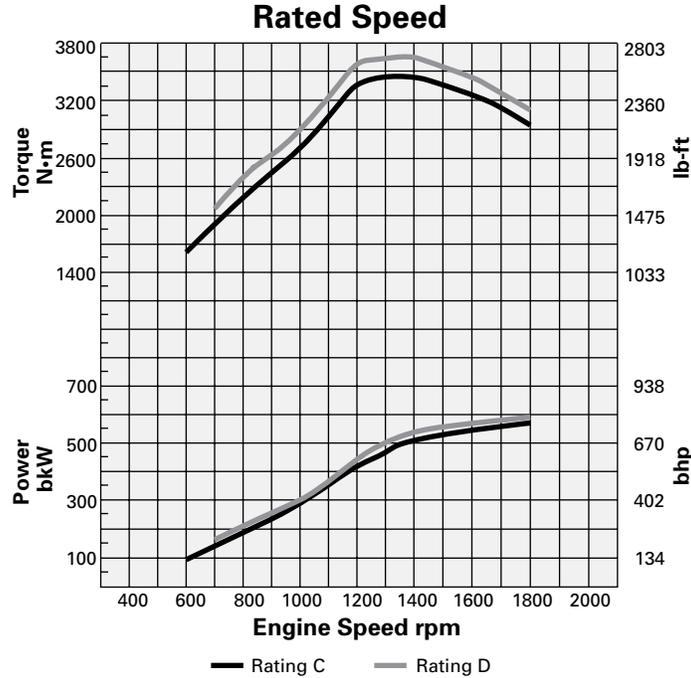


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PERFORMANCE DATA

Turbocharged-Aftercooled — 1800 rpm



Peak Power

Peak Torque

Rating	Speed rpm	Peak Power bkW	Peak Power bhp	Speed rpm	Peak Torque N·m	Peak Torque lb-ft
C	1800	563	755	1300	3503	2584
D	1800	597	800	1300	3710	2736

RATING DEFINITIONS AND CONDITIONS

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

D Rating for service where maximum power is required for periodic overloads (time at full load not to exceed 10% of the duty cycle).

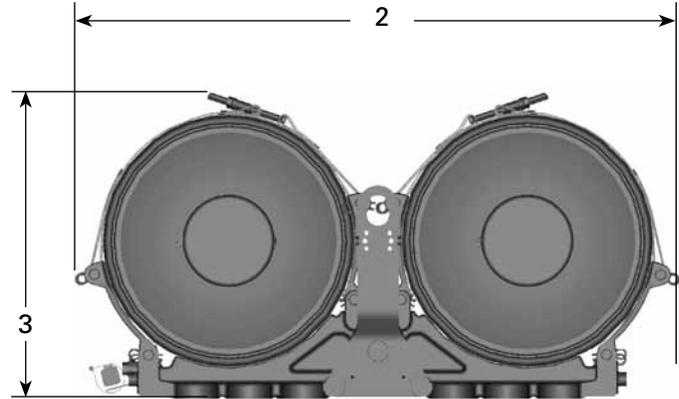
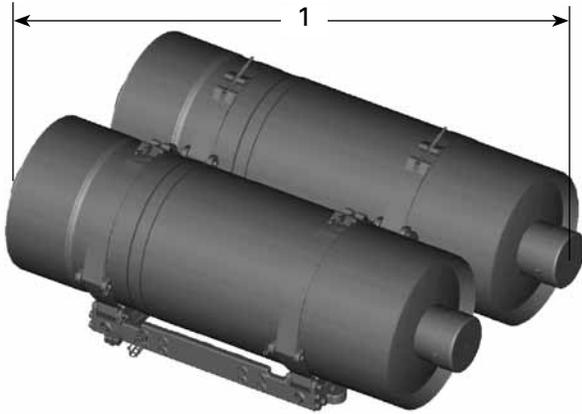
Engine Performance Diesel Engines — 7 liter and higher are based on SAE J1995, inlet air standard conditions of 99 kPa (29.31 in Hg) dry barometer and 25°C (77°F) temperature. Performance measured using a standard fuel with fuel gravity of 35° API having a lower heating value of 42 780 kJ/kg (18,390 btu/lb) when used at 29°C (84.2°F) with a density of 838.9 g/L.



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AFTERTREATMENT CONFIGURATION



Images shown reflect side-by-side configuration with mounting structure (standard).

Approximate Size and Weight

- (1) Length — 1162.5 mm (45.7 in)
- (2) Width — 870.59 mm (34.3 in)
- (3) Height — 439.2 mm (17.3 in)

Includes two diesel oxidation catalysts with mufflers, mounted side-by-side with supporting structure.

STANDARD EMISSIONS CONTROL EQUIPMENT

DOC: Diesel Oxidation Catalysts (2)

NRS: NO_x Reduction System

Materials and specifications are subject to change without notice. The International System of Units (SI) is used in this publication. CAT, CATERPILLAR, their respective logos, ACERT, 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.