Cat® C15 ACERT™ Industrial Diesel Engine

Industrial



The Cat® C15 ACERT™ Industrial Diesel Engine is offered in ratings ranging from 328-444 bkW (440-595 bhp) @ 1800 -2100 rpm. These ratings meet China Stage II, U.S. EPA Tier 3 equivalent, and EU Stage IIIA equivalent emission standards. Industries and applications powered by C15 ACERT engines include Agriculture, Ag Tractors, Aircraft Ground Support, Bore/Drill Rigs, Chippers/Grinders, Combines/Harvesters, Compactors/Rollers, Compressors, Construction, Cranes, Crushers, Dredgers, Forestry, General Industrial, Hydraulic Power Units, Irrigation Equipment, Loaders/Forwarders, Material Handling, Mining, Mobile Earthmoving Equipment, Paving Equipment, Pumps, Shovels/Draglines, Surface Hauling Equipment and Trenchers.

Specifications

Power Rating		
Minimum Power	328 bkW	440 bhp
Maximum Power	444 bkW	595 bhp
Rated Speed		1800-2100 rpm

Emission Standards	
Emissions	China Nonroad III, U.S. EPA Tier 3 Equivalent, EU Stage IIIA Equivalent

General	
Engine Configuration	Inline 6, 4-Stroke-Cycle Diesel
Bore	137.2 mm (5.4 in)
Stroke	171.4 mm (6.75 in)
Displacement	15.2 L (927.56 in³)
Aspiration	Turbocharged Aftercooled (TA)
Compression Ratio	18.0:1
Combustion System	Direct Injection
Rotation (from flywheel end)	Counterclockwise

Engine Dimensions (Approximate. Final dimensions dependent on selected options)		
Length - Approximate	1377 mm	54.2 in
Width - Approximate	918.6 mm	36.2 in
Height - Approximate	1226 mm	48.3 in
Length		1377 mm (54.2 in)
Width		926 mm (36.5 in)
Height		1226 mm (48.3 in)

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Weight, Net Dry (Basic Operating Engine Without Optional Attachments)	1469 kg (3239 lb)

Benefits and Features

Emissions

Designed to meet China Nonroad III emission standards. Meets U.S. EPA Tier 3 equivalent, EU Stage IIIA equivalent emission standards. Available using EPA (U.S.) Flexibility and EU Flexibility, and for other regulated and non-regulated areas.

Reliable, Quiet and Durable Power

World-class manufacturing capability and processes coupled with proven core engine designs assure reliability, quiet operation, and many hours of productive life.

Broad Application Range

Industry leading range of factory configurable ratings and options for agricultural, material handling, construction, mining, aircraft ground support, and other industrial applications.

Package Size

Exceptional power density enables standardization across numerous applications. Multiple installation options minimize total package size. Ideal for equipment with narrow engine compartments.

Quality

Every Cat engine is manufactured to stringent quality standards in order to assure customer satisfaction.

World-class Product Support Offered Through Global Cat Dealer Network

- Scheduled maintenance, including SOSSM sample
- Customer Support Agreements (CSA)
- Caterpillar Extended Service Coverage (ESC)
- Superior dealer service network
- Extended dealer service network through the Cat Industrial Service Distributor (ISD) program

Standard Equipment

Air Inlet System

- Turbocharged
- Air-to-Air Aftercooled

Control System

- Electronic governing, PTO speed control
- Programmable ratings
- 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 SAE J1939 broadcast and control
- ADEM™ A4 Electronic Control Unit (ECU)

Cooling System

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- 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

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

Lube System

- Crankcase breather
- Oil cooler
- Oil filler
- Lube oil filter
- Front sump oil pan
- Oil dipstick
- Gear driven oil pump

General

- Vibration damper
- Lifting eyes
- Cold start capability to -20° C (-4° F)
- Paint: Caterpillar yellow, with optional colors available at request

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.

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Rating Type: IND-A (CONTINUOUS) RATING

Emissions: U.S. EPA Tier 3 Nonroad Equivalent Emission Standards (Not Currently EPA Certified)

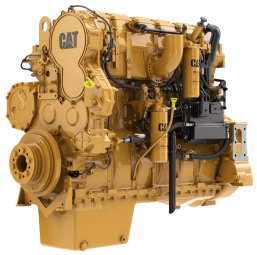


Image shown may not reflect actual configuration

C15 ACERT

DITA

328 bkW (440 bhp) @ 2100 rpm

	Metric	English
General Engine		
Power Rating	328 kW	440 hp
Number of Cylinders	6	
Bore	137 mm	5.4 in
Stroke	171 mm	6.7 in
Displacement	15.2 L	928.0 cu in.
Compression Ratio	18.0 : 1	

RATING DEFINITIONS AND CONDITIONS

IND-A (CONTINUOUS) RATING: 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.

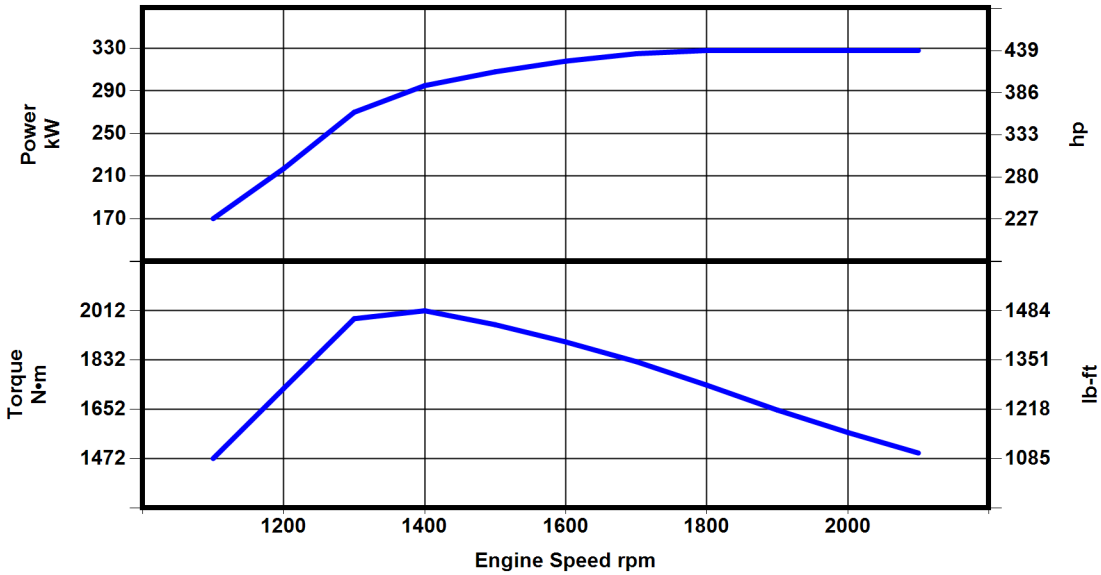
Diesel Engines — up to 7.1 liter All rating conditions are based on ISO/TR14396, inlet air standard conditions with a total barometric pressure of 100 kPa (29.5 in Hg), with a vapor pressure of 1 kPa (.295 in Hg), and 25°C (77°F). Performance measured using fuel to EPA specifications in 40 CFR Part 1065 and EU specifications in Directive 97/68/EC with a density of 0.845-0.850 kg/L @ 15°C (59°F) and fuel inlet temperature 40°C (104°F).

Diesel Engines — greater than 7.1 liter All rating conditions 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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Rating Type: IND-A (CONTINUOUS) RATING

Emissions: U.S. EPA Tier 3 Nonroad Equivalent Emission Standards (Not Currently EPA Certified)



Engine Speed rpm	Engine Power bkW	Engine Power bhp	Torque N*m	Torque lb-ft
2100	328	440	1492	1100
2000	328	440	1567	1155
1900	328	440	1649	1216
1800	328	440	1740	1283
1700	325	436	1826	1346
1600	318	426	1898	1400
1500	308	413	1961	1446
1400	295	396	2012	1484
1300	270	362	1983	1463
1200	217	291	1728	1275
1100	170	227	1472	1085

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