



The Cat® C9 ACERT™ Industrial Diesel Engine is offered in ratings ranging from 205-280 kW (275-375 bhp) @ 1800-2200 rpm. These ratings meet China Stage II, EPA Tier 3 equivalent, and EU Stage IIIA equivalent emission standards. Industries and applications powered by C9 ACERT engines include Agriculture, Ag Tractors, Aircraft Ground Support, Bore/Drill Rigs, Chippers/Grinders, Combines/Harvesters, Compactors/Rollers, Compressors, Construction, Cranes, Crushers, Dredgers, Forestry, Forklifts, General Industrial, Hydraulic Power Units, Irrigation Equipment, Loaders/Forwarders, Material Handling, Mining, Mobile Earthmoving Equipment, Mobile Sweepers, Paving Equipment, Pumps, Shovels/Draglines, Specialty Ag Equipment, Sprayers, Surface Hauling Equipment, Trenchers and Underground Mining Equipment.

Specifications

Power Rating		
Minimum Power	205 kW	275 bhp
Maximum Power	280 kW	375 bhp
Rated Speed	1800-2200 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	112 mm (4.41 in)
Stroke	149 mm (5.87 in)
Displacement	8.8 L (537.01 in³)
Aspiration	Turbocharged Aftercooled (TA)
Compression Ratio	16.1:1
Combustion System	Direct Injection
Rotation (from flywheel end)	Counterclockwise
Lube System (refill)	32 L (33.8 qt)

Engine Dimensions (Approximate. Final dimensions dependent on selected options)	
Length	1091 mm (43 in)
Width	827 mm (32.6 in)
Height	1023 mm (40.3 in)
Weight, Net Dry (Basic Operating Engine Without Optional Attachments)	864 kg (1905 lb)

Benefits and Features

Emissions

Designed to meet China Nonroad III emission standards. Meets U.S. EPA Tier 3 equivalent or U.S. EPA Tier 2 equivalent, EU Stage IIIA equivalent or EU Stage II equivalent emission standards. U.S. EPA Tier 3 equivalent EU Stage IIIA equivalent available using EPA (U.S.) Flexibility and EU Flexibility. Also available 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

- 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)
- 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

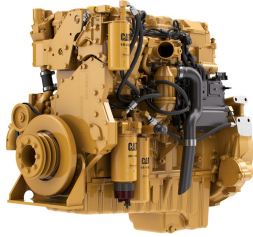
- Vibration damper
- Lifting eyes
- Cold start capability to -20° C (-4° F)
- Paint: Caterpillar yellow, with optional colors available at request

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261 kW (350 bhp) @ 2200 rpm

Rating Type: IND-C (INTERMITTENT) RATING

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



C9 ACERT

DITA

261 kW (350 bhp) @ 2200 rpm

Image shown may not reflect actual configuration

	Metric	English
General Engine		
Power Rating	261 kW	350 hp
Number of Cylinders	6	
Bore	112 mm	4.4 in
Stroke	149 mm	5.9 in
Displacement	8.8 L	538.0 cu in.
Compression Ratio	16.1 : 1	

RATING DEFINITIONS AND CONDITIONS

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

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).

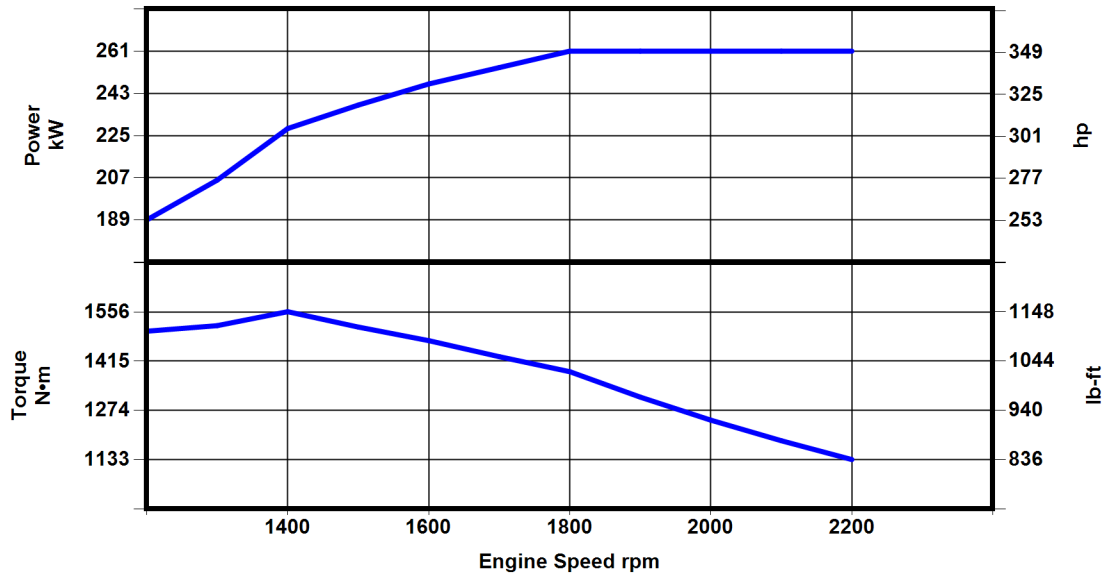
Diesel Engines — greater than 7.1 liter All rating conditions are based on SAE J1995, inlet air standard conditions of 99 kPa (29.31 in Hg) dry barometer and 25°C (77°F) temperature. Performance measured using a standard fuel with fuel gravity of 35° API having a lower heating value of 42,780 kJ/kg (18,390 btu/lb) when used at 29°C (84.2°F) with a density of 838.9 g/L.



261 bkW (350 bhp) @ 2200 rpm

Rating Type: IND-C (INTERMITTENT) 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
2200	261	350	1133	836
2100	261	350	1187	875
2000	261	350	1246	919
1900	261	350	1312	968
1800	261	350	1385	1021
1700	254	341	1428	1053
1600	247	331	1474	1087
1500	238	319	1513	1116
1400	228	306	1557	1148
1300	207	277	1517	1119
1200	189	253	1501	1107

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