



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

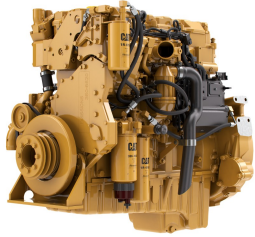
- Vibration damper
- Lifting eyes
- Cold start capability to -20° C (-4° F)
- Paint: Caterpillar yellow, with optional colors available at request

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224 bkW (300 bhp) @ 2200 rpm

Rating Type: IND-B RATING

Emissions: EU Stage IIIA Nonroad Equivalent Emission Standards (Non-Current for EU)



C9 ACERT

DITA

224 bkW (300 bhp) @ 2200 rpm

Image shown may not reflect actual configuration

	Metric	English
<b>General Engine</b>		
Power Rating	224 kW	300 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-B RATING:**For service where power and/or speed are cyclic (time at full load not to exceed 80%).

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).

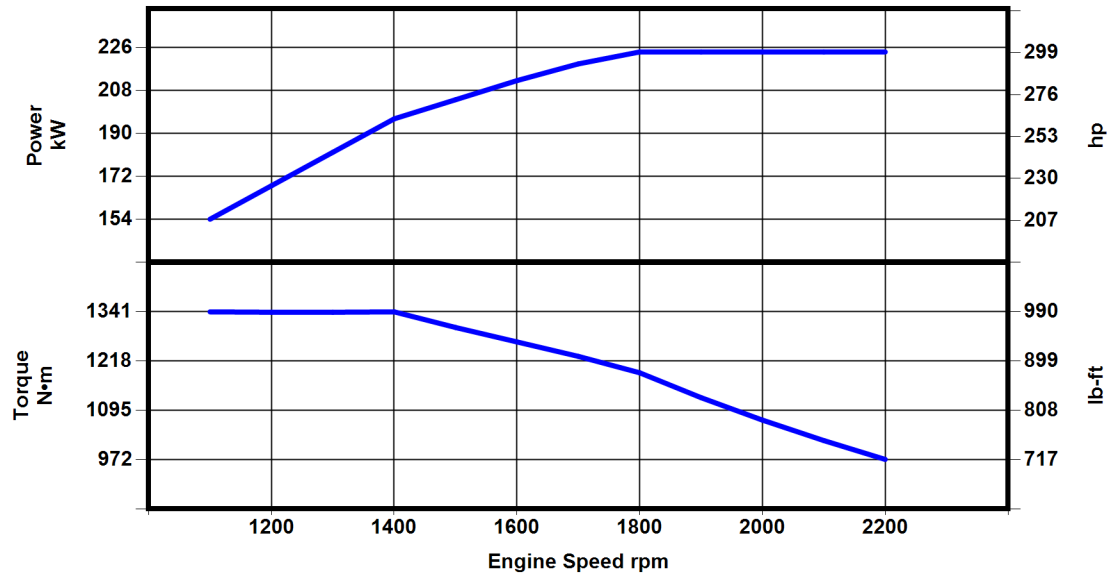
Diesel Engines — greater than 7.1 liter All rating conditions are based on SAE J1995, inlet air standard conditions of 99 kPa (29.31 in Hg) dry barometer and 25°C (77°F) temperature. Performance measured using a standard fuel with fuel gravity of 35° API having a lower heating value of 42,780 kJ/kg (18,390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



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Engine Speed rpm	Engine Power bkW	Engine Power bhp	Torque N*m	Torque lb-ft
2200	224	300	972	717
2100	224	300	1019	751
2000	224	300	1070	789
1900	224	300	1126	830
1800	224	300	1188	876
1700	219	293	1229	907
1600	212	284	1265	933
1500	204	274	1301	959
1400	197	264	1340	989
1300	182	244	1339	988
1200	168	226	1339	988
1100	154	207	1340	988

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