

The Cat® C7 ACERT™ Industrial Power Unit is offered in ratings ranging from 168-205 bkW (225-275 bhp) @ 1800-2200 rpm. These ratings meet China Stage II, U.S. EPA Tier 3 equivalent, EU Stage IIIA equivalent emission standards. Conveniently pre-configured for a wide range of applications, the Cat® Industrial Power Unit is a complete power package containing a radiator, flywheel, alternator and alternator wiring completely pre-assembled for fast, straightforward installation in a number of OEM, customer and packager applications. These fuel efficient units are ready made for irrigation, industrial, mining and other pump applications.

Specifications

Power Rating		
Minimum Rating	168 bkW	225 bhp
Maximum Rating	205 bkW	275 bhp
Rated Speed	2200 rpm	

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

General	
Engine Configuration	Inline 6, 4-Stroke-Cycle Diesel
Bore	110 mm (4.33 in)
Stroke	127 mm (5.0 in)
Displacement	7.2 L (442 in ³)
Aspiration	Turbocharged Aftercooled (TA)
Compression Ratio	17:1
Rotation (from flywheel end)	Counterclockwise

Power Unit Dimensions (Approximate. Final dimensions dependent on selected options)	
Length	2029.5 mm (79.9 in)
Width	974.8 mm (38.4 in)
Height	1986.3 mm (78.2 in)
Weight - Net Dry (Standard configuration without oil, cooling, clutch, compressor, A/C)	1250 kg (2756 lb)



Benefits And Features

Emissions

Meets U.S. EPA Tier 3 equivalent, EU Stage IIIA equivalent emission standards. Available using U.S. EPA Flexibility or 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.

Package Size

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

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.

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

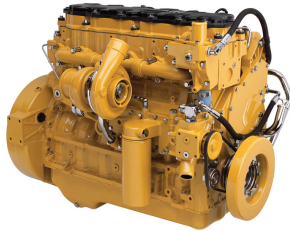


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Rating Type: IND-B RATING

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



C7 ACERT

DITA

168 bkW (225 bhp) @ 2200 rpm

Image shown may not reflect actual configuration

Metric English

General Engine		
Power Rating	168 kW	225 hp
Number of Cylinders	6	
Bore	110 mm	4.3 in
Stroke	127 mm	5.0 in
Displacement	7.2 L	442.0 cu in.
Compression Ratio	16.5 : 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%).

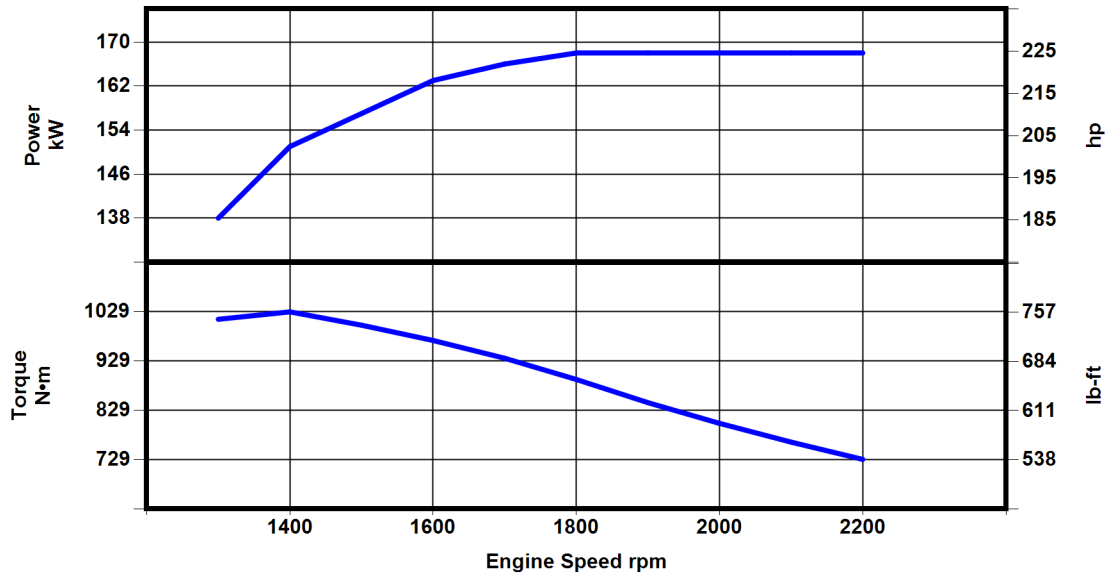
Diesel Engines — up to 7.1 liter All rating conditions are based on ISO/TR14396, inlet air standard conditions with a total barometric pressure of 100 kPa (29.5 in Hg), with a vapor pressure of 1 kPa (.295 in Hg), and 25°C (77°F). Performance measured using fuel to EPA specifications in 40 CFR Part 1065 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	168	225	729	538
2100	168	225	764	563
2000	168	225	802	592
1900	168	225	844	623
1800	168	225	891	657
1700	166	223	934	689
1600	163	218	970	716
1500	157	211	1001	739
1400	151	202	1028	758
1300	138	185	1013	747

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