



The Cat® C7 ACERT™ Industrial Diesel Engine is offered in ratings ranging from 168-224 bkW (225-300 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 C7 ACERT engines include Agriculture, Ag Tractors, Aircraft Ground Support, Bore/Drill Rigs, Chippers/Grinders, Combines/Harvesters, Compactors/Rollers, Compressors, Construction, Cranes, Crushers, Feller Bunchers, Forestry, Forklifts, General Industrial, Hydraulic Power Units, Irrigation Equipment, Loaders/Forwarders, Material Handling, Mining, Mobile Earthmoving Equipment, Mobile Sweepers, Paving Equipment, Pumps, Skidders, Specialty Ag Equipment, Sprayers, Trenchers and Underground Mining Equipment.

Specifications

Power Rating		
Minimum Power	168 bkW	225 bhp
Maximum Power	224 bkW	300 bhp
Rated Speed	1800-2200 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 in³)
Aspiration	Turbocharged Aftercooled (TA)
Compression Ratio	16.2:1
Combustion System	Direct Injection
Rotation (from flywheel end)	Counterclockwise

Engine Dimensions (Approximate. Final dimensions dependent on selected options)	
Length	1053 mm (41.5 in)
Width	758 mm (29.8 in)
Height	1032 mm (40.6 in)
Weight, Net Dry (Basic Operating Engine Without Optional Attachments)	588 kg (1296 lb)

Benefits and Features

Emissions

Meets China Stage II, 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

- 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

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.