



The Cat® C7.1 ACERT™ Industrial Diesel Engine is offered in ratings ranging from 116-205 kW (156.2 bhp-275 bhp) @2200 rpm. These ratings meet China Stage II, U.S. EPA Tier 3 equivalent, EU Stage IIIA equivalent emission standards. Industries and applications powered by C7.1 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	116.5 kW	156.2 BHP
Maximum Power	205 kW	275 BHP
Rated Speed	2200 rpm	

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

General	
Engine Configuration	In-Line 6, 4-Stroke-Cycle Diesel
Bore	105 mm (4.1 in)
Stroke	135 mm (5.3 in)
Aspiration	Turbocharged Aftercooled (TA)
Displacement	7.01 L (427.7 in³)
Rotation from Flywheel End	Counterclockwise

Engine Dimensions - Approximate	
Height	835 mm (32.87 in)
Length	929 mm (35.5 in)
Weight - Net Dry - Basic Operating Engine Without Optional Attachments	524 kg (1155 lb)
Width	725 mm (28.5 in)

Benefits and Features

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.

High Performance

Series turbocharging with smart wastegate available on specific ratings for fast response, high power, and increased torque.

Fuel Efficiency

Fuel consumption optimized to match operating cycles of a wide range of equipment and applications while maintaining low operating costs.

Fuel & Oil

Tier 4 Interim or Tier 4 Final, Stage IIIB or Stage IV engines require Ultra Low Sulfur Diesel (ULSD) fuel containing a maximum of 15 ppm sulfur, and new oil formulations to support the new technology. Cat® engines are designed to accommodate B20 biofuel. Your Cat dealer can provide more information regarding fuel and oil.

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.

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**

- Standard air cleaners

Control System

- Full electronic control system, all connectors and wiring looms waterproof and designed to withstand harsh off-highway environments, flexible and configurable software features and well supported SAE J1939 CAN bus enables highly integrated machines

Cooling System

- Top tank temperature 108°C (226°F) as standard to minimize cooling pack size, 50:50 water glycol mix, detailed guidance on cooling system design and validation available to ensure machine reliability

Exhaust System

- Diesel particulate filter and regeneration system supplied, with a range of inlet and outlet options

Flywheels and Flywheel Housing

- Wide choice of drivetrain interfaces, including SAE1, SAE2 or SAE3 configurations

Fuel System

- Electronic high pressure common rail, ACERT™ Technology, innovative filter design to ensure maximum protection of the engine.

Lube System

- Wide choice of sumps for different applications

Power Take Off

- SAE A or SAE B flanges on left-hand side. Right- hand side twin PTO also available. Engine power can also be taken from the front of the engine on some applications, factory fitted compressors are also available.

General

- Paint: Caterpillar yellow, with optional colors available at request

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