



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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