



The Cat® C9.3B Industrial Diesel Engine is offered in ratings ranging from 250-340 kW (335-456 bhp) @ 1800-2200 rpm. These ratings meet U.S. EPA Tier 4 Final emission standards and are designed to meet proposed EU Stage V emission standards. The C9.3B engines are ideal choices to power applications in agriculture, aircraft ground support, construction, forestry, general industrial, material handling, and mining.

Specifications

Power Rating		
Minimum Power	250 kW	335 bhp
Maximum Power	340 kW	456 bhp
Rated Speed	1800-2200 rpm	

Emission Standards	
Emissions	U.S. EPA Tier 4 Final Nonroad Emission Standards. Designed to meet proposed EU Stage V Nonroad Emission Standards.

General	
Engine Configuration	In-Line 6, 4-Stroke-Cycle Diesel
Bore	115 mm (4.53 in)
Stroke	149 mm (5.87 in)
Displacement	9.3 L (567.5 in ³)
Aspiration	Turbocharged-Aftercooled (TA)
Compression Ratio	17.0:1
Combustion System	Direct Injection
Rotation (from flywheel end)	Counterclockwise
Cooling System Capacity	22 L (23.6 qts)
Lube System (refill)	30 L (31.7 qts)

Engine Dimensions (Approximate. Final dimensions dependent on selected options)	
Length	1125 mm (44.3 in)
Width	791 mm (31.1 in)
Height	1068 mm (42 in)

Weight - Net Dry (Basic Operating Engine Without Optional Attachments)	865 kg (2480 lb)
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Aftertreatment Dimensions (Approximate. Final dimensions dependent on selected options)	
Length	925 mm (36.4 in)
Width	694 mm (27.3 in)
Height	432 mm (17.0 in)
Weight	140 kg (308 lb)

Benefits and Features

Emissions

Meets U.S. EPA Tier 4 Final emission standards. Designed to meet proposed EU Stage V emission standards. As of publishing date, Stage V regulations have not been finalized.

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

High power density. With peak power increased by over 18%, you can look to downsize the displacement of the engine currently powering your application. Simple and efficient turbocharger provides optimal air management and improved fuel efficiency.

Fuel Efficiency

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

Installation

Exceptional power density enables you to use a smaller displacement engine than previously, and optimize the installation in your application. Multiple installation options minimize total package size. Ideal for equipment with narrow engine compartments. Additional aftertreatment flexibility to package in your machine including ability to mount cans separately and vertical mounting option. Compact aftertreatment option to limit requirements on packaging space. Low heat rejection levels, similar to previous emission standards, allow for reduced cooling package size and cost.

Low Cost Maintenance

Worldwide service delivers ease of maintenance and simplifies the servicing routine. If applicable, minimum 5000-hour diesel particulate filter (DPF) ash service interval enables low-cost maintenance. Capable of optimal oil change intervals of up to 500-hours, depending on rating, application, operating conditions, and maintenance practices. Engine B10 life up to 10000 hours for Tier 4 Final, Stage IV. The S·O·SSM program is available from your Cat dealer to determine oil change intervals and provide optimal performance.

Quality

Every Cat engine is manufactured to stringent 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

Tier 4 Final, Proposed Stage V Aftertreatment Features

Regeneration. Cat Regeneration System maximizes fuel efficiency during regeneration. Transparent regeneration maximizes uptime. Aftertreatment life is twice as long as engine rebuild **Mounting.** Remote installation options provide OEM flexibility for many applications, including horizontal and vertical mounting. **Service.** Minimum 5000 hour DPF ash service interval. PETU filter service is 5000 hours. PETU DEF capacity up to 48 liters (51 U.S. quarts)

Enhanced Connectivity

The C9.3B is equipped for the future. High speed communication between the engine ECM and telematics hardware enables advanced engine monitoring, onboard analytics, remote services, including software updates, and more.

Standard Equipment

Air Inlet System

- Turbocharged
- Air-to-Air Aftercooled
- Mid-mount turbocharged system with front and rear exhaust configurations (Tier 4 Final, proposed Stage V)

Control System

- Electronic control system
- Over-foam wiring harness
- Automatic altitude compensation
- Power compensated for fuel temperature
- Configurable software features
- Engine monitoring system SAE J1939 broadcast and control
- Integrated Electronic Control Unit (ECU)
- Remote fan control

Cooling System

- Vertical or RH thermostat outlet
- Centrifugal water pump
- Guidance on cooling system design available through your dealer to ensure equipment reliability

Flywheels and Flywheel Housing

- Available SAE 1 power take-off with optional SAE A, SAE B, SAE C power take-off drives. Engine power can also be taken from the front of the engine with optional attachments. (Tier 4 Final, Proposed Stage V)

Fuel System

- Electronic high pressure common rail
- Primary fuel filter



- Secondary fuel filters
- Fuel transfer pump
- Electronic fuel priming

Lube System

- Open crankcase ventilation system
- Oil cooler
- Oil filler
- Lube oil filter
- Oil dipstick
- Gear driven oil pump
- Choice of front, rear or center sumps
- Open crankcase ventilation system with fumes disposal (optional OCV filter system) (Tier 4 Final, Proposed Stage V)

Power Take Off (PTO)

- SAE A, SAE B or SAE C power take off (PTO) drives. Engine power can also be taken from the front of the engine on some applications.

General

- Paint: Caterpillar yellow, with optional colors available at request
- Vibration damper
- Lifting eyes

Tier 4 Final, Proposed Stage V Aftertreatment

- Clean Emissions Module (CEM), consisting of Diesel Particulate Filter (DPF) and Diesel Oxidation Catalyst (DOC)
- Pump Electronic Control Unit (PETU)
- Selective Catalytic Reduction (SCR)
- Available in 12V or 24V systems

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