



Image shown may not reflect actual configuration

The Cat® C9.3B Industrial Diesel Engine is offered in ratings ranging from 250-340 bkW (335-456 bhp) @ 1800-2200 rpm. These ratings meet U.S. EPA Tier 4 Final, EU Stage V, Japan 2014, and Korea Tier 4 Final* or China Nonroad Stage IV 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 bkW	335 bhp
Maximum Power	340 bkW	456 bhp
Rated Speed	1800-2200 rpm	

Emission Standards	
Emissions	EU Stage V, U.S. EPA Tier 4 Final, Japan 2014, and Korea Tier 4 Final* or China Nonroad Stage IV

Engine Specifications		
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 (engine)	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	1907 lb

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	96 kg	211 lb

*Korea Tier 5 Capable

Benefits & Features

High Power Density

High power density. With peak power increased by over 18%, you can look to downsize the displacement of the engine currently powering your application.

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.

Fluid 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.
- Fully configurable engine and compact aftertreatment minimize package size. Ideal for equipment with narrow engine compartments.
- Aftertreatment installation flexibility to meet all applications – including remote mount and engine-mounted from the factory.
- Industrial power unit (IPU) available from factory to avoid significant design, validation, and manufacturing costs.
- Low heat rejection levels allow for optimized cooling package at equivalent power.
- Auxiliary coolant inlet and outlet options for ease of customer installation and access.
- The C9.3B is available as a single label certification for EU Stage V, U.S. EPA Tier 4 Final, Japan 2014, and Korea Tier 4 Final* or certified to China Nonroad Stage IV. Common installation across regions covered by these emissions regulations simplifies customer design and installation.

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.
- Standard service intervals of 500 hours under normal operating conditions.
- The S•O•SSM program is available from your Cat dealer to optimize oil change intervals.
- Ideal for high-hour applications over 10,000 hours.
- Remote mount options for serviceable items such as oil and fuel filters.

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 S•O•S sample
- Customer support agreements (CSA)
- Extended service coverage (ESC)
- Superior dealer service network
- Extended dealer service network through the Cat industrial service distributor (ISD) program

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Benefits & Features (continued)

U.S. EPA Tier 4 Final and EU Stage V or China Nonroad Stage IV Aftertreatment Features

- Clean emissions module (CEM) consisting of diesel oxidation catalyst (DOC) and combined diesel particulate filter (DPF) and high-efficiency selective catalytic reduction (SCR)
- Maximum uptime with transparent aftertreatment regeneration, without operator distraction or impact to machine performance
- Pump Electronic Tank Unit (PETU) Diesel Exhaust Fluid (DEF) capacity up to 93.7 liters (24.7 U.S. gallons)
- Minimum 5000 hour service interval for DPF/PETU filters



Enhanced Electronics

- The C9.3B is equipped for the future with the latest technology from a single on-engine ECM.
- 2-wire Ethernet connection allows for simpler, faster installation and for remote service and software flash.
- 12V and 24V available

Standard Equipment

Air Inlet System

- Turbocharged
- Air-to-Air Aftercooled
- Mid-mount turbocharged system with front and rear exhaust configurations

Control System

- Electronic control system
- Over-foam wiring harness
- Automatic altitude compensation
- 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 No. 1 power take-off with optional SAE B or SAE C power take-off drives. Engine power can also be taken from the front of the engine with optional attachments.

Fuel System

- Electronic high pressure common rail
- Primary fuel filter
- Secondary and tertiary fuel filters
- Fuel transfer pump
- Electronic fuel priming



Standard Equipment (continued)

Lube System

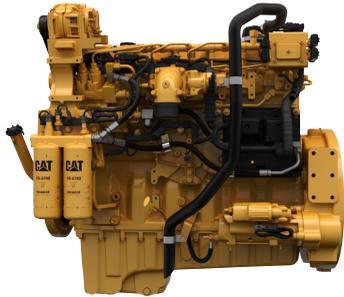
- Oil cooler
- Oil filler
- Lube oil filter
- Oil dipstick
- Gear-driven oil pump
- Choice of front, rear or center sumps
- Open crankcase ventilation system with fumes disposal (OCV filter system)

Power Take-off (PTO)

- 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

- Caterpillar Yellow paint, with optional colors available
- Vibration damper
- Lifting eyes



**Emissions: U.S. EPA Tier 4 Final,
 EU Stage V, Japan 2014, and
 Korea Tier 4 Final* or China Nonroad
 Stage IV Emission Standards**

C9.3B

**250-340 bkW/ 335-456 bhp
 1800-2200 rpm**

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	Metric	English
General Engine		
Number of Cylinders	6	
Bore	115 mm	4.5 in
Stroke	149 mm	5.9 in
Displacement	9.3 L	568.0 in ³
Compression Ratio	17.0:1	

RATING DEFINITIONS AND CONDITIONS

IND-A (Continuous) for heavy duty service where the engine is operated at maximum power and speed up to 100% of the time without interruption or load cycling.

IND-B for service where power and/or speed are cyclic (time at full load not to exceed 80%).

IND-C (Intermittent) is the horsepower and speed capability of the engine where maximum power and/or speed are cyclic (time at full load not to exceed 50%).

IND-D for service where maximum power is required for periodic overloads (time at full load not to exceed 10% of the duty cycle).

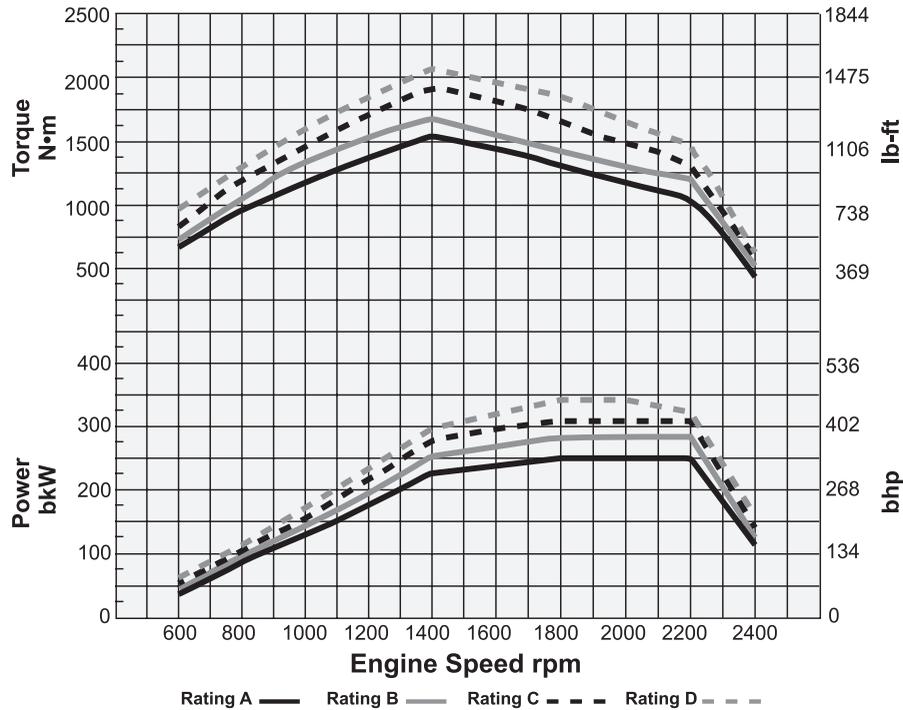
Diesel Engines – greater than 7.1 liter. All rating conditions are based on SAE J1995, inlet air standard conditions of 99 kPa (29.31 in Hg) dry barometer and 25°C (77°F) temperature. Performance measured using a standard fuel with fuel gravity of 35° API having a lower heating value of 42,780 kJ/kg (18,390 btu/lb) when used at 29°C (84.2°F) with a density of 838.9 g/L.

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Performance Data



Rating	Aspiration	Rated Speed rpm	Rated Power kW	Rated Power bhp	Peak Torque N·m	Peak Torque lb-ft	Speed rpm
A	TA	1800-2200	250	335	1530	1129	1400
B	TA	1800-2200	280	376	1714	1264	1400
C	TA	1800-2200	310	416	1897	1399	1400
D	TA	1800-2000**	340	456	2088	1540	1400

**D Rating available up to 2200 rpm with power and torque as reflected by curves shown.

RATING CONDITIONS FOR DIESEL ENGINES - GREATER THAN 7 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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Materials and specifications are subject to change without notice.
 The International System of Units (SI) is used in this publication.

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