

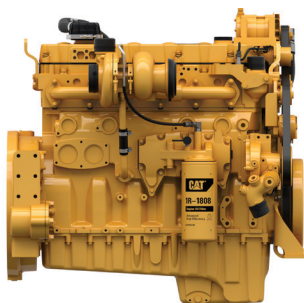


Image shown may not reflect actual configuration

The Cat® C9.3B Industrial Diesel Engine is offered in ratings ranging from 230-310 kW (308-416 bhp). These ratings meet China Nonroad Stage III, Brazil MAR-1 and UN R96 Stage IIIA emission standards and UN R120 performance standards for measurement of net power and specific fuel consumption.

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	230 kW	308 bhp
Maximum Power	310 kW	416 bhp
Rated Speed	2200 rpm	

Emissions/Performance Standards	
Emissions	China Nonroad Stage III, Brazil MAR-1, and UN R96 Stage IIIA emission standards.
Performance	UN R120 for measurement of net power and specific fuel consumption.

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	16.5:1	
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

Benefits & Features

High Performance

The C9.3B delivers expanded capability with 19% more power and 16% more torque than the previous 8.8 liter platform for less regulated countries (comparison for IND-C rating).

Reliable, Quiet and Durable Power

The C9.3B engine leverages a core engine with over 200 million off-highway hours in the field and is manufactured in a world-class facility; assuring reliability, quiet operation and many hours of productive life.

Low Operating Costs

C9.3B development and calibration strategies have yielded significant improvements in fuel consumption, minimizing the total cost of ownership.

Optimized Installation

- The C9.3B for LRC offers platform commonality with the C9.3B for highly regulated countries to reduce cost of installation and support a global customer base by sharing a common core engine, offering similar machine interfaces and controls architecture.
- High power density, up to 33.3 kW/L (44.7 hp/L) gives original equipment manufacturers (OEMs) the ability to downsize their engine installation without sacrificing performance.
- Fully configurable engine options and industrial power unit (IPU) available from factory to avoid significant design, validation, and manufacturing costs.

Low Cost Maintenance

- Worldwide service delivers ease of maintenance and simplifies the servicing routine.
- 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.

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

Standard Equipment

Air Inlet System

- Turbocharged: system with front and rear exhaust configurations
- Air-to-Air Aftercooled

Control System

- Electronic control system with single on-engine ECM
- Over-foam wiring harness
- Automatic altitude compensation
- Configurable software features
- Engine monitoring system SAE J1939 broadcast and control

Cooling System

- Centrifugal water pump
- Guidance on cooling system design available through your dealer to ensure equipment reliability

Flywheels and Flywheel Housing

- Available SAE No. 1 and No. 2 flywheel/housings

Fuel System

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

Lube System

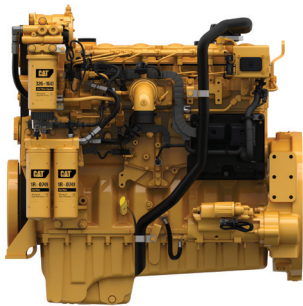
- Oil cooler
- Oil filler
- Lube oil filter
- Oil dipstick
- Gear-driven oil pump
- Choice of front, rear or center sumps
- Open crankcase ventilation system (OCV) with fumes disposal (optional OCV filter system)

Power Take-off (PTO)

- Available SAE No. 1 flywheel housings with rear power take-off (PTO) drive options for SAE B, SAE C, or combination. 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: China Nonroad Stage III, Brazil MAR-1
and UN R96 Stage IIIA Emission Standards
and UN R120 Performance Standards

C9.3B
230-310 bkW/ 308-416 bhp
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	16.5:1	

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.

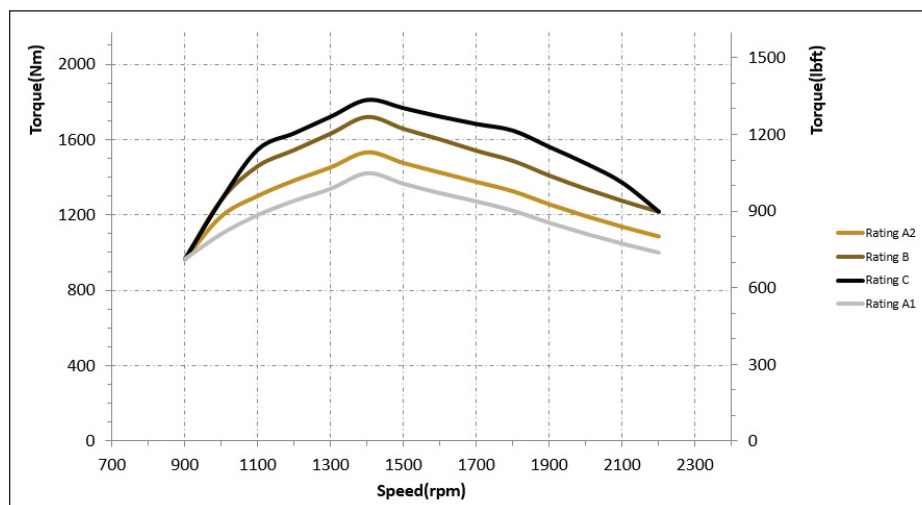
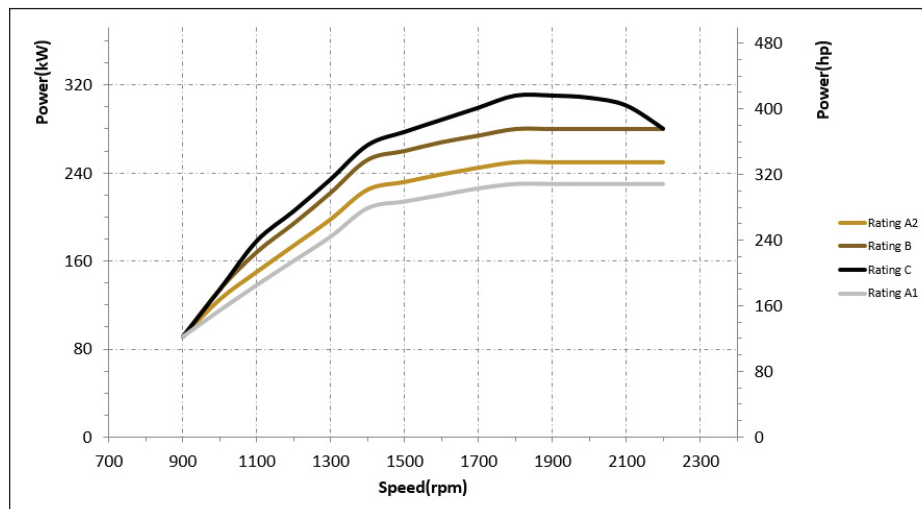
IND-B for service where power and/or speed are cyclic (time at full load not to exceed 80%).

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%).

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.

**Emissions: China Nonroad Stage III, Brazil MAR-1
 and UN R96 Stage IIIA Emission Standards
 and UN R120 Performance Standards**

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	2200	230	308	1416	1044	1400
A	TA	2200	250	335	1532	1130	1400
B	TA	2200	280	375	1715	1265	1400
C*	TA	2200*	310	416	1810	1335	1400

*C-rating peak power 310 kW/416 hp up to 1900 rpm.

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The International System of Units (SI) is used in this publication.

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