

The Cat® C13 Industrial Diesel Engine is offered in ratings ranging from 287-388 kW (385-520 bhp) @ 1800-2100 rpm. These ratings meet China Stage II, U.S. EPA Tier 3 equivalent or U.S. EPA Tier 2 equivalent, EU Stage IIIA equivalent or EU Stage II equivalent emission standards. Industries and applications powered by C13 engines include Agriculture, Ag Tractors, Aircraft Ground Support, Bore/Drill Rigs, Chippers/Grinders, Combines/Harvesters, Compactors/Rollers, Compressors, Construction, Cranes, Crushers, Dredgers, Forestry, General Industrial, Hydraulic Power Units, Irrigation Equipment, Loaders/Forwarders, Material Handling, Mining, Mobile Earthmoving Equipment, Paving Equipment, Pumps, Shovels/Draglines, Specialty Ag Equipment, Surface Hauling Equipment, Trenchers and Underground Mining Equipment.

Specifications

Power Rating		
Maximum Power	388 kW	520 HP
Maximum Torque	2215 Nm @ 1400 rpm	1634 lb-ft @ 1400 rpm
Rated Speed	1800-2100 rpm	
Minimum Power	287 kW	385 HP

Emission Standards	
Emissions	China Nonroad III, U.S. EPA Tier 3 Equivalent or U.S. EPA Tier 2 Equivalent, EU Stage IIIA Equivalent or EU Stage II Equivalent

General		
Engine Configuration	Inline 6, 4-Stroke-Cycle Diesel	
Bore	130 mm	5.1 in
Stroke	157 mm	6.2 in
Displacement	12.5 l	762.8 in ³
Compression Ratio	17.3:1	
Aspiration	Turbocharged Aftercooled (TA)	
Combustion System	Direct Injection	
Rotation from Flywheel End	Counterclockwise	
Aftertreatment	-	

Engine Dimensions - Approximate		
Length	1295 mm	51 in
Width	1186 mm	346.7 in
Height	1054 mm	41.5 in
Weight - Net Dry - Basic Operating Engine Without Optional Attachments	908 kg	2003 lb

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.

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.

Quality

Every Cat engine is manufactured to stringent quality 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

Standard Equipment

Air Inlet System

- Turbocharged
- Air-to-Air Aftercooled

Control System

- Electronic governing, PTO speed control
- Programmable ratings
- Automatic altitude compensation
- Power compensation for fuel temperature
- Programmable low and high idle and total engine limit
- Electronic diagnostics and fault logging
- Engine monitoring system SAE J1939 broadcast and control
- ADEM™ A4 Electronic Control Unit (ECU)

Cooling System

- Thermostats and housing, vertical outlet
- Jacket water pump, centrifugal
- Water pump, inlet

Exhaust System

- Exhaust manifold, dry
- Optional exhaust outlet

Flywheels and Flywheel Housing

- SAE No. 1 flywheel housing

Fuel System

- MEUI injection
- Fuel filter, secondary (2 micron)
- Fuel filter, tertiary (2 micron)
- ACERT™ Technology
- Fuel transfer pump
- Fuel priming pump

Lube System

- Crankcase breather
- Oil cooler
- Oil filler
- Lube oil filter
- Front sump oil pan
- Oil dipstick
- Gear driven oil pump

General

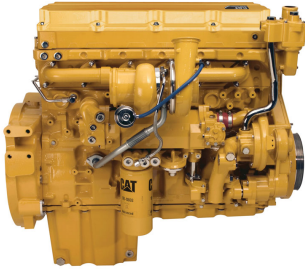
- Vibration damper
- Lifting eyes
- Cold start capability to -20° C (-4° F)
- Paint: Caterpillar yellow, with optional colors available at request

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328 kW (440 bhp) @ 2100 rpm

Rating Type: IND-C (INTERMITTENT) RATING

Emissions: U.S. EPA Tier 3 Nonroad Equivalent Emission Standards (Not Currently EPA Certified)



C13 ACERT
DITA
328 kW (440 bhp) @ 2100 rpm

Image shown may not reflect actual configuration

Metric English

General Engine		
Power Rating	328 kW	440 hp
Number of Cylinders	6	
Bore	130 mm	5.1 in
Stroke	157 mm	6.2 in
Displacement	12.5 L	763.0 cu in.
Compression Ratio	17.3 : 1	

RATING DEFINITIONS AND CONDITIONS

IND-C (INTERMITTENT) RATING: Intermittent service where maximum power and/or speed are cyclic (time at full load not to exceed 50%).

Diesel Engines – up to 7.1 liter All rating conditions are based on ISO/TR14396, inlet air standard conditions with a total barometric pressure of 100 kPa (29.5 in Hg), with a vapor pressure of 1 kPa (.295 in Hg), and 25°C (77°F). Performance measured using fuel to EPA specifications in 40 CFR Part 1065 and EU specifications in Directive 97/68/EC with a density of 0.845-0.850 kg/L @ 15°C (59°F) and fuel inlet temperature 40°C (104°F).

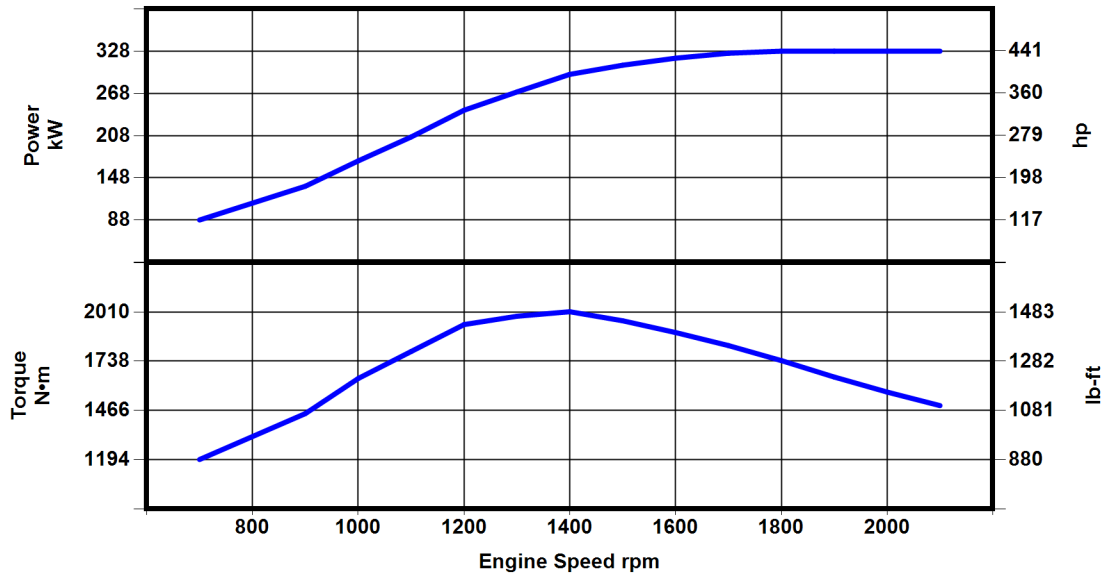
Diesel Engines – greater than 7.1 liter All rating conditions are based on SAE J1995, inlet air standard conditions of 99 kPa (29.31 in Hg) dry barometer and 25°C (77°F) temperature. Performance measured using a standard fuel with fuel gravity of 35° API having a lower heating value of 42,780 kJ/kg (18,390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



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Engine Speed rpm	Engine Power kW	Engine Power bhp	Torque N*m	Torque lb-ft
2100	328	440	1492	1101
2000	328	440	1567	1156
1900	328	440	1650	1217
1800	328	440	1741	1284
1700	325	435	1824	1345
1600	318	426	1896	1399
1500	308	413	1961	1446
1400	295	395	2011	1484
1300	270	362	1986	1464
1200	244	327	1940	1431
1100	206	277	1791	1321
1000	172	231	1642	1211
900	137	183	1448	1068
700	88	117	1194	880

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