



# C18 ACERT™ Industrial Engine

Non-certified  
429-470 bkW/575-630 bhp @ 1800-2100 rpm

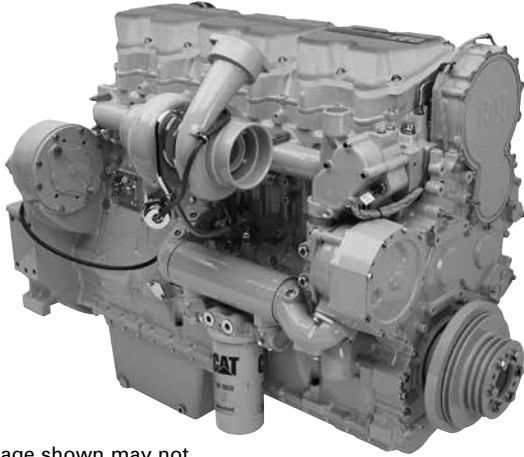


Image shown may not reflect actual engine

## CAT® ENGINE SPECIFICATIONS

### I-6, 4-Stroke-Cycle Diesel

Bore .....	145.0 mm (5.71 in)
Stroke .....	183.0 mm (7.2 in)
Displacement .....	18.1 L (1104.53 in <sup>3</sup> )
Aspiration .....	Turbocharged-Aftercooled
Compression Ratio.....	16.3:1
Rotation (from flywheel end) ...	Counterclockwise
Weight, Net Dry (approx.) .....	1673 kg (3688 lbs)

## FEATURES

### Emissions

Non-certified rating. Available for global non-regulated areas.

### 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

Simple efficient turbocharger provides optimal air management and improved fuel efficiency.

### Fuel Efficiency

Fuel consumption optimized to match operating cycles of a wide range of equipment and applications.

### Fuel & Oil

Cat® engines are designed to accommodate B20 biofuel. Secondary and tertiary fuel filters provide improved fuel system durability. 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.

### 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<sup>SM</sup> sample
- Customer Support Agreements (CSA)
- Cat Extended Service Coverage (ESC)
- Superior dealer service network
- Extended dealer service network through the Cat Industrial Service Distributor (ISD) program

**Web Site: For additional information on all your power requirements, visit [www.cat-industrial.com](http://www.cat-industrial.com).**



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## STANDARD ENGINE EQUIPMENT

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### **Air Inlet System**

Turbocharged Aftercooled – 429-470 bkW  
(575-630 bhp)  
ATAAC

### **Control System**

Electronic governing  
PTO speed control  
Programmable ratings  
Cold mode start strategy  
Automatic altitude compensation  
Power compensation for fuel temperature  
Programmable low and high idle and top engine  
limit  
Electronic diagnostics and fault logging  
Engine monitoring system  
J1939 Broadcast (diagnostic and engine status)  
ADEM™ A4

### **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 or SAE No. 0 flywheel housing

### **Fuel System**

MEUI injection  
Primary fuel filter, water separator  
Fuel filter, secondary (2 micron)  
Fuel filter, tertiary (2 micron)  
Fuel transfer pump  
Fuel priming pump

### **Lube System**

Crankcase breather  
Oil cooler  
Oil filler  
Oil filter  
Oil pan front sump  
Oil dipstick  
Oil pump (gear driven)

### **General**

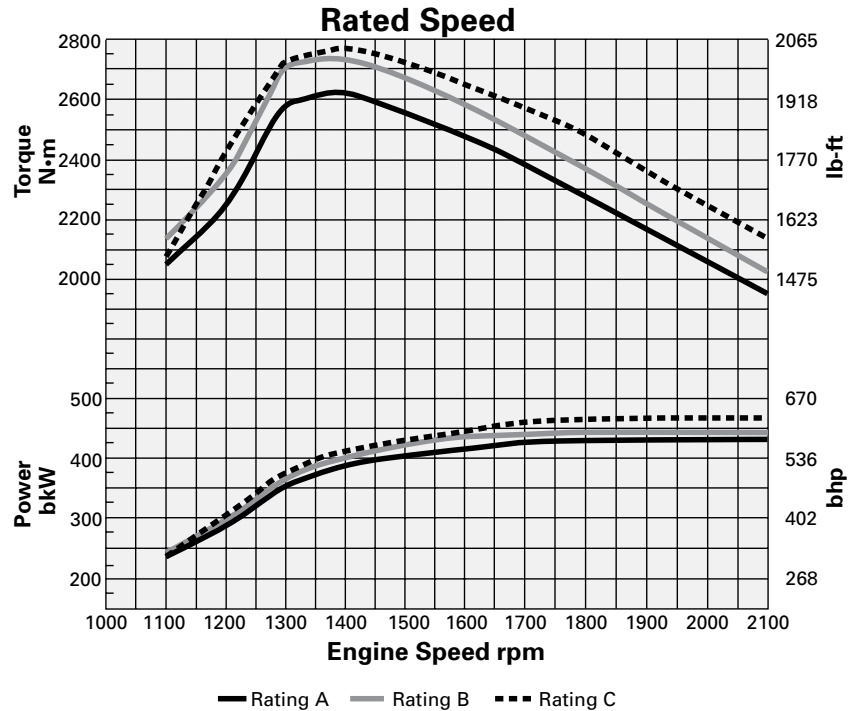
Paint, Caterpillar yellow  
Vibration damper  
Lifting eyes



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## PERFORMANCE DATA



### Speed Range

Rating	Speed rpm	Peak Power kW	Peak Power bhp	Speed rpm	Peak Torque N·m	Peak Torque lb-ft
A	2100	429	575	1400	2627	1938
B	2100	447.5	600	1400	2742	2022
C	2100	470	630	1400	2769	2043

## 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 — 7 liter and higher

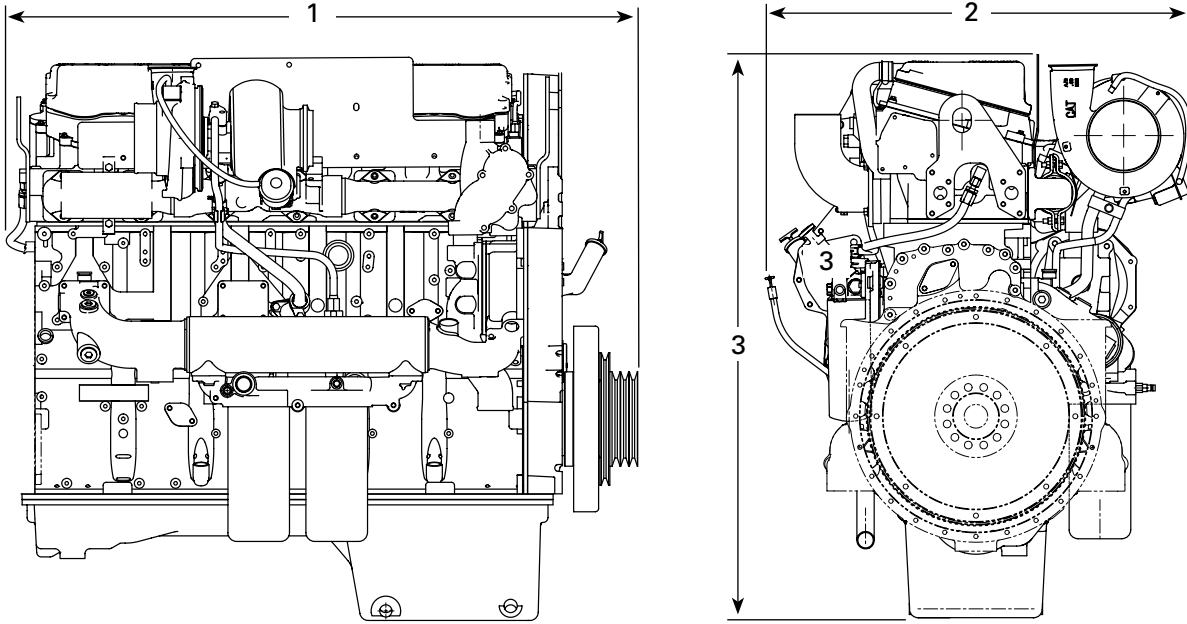
All rating conditions are based on SAE J1995, inlet air standard conditions of 99 kPa (29.31 in. Hg) dry barometer and 25°C (77°F) temperature. Performance measured using a standard fuel with fuel gravity of 35° API having a lower heating value of 42,780 kJ/kg (18,390 btu/lb) when used at 29°C (84.2°F)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



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## DIMENSIONS



(1) Length	1392.1 mm (54.8 in)
(2) Width	939.5 mm (37.0 in)
(3) Height	1241.5 mm (48.9 in)

**Note:** Final dimensions dependent on selected options.

Materials and specifications are subject to change without notice. The International System of Units (SI) is used in this publication. CAT, CATERPILLAR, their respective logos, ADEM, ACERT, S•O•S, "Caterpillar Yellow" and the "Power Edge" trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.