



The Cat® C32 ACERT™ Industrial Diesel Engine is offered in ratings ranging from 746-895 bkW (1000-1200 bhp) @ 1800 rpm. These ratings meet U.S. EPA Tier 4 Final emission standards. Applications powered by C32 ACERT engines include: Bore/Drill Rigs, Chippers/Grinders, Construction, Cranes, Dredgers, Forestry, Hydraulic Power Units, General Industrial, Irrigation Equipment, Material Handling, Mobile Earthmoving Equipment, Paving Equipment, Pumps, Shovels/Draglines, Surface Hauling Equipment and Trenchers.

## Specifications

| Power Rating  |          |          |
|---------------|----------|----------|
| Minimum Power | 746 bkW  | 1000 bhp |
| Maximum Power | 895 bkW  | 1200 bhp |
| Rated Speed   | 1800 rpm |          |

| Emission Standards |                       |
|--------------------|-----------------------|
| Emissions          | U.S. EPA Tier 4 Final |

| General                      |                                     |
|------------------------------|-------------------------------------|
| Engine Configuration         | V-12, 4-Stroke-Cycle Diesel         |
| Bore                         | 145 mm (5.71 in)                    |
| Stroke                       | 162 mm (6.38 in)                    |
| Displacement                 | 32.1 L (1958.9 in³)                 |
| Aspiration                   | Twin Turbocharged Aftercooled (TTA) |
| Compression Ratio            | 15.0:1                              |
| Combustion System            | Direct Injection                    |
| Rotation (from flywheel end) | Counterclockwise                    |
| Cooling System Capacity      | 67.9 L (71.7 qt)                    |
| Lube System (refill)         | 68 L (71.9 qt)                      |

| Engine Dimensions (Approximate. Final dimensions dependent on selected options) |                    |
|---|--------------------|
| Length  | 1874 mm (73.78 in) |
| Width   | 1600 mm (63 in)    |
| Height  | 1370 mm (53.9 in)  |
| Weight - Net Dry (Basic Operating Engine Without Optional Attachments)          | 3004 kg (6625 lb)  |

## **Benefits and Features**

### **Emissions**

Meets U.S. EPA Tier 4 Final emission standards.

### **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 and efficient dual turbochargers -- 1 per bank.

### **Fuel Efficiency**

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

### **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.

### **Low Cost Maintenance**

Worldwide service delivers ease of maintenance and simplifies the servicing routine. Service intervals at 250 hours are standards. Capable of optimal oil change intervals of up to 500-hours, depending on rating, application, operating conditions, and maintenance practices. No aftertreatment is required. 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 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 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

#### **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**

- Choice of SAE No. 0 or SAE No. 1 flywheel housing

#### **Fuel System**

- MEUI injection
- Fuel filter, secondary (2 micron)
- Electronic fuel priming

#### **Lube System**

- Open crankcase ventilation system
- Oil cooler
- Oil filler
- Lube oil filter
- Rear sump oil pan
- Oil dipstick
- Gear driven oil pump

#### **Power Take Off (PTO)**

#### **General**

- Paint: Caterpillar yellow, with optional colors available at request

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C32 ACERT  
839 bkW (1125 bhp) @ 1800 rpm



Rating Type: IND-C (INTERMITTENT) RATING

Emissions: U.S. EPA Tier 4 Final Nonroad Emission Standards



Image shown may not reflect actual configuration

C32 ACERT  
DITA  
839 bkW (1125 bhp) @ 1800 rpm

Metric English

| General Engine      |          |               |
|---------------------|----------|---------------|
| Power Rating        | 839 kW   | 1125 hp       |
| Number of Cylinders | 12       |               |
| Bore                | 145 mm   | 5.7 in        |
| Stroke              | 162 mm   | 6.4 in        |
| Displacement        | 32.1 L   | 1959.0 cu in. |
| Compression Ratio   | 16.0 : 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).

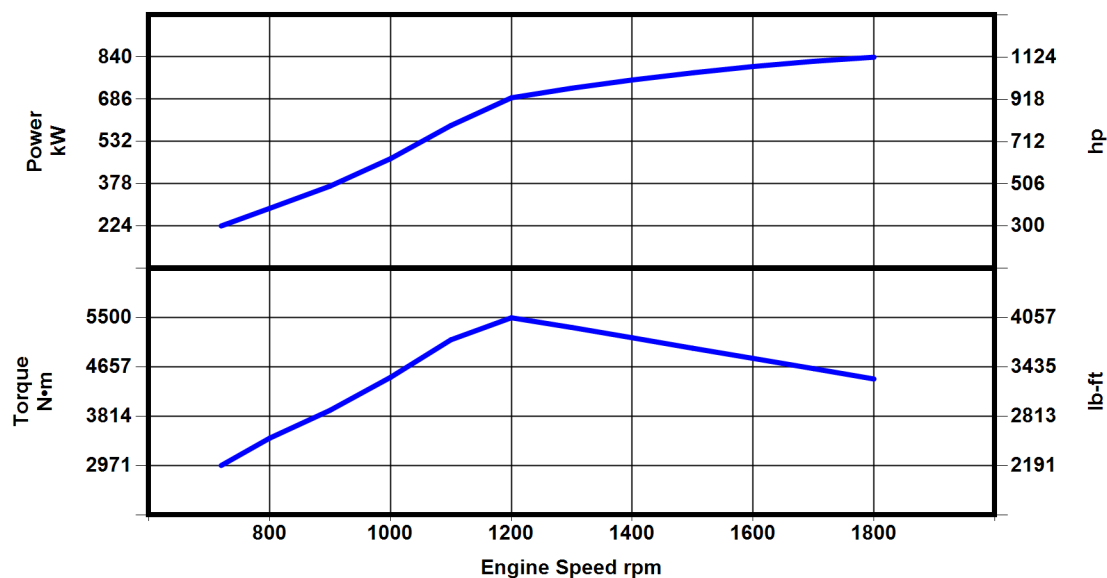
Diesel Engines — greater than 7.1 liter All rating conditions are based on SAE J1995, inlet air standard conditions of 99 kPa (29.31 in Hg) dry barometer and 25°C (77°F) temperature. Performance measured using a standard fuel with fuel gravity of 35° API having a lower heating value of 42,780 kJ/kg (18,390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

C32 ACERT

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Emissions: U.S. EPA Tier 4 Final Nonroad Emission Standards



| Engine Speed<br>rpm | Engine<br>Power<br>bkW | Engine<br>Power<br>bhp | Torque<br>N*m | Torque<br>lb-ft |
|---------------------|------------------------|------------------------|---------------|-----------------|
| 1800                | 839                    | 1125                   | 4451          | 3283            |
| 1700                | 824                    | 1105                   | 4629          | 3414            |
| 1600                | 805                    | 1080                   | 4804          | 3544            |
| 1500                | 782                    | 1049                   | 4978          | 3672            |
| 1400                | 756                    | 1014                   | 5157          | 3803            |
| 1300                | 726                    | 974                    | 5333          | 3933            |
| 1200                | 691                    | 927                    | 5499          | 4056            |
| 1100                | 590                    | 791                    | 5122          | 3778            |
| 1000                | 469                    | 629                    | 4479          | 3303            |
| 900                 | 369                    | 495                    | 3915          | 2888            |
| 800                 | 288                    | 386                    | 3438          | 2536            |
| 720                 | 224                    | 300                    | 2971          | 2191            |

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