CATERPILLAR ENGINE SPECIFICATIONS

I-6, 4-Stroke-Cycle Diesel

Bore .......................................................... 110.0 mm (4.33 in)
Stroke .......................................................... 127.0 mm (5.0 in)
Displacement .................................................... 7.2 L (442 in³)
Aspiration ....................................................... Turbocharged ATAAC
Compression Ratio ................................................. 17:1
Rotation (from flywheel end) .................. Counterclockwise
Lube Oil System (refill) ........................... 28 L (7.4 U.S. gal)
Weight, Net Dry (approximate kg, lb)....... 776 kg (1,711 lb)

FEATURES

Emissions
Meets Tier 3, Stage IIIA emission requirements. Tier 3 refers to EPA (U.S.) standards. Stage IIIA refers to European standards.

Worldwide Supplier Capability
Caterpillar
- Casts engine blocks and heads
- Machines critical components
- Assembles complete engine
- Factory-designed systems built at Caterpillar ISO 9001:2000 certified facilities
- Ownership of these manufacturing processes enables Caterpillar to produce high quality, dependable product.

Testing
Prototype testing on every model:
- proves computer design
- verifies system torsional stability
- functionality tests every model

Full Range of Attachments
Wide range of bolt-on system expansion attachments, factory designed and tested.

Unmatched Product Support Offered Through Worldwide Caterpillar Dealer Network
More than 1,500 dealer outlets
Caterpillar factory-trained dealer technicians service every aspect of your industrial engine
99.7% of parts orders filled within 24 hours worldwide
Caterpillar parts and labor warranty
Preventive maintenance agreements available for repair before failure options

Scheduled Oil Sampling program matches your oil sample against Caterpillar set standards to determine:
- internal engine component condition
- presence of unwanted fluids
- presence of combustion by-products

Web Site
For all your industrial power requirements, visit www.cat-industrial.com.
CATERPILLAR C7 ACERT ™
INDUSTRIAL ENGINE
187 bkW (250 bhp)

STANDARD ENGINE EQUIPMENT

**Air Inlet System**
- Air to air aftercooled (ATAAC)
- Turbocharged

**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 total engine limit
- Electronic diagnostics and fault logging
- Engine monitoring system
- J1939 Broadcast (diagnostic and engine status)
- 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**
- HEUI™ injection
- Fuel filter, secondary (2 micron high performance)
- Fuel transfer pump
- Fuel priming pump
- ACERT™ Technology

**Lube System**
- Crankcase breather
- Oil cooler
- Oil filter
- Oil pan front sump
- Oil dipstick
- Oil pump (gear driven)

**General**
- Paint, Caterpillar Yellow
- Vibration damper
- Lifting eyes
IND - C (Intermittent) - DM9221-00

<table>
<thead>
<tr>
<th>Engine Speed (rpm)</th>
<th>Engine Power (kW)</th>
<th>Torque (Nm)</th>
<th>BSFC (g/kW-hr)</th>
<th>Fuel Rate (L/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2200</td>
<td>187</td>
<td>810</td>
<td>239.7</td>
<td>53.3</td>
</tr>
<tr>
<td>2100</td>
<td>187</td>
<td>848</td>
<td>233.7</td>
<td>51.9</td>
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<tr>
<td>2000</td>
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<tr>
<td>1900</td>
<td>187</td>
<td>937</td>
<td>224.7</td>
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<tr>
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<td>187</td>
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<tr>
<td>1700</td>
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<td>1035</td>
<td>220.7</td>
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<tr>
<td>1600</td>
<td>180</td>
<td>1077</td>
<td>220</td>
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<td>1500</td>
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<td>1115</td>
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<td>1200</td>
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<td>906</td>
<td>221.3</td>
<td>30.0</td>
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<tr>
<td>1100</td>
<td>74</td>
<td>707</td>
<td>224.9</td>
<td>19.8</td>
</tr>
</tbody>
</table>
IND - C (Intermittent) Intermittent service where maximum power and/or speed are cyclic (time at full load not to exceed 50%).

Engine Performance 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.

<table>
<thead>
<tr>
<th>Engine Dimensions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Length</td>
<td>1035.6 mm</td>
</tr>
<tr>
<td>(2) Width</td>
<td>758.2 mm</td>
</tr>
<tr>
<td>(3) Height</td>
<td>1032.1 mm</td>
</tr>
</tbody>
</table>

Note: Do not use for installation design. See general dimension drawings for detail (Drawing # 2835788).

Performance Number: DM9221-00
Feature Code: C07DI01
Materials and specifications are subject to change without notice.

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