Cat® C9
for Lightweight Heavy Duty Performance

ACERT™ Technology for 2007
285-425 Horsepower

**Reliability**
Dealer Repair Frequency statistics show Caterpillar® heavy duty engines offer outstanding reliability based on initial quality and customer surveys.

**Durability**
The Cat® C9 engine is expected to have a B50 life of 750,000 miles with Cat’s recommended maintenance.

**Fuel Economy**
2007 Cat C9 engines are expected to provide up to a 4% improvement in fuel economy over EPA 2004 compliant engines.

**Total Owning/Operating Costs**
2007 compliant Cat engines are engineered to offer the same reliability and durability, better fuel economy, and similar maintenance costs as EPA 2004 compliant engines for outstanding overall value.

**Dealer Support**
Cat sets the industry standard for support with 2,500 authorized North American service locations and a 24/7 call center.

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**Cylinders:** In-line 6  
**Bore/Stroke:** 4.53 x 5.87 (115 mm x 149 mm)  
**Displacement:** 9.3 L (567 cu in)  
**Weight:** 1650 lb (748 kg)  
**Truck and Bus Ratings:** 285-350 hp @ 2200 rpm  
**Fire Truck Ratings:** 365-425 hp @ 2200/2300 rpm  
**RV Ratings:** 400-425 hp @ 2300 rpm  
**Torque:** 890-1350 lb-ft @ 1400 rpm
Expanded horsepower ratings, increased torque ratio options and a new integral brake make the Cat® C9 the engine of choice for heavy duty performance in a lightweight package. A new Cat Common Rail Fuel System also optimizes on-highway performance with injection flexibility to meet 2007 emissions standards—as it increases fuel economy by up to 4%.

**ADEM™ A4 enhanced electronics** — Three times the memory, five times the processing speed of ADEM 2000 technology

**Cat Common Rail Fuel System** — Engineered and built by Caterpillar for reliability and durability

**Mid-Supported Wet Liner Design** — Able to be overhauled for longer lasting performance

**Cat Compression Brake** — Provides braking up to 375 hp—outstanding stopping power for a 9-liter engine

**Front and Rear PTO Options** — The perfect fit for a variety of applications including construction and utility; pickup and delivery; fire and emergency vehicles; and RVs

**“Leak-free” technology** — Significantly reduces leaks to cut downtime and improve reliability

**Variable Nozzle Turbocharger** — Provides enhanced response and performance

**Increased Displacement** — Provides increased horsepower and torque capability
How do Cat® engines with ACERT™ Technology meet tougher 2007 emissions standards while maintaining top performance and excellent fuel economy? With refinements to the same innovative approach proven successful over millions of miles: using more cool, clean air for more efficient combustion.

Still a Systems Solution
The systems solution of ACERT Technology, a proven success, hasn’t changed for 2007. Its four basic systems of Air Management, Precision Combustion, Advanced Electronics and Effective Aftertreatment are still the building blocks for reduced emissions, powerful performance and outstanding fuel economy.

Precision Combustion
Cat Designed Injection Technology
Clean Gas Induction

Air Management
Variable Nozzle Turbocharger

New Clean Gas Induction
Clean Gas Induction (CGI) is a proprietary ACERT Technology process that draws off a small amount of non-combustible gas after it has passed through the engine’s aftertreatment system. The gas is then cooled, blended with more incoming cool, clean air and returned to the combustion chamber. Since it has passed through the diesel particulate filter, most contaminants have been removed before the gas re-enters the intake system.

The CGI advantage is clear. It recycles cool, clean air, which is key to good fuel economy, reliability and durability.

New Diesel Particulate Filter
For 2007, all engines require a diesel particulate filter (DPF) to further reduce emissions of hydrocarbons and other contaminants. But the Cat manufactured DPF is designed for self-regeneration under all conditions. When the electronic control module detects soot buildup, the Cat Regeneration System (CRS) activates. CRS works automatically, using only the precise amount of fuel necessary to oxidize soot. With CRS, no driver action is required for regeneration. Ash that collects in the Cat DPF can be cleared with a special removal tool.

But 2007 emissions regulations require diesels to emit lower levels of oxides of nitrogen (NOx) and particulates. That’s why Cat has added two new enhancements: Clean Gas Induction and a Cat Diesel Particulate Filter featuring its own Cat Regeneration System (CRS).
in a Lightweight Package.

Horsepower Ratings for Every Application

<table>
<thead>
<tr>
<th>Advertised Horsepower</th>
<th>Maximum Horsepower</th>
<th>Peak Torque lb-ft</th>
<th>Governed Speed RPM</th>
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</thead>
<tbody>
<tr>
<td>MTB</td>
<td>285</td>
<td>890</td>
<td>2200</td>
</tr>
<tr>
<td>FT</td>
<td>335</td>
<td>1150</td>
<td>2200</td>
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<tr>
<td>RV</td>
<td>335</td>
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<tr>
<td></td>
<td>350</td>
<td>1250</td>
<td>2200</td>
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<tr>
<td>FT</td>
<td>365</td>
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Gearing Considerations

The C9 engine offers a wide operating range and high torque rise for compatibility with a wide range of transmissions. For best performance, trucks should be geared to achieve the appropriate balance between startability and desired road speed, and drivers should follow “Gear Fast, Run Slow” techniques.

For the **best balance of performance and economy**, spec axle ratios and tire sizes according to the following:

<table>
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<tr>
<th>60,000 lb GCW or less</th>
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<tr>
<td>1150 lb-ft: 1650 rpm @ 65 mph (105 km/h)</td>
</tr>
<tr>
<td>1250 lb-ft and above: 1600 rpm @ 65 mph (105 km/h)</td>
</tr>
</tbody>
</table>

To optimize your truck’s performance characteristics, the minimum startability requirements are 10% for pickup and delivery, 14% for line haul, 20% for on/off-highway and 25% for off-highway.

At peak torque rpm in top gear, the recommended gradeability is 1.8% (1.5% minimum). At cruise speed in top gear, 1.0% is the ideal gradeability.

A computerized spec’ing tool called Design Pro 2.0, offered by your Caterpillar® dealer or authorized truck dealer, calculates the effects that various driveline components such as transmissions, axles and tires have on engine operation. This analysis allows you to test various driveline specifications to find the one best suited for your application and fuel economy requirements.

24-Hour Coast-to-Coast Support
Count on the Cat® dealer and truck dealer network of more than 2,500 authorized locations for convenient access to genuine Cat parts and service across North America. Our industry-leading support even includes the Caterpillar On-Highway Engine Call Center, where technicians are available 24 hours a day, seven days a week to answer technical questions, direct you to a dealer or help arrange on-the-road assistance. Just dial 1-800-447-4986 or send an email to Call_CAT@cat.com.

Peace of Mind Mile After Mile
The standard warranty* for Cat C9 on-highway engines is 24 months.

Extended Service Coverage (ESC)* is an optional repair cost protection plan for owners of all on-highway trucks powered by Cat truck engines including engines with ACERT Technology. The coverage pays 100% of parts and labor charges for any covered failures caused by defects in materials or workmanship under normal use and service.

*See your dealer for full details and conditions.

Delivering Excellence
Caterpillar has earned the J.D. Power and Associates award for “Highest in Customer Satisfaction with Vocational Heavy Duty Diesel Engines” six times. No other engine manufacturer has ever received this satisfaction award — not even once.

Caterpillar C-12 received the highest numerical score in the proprietary J.D. Power and Associates 2000-2003, 2005-2006 Heavy Duty Truck Engine/Transmission Customer Satisfaction Study. 2006 study based on 2,529 total telephone interviews measuring opinions of principal maintainers (owner/operators and fleet managers) of Class 8 heavy duty trucks. Proprietary study results are based on experiences and perceptions of principal maintainers surveyed in April-June 2006. Your experiences may vary. Visit jdpower.com