

## MID-RANGE POWER

Just like its predecessor the 3126E, the Cat C7 is the perfect engine for short-to-medium hauls, pick-up and delivery, lease rental and many of the specialty market applications, such as RV, fire truck, and school bus.

The October 2002 3126E product was introduced with some of the ACERT Technology — multiple injection and improved air systems. The C7 ACERT introduces a new HEUI oil pump, added electronics to the wastegate control, and a single-piece steel low-friction piston for ratings above 210 horsepower.

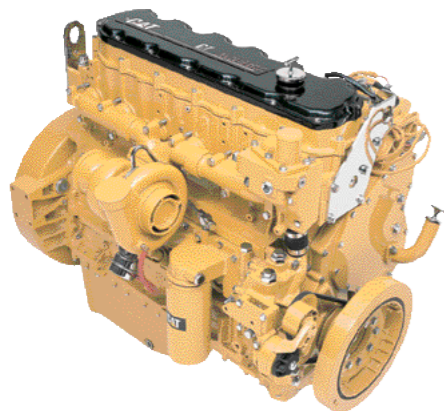
### Extended Service Coverage (ESC)

When you're on the road with a Cat Engine, you're driving with confidence. Extended Service Coverage (ESC) adds long-term value to your on-highway vehicle purchase by increasing the resale value at trade-in.

ESC protects against unexpected repair bills and provides a barrier against rising parts and labor costs.

Coverage includes 100% of the parts and labor needed to repair engine damage resulting from the failure of covered components. Choose from a variety of time/mileage coverage lengths and deductible options.

With ESC, you're backed by the Caterpillar parts network, providing nearly 100% over-the-counter availability through more than 1,100 parts and service locations in North America.



All pipe thread connections have been replaced with straight thread oil ring technology to provide leak-free technology to this product. The breather tube has been moved from the top of the valve cover to the left-hand side of the block to reduce the installation height of the engine.

All these technology enhancements work together to provide low emissions and performance improvements to the Cat C7.

### Low-Cost Operation & Maintenance

The Cat HEUI Fuel Injection System is electronically controlled, independent of engine speed, and provides higher injection pressures for better fuel economy. Fuel systems on some competitive engines use a high-pressure fuel pump and external fuel lines. They are dependent on engine speed, which results in lower fuel economy.

ACERT Technology, used on the C7, does not compromise engine reliability or maintenance intervals compared to cooled-EGR systems.

### Product Support

Always the best product and services.... One important benefit of any Customer Support Agreement is the exclusive use of Cat Maintenance Products, replacement and Reman parts. Combined with the experience and expertise of over 1,110 authorized parts and service facilities, these products and parts deliver the added value you demand from your Cat engines. Make no mistake: When it comes to keeping you operating in top form, Caterpillar backs you with the industry's most responsive service network. Outstanding service, paired with genuine Caterpillar parts, will help you get maximum life and performance from your Cat engines.

Service assistance available 24 hours a day/7 days a week. Call 1-800-447-4986, e-mail [call\\_cat@cat.com](mailto:call_cat@cat.com), or visit our Web site at [www.cattruckengines.com](http://www.cattruckengines.com).

## ENGINE RATINGS

Advertised hp	Maximum hp	Peak Torque	Governed Speed	Torque Rise %
190	207	520	2500	27
210	210	520	2500	45
210	210	605	2500	23
230	230	540	2500	12
230	230	660	2400	37
250	250	660	2400	26
250	250	800	2400	52
275*	275	800	2400	39
275*	275	860	2400	49
300*	300	800	2400	27
300*	300	860	2400	37
330	330	860	2400	19
350**	350	860	2400	12

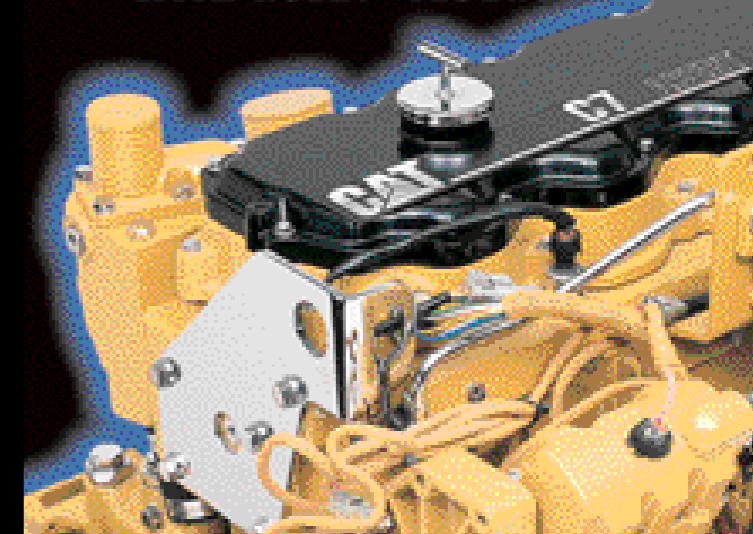
\*Specialty rating also available

\*\*RV rating

**PURE  
POWER**

# CAT C7

ON-HIGHWAY ENGINE  
WITH ACERT TECHNOLOGY



**VS**

- Cummins ISB
- Cummins ISC
- GM Duramax 7800
- International VT 365
- International DT 466
- Mercedes-Benz MBE 906
- Mercedes-Benz MBE 926

# CAT C7 VS. THE COMPETITION

Feature	Cat C7	Cummins ISB	Cummins ISC	GM Duramax 7800	International VT 365	International DT 466	Mercedes-Benz MBE 906	Mercedes-Benz MBE 926
Emissions Technology	ACERT	Cooled EGR	*	Cooled EGR	Cooled EGR	Cooled EGR	Cooled EGR	Cooled EGR
Displacement	442 cu. in. (7.2L)	359 cu. in. (5.9L)	506 cu. in. (8.3L)	475 cu. in. (7.8L)	365 cu. in. (6.0L)	466 cu. in. (7.6L)	387 cu. in. (6.4L)	439 cu. in. (7.2L)
Configuration	In-line 6 cylinder	In-line 6 cylinder	In-line 6 cylinder	In-line 6 cylinder	V8	In-line 6 cylinder	In-line 6 cylinder	In-line 6 cylinder
Weight	1295 lbs.	962 lbs.	1530 lbs.	1180 lbs.	1062 lbs.	1480 lbs.	1168 lbs.	1235 lbs.
Bore x Stroke	4.33" x 5.00"	4.02" x 4.72"	4.49" x 5.32"	4.53" x 5.12"	3.74" x 4.134"	4.59" x 4.68"	4.02" x 5.12"	4.17" x 5.35"
Horsepower and Torque Range	190 hp – 520 lb-ft to 350 hp – 860 lb-ft	185 hp – 420 lb-ft to 275 hp – 660 lb-ft	240 hp – 660 lb-ft to 330 hp – 950 lb-ft	200 hp – 520 lb-ft to 275 hp – 860 lb-ft	175 hp – 460 lb-ft to 230 hp – 620 lb-ft	210 hp – 520 lb-ft to 300 hp – 860 lb-ft	190 hp – 520 lb-ft to 260 hp – 700 lb-ft	250 hp – 800 lb-ft to 330 hp – 1000 lb-ft
RV and Emergency Vehicle Peak hp and Torque Rating	350 hp – 860 lb-ft	300 hp – 600/660 lb-ft	350 hp – 1050 lb-ft	275 hp – 860 lb-ft	230 hp – 620 lb-ft	300 hp – 860 lb-ft	260 hp – 700 lb-ft	330 hp – 1000 lb-ft
Peak Torque RPM	1440	1900	1300	1450	1400	1400	1400	1400
Compression/Exhaust Brake	Exhaust brake	Exhaust brake	Exhaust brake	Exhaust brake	Exhaust brake	Exhaust brake	Compression/Exhaust brake	Exhaust brake
Maintenance Intervals	15,000 miles	15,000 miles	15,000 miles	10,000 miles	10,000 miles	15,000 miles	15,000 miles	15,000 miles
Sump Capacity	30 quarts (28.4L)	16 quarts (15.1L)	25 quarts (23.8L)	14 quarts (13.6L)	19 quarts (18.0L)	32 quarts (30.3L)	30 quarts (28.4L)	30 quarts (28.4L)
Overhaul	B50 = 400,000 miles	B50 = 350,000 miles	B50 = 500,000 miles	*	B50 = 300,000 miles	B50 = 500,000 miles	B50 = 500,000 miles	B50 = 500,000 miles
Fuel System Description	CAT HEUI	High-Pressure Common-Rail	High-Pressure Common-Rail	Common-Rail Fuel System	Electro-Hydraulic Generation 2 (G2)	Electro-Hydraulic Generation 2 (G2)	Constant Pressure Fuel System	Constant Pressure Fuel System
Emissions Level	2004 Compliant at 2.5g NOx + HC	2004 Compliant at 2.5g NOx + HC	2004 Certified but non-compliant	2004 Compliant at 2.5g NOx + HC	2004 Compliant at 2.5g NOx + HC	2004 Compliant at 2.5g NOx + HC	2004 Compliant at 2.5g NOx + HC	2005 Compliant at 2.5g NOx + HC

\*Information not available at time of printing

## Cat C7 Featuring ACERT Technology

ACERT Technology starts with a very efficient combustion process augmented by cool, clean air. An efficient air system improves fuel consumption and lowers in-cylinder combustion temperatures, which reduces emissions. What isn't cleaned up during that process flows out the exhaust system, where the tailored aftertreatment changes the particulate matter into carbon dioxide and water, all resulting in an efficient combustion with low emissions and very good fuel economy.

### Air System

- Cat engines with ACERT Technology utilize an advanced air system that is able to control the air volume required at various loads and speeds to achieve complete combustion and excellent fuel economy.

- The air system automatically adjusts to the requirements on the engine.
- The C7 utilizes conventional single turbocharging.

### ADEM™ Electronics

- The C7 ECM is based on the same award-winning ADEM design used in Caterpillar heavy-duty truck engines.
- Specifically engineered to give trouble-free operation in the harshest operating conditions, as well as provide quicker and easier diagnostic capability.
- Fully integrated into the engine and vehicle system to provide fuel and air control for optimized fuel economy.
- Provides a full range of programmable operation parameters for fuel savings, engine-monitoring protection, theft deterrent, idle and cold-start control, and numerous PTO operations.

### HEUI™ Fuel Injection System

- HEUI fuel system fully integrated with ADEM advanced electronics
- Cross-flow cylinder head with integral fuel and oil manifolds — completely rebuildable
- Improved cold startability (down to 0° F) — with standard air inlet heater
- Caterpillar designed combustion technology and performance criteria for superior fuel economy and greater performance over a wider operating range
- Higher injection pressures for better fuel economy and performance while meeting latest emissions standards
- Adjustment-free HEUI fuel injector with stainless steel sleeve for greater reliability
- HEUI oil rail integrated into cylinder head provides high-pressure oil to power the HEUI injectors

### Proven Aftertreatment

- Aftertreatment is a true systems approach to particulate reduction.
- The aftertreatment consists of a substrate material core that provides the foundation for the wash coat or catalyst — a substance that is used to speed up a chemical reaction. Hydrocarbons in the exhaust are passed through the catalyst and are chemically oxidized or converted to carbon dioxide or water.
- This emissions reduction system is incorporated into a muffler system that is designed to each truck manufacturer's requirements. The engine and aftertreatment solutions are integrated into the chassis.
- The projected life of the aftertreatment is as long as the engine itself. The system requires virtually no service and no cleaning.