

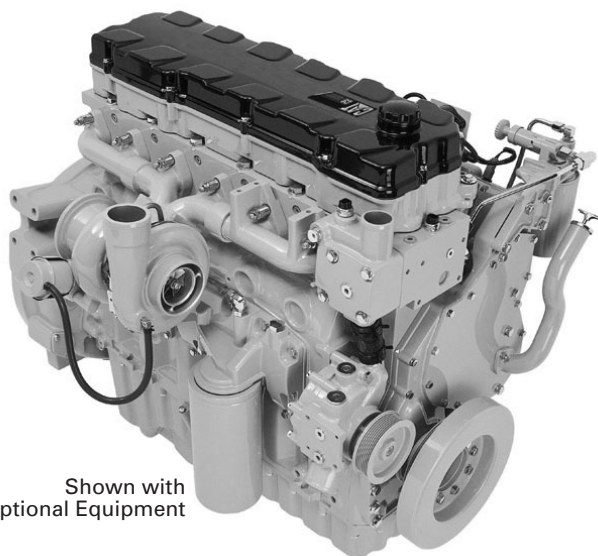


On-Highway Diesel Engine with ACERT® Technology

C9

335-350 hp @ 2100 rpm

1050-1100 lb-ft @
1400 rpm Peak Torque



Shown with
Optional Equipment

CATERPILLAR® ENGINE SPECIFICATIONS

In-line 6-Cylinder, 4-Stroke-Cycle Diesel

Bore — in (mm) 4.41 (112)

Stroke — in (mm) 5.87 (149)

Displacement — cu in (L)..... 537 (8.8)

Aspiration Turbocharged

Compression Ratio..... 17.0:1

Rotation (from flywheel end) .. Counterclockwise

Cooling System¹ — gal (L) 4.8 (18)

Lube Oil System (refill) — gal (L)..... 8.5 (32)

Weight, Net Dry (approx) — lb (kg)
with standard equipment 1500 (680)

¹ Engine only. Capacity will vary with radiator size and use of cab heater.

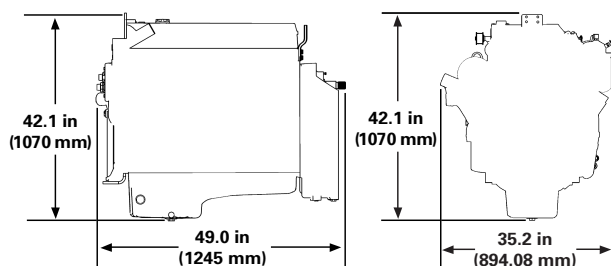
STANDARD EQUIPMENT

Air inlet manifold heater
Cooling: belt-driven water pump, oil cooler
Crankcase breather
Diesel Oxidation Catalyst (required for EPA 2004 certification)
Electronic Control Module (ECM)
Electronic Data Link, SAE/ATA, SAE J1939
Fuel: spin-on secondary filter, transfer pump
Governor: full-range, electronically controlled
HEUI™ Fuel System
Lifting eyes
Lubrication: gear-driven pump, front or rear sump pan, full flow spin-on filter, oil filler, oil level gauge (dipstick)
SAE No. 1 flywheel housing
Turbocharger
Vibration damper

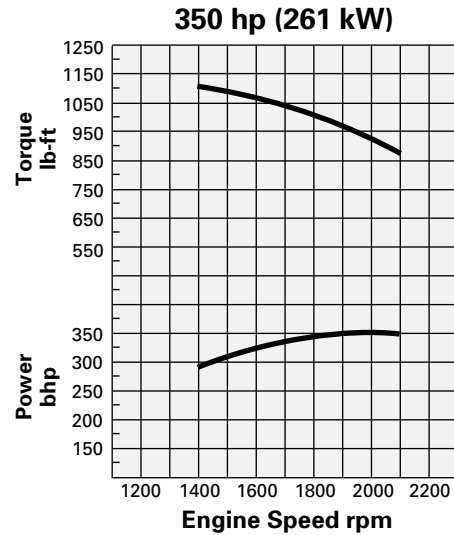
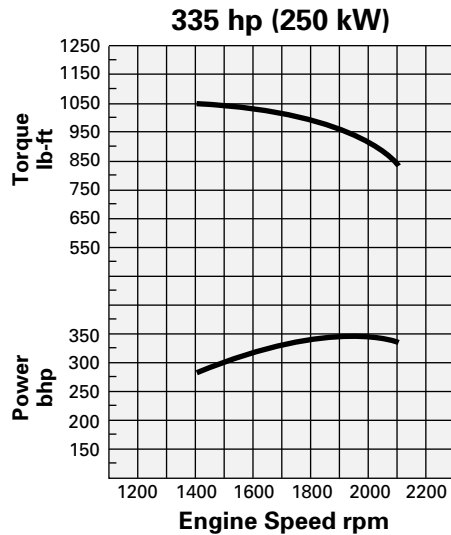
ACCESSORY EQUIPMENT

Air compressor: 15.7 cfm with drive through capability
Air conditioner compressor mounting
Air inlet elbow
Automatic transmission adapter
Auxiliary brake compatible (exhaust)
Fan drive mounting bracket
Flywheel
Front engine support
Front PTO adapter
Fuel priming pump
Hydraulic pump drive, SAE A
Jacket water heater
Rear PTO (RPTO)
Starting motor: 12V or 24V
Turbocharger compressor outlet elbow

DIMENSIONS



PERFORMANCE CURVES



PERFORMANCE DATA¹

Operating Range (rpm) 1400-2100
Governed Speed — rpm **2100**
 Advertised hp (kW) 335 (250)
 Max hp (kW) 350 (261)
Peak Torque — lb-ft (N·m) **1050 (1428)**
 Peak Torque — rpm 1400
 Torque rise (%) 25
 Altitude Capability — ft (m) 10,000 (3048)

Operating Range (rpm) 1400-2100
Governed Speed — rpm **2100**
 Advertised hp (kW) 350 (261)
 Max hp (kW) 350 (261)
Peak Torque — lb-ft (N·m) **1100 (1496)**
 Peak Torque — rpm 1400
 Torque rise (%) 26
 Altitude Capability — ft (m) 10,000 (3048)

¹When specing with automatic transmission the engine has overrun capabilities to 2300 rpm.

GEARING CONSIDERATIONS

The C9 On-Highway Diesel Engine offers a wide operating range and high torque rise, which promotes the use of transmissions with fewer gears. Even with this built-in feature, heavy/specialty haulers must remember their trucks should be geared to achieve the appropriate compromise between startability and desired road speed. The general principal drivers should follow is that of the “gear fast, run slow” strategy to achieve optimal performance.

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

- **60,000 lb GCW or less**
1650 rpm @ 65 mph (105 km/h)

The minimum startability requirements are 10% for pick-up and delivery, 14% for linehaul, 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.

To optimize your truck's performance characteristics, a computerized spec'ing tool called Design Pro is offered by your Caterpillar dealer. It calculates effects of various driveline variables on engine operation such as transmissions, axles, and tires. This analysis allows you to verify that your truck's driveline specifications are best suited to your application.

RATING DEFINITIONS AND CONDITIONS

Performance is based on SAE J1995 standard conditions of 29.61 in. Hg (100 kPa) and 77° F (25° C).

The curves shown are for a standard engine without fan, but equipped with air compressor and fuel, lubricating oil, and water pumps.

ELECTRONIC FEATURES

- **Real time clock with date and time stamping of critical events**
- **Electronic self-diagnostics**
- **Compatible with Caterpillar Electronic Technician (ET)**
- **Cold weather startup strategy and electronic idle control functions**
- **ECM storage of operational, maintenance, diagnostic codes and diagnostic data**
- **J1939 compatible**
- **Customer selectable, re-programmable operational parameters:**
 - 2-speed fast idle capabilities
 - Adjustable low idle rpm
 - Automated Transmission compatibility
 - Cooling fan control
 - Cruise control with exclusive Soft Cruise
 - Customer password protection
 - Engine Monitoring System — warning, derate, or shutdown
 - Enhanced theft deterrent and secure idle (Cat Messenger or Pocket Tec required)
 - Exhaust brake operational modes
 - Fleet Information Software capability
 - Idle shutdown timer & override
 - Maintenance monitor [miles (km) or hours]
 - OEM parameter lockout
 - Progressive shifting and gear down protection
 - Selectable AT/MT/HT shift points for automatic transmission
 - Vehicle speed [mph (km/h)] limiting and protection
- **Programmable Power Take-Off (PTO) functions:**
 - Adjustable maximum engine rpm speed
 - Adjustable minimum engine rpm speed
 - Adjustable ramp rate up or down between PTO set speed(s)
 - Adjustable rpm “bump” intervals
 - Adjustable speed control [mph (km/h)] of vehicle while in PTO mode
 - Limit engine torque to driven equipment
 - Multi-speed PTO set speed capability
 - Selectable PTO configuration for “in cab” or station of remote operation

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, ACERT, “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.

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