

Shown with
Optional Equipment

CATERPILLAR® ENGINE SPECIFICATIONS

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

Bore — in (mm)	4.33 (110)
Stroke — in (mm)	5.0 (127)
Displacement — cu in (L)	441 (7.2)
Aspiration	Turbocharged
Compression Ratio	16.5:1
Rotation (from flywheel end)	Counterclockwise
Cooling System ¹ — gal (L)	3.99 (15.1)
Lube Oil System (refill) — gal (L)	4.8 (18) ²
Weight, Net Dry (approx) — lb (kg)	
including flywheel	1425 (647)

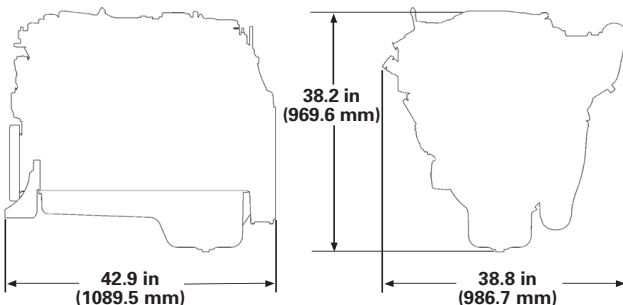
¹ Engine only. Capacity will vary with radiator size and use of cab heater.

² Optional 6.9 gal (26L) oil pan also available in some OEM chassis.

STANDARD EQUIPMENT

- Air inlet manifold heater
- Cat® common rail fuel system
- Caterpillar® Regeneration System
- Closed crankcase breather
- Cooling: belt-driven water pump, oil cooler
- Diesel particulate filter
- Electronic Control Module (ECM)
- Electronic Data Link, SAE/ATA, SAE/J1939
- Fuel: spin-on secondary filter, transfer pump
- Governor: full-range, electronically controlled
- 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 or SAE No. 2 flywheel housing
- Variable nozzle turbocharger
- Vibration damper

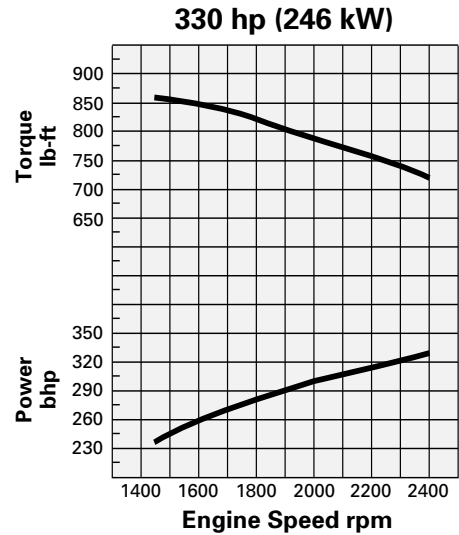
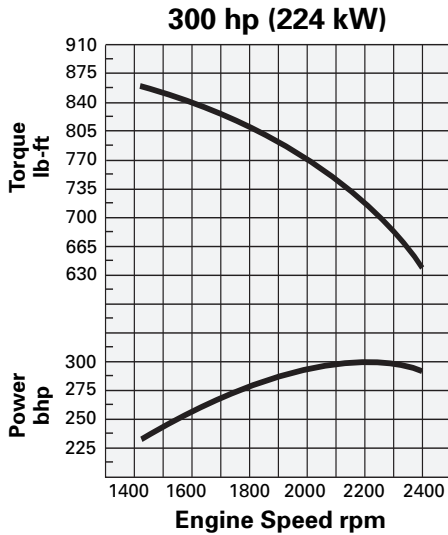
DIMENSIONS



ACCESSORY EQUIPMENT

- Air compressor: gear driven, 16.1 cfm (0.46 m³/min) with drive through capability
- Air conditioner compressor mounting
- Air inlet elbow
- ATAAC inlet elbow
- Automatic transmission adapter
- Cat engine brake available
- Fan drive
- Fan drive mounting bracket
- Flywheel
- Front engine support
- Front PTO adapter
- Fuel priming pump
- Hydraulic pump drive, SAE A
- Jacket water heater
- Primary fuel filter (10 micron)
- Rear PTO (RPTO)
- Starting motor: 12V or 24V

PERFORMANCE CURVES

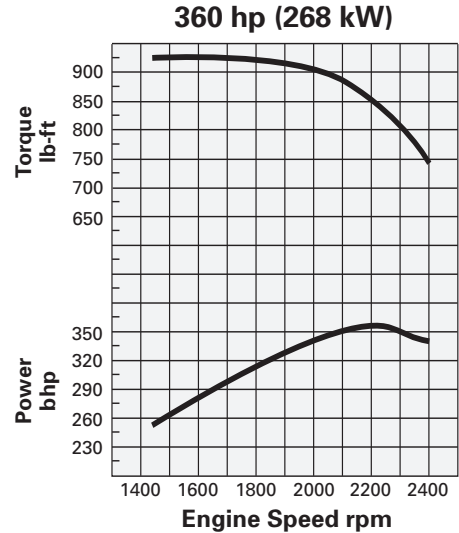
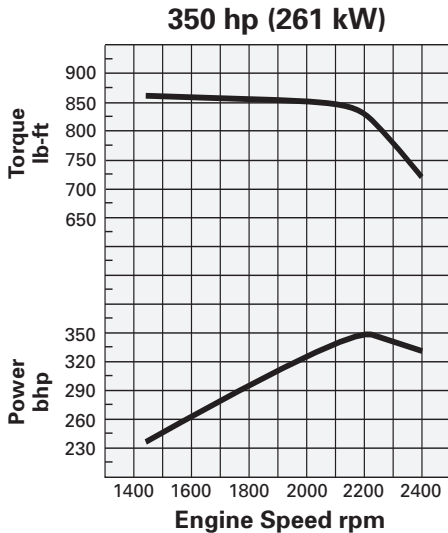


PERFORMANCE DATA

Operating Range (rpm)..... 1440-2400
Governed Speed — rpm **2400**
 Advertised hp (kW) 300 (224)
 Max hp @ 1600 rpm (kW) 300 (224)
Peak Torque — lb-ft (N•m)..... **860 (1166)**
 Peak Torque — rpm 1440
 Torque rise (%)..... 38
 Altitude Capability — ft (m)..... 10,000 (3048)

Operating Range (rpm) 1440–2400
Governed Speed — rpm **2400**
 Advertised hp (kW) 330 (246)
 Max hp (kW) 330 (246)
Peak Torque — lb-ft (N•m)..... **860 (1166)**
 Peak Torque — rpm 1440
 Torque rise (%) 19
 Altitude Capability — ft (m)..... 10,000 (3048)

PERFORMANCE CURVES



PERFORMANCE DATA

Operating Range (rpm)..... 1440-2400
Governed Speed — rpm **2400**
 Advertised hp (kW) 350 (261)
 Max hp (kW) 350 (261)
Peak Torque — lb-ft (N•m)..... **860 (1166)**
 Peak Torque — rpm 1440
 Torque rise (%) 19
 Altitude Capability — ft (m)..... 10,000 (3048)

Operating Range (rpm)..... 1440-2400
Governed Speed — rpm **2400**
 Advertised hp (kW) 360 (268)
 Max hp (kW) 360 (268)
Peak Torque — lb-ft (N•m)..... **925 (1254)**
 Peak Torque — rpm 1440
 Torque rise (%) 24
 Altitude Capability — ft (m)..... 10,000 (3048)

ROUTINE MAINTENANCE RECOMMENDATIONS

Daily

- Walk-around inspection
- Check oil level
- Check coolant level
- Check air cleaner service indicator
- Drain water separator if water present

Preventive Maintenance (PM Level 1)

- Change oil & filter
- Scheduled Oil Sampling (S•O•SSM) analysis
- Drain water from fuel tanks and replace fuel filter
- Test coolant (supplemental coolant additive)
- Inspect radiator and Air-to-Air Aftercooler
- Clean crankcase breather (every other oil change)
- Check belts, hoses, and clamps
- Lube fan drive bearing
- Inspect, clean batteries
- Replace air compressor filter (if equipped)
- Inspect cylinder head ground stud

PM Level 1 Recommended Change Intervals

Oil Pan	Miles/Years
26L (28 quarts)	15,000/1
18L (19 quarts)	11,000/1

Refer to the operation & maintenance manual for complete details.

CUSTOMER SERVICE INFORMATION

Customer Call Center (Toll Free) 877-777-3126
Parts & Service Directory LEGT3466

FUEL AND LUBE OIL REQUIREMENTS

FUEL

Model year 2007 and newer Caterpillar on-highway diesel engines require the use of ULSD fuel in order to meet the United States (U.S.) Environmental Protection Agency (EPA) 2007 emissions regulations for on-highway diesel engines. Failure to use ULSD in these engines is punishable with civil penalties.

Ultra Low Sulfur Diesel (ULSD) fuel will have ≤ 15 ppm (0.0015%) sulfur using the ASTM D5453, ASTM D2622, or DIN 51400 test methods.

CRANKCASE LUBE OIL

Diesel engine oils meeting the Cat ECF-3 (Engine Crankcase Fluid-3) specification are strongly **recommended** for use in 2007 model year and newer Caterpillar on-highway diesel engines. The Cat ECF-3 specification was developed in order to protect emissions control systems, help comply with the emissions standards, reduce engine wear, and control piston deposits and oil consumption in 2007 model year and newer on-highway diesel engines that are designed to use fuels with ≤ 15 ppm (0.0015%) sulfur.

The combination of ULSD fuel **and** API CJ-4 compliant diesel engine oil is strongly recommended for optimum engine system performance.

Note: Oils that meet the API CJ-4 oil category requirements are Cat ECF-3 compliant.

ELECTRONIC FEATURES

- **Customer selectable, re-programmable operational parameters:**
 - 2-speed fast idle capabilities
 - Adjustable low idle rpm
 - Automated transmission compatibility
 - Cat engine brake operational modes
 - 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)
 - 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
- **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**
- **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

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.

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