

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 System <sup>1</sup> — gal (L) .....	4.8 (18)
Lube Oil System (refill) — gal (L).....	8.5 (32)
Weight, Net Dry (approx) — lb (kg)	
including flywheel .....	1500 (680)

<sup>1</sup> Engine only. Capacity will vary with radiator size and use of cab heater.

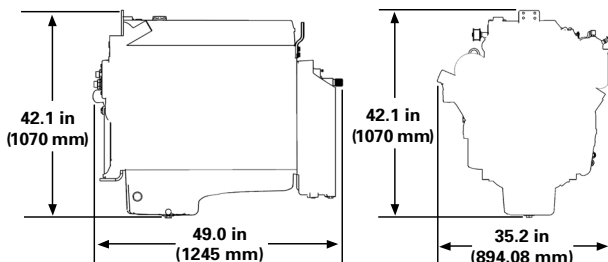
### STANDARD EQUIPMENT

- Air inlet manifold heater
- Cooling — belt-driven water pump, oil cooler
- Crankcase breather
- Diesel Oxidation Catalyst (required)
- 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

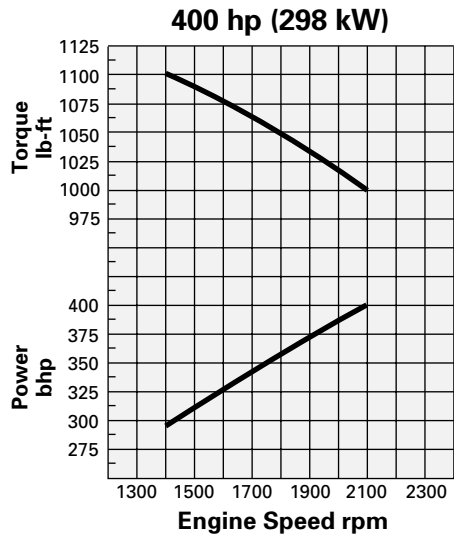
### ACCESSORY EQUIPMENT

- Air compressor — 15.7 cfm with drive-through capability
- Air conditioner compressor mounting
- Air inlet elbow
- Automatic transmission adaptation
- 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 DATA**

- Operating Range (rpm) ..... 1400-2100
- Governed Speed — rpm ..... 2100**
- Advertised hp (kW) ..... 400 (298)
- Max hp (kW) ..... 400 (298)
- Peak Torque — lb-ft (N·m)..... 1100 (1492)**
- Peak Torque — rpm..... 1400
- Torque rise (%) ..... 10
- 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•S<sup>SM</sup>) 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
32L (34 quarts)	20,000/1

Refer to the operation & maintenance manual for complete details.

### CUSTOMER SERVICE INFORMATION

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

### 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 jacket 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