

CUMMINS ENGINE DRIVER TIPS

Cummins EPA '07 Heavy-Duty and MidRange Engines

Items Driver Will Notice

Engine Sounds

- The electric-actuated Variable Geometry Turbocharger causes the engine sound to vary at different times. This is normal. A slight turbo whistle may also be observed at idle conditions.
- Compression brakes are quieter on engines with Exhaust Aftertreatment.

Exhaust

- After prolonged idle, you may notice momentary white vapor and an odor. This is normal.
- When the High Exhaust System Temperature Lamp is illuminated, you may notice an odor. This is normal. If the odor is excessive and you also notice white vapor, have the exhaust system inspected for leaks at your earliest convenience.

Optimizing Fuel Economy – Shifting Techniques

Heavy-Duty Engines

- Maximize your time in top gear by using:
 - Progressive Shifting, or making each upshift at the lowest possible RPM.
 - Skip Shifting, or skipping gears and only using gears needed to move the load. (Note: Some transmissions will not allow skip shifting.)
- On hills, lug back to 1200 RPM before making a shift.
- On steep grade climbs, shift at 1300 to 1400 RPM.

Fuel and Oil

- Only use Ultra Low Sulfur Diesel (ULSD) fuel.
- CJ-4 (low ash) is the recommended oil.
- CI-4+ is permitted. Read your Cummins Owners Manual for specific details.

High Exhaust System Temperature (HEST) Lamp

The High Exhaust System Temperature (HEST) Lamp illuminates to indicate that high exhaust temperatures may exist due to aftertreatment regeneration. When this lamp is illuminated, ensure that the exhaust pipe outlet is not directed at any surface or material that will melt, burn, or explode. Reference your Cummins Owners Manual for complete instructions.



Aftertreatment Diesel Particulate Filter (DPF) Lamp

The Aftertreatment Diesel Particulate Filter Lamp indicates, when illuminated or flashing, that the Aftertreatment Diesel Particulate Filter requires regeneration.

When the DPF Lamp illuminates, the Aftertreatment Diesel Particulate Filter needs to regenerate within the next 2-6 hours of operation. This is accomplished by:



- 1) Changing to a more challenging duty cycle, such as highway driving, for at least 20 minutes.

Or

- 2) Performing a 'Parked' regeneration.

When the DPF Lamp flashes, the actions stated above should be performed in the next 1-2 hours. In addition, engine power may be reduced automatically.



A 'Parked' regeneration may be performed using the Manual Regeneration Switch if provided by the truck manufacturer. Reference the OEM's Owners Manual for complete instructions.

Some vehicles may be equipped with an 'Inhibit Switch.' The purpose of this switch is to prevent or disable Aftertreatment Diesel Particulate Filter regeneration. Again, reference the OEM's Owners Manual for complete operation and use of this switch. Unnecessary or excessive use of the 'Inhibit Switch' **will** result in a loss of fuel economy, or an increased need for 'Parked' regeneration.

Warning or Check Engine Lamp



A flashing DPF Lamp combined with an illuminated Warning or Check Engine Lamp indicates that the Aftertreatment Diesel Particulate Filter needs regeneration immediately. Engine power will be reduced automatically. A 'Parked' regeneration is required.

NOTE: If a 'Parked' regeneration is not performed, the red STOP ENGINE Lamp will illuminate. The vehicle should be stopped as soon as it can safely be done and remain shut down until it can be serviced by a Cummins authorized repair location.

