

Peterbilt Operator's Manual Supplement

This supplement contains information that is not included in your current Peterbilt Operator's Manual. This supplement is in addition to the information contained in the Peterbilt Operator's Manual and applies to all Peterbilt Models equipped with 2007 EPA compliant engines.

Emissions

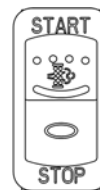
After-Treatment System Description



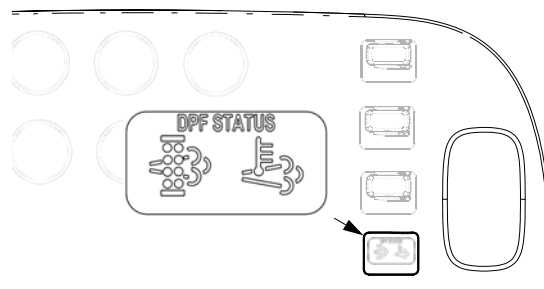
NOTE: The emission warning lamps and emission switch functions described below supersede those listed in the Engine manufacturer's Operator and Maintenance manual. For additional Emissions Aftertreatment information specific to your engine, see the Engine manufacturer's Operation and Maintenance Manual supplied in your vehicle. All other lamp and switch functionality described in the manual are still valid.

In order to meet 2007 EPA engine emission requirements, vehicles will have an exhaust After-Treatment System (ATS) which includes a Diesel Particulate Filter (DPF), Regeneration Switch and warning lights. The DPF will trap soot from the engine exhaust gases. The ATS will periodically clean the DPF.

The Regeneration Switch is mounted on the dash and can override the ATS. Various situations may require the operator to use the functions of this switch. Refer to "Parked Regeneration" on page 7 and "Stop an Automatic or Parked Regeneration" on page 9 for more information.



ATS specific warning lights and indicator symbols appear on the dash panel, above the air conditioning controls and radio.



ATS Warning Light and Indicator Symbols

Functionality / Notification Information

The ATS will clean the DPF by using hot exhaust gases normally generated by the engine. This typically occurs during highway operation. This is referred to as a "Passive" Regeneration and is transparent to the operation of the vehicle.

Occasionally, the exhaust gases are too cool for passive regeneration. When this occurs, the ATS will clean the DPF by increasing the exhaust temperature. This is referred to as an "Automatic" Regeneration and is also transparent to the operation of vehicle. An Automatic Regeneration event typically lasts 30 minutes. During and shortly after the event, the exhaust gases from the DPF may reach temperatures in excess of 650 C (1200 F). See the information in the table below on probable causes and recommended actions related to the warning lights and indicator symbols of the ATS.

The ATS may not be able to clean the DPF when the vehicle is driven at extended low speeds or with frequent start and stops. In such cases, warning lights and indicator symbols will alert the operator to take action. The operator

should be aware of whether the lights are on alone or in combination with others. The following table will describe each warning light(s) and what actions are needed from the operator.

Notification of High Exhaust System Temperature:

Indicator	Information	What to do
 On-Steady	The High Exhaust Temperature (HEST) warning lamp will illuminate, regardless of ATS status, as the vehicle's exhaust outlet temperature becomes extremely hot (at least 450 deg C / 842 deg F) and subsequently the vehicle speed slows to below 5 mph / 8 kph. This will typically occur when: An Automatic or Parked Regeneration is in process or During normal vehicle operation when engine is under high or heavy loading	Follow all warnings listed below. Use the STOP function of the Regeneration Switch if the situation requires. Follow the instructions described "Stop an Automatic or Parked Regeneration" on page 9  <i>WARNING! Temperatures of the exhaust pipes and at the outlets of the exhaust system during and shortly after a regeneration event will be extremely hot. If the High Exhaust System Temperature (HEST) warning lamp is on:</i> <i>Do not park in an area of combustible vapors or materials. You must keep combustibles at least five (5) feet away from the side and top of the vehicle while the HEST light is illuminated. Always park your vehicle outside. Failure to do so could ignite an explosion or harm bystanders which could result in serious injury.</i> <i>Do not park in an area where people are close by. You must keep bystanders at least five (5) feet away from the exhaust outlet while the HEST light is illuminated. Failure to do so could result in serious injury.</i> <i>The exhaust piping, diesel particulate filter (DPF) or tail pipe become extremely hot during engine operation or any regeneration event and can cause serious burns to the skin. Allow adequate cooling time before working on or near any part of the exhaust system.</i>

Notification That Regeneration Is Required:

Indicator	Information	What to do
 On Steady	The DPF status indicator symbol will illuminate when the soot level in the DPF is above the desired level and it needs cleaning.	The DPF needs cleaning soon. Follow the instructions described "Cleaning the DPF" on page 7  NOTE: If you ignore the warning lamp and do not initiate regeneration at the soonest, safest possible time, the DPF will become increasingly clogged with soot and can lead to engine shutdown.
 Blink once every second	The DPF status indicator symbol will blink when the soot level in the DPF continues to stay above the desired level and it needs cleaning.	Clean the DPF as soon as safely possible. Follow the instructions described "Cleaning the DPF" on page 7  CAUTION: If you do not initiate regeneration after the DPF Indicator lamp is blinking, you only have a short time before the check engine light will illuminate and the engine will go into protection mode and de-rate power.
 Blinking  On Steady	The DPF status indicator symbol will blink when the soot level in the DPF continues to stay above the desired level and it MUST be cleaned. The engine will de-rate power.	Clean the DPF immediately. Follow the instructions described "Cleaning the DPF" on page 7.  CAUTION: If you do not initiate regeneration after the DPF Indicator lamp is blinking and the check engine light is illuminated, you only have a short time before the stop engine light will illuminate and the engine will automatically begin to shutdown.

Indicator	Information	What to do
 Blinking  On Steady  On Steady	(Caterpillar Engine) The DPF status indicator symbol will blink when the soot level in the DPF continues to stay above the desired level The soot level in the DPF is now at full capacity.	At this point, you CANNOT clean the DPF and the engine will begin a shut-down sequence.  WARNING! If the Stop Engine warning lamp illuminates, it means you have a serious engine system problem. This should be considered an emergency. You should stop the vehicle as safely as possible and turn OFF the ignition. The vehicle must be serviced and the problem corrected before driving again. Failure to do so may cause severe engine, DPF damage or personal injury.  NOTE: The engine shutdown sequence is engine specific; therefore to learn how this works on your vehicle, refer to the Engine Manufacturer's Operation and Maintenance Manual supplied with your vehicle.
 On Steady	(Cummins Engine) The Stop Engine light is illuminated when the soot level in the DPF continues to stay above the desired level The soot level in the DPF is now at full capacity.	At this point, you CANNOT clean the DPF and the engine will begin a shut-down sequence.  WARNING! If the Stop Engine warning lamp illuminates, it means you have a serious engine system problem. This should be considered an emergency. You should stop the vehicle as safely as possible and turn OFF the ignition. The vehicle must be serviced and the problem corrected before driving again. Failure to do so may cause severe engine, DPF damage or personal injury.  NOTE: The engine shutdown sequence is engine specific; therefore to learn how this works on your vehicle, refer to the Engine Manufacturer's Operation and Maintenance Manual supplied with your vehicle.

Cleaning the DPF

Carefully read the following instructions to clean the DPF. If you have any problems or difficulties contact your nearest Peterbilt authorized dealer for assistance.

The ATS needs conditions typically found in highway driving to clean the DPF. If your DPF Indicator lamp is illuminated, the easiest option is to help the ATS by proceeding to the nearest highway.

- Select a highway that has a posted legal speed of more than 35 mph
- Drive your vehicle until the DPF light goes off. This may take 30 - 45 minutes of speeds greater than 20 mph (32 kph).

If your operation or planned route in the immediate future limits your ability to reach highway speeds, proceed to the next section titled Parked Regeneration.

Parked Regeneration

In very limited applications or operations the DPF must be cleaned by initiating a Parked Regeneration. Follow these six steps to initiate a Parked Regeneration:

1. Pull the vehicle over to a safe location
2. Ensure no one is in the immediate vicinity to the tail pipe
3. Maintain a minimum of 5 feet of clearance to any combustible materials from the edge and top of the vehicle



WARNING! Parking the vehicle too close to any combustible materials or vapors may start a fire, ignite an explosion or burn someone standing close by. Before pushing the Regeneration switch on the dash, walk around your vehicle and ensure you have at least five (5) feet clearance from the sides and top of your vehicle to any combustibles. Ensure no one is in the immediate vicinity to the tailpipe. Failure to do so could cause a fire or lead to serious injury to you and/or bystanders.



WARNING! Never initiate an regeneration in a closed building or enclosure. Always park your vehicle outside and ensure no one is in the immediate vicinity. Failure to do so could ignite an explosion or harm bystanders which could result in serious injury.



NOTES: Typical operation areas or materials that can contain explosive vapors, flammable materials or people in close proximity of the vehicle are

- Fuel depots
- Grain elevators
- Dry grass, leaves or trees
- Transfer refuse stations/dumps
- Parking lots
- Load/unload terminals

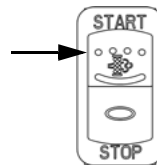


NOTE: While the list above may appear comprehensive, it is your responsibility to take the necessary precautions and be aware of your surroundings and ensure that no combustibles (materials or vapors) or bystanders are close by before initiating a regeneration.

4. Verify that the following conditions are met before proceeding. A Parked Regeneration will not initiate if any of these conditions are not met.
 - Parking brake is applied / set
 - Engine is at low idle

- No throttle, brake or clutch applied
- PTO is disengaged
- Transmission is in neutral

5. Get out and walk all around vehicle to ensure that the vehicle is at least 5 feet away from all combustible materials and no one is in the immediate vicinity.
6. Climb back into the vehicle
7. Push the Regeneration (START) Switch located on the dash for at least 4 seconds to initiate a Parked Regeneration



NOTE: Acknowledgment that a Parked Regeneration has initiated will vary by engine. The most predominant acknowledgement to you will be an increase in engine RPM and overall engine noise.



NOTE: A Parked Regeneration may take 30 or more seconds to initiate as the ATS system conducts various self-checks to verify all the system requirements have been met.



NOTE: A Parked Regeneration will initiate only if the DPF status light is illuminated or blinking.

If you are unable to initiate a Parked regeneration and the DPF status light is illuminated, contact your nearest Peterbilt authorized dealer for assistance.

Stop an Automatic or Parked Regeneration

If an Automatic or Parked Regeneration is in process and you want the regeneration to stop, OR you want to prevent a regeneration from occurring, your vehicle is equipped with a switch that can STOP an Automatic or Parked Regeneration. Since Automatic Regenerations can occur at any time with this engine, you must depress the STOP portion of the Regeneration Switch ANYTIME you plan to drive your vehicle into a building, enclosure or area where the activation of a regeneration is not allowed. If the regeneration does not stop, turn the vehicle ignition OFF.



WARNING! *Never allow an Automatic regeneration to automatically start while inside a building such as a service bay, shop or building of any kind. Any time you are parking your vehicle inside a building or enclosure, ALWAYS press the Regeneration (STOP) switch prior to entering the building. Failure to do so could ignite an explosion which could result in serious injury to you and/or bystanders.*



WARNING! *Never initiate a Parked Regeneration in a closed building or enclosure. Always park your vehicle outside. Failure to do so could ignite an explosion which could result in serious injury to you and/or bystanders.*