

UNDERSTANDING YOUR DASH LIGHTS



NAVISTAR ON-HIGHWAY HEAVY-DUTY ENGINES

Drivers will notice the addition of an on-frame storage tank for diesel exhaust fluid (DEF) and a dash lamp and gauge that indicate low DEF levels. Refilling this tank with API-approved DEF is critical for your vehicle to comply with EPA emissions regulations.

LOW



DIESEL EXHAUST FLUID (DEF) LAMP*

An illuminated DEF Lamp indicates that the DEF level is low. This can be corrected by refilling the DEF tank.

**Lamps shown are for illustrative purposes only. Be sure to reference your Operations and Maintenance Manual for specific lamps and details.*

MEDIUM



FLASHING

FLASHING DEF LAMP

A flashing DEF Lamp indicates that the DEF level has fallen below a critical level. This can be corrected by refilling the DEF tank.

HIGH



FLASHING

FLASHING DEF LAMP WITH RED STOP LAMP

A flashing DEF Lamp combined with an illuminated Red Stop Lamp indicates that the DEF level is critically low, and you will experience a progressive power loss. Normal engine power will be restored after refilling the DEF tank. The vehicle will also be limited to a speed of 5 miles (8 km) per hour. Normal engine power and vehicle speed will be restored after refilling the DEF tank.



AUDIBLE

Each level comes with a warning beep.



MALFUNCTION INDICATOR LAMP (MIL)

The MIL illuminates when the On-Board Diagnostics (OBD) detects a malfunction related to the emissions control system. The illuminated MIL indicates that the engine needs to be serviced at the first convenient opportunity and may be illuminated along with any of the engine indicator lamps. It does not indicate an “engine protection” or “maintenance required” condition.

OPTIMIZING FUEL ECONOMY

Check Tire Pressure Frequently — for every 10 psi that tires are underinflated mpg is reduced by 1%.

Slow Down — above 55 mph, each 1 mph increase in speed decreases fuel economy by .1 mpg.

Follow Preventative Maintenance Schedule — properly serviced vehicles provide better mpg.

Keep Aero Components In Good Condition — they provide the greatest mpg benefit above 50 mph.

Minimize Gap Between Tractor & Trailer.

Practice Efficient Driving Behaviors:

- ▶ Maximize time in Top Gear.
- ▶ Maximize time in Cruise Control.
- ▶ Upshift at 1600 RPM or with the UpShift Indicator Light.
- ▶ Downshift at 1100 RPM with light loads and at 1200 RPM with heavy loads.
- ▶ Keep RPM at Cruise between 1325 and 1375 RPM for best mpg.
- ▶ Minimize Idle Time — every 10% of idle time equals .2 mpg loss.
- ▶ Avoid sudden braking and acceleration.

DO NOT REMOVE FROM THIS VEHICLE

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LOW



AFTERTREATMENT DIESEL PARTICULATE FILTER (DPF) LAMP

An illuminated Aftertreatment DPF Lamp indicates that the Aftertreatment DPF requires regeneration.

This is accomplished by the following:

1. If the vehicle is equipped with a Regeneration Inhibit Switch, ensure that the switch is not in the inhibit position.
2. Perform a DPF regeneration by one of the following methods:
 - a. Change to a more challenging duty cycle, such as highway driving, for at least 20 minutes OR
 - b. Perform a parked regeneration.

MEDIUM



FLASHING



MEDIUM

FLASHING DPF LAMP

If a regeneration is not performed in a timely manner after the DPF Lamp is illuminated, the DPF Lamp will begin to flash. This indicates a high level of soot in the DPF. In addition, engine power may be reduced automatically.

HIGH



FLASHING



CONTINUOUS

RED STOP LAMP

If a parked regeneration is not performed, the Red Stop Lamp will illuminate. As soon as it is safe to do so, the vehicle should be stopped. It should then be taken to a certified repair location.



REGENERATION INHIBIT SWITCH

The purpose of this switch is to prevent or disable Aftertreatment DPF regeneration. Reference the Operations and Maintenance Manual for complete operation and use of this switch. Unnecessary or excessive use of the Regeneration Inhibit Switch may increase the need for parked regeneration.



HIGH EXHAUST SYSTEM TEMPERATURE (HEST) LAMP

The HEST Lamp illuminates to indicate that high exhaust temperatures may exist due to aftertreatment regeneration. This is normal and does not signify the need for any kind of vehicle or engine service. When this lamp is illuminated, ensure that the exhaust pipe outlet is not directed at any combustible surface or material. Reference your Operations and Maintenance Manual for complete instructions.

HOW TO PERFORM A PARKED (STATIONARY) REGENERATION

If the vehicle has a Manual Regeneration Switch and the DPF Lamp is flashing:

- ▶ Park vehicle in an appropriate location, set parking brake and place transmission in Park (if provided) or Neutral, and allow at least 40 minutes for the regeneration.
- ▶ Set up a safe exhaust area. Confirm that nothing is on or near the exhaust system surfaces.
- ▶ Ensure that your fast-idle and PTO switches are off before starting regeneration.
- ▶ Push the Manual Regeneration Switch to begin a parked regeneration.

Engine speed will increase, and there may be a noticeable change in the sound of the turbocharger during the regeneration process. Once the diesel particulate filter is regenerated, the engine will automatically return to the normal idle speed.

- ▶ Monitor the vehicle and surrounding area during regeneration. If any unsafe condition occurs, shut off the engine immediately. To stop a parked regeneration, depress the clutch, brake or throttle pedal.
- ▶ Once regeneration is complete, exhaust gas and exhaust surface temperatures will remain elevated for 3 to 5 minutes.

Reference your Operations and Maintenance Manual for complete operating instructions.

DO NOT REMOVE FROM THIS VEHICLE