



No.: 07 OEM - 05
April 17, 2007

TO: Heavy Duty OEM

FROM: On-Highway Application Engineering

SUBJECT: **Vehicle Post Production Aftertreatment Functionality Verification**

ISSUE

As you are aware the 2007 Detroit Diesel family of engines require the use of an active Aftertreatment to meet the EPA 2007 emission standards. It is crucial for the operation of the vehicle that the engine and Aftertreatment systems function correctly. With the Heavy Duty 2007 Detroit Diesel engines, two service routines must be performed in order to ensure proper functionality of the engine and Aftertreatment system. Detroit Diesel requires that these service routines be performed upon completion of a production vehicle prior to shipment.

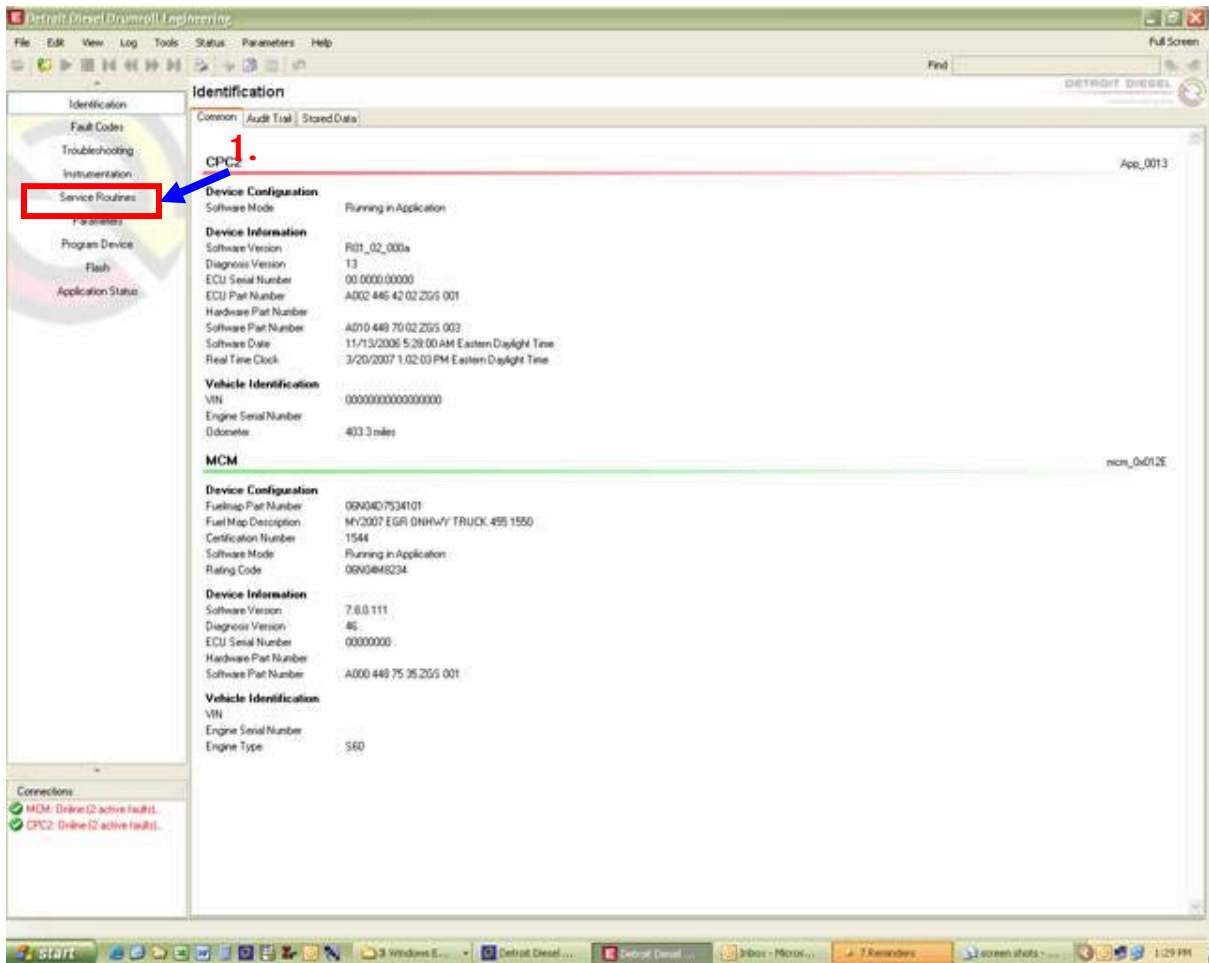
- Electronic Dosing Valve Purge - this routine will purge air from the doser system.
- DPF Regeneration - this routine will test the systems integrity and functionality.

Detailed instructions are provided with this publication.

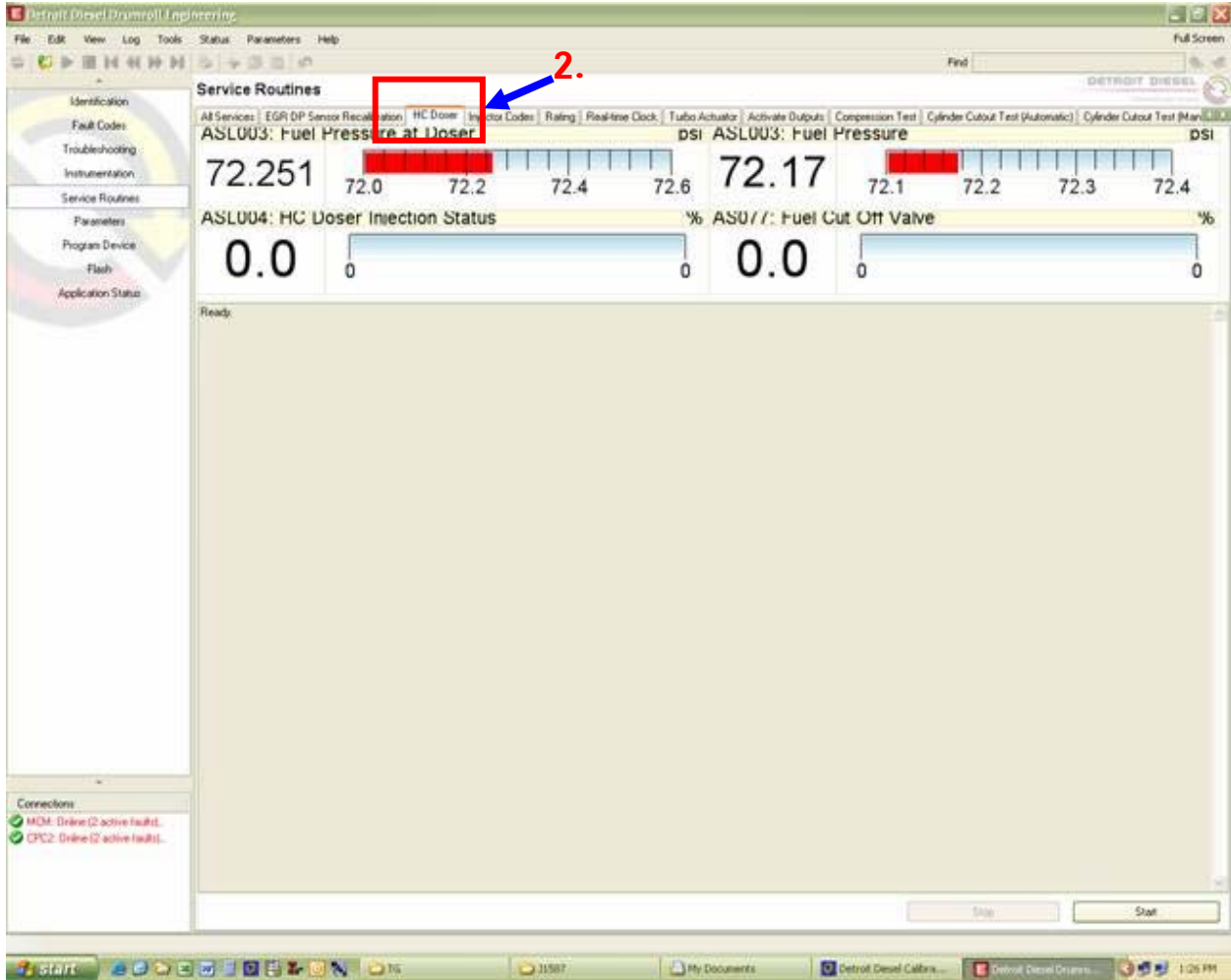
ADDITIONAL INFORMATION

With the engine running, at idle and at operating temperature connect DDDL to the MCM and CPC through the diagnostic port. The standard procedure for initiating the Electronic Dosing Valve Purge service routine is as follows:

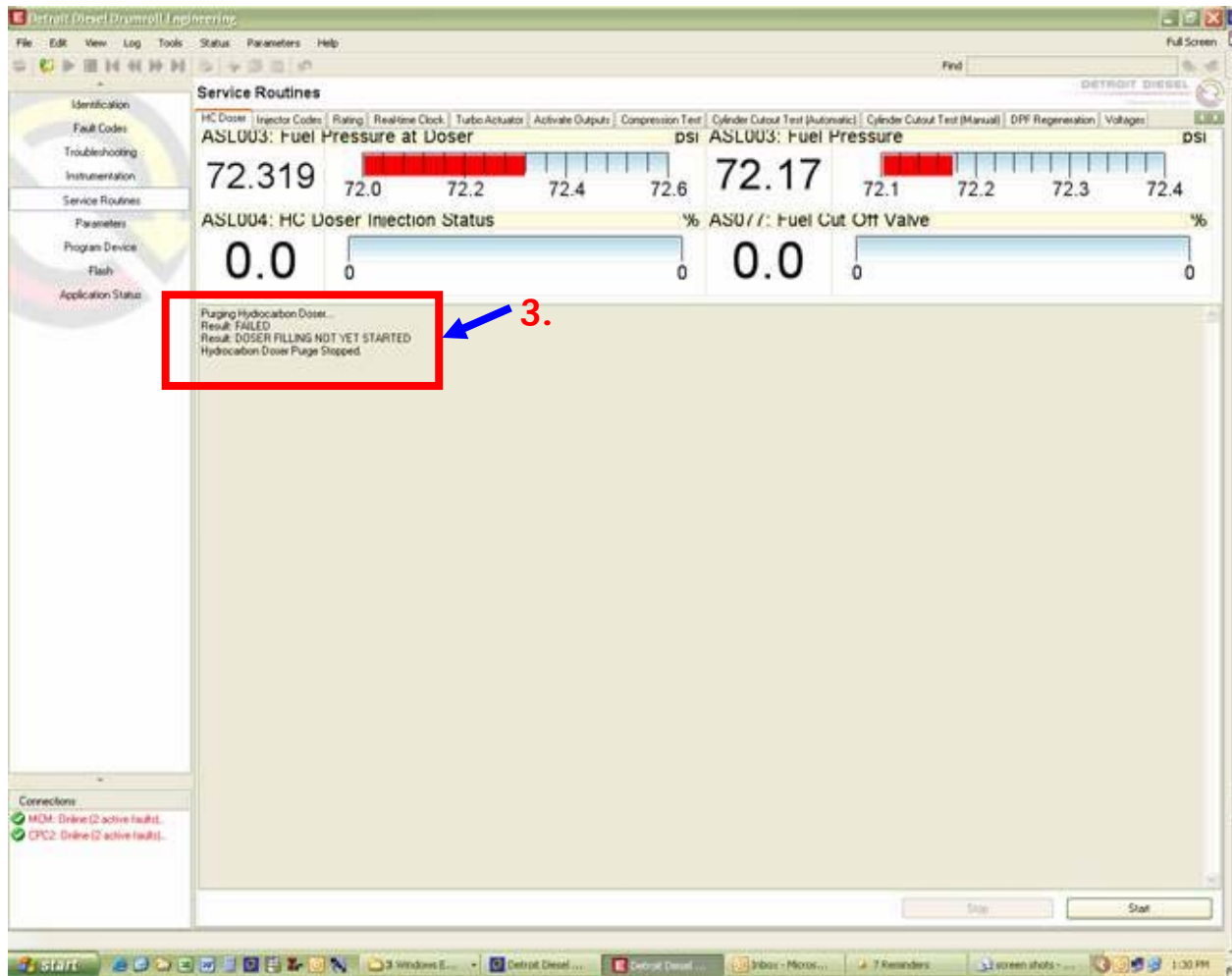
1. Once the identification panel is displayed on DDDL 7.0. Click on the Service Routines tab located half way down the screen on the left hand side. This will then display all the available service routines.



2. Once the service routine panel is displayed start the engine, click on the Electronic Dosing Valve tab to initiate the Electronic Dosing Valve fuel line purge routine. This tab (2) is located in the middle of the screen, third from the left. Press the start button in the lower right hand corner of the panel to initiate the service routine.



- The Electronic Dosing Valve fuel line purge routine will last approximately 10-30 seconds. During this time information about the routine will be displayed in the panel (3) indicating a successful or unsuccessful test.



If the Electronic Dosing Valve fuel line purge service routine is not performed diagnostic codes SPN 3480 FMI 2 and SPN 4077 FMI 14 will be tripped indicating improper pressure detection in the fuel dosing line to the HS Dosing injector. These codes will prevent fuel dosing and as a result proper regeneration of the soot in the Aftertreatment Device.

With the engine still running, continue with the DPF regeneration routine.

Before initiating a parked regeneration do the following:

- Cycle the Park Brake status from On to Off and back to On so that the Park Brake is engaged.
- Transmission Status:
 - If the vehicle has a manual transmission, push and release clutch so that it is disengaged.
 - If the vehicle has an automatic transmission from the Neutral position, shift the transmission into Drive and then back into Neutral.
- Turn off any PTO or Cruise Control switches. Note: This applies to all engine model numbers with the exception of Fire Trucks (6067HG4E).

To initiate a parked regeneration:

1. Click on the Service Routines Tab (1) located on the left hand side of the panel.
2. Click on the DPF Regeneration Tab (2) located on the upper right hand side of the panel.
3. Click on the button Send Parked Regeneration START Request (3) located on the upper right hand side of the panel just below the DPF Regeneration tab. If the regeneration request is accepted the engine RPM will go to the preset speed and the stationary regeneration sequence will commence. The service routine will last until the DOC Outlet Temperature reaches at least 500°C (932°F) and the regeneration time is greater than 20 seconds.
4. This can be monitored on the Service Routine => DPF Regeneration panel (4).
5. Once the DOC Outlet Temperature condition (5) has been met the service routine can be terminated by clicking on the Send Parked Regeneration STOP Request button (6) located in the upper right hand corner of the panel underneath the Send Parked regeneration START request tab.

Successfully completing this service routine demonstrates that the engine and Aftertreatment system are functioning correctly.

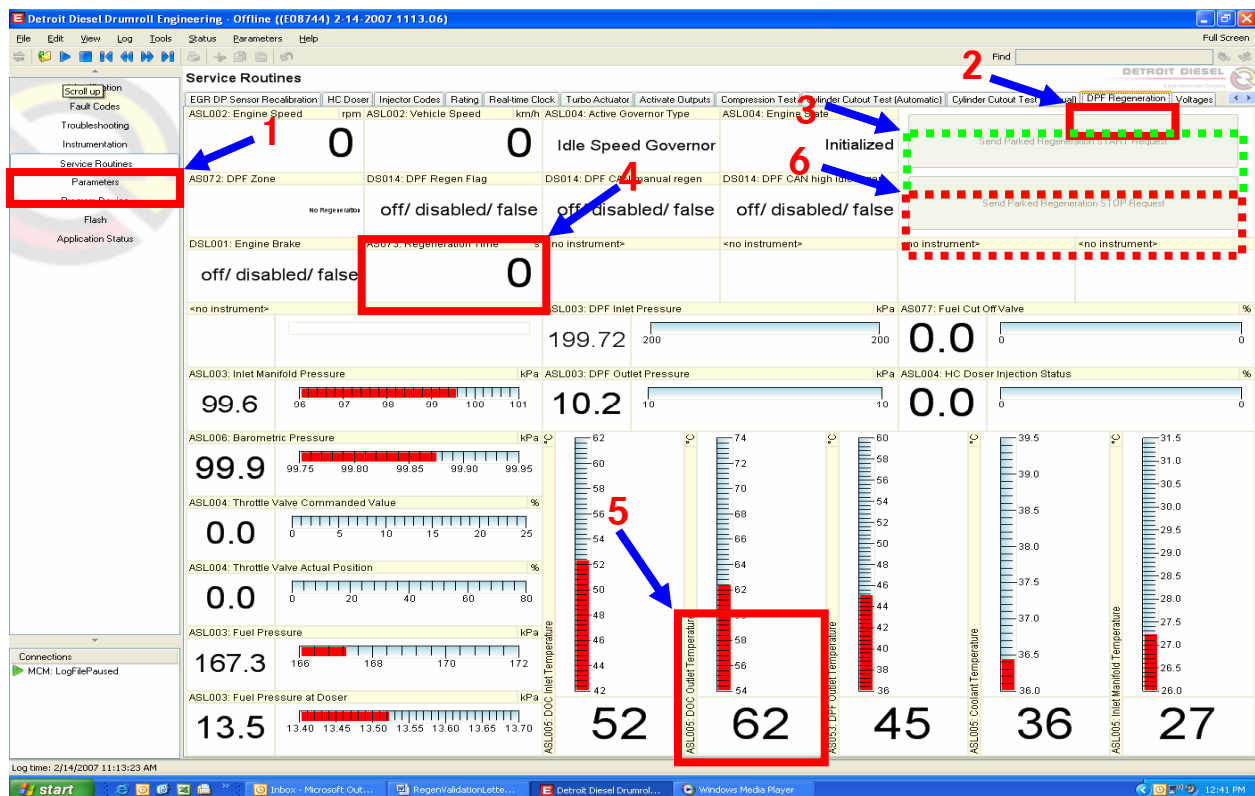


Figure 1 DPF Regeneration Panel

CONTACT INFORMATION

Please contact your application engineer if you have any questions.