# DETROIT DIESEL

# ATS Technician's Guide

**NUMBER:** 08 **ATS**–17 **S.M. REF.:** 11.1 **ENGINE:** ATS **DATE:** December 2008

**SUBJECT: SPN 3246/FMI 0**

**PUBLICATION: DDC-SVC-MAN-0036**

The procedure to check SPN 3246/FMI 0 was changed.

**SPN 3246/FMI 0**

This diagnostic condition is typically DPF Outlet Temperature very high.

**CHECK FOR DPF OUTLET TEMPERATURE VERY HIGH**

Check as follows:

**NOTE:**
Do not clear fault codes prior to any repair.

**NOTE:**
If this fault code requires replacement of the DPF, contact the Detroit Diesel Customer Support Center at 313–592–5800 for authorization.

1. Shut off the engine, apply the parking brake, chock the wheels, and perform any other applicable safety steps.
2. Connect DDDL 7.X.

**NOTE:**
This diagnostic procedure requires DDDL 7.03 SP3 or higher. All references to 7.X in this procedure designate 7.03 SP3 or higher.

3. Turn ignition ON (key ON, engine OFF).
4. Check for multiple fault codes.
   [a] If other fault codes are active in addition to 3246/0, troubleshoot the other fault codes first.
   [b] If only 3246/0 is present, go to step 5.
5. Monitor DPF Outlet Temperature. Is the DPF Outlet Temperature greater than 760°C (1400°F)?
   [a] If yes, go to step 8.

[b] If no, go to step 6.

**WARNING:**
**ENGINE EXHAUST**

**To avoid injury from inhaling engine exhaust, always operate the engine in a well-ventilated area. Engine exhaust is toxic.**

6. Run the engine at 1200 rpm for 10 minutes.
7. Monitor DOC and DPF Outlet Temperatures. Are the DOC and DPF Outlet Temperatures within 25°C (77°F) of each other?
   [a] If yes, go to step 10
   [b] If no, go to step 8.
8. Turn ignition OFF.
9. Disconnect DPF Outlet Temperature Sensor and inspect connector for damaged, bent, spread, or corroded pins. If Temperature Sensor connector is OK, check connections upstream of the MCM (ATD harness 10–pin connector pin 7, VIH 31-pin connector pin 19, and MCM 120-pin connector pin 115). See Figure 1.

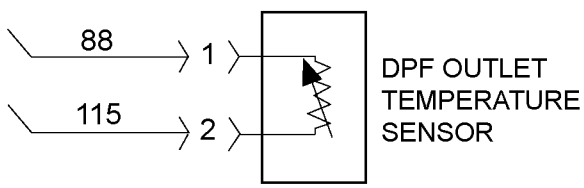


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**Figure 1 Diesel Particulate Filter Outlet Temperature Sensor**

[a] If damage is found, repair connector as necessary, verify repairs.

[b] If no damage is found, replace the DPF Outlet Temperature Sensor, refer to section "Temperature Sensor Removal."

10. Is the engine a Series 60?

    [a] If yes, go to step 11.

    [b] If no, go to step 14.

11. Perform an Automatic Cylinder Cutout Service Routine using DDDL 7.X.

**NOTE:**
Detroit Diesel Service Letter **08 TS–22** gives assistance with running and analyzing the Automatic Cylinder Cutout Service Routine.

12. Retain a log file of the Automatic Cylinder Cutout Service Routine.

13. Was a faulty injector identified?

    [a] If yes, replace the faulty injector and repeat the Automatic Cylinder Cutout Service Routine to verify there are no more faulty injectors. Go to step 20.

    [b] If no, go to step 16.

14. Perform an Idle Speed Balance Test using DDDL 7.X. Retain a log file of the Idle Speed Balance Test.

15. Was a faulty injector/cylinder identified?

    [a] If yes, repair the faulty injector/cylinder and repeat the Idle Speed Balance Test to verify there are no more faulty injectors/cylinders. Go to step 20.

    [b] If no, go to step 16.

16. Check the Warranty claim history. If the Intake Throttle Valve or EGR Valve was replaced within the last 60 days, try to remove the DOC Outlet Temperature Sensor.

    [a] If the DOC Outlet Temperature Sensor came out easily, go to step 17.

    [b] If the DOC Outlet Temperature Sensor did not come out, replace the DOC and DOC Outlet Temperature Sensor. Go to step 20.

17. Remove Aftertreatment Device.

18. Inspect for source of soot loading, possible causes are:
    - □ Charge Air Cooler and associated piping leaking or restricted
    - □ EGR valve stuck open
    - □ Bad Turbo actuator (For Series 60, perform a hysterisis test.)
    - □ Exhaust Flap stuck or limited in travel (if equipped)
    - □ Wastegate stuck (if equipped)
    - □ Damaged turbo blades/vanes
    - □ Intake Throttle Valve stuck or limited in travel
    - □ Exhaust piping leaking prior to ATD
    - □ Bad Delta P Sensor (Series 60 engines with MCM v61.4 or higher are not so equipped.)

**NOTE:**
If no soot contamination is found, contact the Detroit Diesel Customer Support Center at 313–592–5800 for further instructions. The following electronic files are required when calling:

- □ DDEC reports
- □ Parked Regeneration log
- □ Injector Cutout log
- □ Idle Speed Balance log
- □ Log of fault codes

19. Repair the cause of soot contamination.
20. Install an ATD test pipe, run engine, and verify there are no further soot issues (no black smoke present).
21. Replace DPF filter and re-install ATD, go to step 22.

| **WARNING:** |
| --- |
| **HOT EXHAUST** |
| **During parked regeneration the exhaust gases will be extremely HOT and could cause a fire if directed at combustible materials. The vehicle must be parked outside.** |

22. Perform parked regeneration, reset ash accumulators, and email a log file of the successful regeneration to Detroit Diesel Customer Support Center. Verify repairs.

## ADDITIONAL SERVICE INFORMATION

Additional service information is available in the Detroit Diesel *ATS Technician's Guide* (DDC-SVC-MAN-0036). The next revision to this manual will include the revised information.

DETROIT DIESEL
CORPORATION

13400 Outer Drive, West / Detroit, Michigan 48239-4001
Telephone: 313-592-5000
www.detroitdiesel.com