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WARRANTY DEPARTMENT

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# WARRANTY INFORMATION LETTER

No. WI21-013
Release 05/10/2021
Effective 05/10/2021

**Subject** Heavy Duty Aftertreatment Failure Guide Worksheet - Replaces ATD Checklist

#### Overview

This letter supersedes Warranty Information letter 18-021R about Detroit one box/diesel particulate filter (DPF) aftertreatment device (ATD) failure modes.

In the spirit of continuous improvement, the Warranty Department is aligning to the Heavy Duty Aftertreatment (HD ATS) Failure Guide (DDC-SVC-MAN-0208) and updating what information is necessary on claims for Detroit one box failures.

## Using the HD ATS Failure Guide

The HD ATS Failure Guide streamlines procedures for diagnosing the root cause of an ATS failure and determining the primary failed part (PFP). The guide is designed to lead a technician through diagnostic activities until a PFP is identified and includes five (5) possible checklists. Technicians will not complete the entire guide for each failure. While the technician is working through the guide, the results of each section are documented on the ATS Failure Guide Worksheet (located in Section 15 Appendix A > 15.1).

The ATS Failure Guide Worksheet is used to record all of the steps performed by the technician while completing the failure guide. The worksheet also lists applicable Standard Diagnostic Times (SDTs). Checklists and SDTs are below, see page 2 of this letter for samples of a checklist and the ATS Failure Guide Worksheet.

Checklist <sup>1</sup>	SDTs
Degraded Selective Catalytic Reduction (SCR) Checklist	246-046AE
Previous Failure Checklist	246-046BE
ATS Duty Cycle Checklist	246-046CE
Upstream Failure Checklist	246-046EE
DPF Maintenance Checklist	246-046DE

Keep on file, must be available upon request.

<u>Note</u>: The Detroit Tech Comm team retired the ATD Checklist. Though some legacy references remain in the service literature, the links direct users to the HD ATS Failure Guide, which replaces all other previously released documentation.

## Filing Claims

During claim creation, select the PFP based on the technician's findings from using the HD ATS Failure Guide. Add the SDT associated with the completed checklist. Provide details about completed steps/results leading to PFP determination in the claim narrative or attach a copy of the ATS Failure Guide Worksheet to the claim.

# Accessing the Guide

Access the HD ATS Failure Guide through the Technical Literature portal on DTNAConnect.

#### **WARRANTY INFORMATION LETTER**

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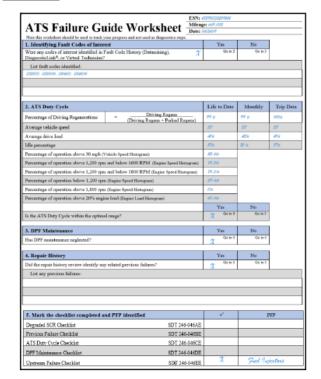
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## Samples: ATS Failure Guide Worksheet and Upstream Failure Checklist



### Upstream Failure Checklist

- If fault codes of interest have been identified
- If ATS Duty Cycle is optimal If proper DPF maintenance has been followed
- · If no previous related repairs have been identified

Do not complete this checklist unless directed here from another area. Prior to replacing the aftertreatment, perform the following checks to ensure no other issues are prese

- NOTE: Complete steps in numerical order. If any of the items below have been previously inspected during this visit, do not inspect a second time. Inspect GHG17 DD Inspect for a plugged or restricted air filter; refer to OEM guidelines. EPA10GHO
  - Inspect the Delta P ports for plugging (EPA10 only).
  - Allow the engine and ATS to fully cool down to ambient temperatures. At Key On Engine Off (KOEO), compare all the temperature readings to each other to identify a drifted sensor reading. Engine temperature readings should be within 15°F (8°C) of each other. ATD temperatures readings should be within 45°F (25°C) of each other.
    - pressure sensor voltages should read between 0.44 to 0.56 volts. all 9. Using Diagnostic Link about 1.45 pressure sensor voltages should read between 0.44 to 0.56 volts. Using DiagnosticLink, check the ATS pressure sensors. At KOEO, DPF and DOC
    - - Oil Pressure Sensor
         Fuel Rail Pressure Sensor
      - Intake Manifold Pressure Sensor
      - Low Pressure Fuel Sensor
      - · Fuel Compensation Pressure Sensor
      - Fuel Doser line Pressure Sensor DOC Inlet Pressure Sensor

      - DPF Pressure sensor (EPA10/GHG14)
         The pressure sensors above should read within 10.3 kPa (1.5 psi) of barometric pressure; all other sensors will read zero at KOEO. all passed
    - Check for sticking rear engine brakes. Using DiagnosticLink, monitor fuel mass at idle. Fuel mass should be less than 40 mg/st at idle; a value greater than 40 mg/st would indicate the rear engine brakes are sticking. and a
    - Visually inspect the fuel for signs of contamination at the filters, tanks and water drain bowl.
    - 7. Test the EGR cooler.

GHG17 DD15/16 refer to section "Testing of the DD15 and DD16 Exhaust Gas Recirculation Cooler - In Chassis<sup>10</sup>

replaced. If the fuel injectors are under warranty submit a completed copy of the ATS Failure Guide Worksheet with the fuel injector warranty claim. If replacing injectors add SRTs 102-6100E plus 102-6101E 0.4 Hrs (x5).