Technical Service Bulletin Number
TSB150002

Technical Service Bulletin

Subject

Diesel Exhaust Fluid (DEF) Cleanliness

Issue

Diesel Exhaust Fluid (DEF) contamination is one of the primary contributors of aftertreatment related component malfunction.

Verification

The following are indicators of DEF contamination.

- Early or frequent aftertreatment diesel exhaust fluid dosing unit and aftertreatment diesel exhaust fluid dosing unit filter replacement.
- Visual inspection of the DEF tank, aftertreatment diesel exhaust fluid dosing unit, and aftertreatment diesel exhaust fluid dosing unit filter revealing contamination.
  - Signs of debris near the bottom of the DEF tank and DEF tank pick up screen.
  - Petroleum based liquids will separate from the DEF and rise to the top. Check for separation of the fluids as well as characteristic smells.
  - Typically non-petroleum based liquids have coloring and will mix with DEF. If the DEF has a color tint to it, look for other fluids used on the vehicle that may match, such as coolant or windshield washer fluid.

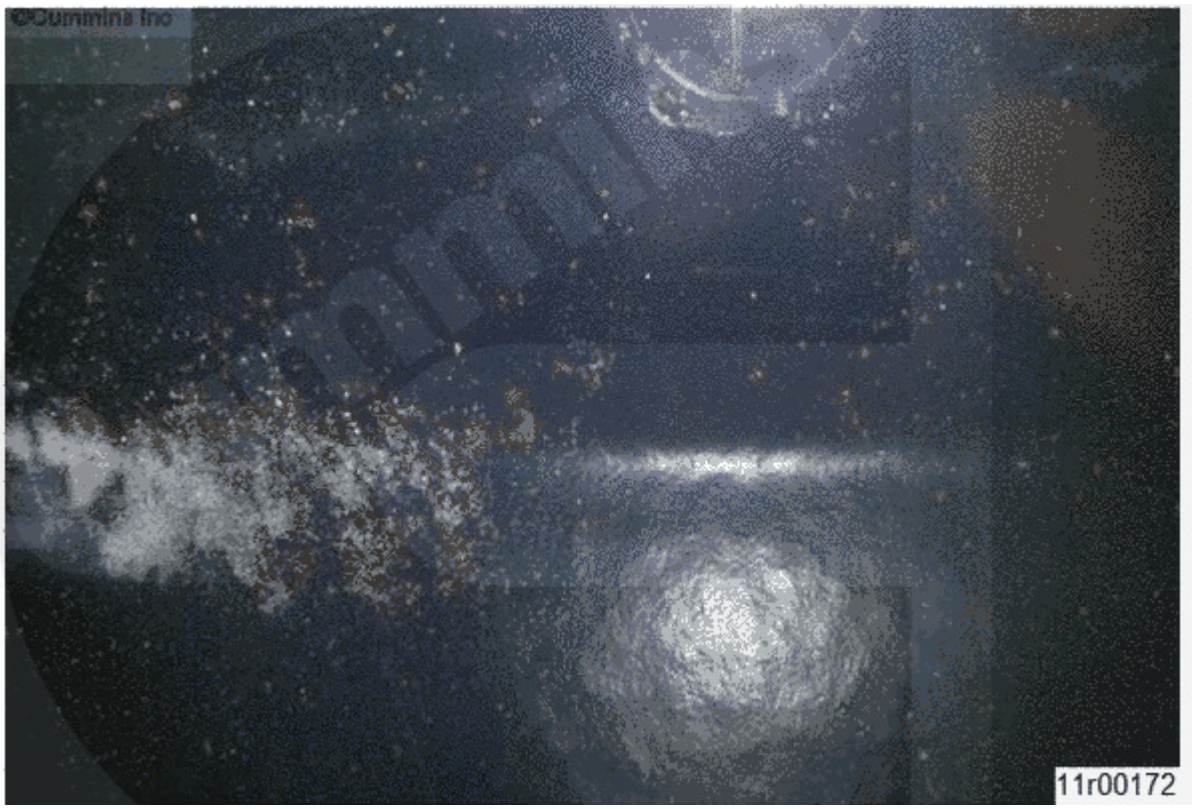

Figure 1, Example of Sand Debris in DEF Tank

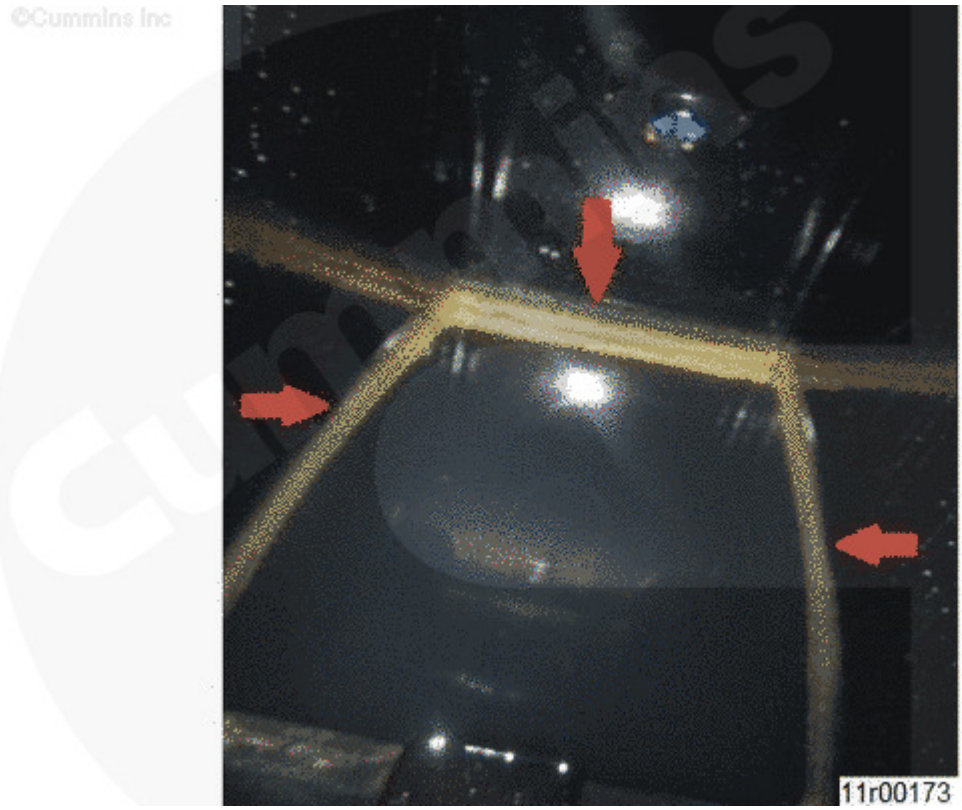

Figure 2, Example of Diesel Fuel and DEF Separation

Resolution

Perform troubleshooting as published in the corresponding Fault Code Troubleshooting Manual.

While servicing the aftertreatment system always use the appropriate aftertreatment system covers or plugs to keep the aftertreatment system clean.

Communicate to the customer that DEF cleanliness is important for proper operation of the aftertreatment system. Refer the customer to Service Bulletin, Diesel Exhaust Fluid (DEF) Specifications for Cummins® Selective Catalytic Reduction (SCR) Systems, Bulletin 4021566, which covers the following topics:

- DEF Characteristics and Specifications
- Handling, Storage, and Shelf Life of DEF
- DEF Cleanliness Practices
- Contamination and Incorrect Fluid
- Testing
- Disposal and Cleaning of DEF
- First Aid

In addition, Refer to Procedure 018-026 in Section V, located in the corresponding Owners Manual or Operation and Maintenance Manual for the SCR equipped product.

Cummins Inc. recommends the use of an Original Equipment Manufacturer (OEM) DEF tank fill filter rated at 200 µm. See Figures 3 and 4. If an OEM DEF tank fill filter is not installed in the OEM DEF tank then Cummins Inc. recommends to ask the OEM if a fill filter is available.

Figure 3, OEM DEF Tank Fill Filter, Top View

Figure 4, OEM DEF Tank Fill Filter, Side View

Warranty Statement

The information in this document has no effect on present warranty coverage or repair practices, nor does it authorize TRP or Campaign actions.

Document History

Date	Details
2015-1-8	Module Created

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