

TECH TIP

Group:	22-FUEL SYSTEM
Bulletin No:	TT-16-007
Issue Date:	5-24-2016
Reference:	HMM-160524-J1

FUEL SYSTEM CONTAMINATION

SUBJECT VEHICLES: 2011 through 2017 model year Hino Conventional Trucks and 2013 through 2017 model year Hino COE(Cab over Engine) Trucks

Note: This tech tip is provided as technical information and is not authorization for a warrantable repair.

DESCRIPTION OF CONDITION:

The vehicle may exhibit a MIL lamp illuminated with DTC's P20DE, P20DF, P0087, or P016F present in the engine ECU due to fuel system contamination. Fuel contamination can be defined as the presence of water, rust, algae, bacteria, poor quality fuel, or any other substance other than ultra-low sulfur fuel in the fuel system.

Fuel tank corrosion is a result of contamination and is NOT considered a manufacturer's defect. Malfunctions that result from fuel contamination are NOT warrantable failures.

Contamination can restrict flow to the aftertreatment dosing injector (5th or 7th injector) resulting in DTC's P20DE and/or P20DF. 2015 through 2017 model year conventional trucks also have a fuel filter within the bubble separator. If this filter becomes restricted, this restriction can also cause DTC's P20DE and P20DF.

Contamination can also result in DTC's P016F and/or P0087 with or without adverse drivability symptoms.

Before in depth diagnostics or repairs are performed, inspect the fuel filter housings and fuel tank(s) for signs of contamination.

PARTS:

PART NUMBER	MODEL YEAR	PART DESCRIPTION
23304EV023	15MY-17MY	Bubble Separator – Includes Internal Fuel Filter



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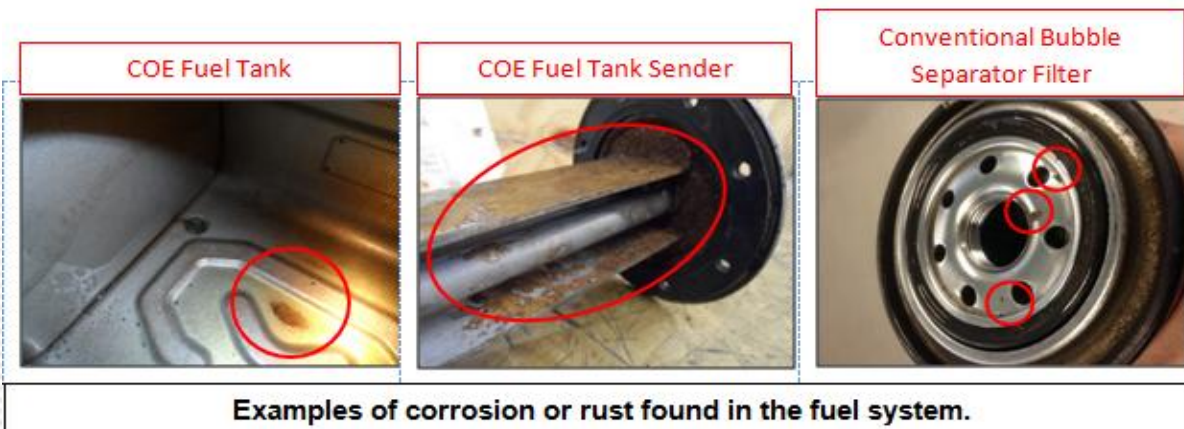
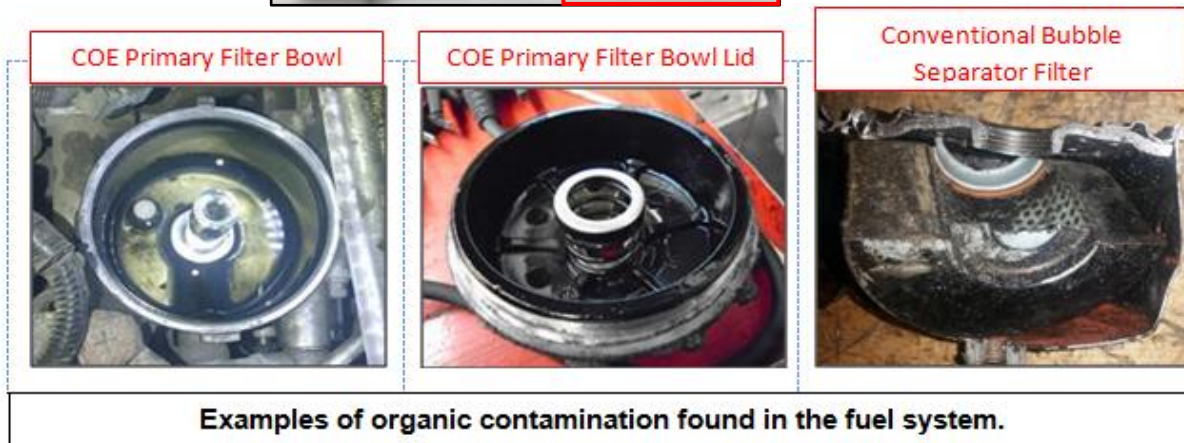
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NOTICE: On 15MY and newer conventional trucks, it is not necessary to install the 23300E0383 filter assembly when the bubble separator filter becomes restricted. Install only the 23304EV023 filter, and clean the filter housing as needed.

NOTICE: COE trucks are not equipped with a bubble separator.

INSPECTION PROCEDURE

1. Inspect the fuel filter housing and fuel tank for signs of water, rust, algae, or black organic contamination (see examples below). Replacement of components that are internally corroded or restricted, including the bubble separator filter for the 15MY through 17MY conventional vehicles, is suggested. In addition, the fuel system should be flushed to prevent reoccurring fuel system failures. **Note: For 11MY-14MY, there is a filter screen located inside the banjo bolt at the pump.**



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2. If no signs of contamination were found, verify that only Hino Genuine fuel filters, or equivalent 7 micron filters have been used. Some aftermarket fuel filter elements have a higher micron rating compared to genuine Hino fuel filters. This higher micron rating will allow debris or contamination to flow through the fuel filter into the primary fuel system. This will result in fuel system damage.



Regarding 2015 through 2017 model year conventional trucks, if debris or contamination is allowed into the primary fuel system, this can also lead to premature bubble separator filter restriction. If DTC's P20DE or P20DF has set, inspection of the fuel system is suggested prior to pressure sensor replacement. If the bubble separator filter has become restricted, this will result in reduced fuel pressure to the DPR (Diesel Particulate Reduction) 7th fuel injector.



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