



Blue-Point®

EEDF400-686 & EEDF400-642

Volvo D13 13 L (GHG) EGR Cleaning Instructions



Intake
EEDF400-686



Exhaust
EEDF400-642



WARNING: Wear gloves and safety goggles (User and bystanders) when performing this service

IMPORTANT: A DPF Regeneration event is required after this service. Regeneration can be initiated for many engines using one of the following Snap-on Diagnostic Tools:

- **EEHD184040 Pro-Link Ultra (Snap-on)**
- **EEHD186030 Pocket IQ2 (Blue-Point)**

EGR System Consists of:

- Hot side EGR valve (before EGR cooler) controls Exhaust gases for proper emissions control of No_x gases
- EGR cooler (controls temperature of Exhaust gases to the air Intake to the engine)
- EGR cooler bypass valve (controls Exhaust flow temperature to the air Intake from the Exhaust through the EGR cooler)
- EGR temperature sensor (measures EGR cooler Exhaust temperature and efficiency)

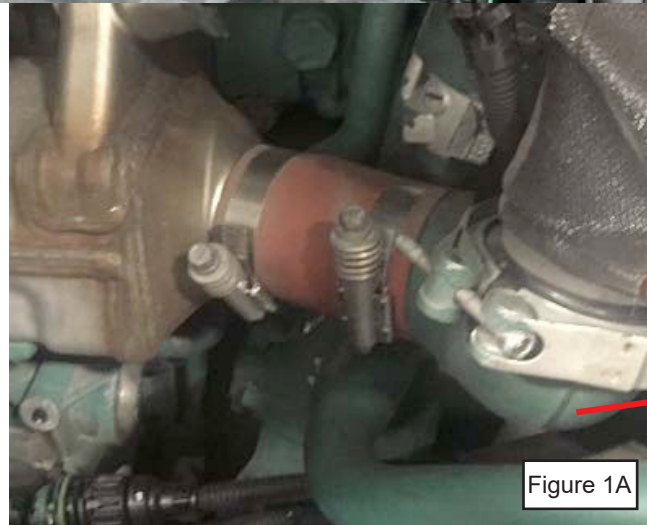
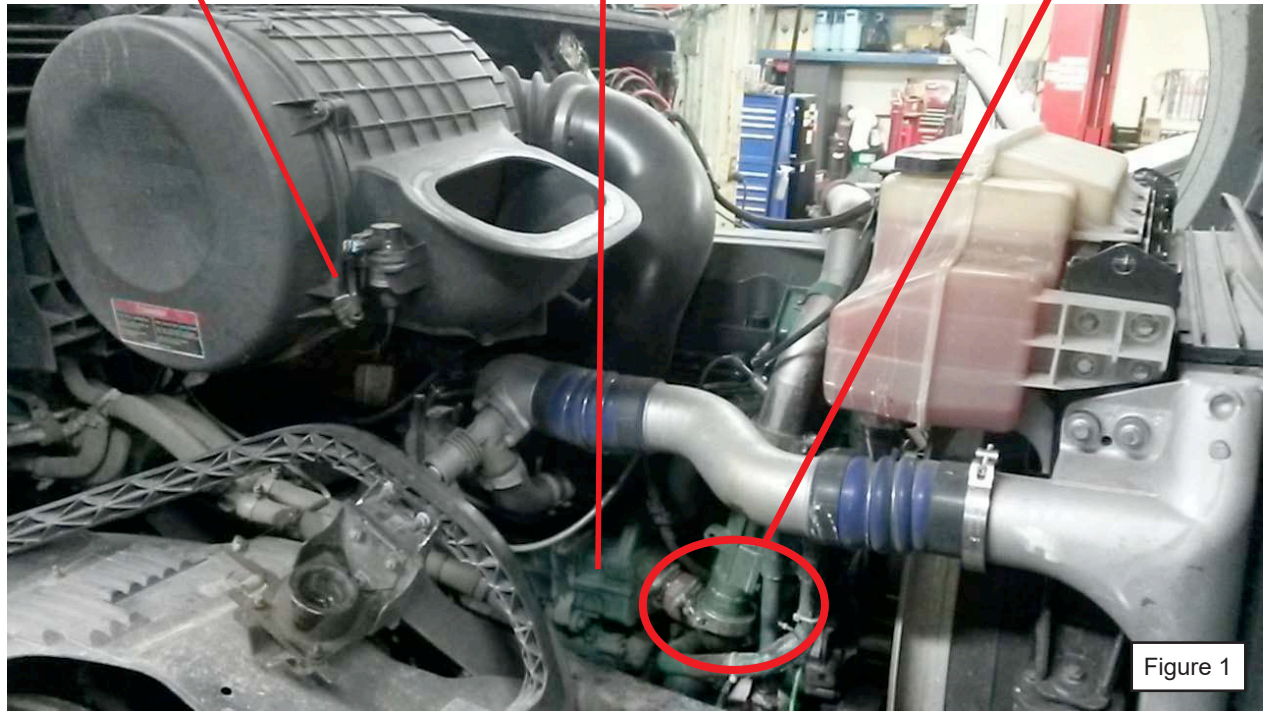
These items are critical for proper emissions management control and must be cleaned on a regular basis for optimum efficiency.

First steps before any service can be performed.

1. Add Blue-Point® Diesel Fuel Injector Cleaner (EEDF400-INJ) to the vehicle's fuel tank.
2. Remove the plastic engine cover.
3. If the engine is hot, the EGR cooler must be cooled.

Locations of EGR components:

- EGR valve (behind air filter canister)
- EGR Cooler
- EGR cooler outlet pipe



Tool & Manifold Required:

- EGR Tool (EEDF400)
- EGR Manifold (EEDF400M)



4. Remove clamps on the EGR cooler outlet pipe (see Figure 2). Remove EGR cooler outlet pipe and set aside. Location is on Passenger side of engine bay.

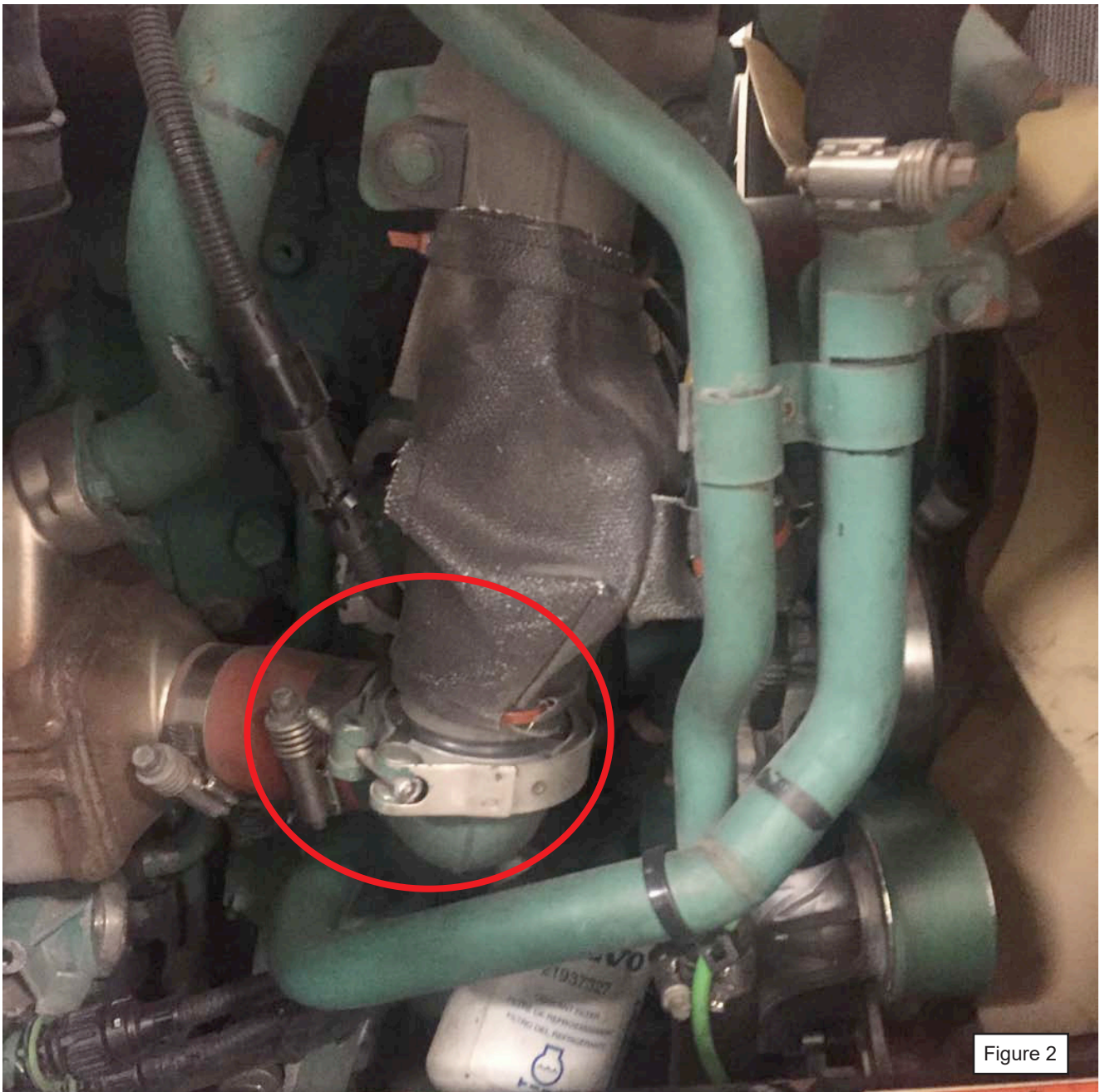
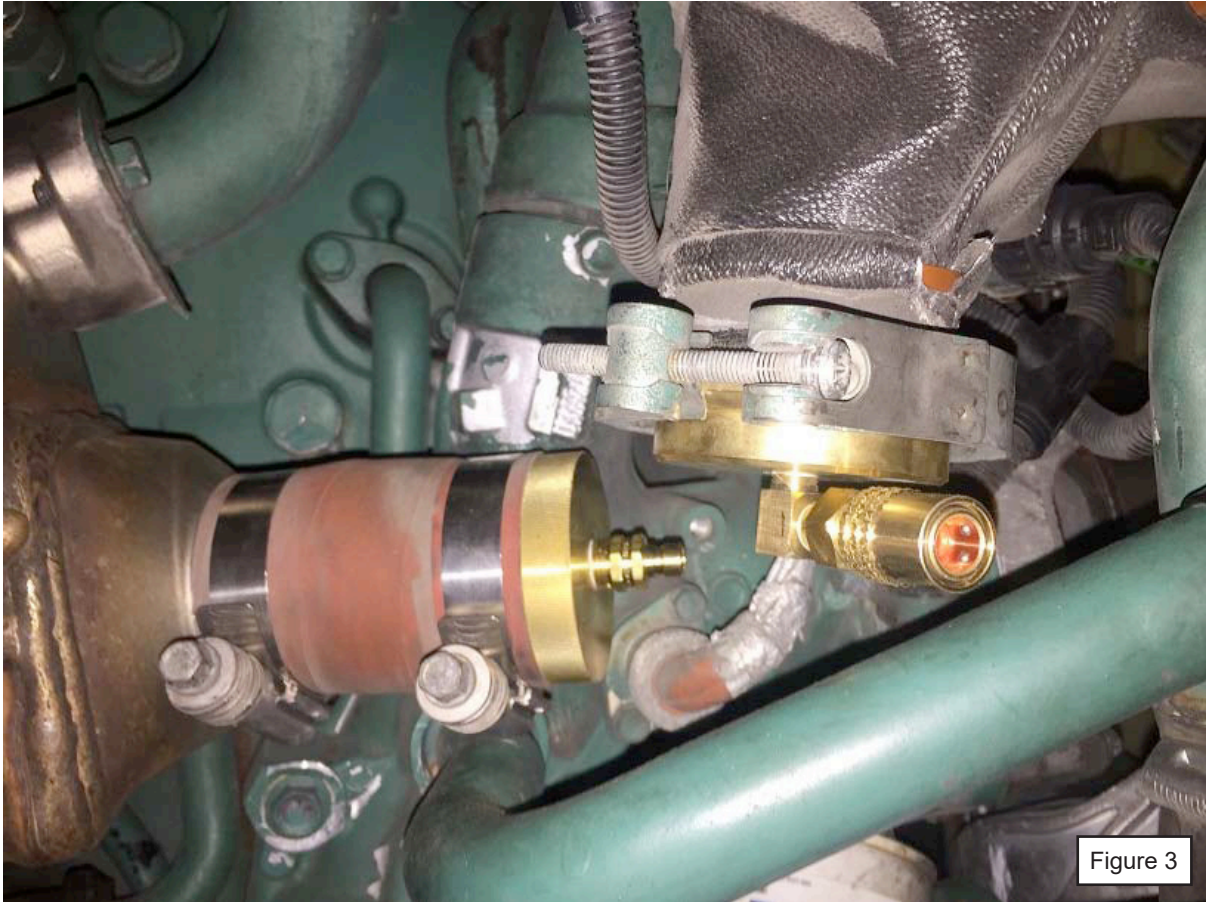


Figure 2

Quick Tip: Place the EGR cooler outlet pipe into a bucket/container and pour EGR fluid into the outlet pipe, this will aid in the dislodging of soot from the pipe while the EGR cleaning procedure is performed see step 14.

5. Install EGR Intake adapter (EEDF400-686) using existing clamps and Exhaust adapter (EEDF400-642) using existing gasket and clamps (see Figure 3).



6. Attach EGR manifold (EEDF400M) to EGR intake and exhaust adapters. Attach EGR tool (EEDF400) to EGR Manifold. Ensure air valve and fluid valve are closed – see EGR tool user guide.
7. Unscrew fill cap and fill with 32oz (946mL) of EGR and Induction System Cleaner (EEDF400-EGR). For first application or severe coking, 128 oz. or more may be required.

NOTE: When using 128 oz, use 48 oz on exhaust side first then use 80 oz on intake side. In between exhaust and intake cleaning the air pressure must first be set to zero before adding the remaining 64 oz.

8. Reinstall the fill cap and hang tool from the hood latch. Connect shop air. Set air pressure on EGR tool to 40-50 psi.

NOTE: If engine is hot, the EGR cooler must be cooled before treatment can start. Before step 9 can proceed, start engine, open EGR tool air valve, keeping the fluid valve closed, turn valve on the EGR manifold to intake and flush cooler with air for two minutes. Scan tool required to open EGR valve.

9. Start vehicle engine. Set EGR manifold to exhaust. Using a scan tool, command the EGR valve to open when the engine is operating, this will need to be repeated every minute throughout the exhaust service.
10. Open air valve on EGR tool, adjust regulator to maintain initial pressure and then open the fluid valve on the EGR tool.

NOTE: Some engines will need to increase the engine speed to just over 1000 rpm in order to keep the engine running otherwise it will shut off after 5 minutes of idling.

11. After 24oz of the fluid has been consumed, turn the fluid valve off and let the air flow for an additional 2 minutes to flush deposits into exhaust stream.
12. Set valve on EGR Manifold to intake, open fluid valve and continue service until EGR tool is empty.

NOTE: If at any time during the intake service you hear a diesel knock sound, turn manifold valve to off for two minutes. After two minutes turn manifold valve to intake and continue service. Let the vehicle operate for an additional 5 minutes and rev the engine several times to clear all residual fluid.

13. Turn the fluid and air valve on tool to the closed position. Turn Vehicle off. Detach shop air line and depressurize the tool by rotating the regulator knob counter clockwise.
14. After EGR cooler outlet pipe has soaked for at least 15 minutes, clean the pipe using EGR cleaning fluid and a flexible 2" round brush inside a bucket or waste container. Fluid can be saved to be used on other EGR components if required.
15. Remove adapters and reassemble vehicle components in the reverse order of removal.

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16. Otherwise the vehicle must be driven at highway speeds (or in the case of non-highway equipment operated under a load) for approximately 30 minutes. This is necessary to remove all of the cleaning solution from the passages and cooler(s) and to combust any material that has reached the diesel oxidation catalyst (DOC) and diesel particulate filters (DPF).

This must be completed immediately after the service.

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