



International MaxxForce 10 9.3L Engine Diesel EGR Cleaning Instructions

**Always wear gloves and safety glasses
when performing this service**

EGR System Consists of:

- **Cold side EGR valve (after EGR cooler), which 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 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 TerraDiesel™ Fuel Injector Cleaner (201255) to the vehicle's fuel tank.**
- 2. Remove the plastic engine cover and foam insulator.**
- 3. If the engine is hot, the EGR system must be cooled – see note in step 8.**

ZIT17-02967

Adapter Required:

201460



201399
EGR Manifold

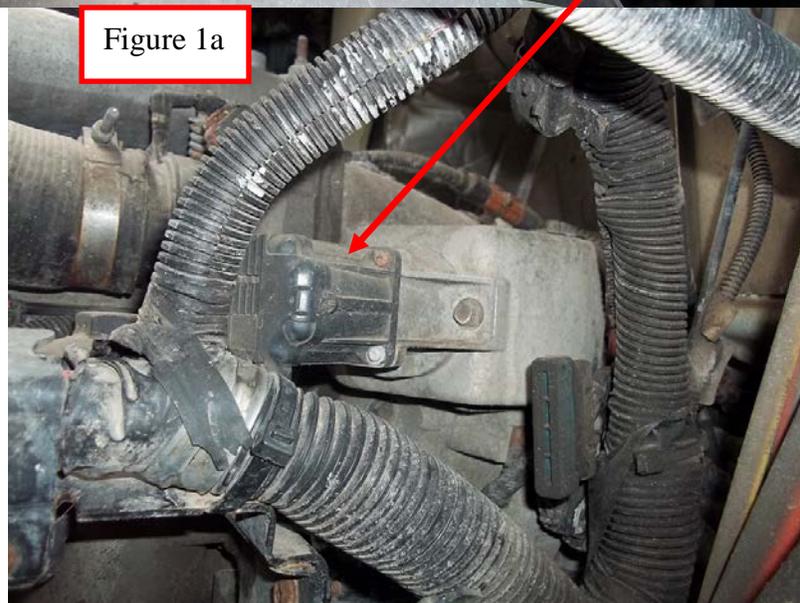
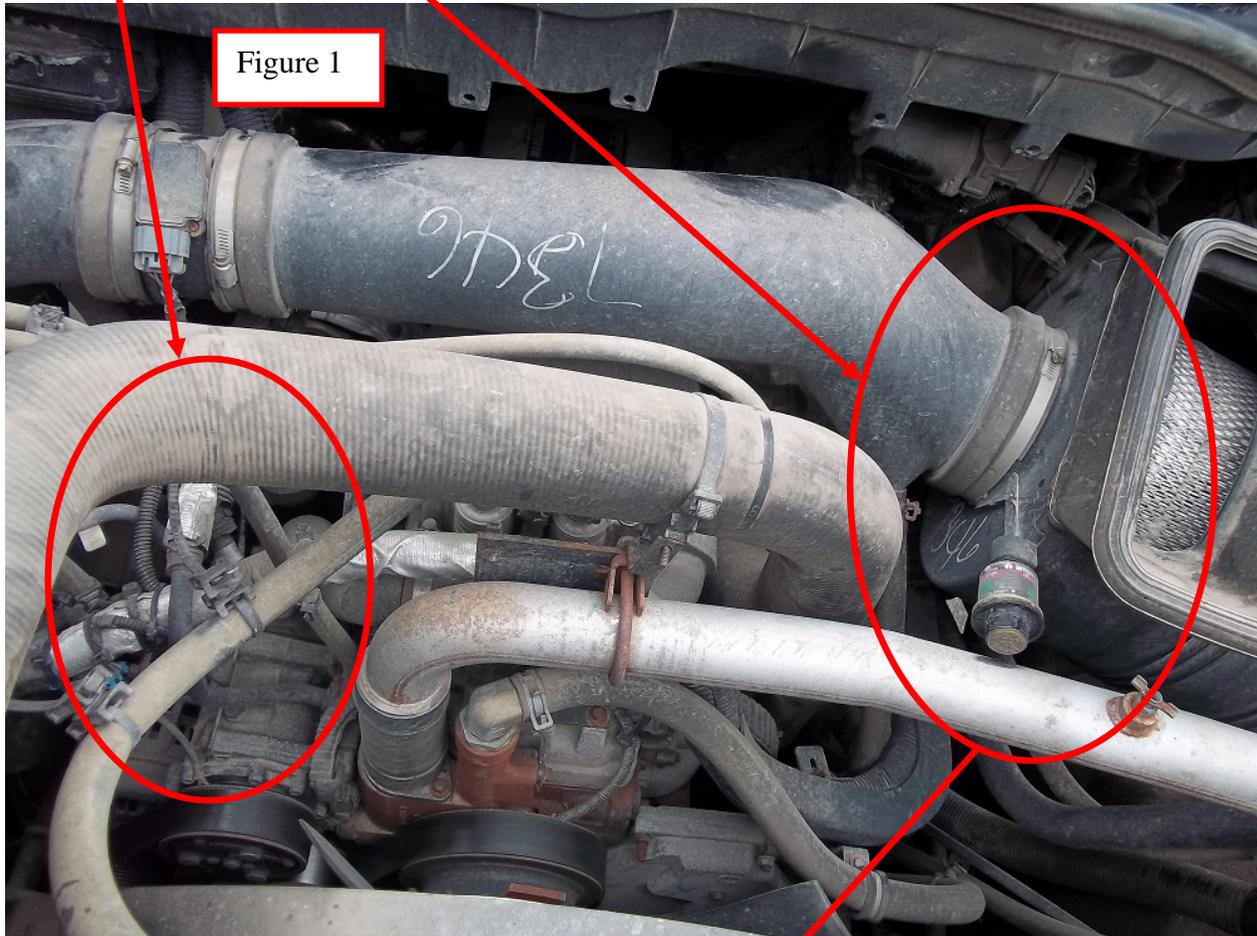


Tool Required:

- 201170 – TerraDiesel™ EGR Cleaning Tool

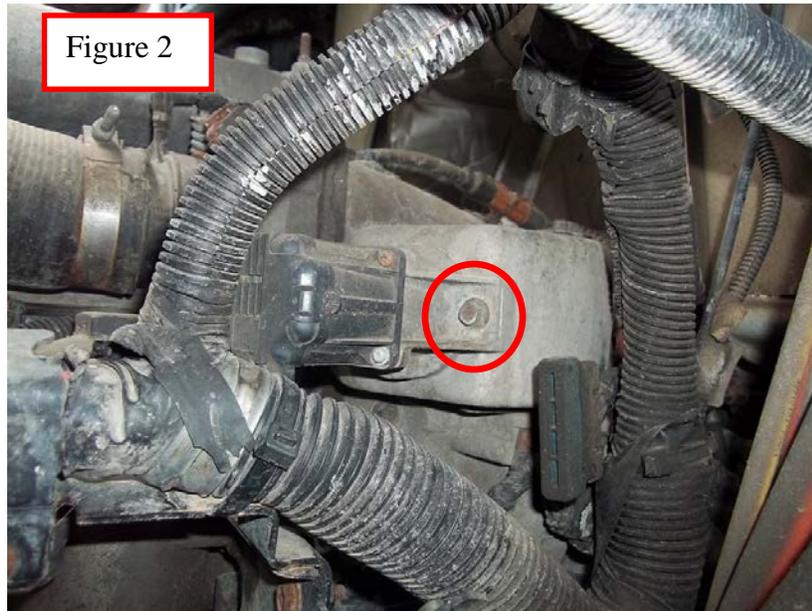
Locations of EGR components:

- EGR Cooler (Figure 1)
 - EGR valve (Figure 1a) under air filter housing



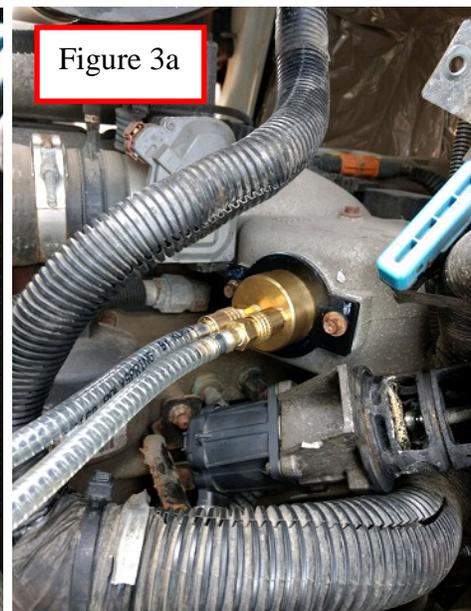
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4. Remove EGR valve 2 bolts (see figure 2). Do not disconnect EGR valve electrical connector.



5. Install the EGR Adapter (201640) (see Figure 3) using the existing bolts.

NOTE: You may need to use a puller to help remove the EGR valve due to excessive soot build up around the EGR valve.



6. Attach the EGR manifold (201399) to the EGR adapter (see figure 3a). Attach the EGR Cleaning Tool (201170) to the EGR Manifold. Ensure that the air valve and fluid valve are closed – see the EGR Cleaning Tool user guide.
7. Unscrew fill cap and fill with 64oz (946mL) of EGR System Cleaner (Part# 201280, 201278 or 201279). For first application or severe coking, 128 oz. or more may be required.

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

8. Reinstall the fill cap and hang the EGR Cleaning Tool from the hood latch. Connect shop air. Set air pressure on EGR Cleaning 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, open EGR Cleaning Tool air valve, keeping the fluid valve closed, turn valve on the EGR Manifold (201399) to exhaust and flush cooler with air for 2 minutes.

9. Start the vehicle engine. Set the EGR Manifold to exhaust.
10. Open air valve on the EGR Cleaning Tool, adjust the regulator to maintain initial pressure and then open the fluid valve on the EGR Cleaning Tool.
11. After 1/4 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. Repeat steps 10-11 allowing another ¼ of the fluid to be consumed.
13. Set valve on EGR Manifold to intake, open fluid valve and continue service until the EGR Cleaning Tool is empty.

NOTE: At any time during the intake service you hear a diesel knock sound, turn the EGR manifold to off for 2 minutes. After 2 minutes then turn the EGR manifold 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.

14. Turn the fluid and air valve on the EGR Cleaning Tool to the closed position. Turn the vehicle off. Detach shop air line and depressurize the EGR Cleaning Tool by rotating the regulator knob counter clockwise.

NOTE: Disconnect the EGR valve electrical connector and clean the EGR valve with EGR cleaning fluid using a soft bristle brush before starting step 15. Fluid can be saved to be used on other EGR components if required.

15. Remove EGR adapter and reassemble vehicle components in the reverse order of removal.
16. Add TerraDiesel™ Multi-function Fuel Treatment (201250) to the vehicle's fuel tank.
17. After service, reset any engine codes. The vehicle should then be set to run a manual regeneration cycle or if that is not possible, the vehicle should 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 should be done as soon as possible.