



**Mack MP7 (405-E) – MP8 (415-C)
2010-2015
Diesel EGR Cleaning Instructions**

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

EGR System Consists of:

- **Hot side EGR valve (before 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. (if applicable)**
- 3. If engine is hot, the EGR system must be cooled – see note in step 5.**

Adapters Required:



**201646
Intake**



**201647
Exhaust**



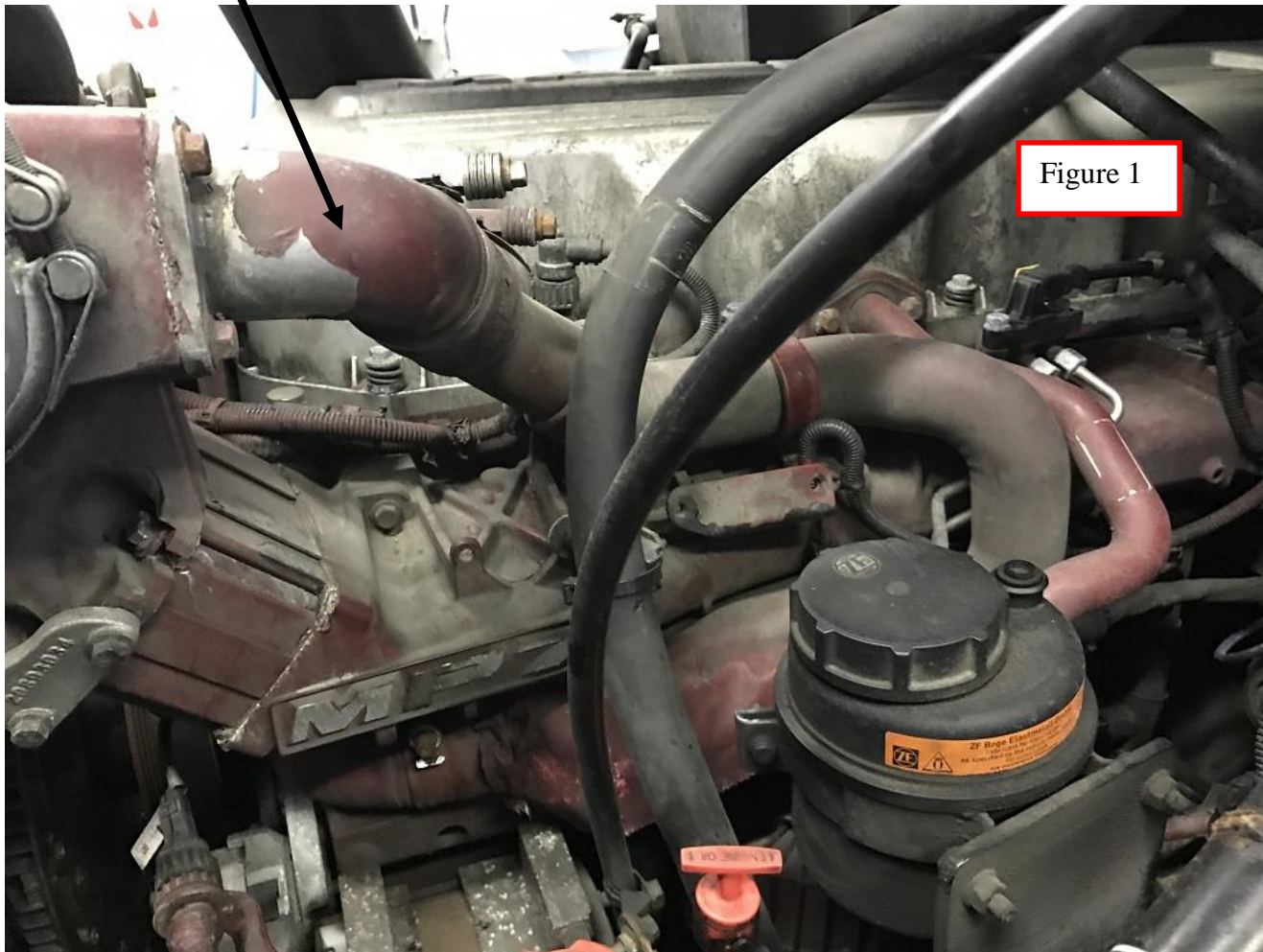
**201399
EGR Manifold**

Tool Required:

201170 – TerraDiesel™ EGR Cleaning Tool

Locations of EGR components:

- EGR cooler outlet pipe to intake (Figure 1)
 - EGR valve and cooler on right side

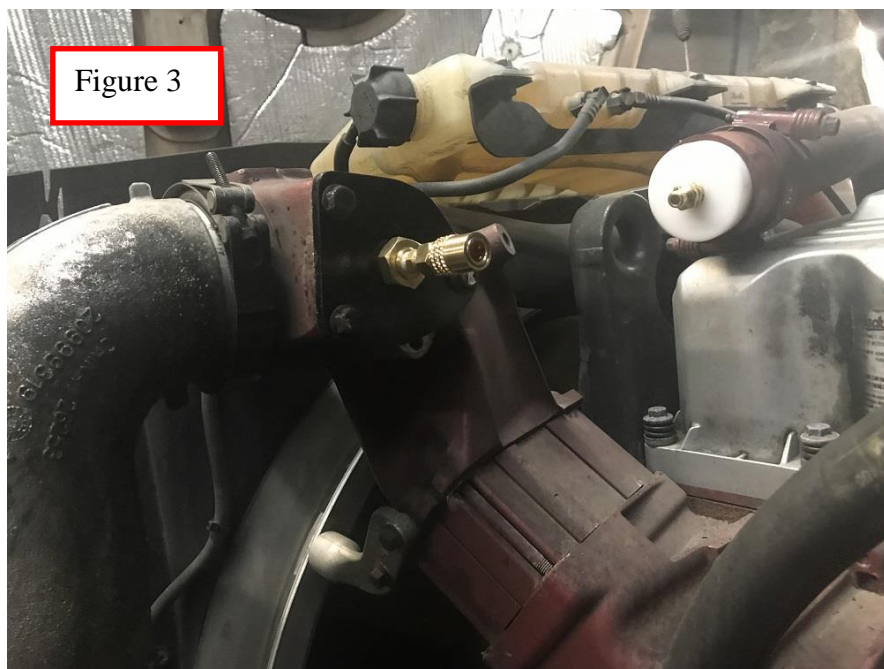


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1. Loosen clamp on the EGR cooler outlet pipe and remove the 3 bolts (MP7) or 4 bolts (MP8) securing this section of pipe (see Figure 2). Remove the EGR outlet cooler pipe.



2. Install the EGR Intake Adapter (201646) and the EGR Exhaust Adapter (201647) using the existing bolts. Tighten the EGR cooler outlet pipe clamps (see Figure 3).



3. Attach the EGR Manifold (201399) to the EGR intake and exhaust adapters. Attach the TerraDiesel™ EGR Cleaning Tool (201170) to the EGR Manifold. Ensure that the air valve and fluid valve are closed – refer to the EGR Cleaning Tool user guide.
4. Remove the fill cap and fill with 64oz (1.9L) of EGR System Cleaner (201278, 201279 or 201280). For first application or severe coking, 128 oz. (3.8L) or more may be required.

NOTE: When using 128 oz., use 64 oz. on exhaust side first then use 64 oz. on intake side.

CAUTION: Always reduce pressure to zero before removing the fill cap of the EGR Cleaning Tool.

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

NOTE: If engine is hot, the EGR cooler must be cooled before treatment can start. Before step 6 can proceed, open the EGR Cleaning Tool air valve, keeping the fluid valve closed, turn the EGR Manifold to exhaust and flush cooler with air for 2 minutes.

6. Start the vehicle engine. Set the EGR Manifold to exhaust.
7. 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.
8. 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.
9. Repeat step 7-8 allowing another ¼ of the fluid to be consumed.
10. Set the EGR Manifold to intake, open fluid valve and continue service until the EGR Cleaning Tool is empty.

NOTE: If at any time during the intake service you hear a diesel knock sound, turn the EGR Manifold to off for 2 minutes. After two minutes, turn the EGR Manifold to intake and continue service.

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

NOTE: Let the vehicle operate for an additional 5 minutes and rev the engine several times to clear all residual fluid.

13. Remove the EGR adapters and reassemble the vehicle's components in the reverse order of removal.
14. Add one bottle of TerraDiesel™ Multi-function Fuel Treatment (201250) to the vehicle's fuel tank.
15. 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 filter (DPF).

This should be done as soon as possible.