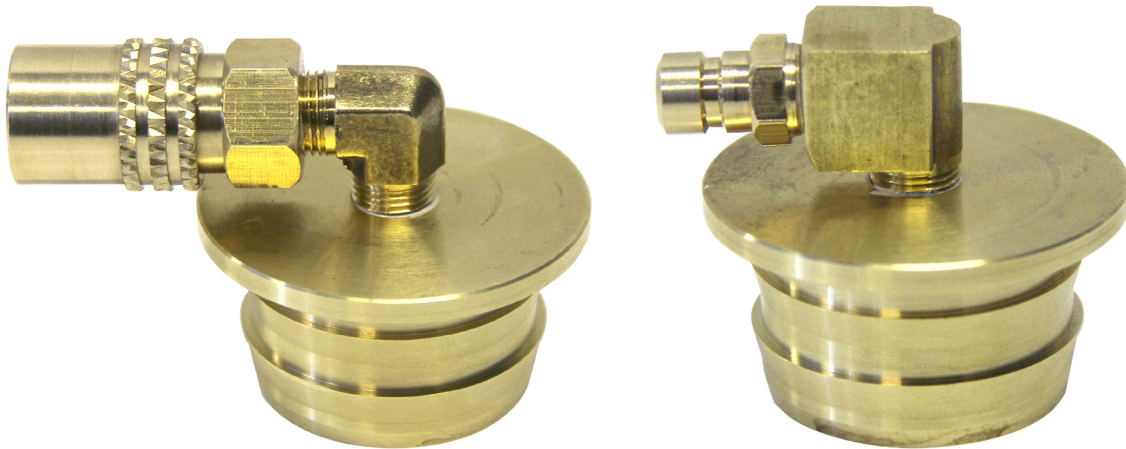




Detroit Series 60 12.7 Litre ***Part No. 069-3638 & 069-3639***



CAUTION:

Always wear gloves and safety glasses when performing this service

EGR System Consists of:

- Hot and Cold side EGR valve (Before and after EGR cooler), which controls exhaust gases for proper emissions control of Nox gases
- EGR cooler Tube in Shell Design (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 DieselTune™ Max Strength Fuel Injector Cleaner (400-3012) 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 9.

Tools and Adapters Required:



069-3638



069-3639



069-3399



500-0170

Locations of EGR components:

- EGR valve hot side (Figure 1)
- Cold side EGR valve on left of engine
- EGR cooler (tube in shell) (Figure 1)
- EGR cooler outlet pipe (Figure 1)

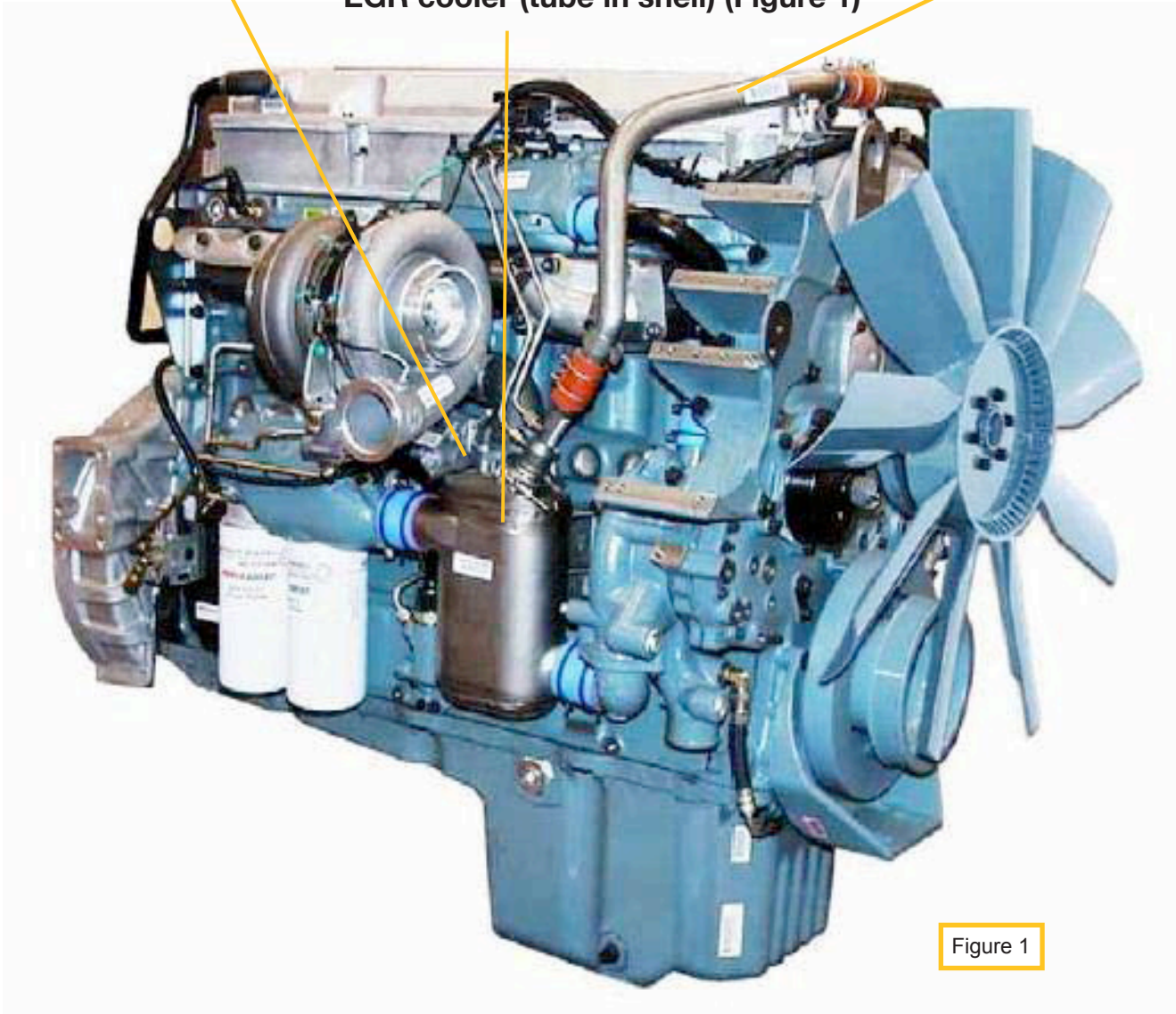


Figure 1

- Loosen both clamps on the EGR cooler outlet pipe where connected on the EGR cooler outlet pipe (see Figure 2). Remove the EGR outlet cooler pipe (see Figure 2).

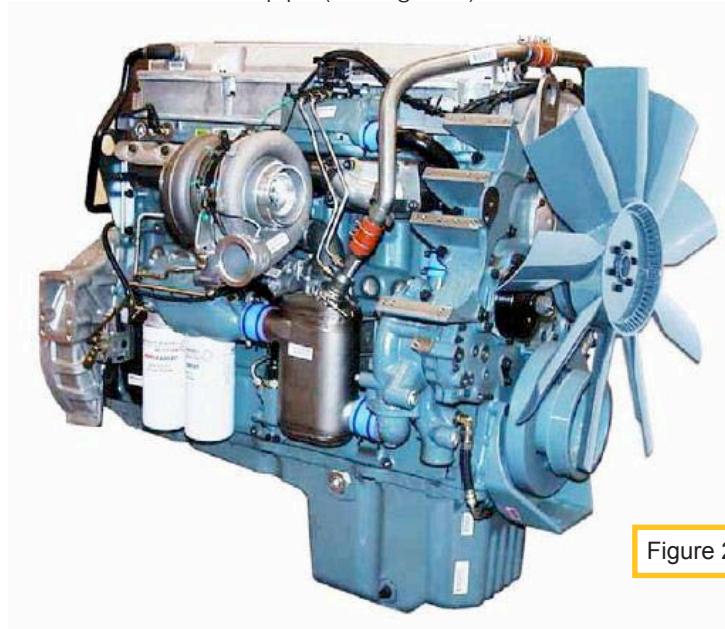


Figure 2

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.

- Install the EGR Intake (069-3638) and Exhaust (069-3639) Adapters in place of the removed EGR cooler outlet pipe. Tighten the EGR cooler outlet pipe clamp (see Figure 3).



Figure 3

- Attach the EGR Manifold (069-3399) to the EGR intake and Exhaust adapters. Attach the EGR Cleaning Tool (500-0170) to the EGR Manifold. Ensure that the air valve and fluid valve are closed – see the EGR Cleaning Tool user guide.

7. Unscrew the fill cap and fill with 64oz (1892mL) of Part #400-0280 EGR System Cleaner. For first application or severe coking, 128 oz. or more may be required.

Note: When using 128 oz, use 64 oz on exhaust side first then use 64 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 the EGR Cleaning Tool from the hood latch. Connect shop air. Set the air pressure on the EGR Cleaning Tool to 40-50 psi.

NOTE: If the engine is hot, the EGR cooler must be cooled before treatment can start. Start engine as this will open the hot side EGR valve. 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.

9. Start the vehicle engine. Set the EGR Manifold to exhaust.
10. Open the air valve on the EGR Cleaning Tool, adjust 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 8-11 allowing another 1/4 of the fluid to be consumed.
13. 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 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 airline and depressurize the EGR Cleaning Tool by rotating the regulator knob counter clockwise.
15. 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.
16. Remove the EGR adapters and reassemble vehicle components in the reverse order of removal.
17. Add one bottle of TerraDiesel™ Multi-function Fuel Treatment (201250) to the vehicle's fuel tank.
18. 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.

**ISO 9001
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ZIM16-01740 Rev1