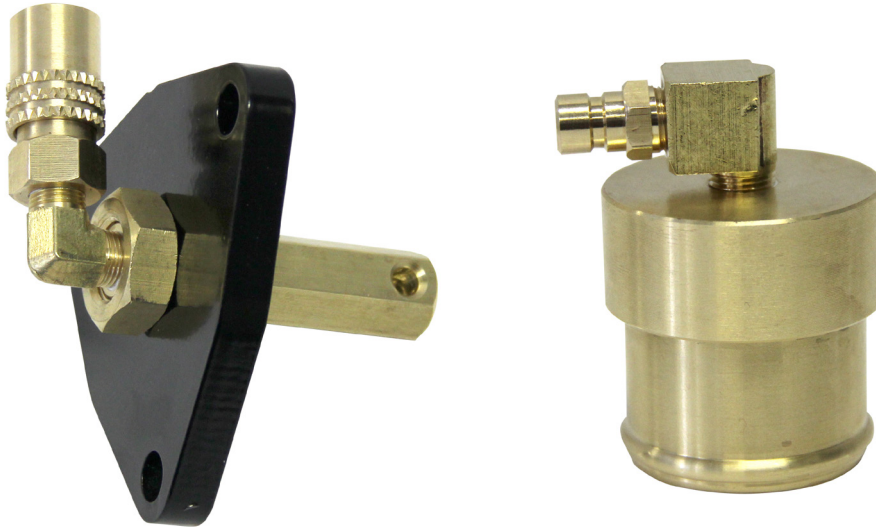




# ***International DT466 7.6 L - MaxxForce 9 9.3L Engine***

***Part No. 069-3656 & 069-3657***



## **CAUTION:**

Always wear gloves and safety glasses when performing this service

### **EGR System Consists of:**

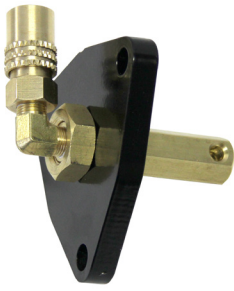
- Cold side EGR valve (after EGR cooler), which controls exhaust gases for proper emissions control of  $\text{No}_x$  gases
- 2 EGR coolers one pre and one post EGR valve (controls temperature of exhaust gases to the air intake to the engine)
- EGR temperature sensor (measures EGR cooler exhaust temperature 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.
3. If the engine is hot, the EGR cooler must be cooled – see note in step 8.

## Tools and Adapters Required:



069-3656



069-3657



069-3399



500-0170

## Locations of EGR components:

- EGR cooler (Figure 1)
- EGR coolers (pre and post EGR valve) and outlet pipe (Figure 1a)

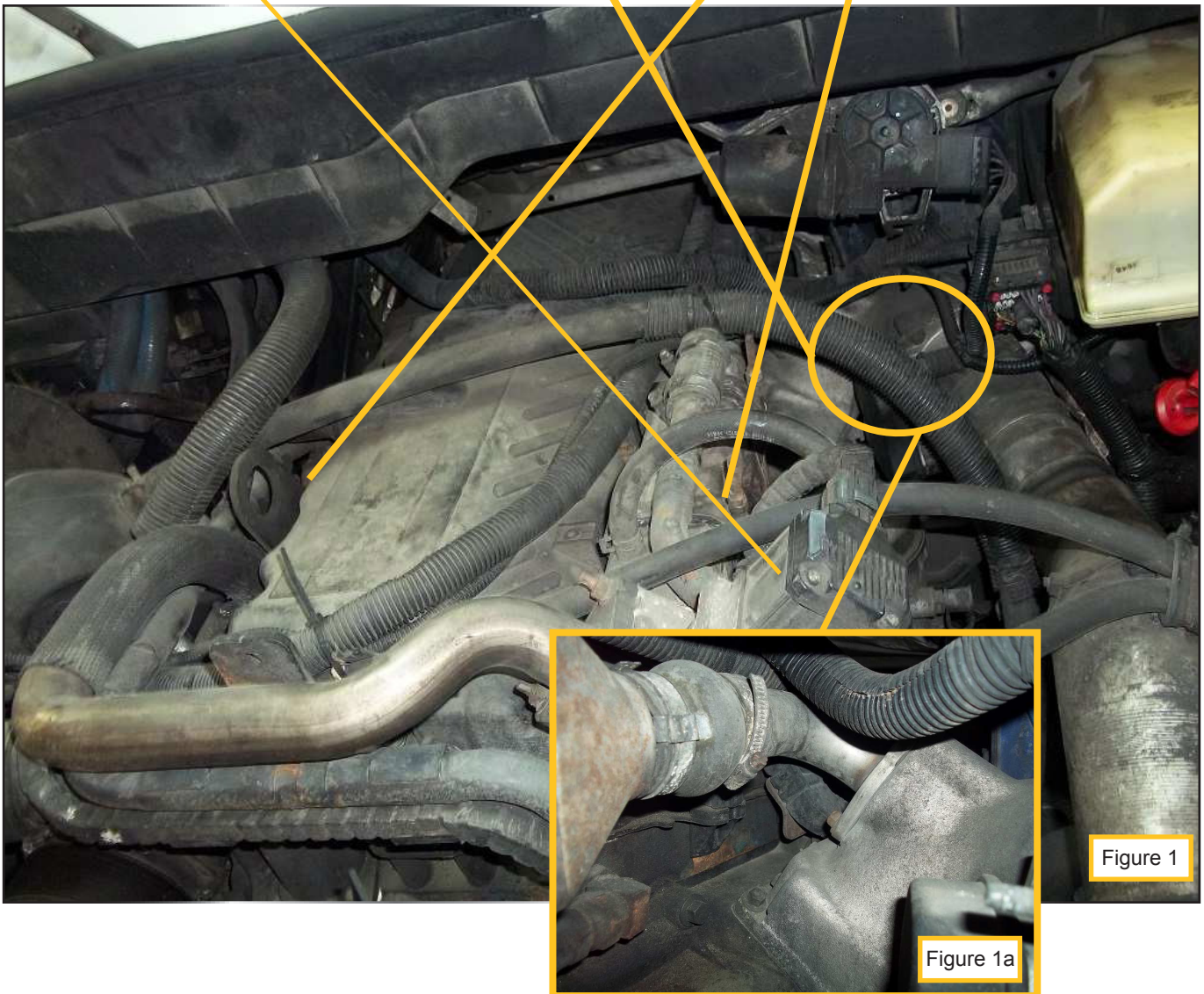


Figure 1

Figure 1a

4. Remove the 3 bolts on the EGR cooler outlet (see Figure 2a). Loosen the clamp on the rubber hose. Remove the EGR cooler outlet pipe and set aside. The gasket on the EGR cooler outlet pipe will be used in the following steps.



Figure 2

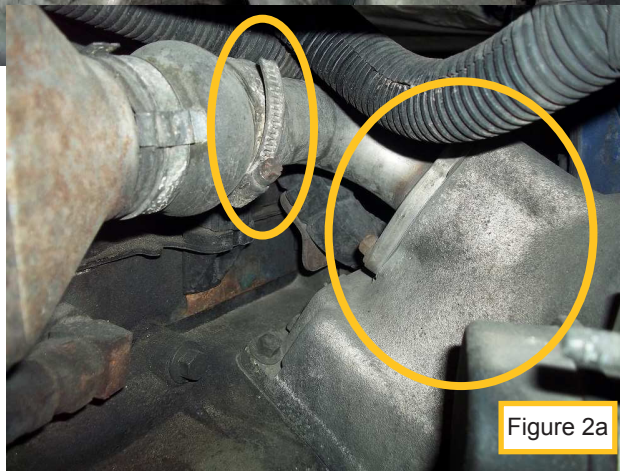


Figure 2a

**Quick Tip: Place the EGR cooler outlet pipe into a bucket/container and pour the 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 15).**

5. Install the EGR Intake Adapter 069-3656 (see Figure 3) using the existing bolts and gasket and the EGR Exhaust Adapter 069-3657 (exhaust) using the existing clamp.



6. Attach the EGR manifold 069-3399 to the EGR Intake and Exhaust Adapters. Attach the EGR Cleaning Tool 069-3170 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 400-0280. 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 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. Start engine as this will open the EGR valve. Before step 9 can proceed, open EGR Cleaning Tool air valve, keeping the fluid valve closed, turn valve on the EGR Manifold 069-3399 to exhaust and flush cooler with air for 2 minutes.**

9. Start the vehicle engine. Set the EGR Manifold to exhaust. The EGR valve will open when the engine is operating.
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 1/4 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 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 air line and depressurize the EGR Cleaning Tool by rotating the regulator knob counter clockwise.

15. After the EGR cooler outlet pipe has soaked for at least 15 minutes, clean the pipe using the 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 EGR intake and Exhaust Adapters and reassemble vehicle components in the reverse order of removal.
17. Add DieselTune™ Complete Fuel Supplement (400-3022) 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.**

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