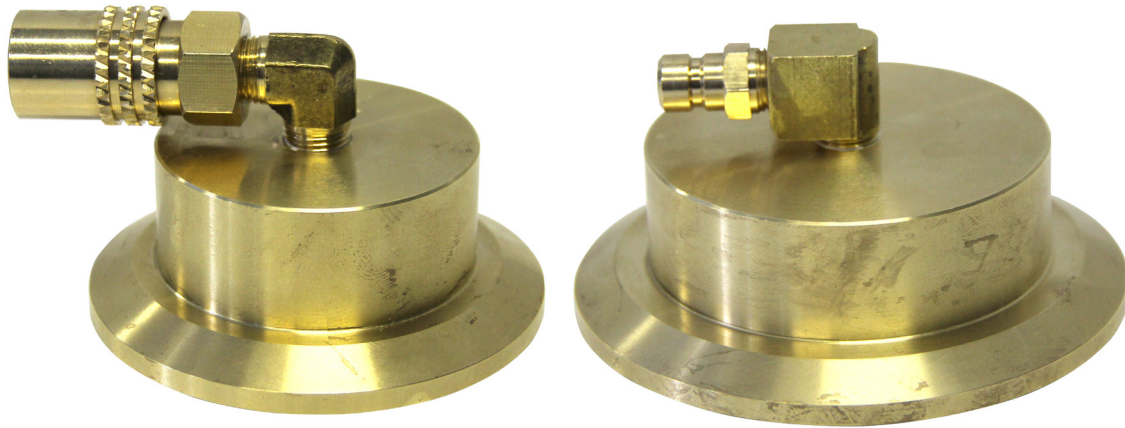




Paccar MX13 12.9Litre ***Part No. 069-3636 & 069-3637***



CAUTION:

Always wear gloves and safety glasses when performing this service

EGR System Consists of:

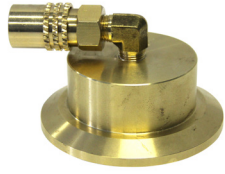
- Hot side EGR valve (before EGR cooler) controls exhaust gases for proper emissions control of Nox gases
- EGR cooler (controls temperature of exhaust gases to the air intake to the engine)
- EGR cooler bypass valve (controls exhaust flow temperature to the air intake from the exhaust through the EGR 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 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:



069-3636



069-3637



069-3399



500-0170

Locations of EGR components:

- EGR cooler bypass valve vacuum hose
- EGR Cooler (Figure 1)

- EGR valve



Figure 1

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



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. Attach EGR manifold (069-3399) to EGR adapter (069-3390). Attach EGR tool to (069-3399). Ensure air valve and fluid valve are closed – see EGR Cleaning Tool user guide.



6. Attach EGR manifold (069-3399) to EGR intake and exhaust adapters. Attach EGR tool (069-3170) to (069-3399). Ensure air valve and fluid valve are closed – see the EGR Cleaning Tool user guide.
7. Unscrew fill cap and fill with 32oz (946mL) of TerraDiesel™ EGR System Cleaner (400-3012). 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 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 9 can precede start engine, open the EGR Cleaning Tool air valve, keeping the fluid valve closed, turn valve on the EGR manifold 069-3399 to intake and flush cooler with air for 2

minutes.

9. Start 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 tool, adjust regulator to maintain initial pressure and then open the fluid valve on the EGR tool.
NOTE: If no flow is observed then increase engine RPM to 1000 in order to open the EGR valve as engine maybe cold.
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 adapter to intake, open fluid valve and continue service until EGR tool is empty.

NOTE: At any time during the intake service you hear a diesel knock sound, turn manifold valve to off for 2 minutes. After two minutes then 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 1" 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.
16. Add one bottle of TerraDiesel™ Multi-function Fuel Treatment (400-3250) 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.

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