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INSTRUCTIONS FOR EGR CLEANING WITH EGR4-A & EGR4-B

2019-2024 Ram/Cummins 6.7L 3500/4500/5500 Cab & Chassis: "Perform Service" at 75,000 miles

EGR CLEANING INSTRUCTIONS EGR4-A and EGR4-B

2019 - 2024 Ram/Cummins 6.7L 3500/4500/5500 Cab & Chassis

The EGR "Perform Service" job can be broken down into its two main components:

PART 1: Change the crankcase vent (CCV) filter (**EGR4-A**)

PART 2: Remove and clean the EGR cooler assembly.

2019-2024 3500/4500/5500 C&C: Per the Owner's Manual, a CCV filter change is required at specific intervals, depending on the model year. The interval for 2019-2024 cab & chassis is 75,000 miles. Please note that the cleaning of the EGR cooler is not a requirement for the 2019-2024 trucks for the first service interval. We asked the folks at Cummins about this and they responded that yes, you can include the cleaning for this first pass if you wish, but it is typically not needed until the second CCV filter change (at 150,000 miles). Our Cummins sources did recommend an inspection of the EGR valve. "Sooty/dusty is good, shellac/dusty needs to be cleaned." If the valve is shellac/crusty, don't skimp, go ahead and do the entire EGR system cleaning. NOTE: On the 2019-2024 trucks the EGR valve cannot be disassembled to be cleaned. We suggest cleaning as best as you can with a cleaning solution and a wire brush. It can be replaced if necessary.

DIAGNOSTIC TROUBLE CODES

At any time, should the crankcase vent system become clogged, the "Perform Service" message will illuminate on the overhead display. There are two diagnostic trouble codes (DTCs) that may be set due to a clogged crankcase vent system:

P1507 = crankcase filter restriction

P1508 = crankcase filter restriction—replace filter

PART 1: CHANGE THE CRANKCASE VENT FILTER

How do you change the CCV filter? The inspection and/or change of the filter is very easy. The steps:

- Remove the four 8mm bolts that hold the "batwing" cover in place. Remove the dipstick tube retaining bolt and then the cover.
- Remove the oil drain hose from the passenger side of the CCV filter. As you inspect the hose you should find that there is very little oil that makes it this far into the vent system.
- Remove the eight 8mm bolts that hold the CCV filter in place.



Removing the eight 8mm bolts that hold the CCV filter in place. DO NOT use the impact tool to reassemble and tighten the bolts.

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If you need more assistance, we are only a phone call away.

(770) 886-2500

Monday-Friday
8:30am-5:30pm EST

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- Remove the oil fill cap. For protection from debris, stuff a paper towel into the oil fill hole.
- With a large flat blade screwdriver, gently pry the CCV filter up and off.
- Upon inspection of the CCV filter, you'll see that it has two O-rings and a reusable V-gasket that effectively seal the filter in place.



New CCV filter on the left. At 30,000 miles the CCV filter on the right looked clean and was reinstalled.

- Replace the CCV filter.
- Reassemble in reverse order.

Oops...wait one minute, we're not quite finished. How do you reset the "Perform Service" reminder that is now illuminated on your display?

The procedure is outlined in your Owner's Manual and it is written as follows:

- Turn the ignition switch to the ON position. (Do not start the engine.)
- Press and release the brake pedal two times.
- Fully depress the accelerator pedal slowly two times within 10 seconds time.
- Turn the ignition switch to the OFF/LOCK position.

For trucks with the keyless option, reset the reminder as follows. Do this procedure twice and when finished, open and close the door:

- Close door.
- Push button to RUN position.
- Press and release brake pedal 2 times.
- Fully depress the accelerator pedal slowly 2 times within 10 seconds time.
- Turn off the ignition.

The message should now be erased. You can also do your favorite dance afterward!

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PART 2 - REMOVE AND CLEAN THE EGR COOLER

Unlike the 6.7-liter engine in the 2500/3500 pickups for the consumer market, the EGR cooler on the 2019-2024 3500/4500/5500 Cab and Chassis trucks is not difficult to access.

Below is a parts diagram/breakaway of the EGR cooler components.

In our kit we have included the following gaskets that will be needed in the removal/cleaning/re-installation process:

2 Gaskets - #1 on image

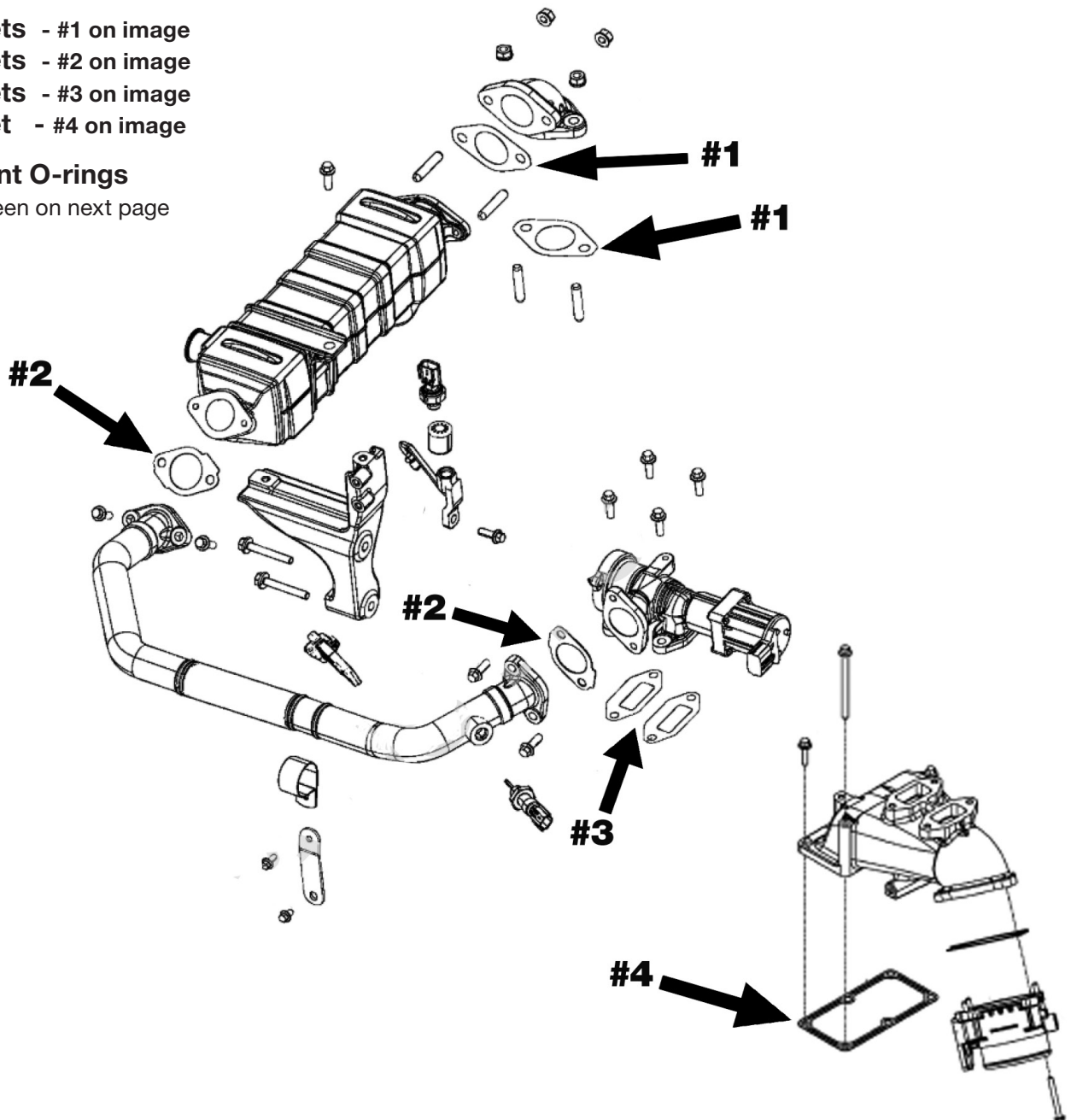
2 Gaskets - #2 on image

2 Gaskets - #3 on image

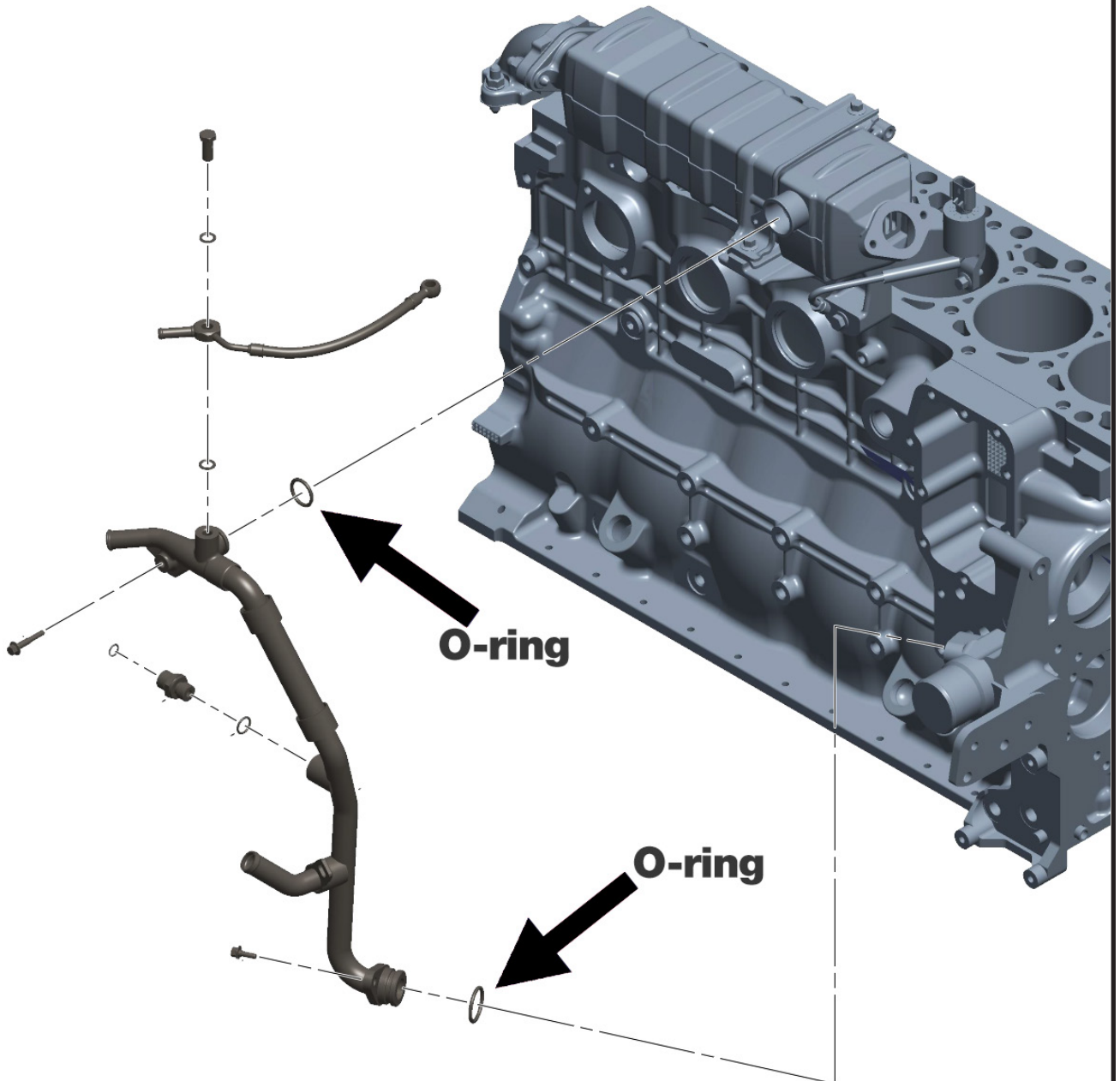
1 Gasket - #4 on image

2 Coolant O-rings

O-rings seen on next page

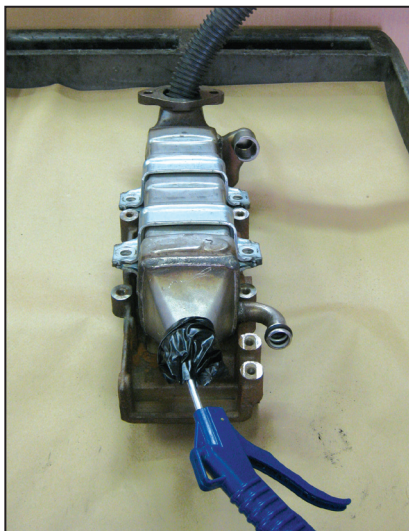


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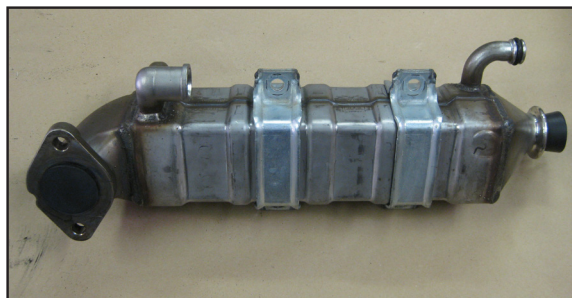


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Several diesel truck repair shops we've talked to suggested that you start the EGR cooler cleaning process by blowing the carbon out of the EGR cooler with regulated compressed air. Start at 10psi and increase the pressure as the dust flies—and the dust will fly. Your blowing out of the EGR cooler should be done in the wide open spaces or, better yet, blow the dust into an old shop vacuum that you no longer care about.



With carefully regulated compressed air you can blow carbon into the inlet hose of a vacuum cleaner.



Plug one end of the cooler with a rubber plug and fill with hot water and cleaning solution. Plug the other end and soak overnight.

With the focus on saving you money, we wanted to test the effectiveness of the Mopar cleaning solution versus other cleaners in the market. Way back when we had equal success using Simple Green as the cleaning solution.

In June 2016 the folks at TruckTrend (now, MotorTrend) magazine did a bench-test of several other cleaning solutions (<https://www.motortrend.com/how-to/1606-we-bench-test-diesel-egr-cooler-cleaning-solutions>). Their study was thorough and it is a great resource as you search for a good cleaner for this and other parts in your shop. Their winner was the least expensive cleaner/degreaser that they tested: Purple Power used in full strength concentration. Other products in the Truck Trend test were the following: Mopar cleaner; Simple Green; Piston Kleen and NAPA Carburetor Cleaner.

Our customers report better success with the Purple Power (thanks Jeffrey Porter).

Now that the cooler has been removed it is time for the overnight soak. To save cleaning solution and the associated messy waste, we have supplied two rubber plugs that fit into the cooler openings. Plug the cooler at both ends; fill it up the solution and hot water; shake it like you would a paint can; and allow it to sit overnight.

The next morning remove the cooler and cleaned inside as best that you can. A further trip to the local pressure washer facility with the cooler and a bit of left-over solution will make sure that it is really clean. For good housekeeping take the crossover pipe and other associated EGR hardware for cleaning. Do a final blow-out with compressed air.

Reassemble the cooler to the exhaust manifold.

Freddy Frugal knows that if you are going to spend time cleaning the EGR valve and EGR cooler, that you'll remove and clean the air intake horn that the EGR valve is bolted to. The replacement gasket for the air horn-to-intake manifold is GG-5264566 and it is included with the EGR Cleaning Kit.