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Service Information Bulletin

| SUBJECT | DATE |
|-----------------------------------|----------------|
| Installation of the Fuel Injector | September 2012 |

Additions, Revisions, or Updates

| Publication Number / Title | Platform | Section Title | Change |
|----------------------------|-------------|-----------------------------------|---|
| DDC-SVC-MAN-0082 | DD Platform | Installation of the Fuel Injector | Added torque specification for injector hold down bolt. |



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2 Installation of the Fuel Injector

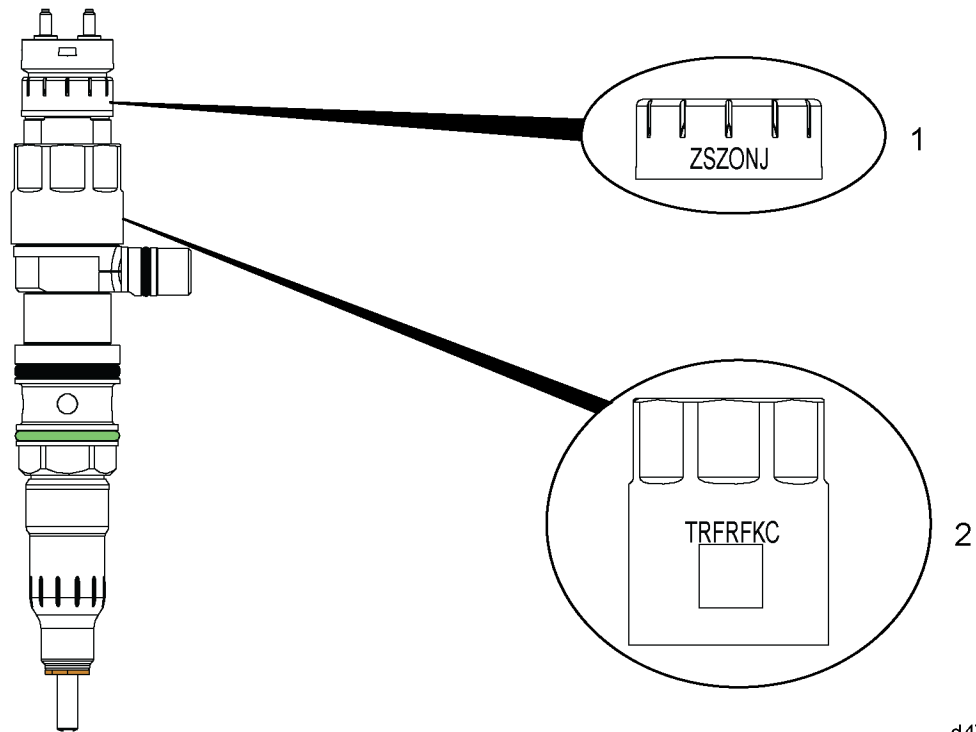
Install as follows:

NOTE: Ensure excess fuel is removed from the top of the piston dome before fuel injector installation.

1. If the fuel system is contaminated:
 - a. Drain the fuel tanks and refill with clean fuel.
 - b. Clean the fuel water/separator and replace the fuel filters.
2. If the coolant system is contaminated with fuel, flush and reverse-flush the system.
3. If the oil system is contaminated, change the engine oil and filters.

NOTICE: The fuel injector tube bore should be cleaned and inspected for damage or leakage of coolant before installation of the fuel injector.

4. Check to make sure the fuel injector tube bore is thoroughly clean.
5. If new or remanufactured fuel injectors are being used, write down the new (2) or remanufactured (1) fuel injector's calibration code and note the cylinder location where it will be installed.

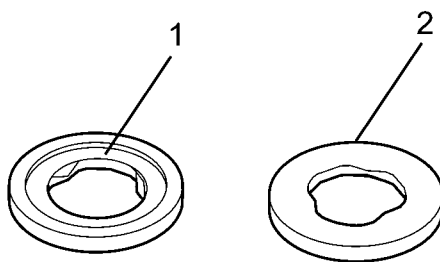


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6. Remove the fuel injector nozzle tip protector.

NOTICE: The copper washer must be installed with the recess (1) facing the fuel injector body. Incorrect installation can cause combustion gasses to enter the fuel system.

7. Install a new copper washer with the recess facing UP (1) toward the fuel injector and the flat side of the washer facing DOWN (2).

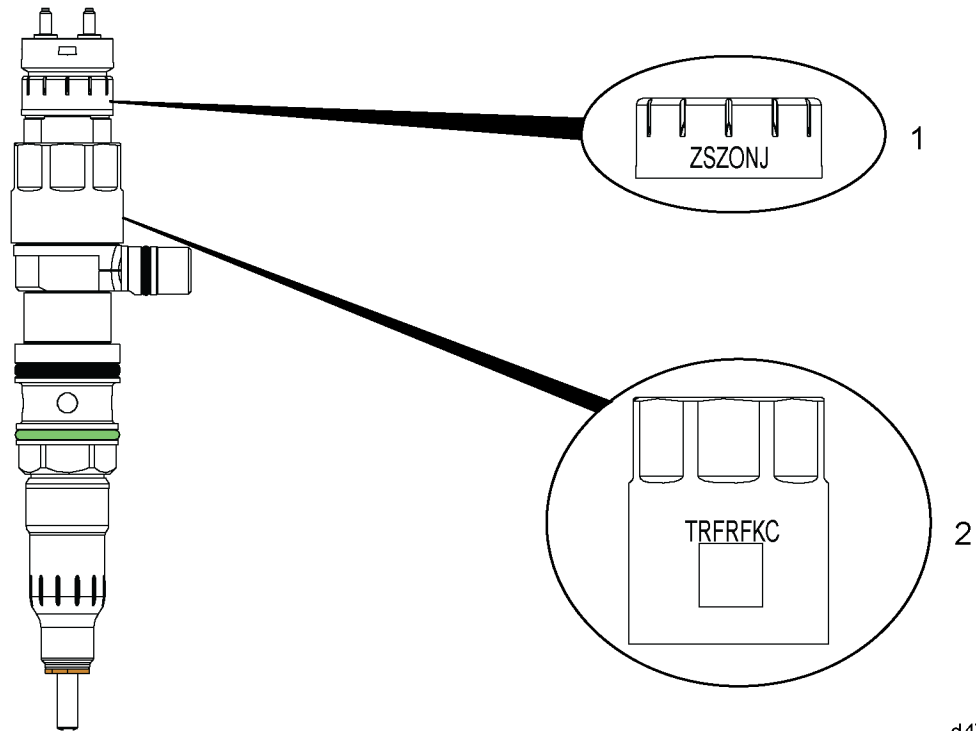


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8. Apply a thin coat of acid-free grease or clean engine oil to the fuel injector seal rings and then use J-48837 (Fuel Injector O-ring Installer) to install them in the fuel injector nut ring grooves. Make sure they are properly seated.
9. Install the fuel injector and clamp as an assembly into its respective fuel injector bore. Align the clamp over the bolt hole, install the new bolt into fuel injector clamp and snug until the fuel injector fully seats, then release the fuel injector bolt. DO NOT torque.

NOTE: If the high pressure lines leak after installation, the lines need to be replaced.

10. Install the high pressure fuel injector feed lines. Refer to section "Installation of the High Pressure Fuel Injector Lines".
11. Torque the fuel injector hold-down bolt to 20 N·m (15 lb·ft) + 90 degree torque turn.
12. Insert the 14-pin connector from the fuel injector harness into the hole in the cam frame and install electrical connections and Allen head hold-down bolts before torquing.
13. Install the spring clip onto the 14-pin connector.
14. Torque all of the fuel injector connections to 1.5 N·m (12 lb·in.).
15. Torque all of the Allen head fuel injector harness hold-down bolts to 10 N·m (7 lb·ft).
16. Input the fuel injector calibration codes that were recorded earlier into DDDL using the service routine.



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17. If injectors were replaced because of a tip failure or leak, the EGR cooler must be cleaned.
 - a. For DD13: Refer to section "DD13 Exhaust Gas Recirculation Cooler Water Manifold Cleaning Procedure to Remove Excess Fuel from the Cooler after an Engine Brake Solenoid, Fuel Injector or a Turbocharger Failure" .
 - b. For DD15 and DD16: Refer to section "DD15 and DD16 Exhaust Gas Recirculation Cooler Cleaning Procedure to Remove Excess Fuel from Cooler after an Engine Brake Solenoid, Fuel Injector or a Turbocharger Failure" .
18. Install the rocker cover. Refer to section "Installation of the Rocker Cover" .
19. Connect batteries.
20. Prime the fuel system. Refer to section "Priming of the Fuel System Using ESOC 350 Fuel Priming Pump" . Verify repair.
21. If more than one fuel injector was changed, reset the leak detection threshold for the high pressure fuel system. Refer to section "Threshold Resetting and Learning" .