*INJECTOR RETURN FLOW TEST

Diagnostic Test

1. * INJECTOR RETURN FLOW TEST

1. Operate the engine until the engine is at operating temperature.
2. Remove the banjo connector from the fuel drain tube at the rear of the fuel filter housing.
3. Install fuel system test fitting (9012) in place of the banjo connector.
4. Remove the vehicle fuel return line from the engine fuel drain tube. Route this hose into a container to catch bled fuel.
5. Install a piece of fuel line onto the test fitting and into a fuel container or into the fuel tank.
6. Install one end of a test hose onto the fuel drain tube. Place the other end of the test hose into a graduated cylinder.
7. Start the engine and let it idle for one minute.
8. Measure the amount of fuel in the graduated cylinder.
9. If the flow is less than 180-ml/minute, the test has successfully passed.
10. If the flow is greater than 180 ml/minute, shut off the engine and remove all of the fuel injector supply lines. Re torque all of the high-pressure connector nuts. Install all of the fuel injector supply lines.
11. Start the engine and idle for one minute. Measure the amount of fuel in the graduated cylinder.
12. If the flow is less than 180ml/minute, the condition has been fixed.
13. If the flow is greater than 180 ml/minute after step 12, shut off the engine and remove the #1 fuel injector supply line. Re torque the high-pressure connector nut. Cap the #1 fuel port using tool #9011 on the fuel rail and the #1 high pressure connector.
14. Start the engine. Measure the amount of fuel in the graduated cylinder.
15. If the amount of fuel is less than 180 ml/minute, shut off the engine and remove the #1 high pressure connector and the #1 fuel injector. Inspect for damage, repair/replace as necessary.
16. If the amount of fuel is not less than 180-ml/minute, repeat steps 14-16 for cylinders 2-6.
17. Install all high-pressure connectors, fuel injectors, and fuel injector supply lines. Repeat steps 1-8 to confirm repair.

SPECIFICATION:Less than 180 ml/minute total fuel return flow

Repair

Test Complete.

Perform POWERTRAIN VERIFICATION TEST VER - 1 (DIESEL). (Refer to 8 - ELECTRICAL/ELECTRONIC CONTROL MODULES/ENGINE CONTROL MODULE - DIAGNOSIS AND TESTING)