

DIAGNOSIS (Continued)

(Continued)

PINPOINT TEST A: FUEL SYSTEM DIAGNOSTICS (Continued)

TEST STEP	RESULT	ACTION TO TAKE
A17 CHECK FUEL INJECTOR FLOW AND LEAKAGE		
<ul style="list-style-type: none"> Observe "Note, Caution and Warning" to avoid fuel spillage and injury. Using the Fuel Injector Tester as described in the accompanying instruction test the fuel injectors and verify that the flow rate for injector group is within specification. With the tester still installed on the fuel system, note any significant pressure loss due to injector leakage when the tester pump is turned off. Check the fuel injectors individually for leakage as required using the Injector Bench Fixture and the Fuel Injector Bench Testing Procedure associated with the Rotunda Tester as required and verify that each injector leakage rate is within specification (1 drop per minute maximum). Is flow rate for the injector group and the leakage rate for individual injectors within specification? 	<p>Yes</p> <p>No</p>	<p>Fuel injectors are OK. If pressure leakdown concern exists in system, CHECK lines and connections between fuel pump and pressure regulator for leaks. SERVICE as necessary.</p> <p>REPLACE the worn or damaged injectors as necessary. REPEAT test Step A17. When OK, GO to A3 to verify system.</p>
A18 CHECK FUEL RETURN SYSTEM FOR HIGH PRESSURE CAUSES		
<ul style="list-style-type: none"> Observe the "Note, Caution and Warning" to avoid fuel spillage and injury. Check the fuel return system for restriction due to blockage, kinking, or pinching. Remove the fuel return line at the fuel pressure regulator. Apply 21-34 kPa (3-5 psi) regulated, filtered, shop air to the fuel return line. Do you hear air entering the tank? 	<p>Yes</p> <p>No</p>	<p>GO to A19.</p> <p>GO to A19.</p>
A19 CHECK FUEL RETURN SYSTEM PRESSURE		
<ul style="list-style-type: none"> Key off. Reconnect fuel return line at the fuel pressure regulator. Install a second fuel pressure tester on schrader valve equivalent installed in the return line at the fuel tank. Operate fuel pump as in Step A3 and compare pressure observed at fuel injection supply manifold with the pressure observed at the fuel tank. Is pressure at the fuel tank within 34 kPa (5 psi) of fuel injection supply manifold pressure? 	<p>Yes</p> <p>No</p>	<p>VERIFY that fuel injection supply manifold pressure is higher than specification limits. REPLACE pressure regulator and RECHECK as in Step A3.</p> <p>SERVICE the return fuel line to remove excessive restriction. REPEAT Step A3 to verify.</p>

TESTING

Refer to the Powertrain Control / Emissions Diagnosis Manual³ for testing procedures.

CLEANING AND INSPECTION

WARNING: DO NOT SMOKE OR CARRY LIGHTED TOBACCO OR OPEN FLAME OF ANY TYPE WHEN WORKING ON OR NEAR ANY FUEL RELATED COMPONENT. HIGHLY FLAMMABLE MIXTURES ARE ALWAYS PRESENT AND MAY BE IGNITED, RESULTING IN POSSIBLE PERSONAL INJURY.

Air Cleaner

Refer to Section 00-03 for the recommended engine air cleaner (9600) assembly maintenance mileage interval. **Cleaning the engine air cleaner or crankcase ventilation filter elements is not recommended.** They should be replaced at the specified mileage intervals. Clean the engine air cleaner body and the cover with a solvent or compressed air. Wipe the engine air cleaner body and cover dry if a solvent is used. Inspect the engine air cleaner body and cover for distortion or damage at the gasket mating surfaces. Replace engine air cleaner cover or body if they are damaged beyond service. Hold filter in front of a light and carefully inspect it for any splits or cracks. If filter is split or cracked, replace it.

³ Can be purchased as a separate item.