

# TECHNICAL BULLETIN



## Special Tool JD 208 – Fuel Pressure Testing – Method of Use

**19-39**

MODEL All with AJ6 & AJ16 engines

DATE 4/96

### ISSUE:

Special Tool JD 208 (Illustration 1) has been introduced to permit the connection of a fuel pressure gauge on AJ6 and AJ16 engines for diagnostic purposes. The tool is a threaded "T" adaptor with a Schrader valve for connecting a suitable gauge set.

When used with a compatible gauge set (such as Snap-on Tools Part No. MT 337A), JD 208 provides a means to check fuel rail pressure on a running engine under workshop conditions. It is not suitable for use on V12 engines.

### ACTION:

**⚠ WARNING:** Observe all fire and safety precautions detailed in the Vehicle Service Manual, Section 5.1 for 1995 MY-ON Sedan Range or Section 19.1 for 1988-94 Sedan Range and XJS, while working on the fuel system.

### CHECKING FUEL PRESSURE

1. Remove the oxygen sensor heater relay and run the engine at idle to depressurize the fuel system (19.50.02).
2. Have absorbent shop towels ready to soak up fuel spillage in the following steps.
3. Remove the cover over the fuel injectors.
4. Disconnect the union between the fuel supply pipe and the fuel rail. Wipe up any fuel spillage.

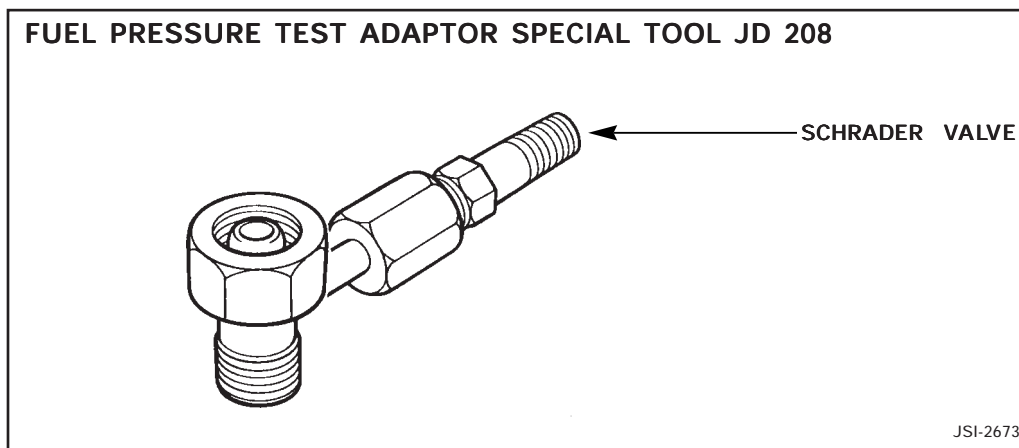


ILLUSTRATION 1

5. Align special tool JD 208 with the fuel rail with the Schrader valve positioned upright. Start and fully tighten the union nut. (Illustration 2).

**CAUTION:** Ensure that adequate clearance exists between the fuel supply line and the throttle cable and mechanism.

6. Align the fuel supply line with the special tool, then start and fully tighten the union nut. Ensure that the fuel supply line is positioned so that it has the maximum possible clearance from the throttle quadrant, as indicated in Illustration 2.

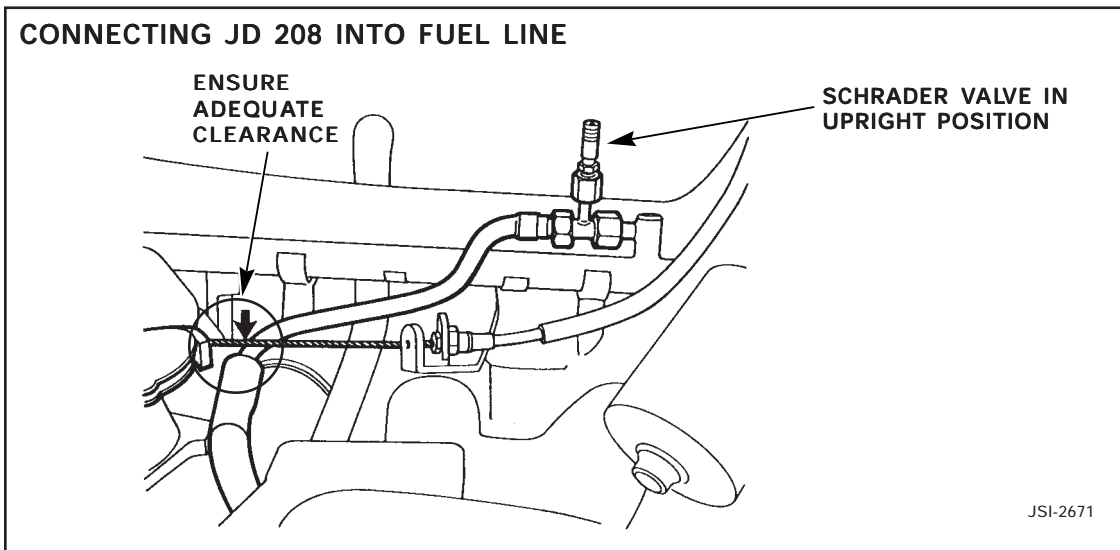


ILLUSTRATION 2

7. Dispose of any shop towels soaked with fuel in a safe manner.
8. Check that the throttle quadrant can move fully and freely before starting the engine.
9. Connect a suitable gauge set to the Schrader valve of JD 208. Follow the instructions supplied with the gauge.

10. Place any drain tube into a container approved for the storage of fuel (Illustration 3). Ensure that the drain valve is **closed**.

**⚠ WARNING: FIRE HAZARD**

**Always** ensure that the special tool and the gauge set are properly connected to the vehicle and that all connections are tight, before attempting to start the engine.

Should it be necessary to disconnect the gauge set from the Schrader valve connection for any reason, **always:**

- Switch off the engine.
- Disconnect strictly in the order given in steps 15-20 to first depressurize the fuel system and gauge set.

**Never** disconnect the gauge set at the Schrader valve connection while the engine is running. Although the special tool is equipped with a Schrader valve, fuel at high pressure could escape if the valve failed to seat properly.

**Never** start the engine without a gauge set being connected to the installed special tool JD-208. In this condition, fuel at high pressure could escape if the Schrader valve in the special tool failed to seat, or if the plunger of the Schrader valve were inadvertently depressed.

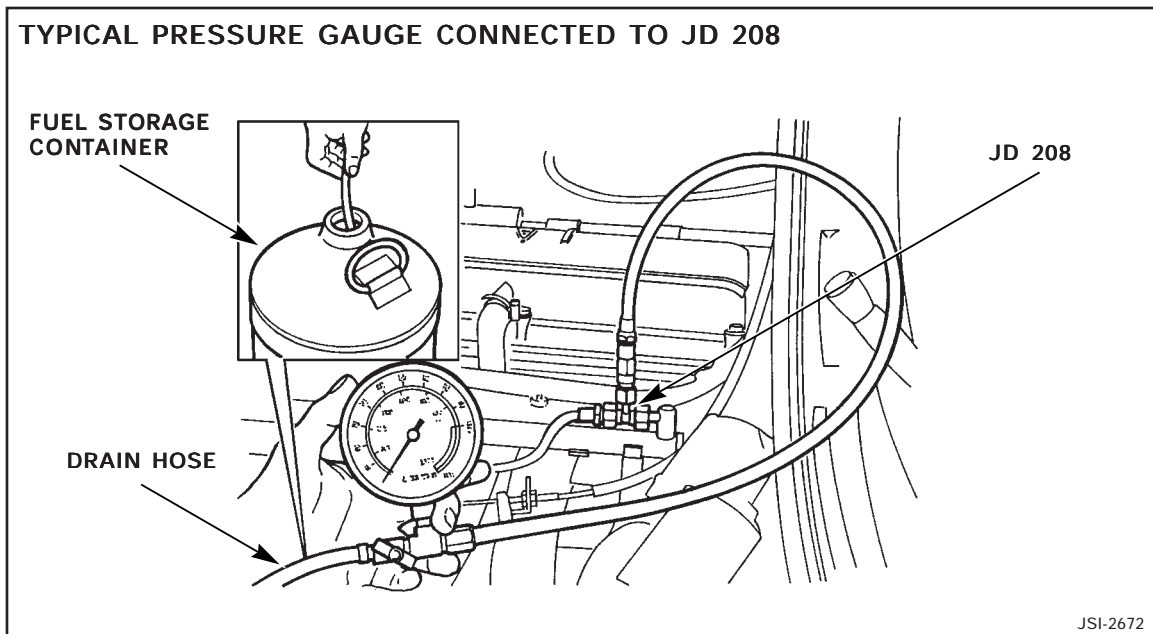


ILLUSTRATION 3

11. Check that the parking brake is fully applied and that the Neutral or Park position is selected.
12. Start the engine and **immediately check that no fuel leakage is occurring.**
13. Carefully open the drain valve adjacent to the gauge head, until fuel free of bubbles is flowing into the storage container. Close the drain valve.
14. The gauge will now register fuel pressure.

**⚠ WARNING:** This equipment is suitable for static testing under workshop conditions only. No attempt must be made to drive the vehicle with this equipment connected.

#### DISCONNECTING SPECIAL TOOL JD 208

15. Switch off engine after completing pressure tests.
16. Have shop towels available to soak up any fuel spilled when disconnecting the tool and gauge set.
17. Open the drain valve to drain fuel into the storage container and depressurize the fuel system.
18. Leave the drain valve open while disconnecting the gauge set from the Schrader valve. Raise the connector immediately, moving it away from the engine compartment, to assist in draining off all residual fuel from the gauge set and pipes.
19. Clean up any spilled fuel. Seal the container into which the fuel was drained and suitably store or dispose of it, observing the appropriate safety precautions.
20. Disconnect tool JD 208 from the fuel supply line and reconnect the supply line to the fuel rail.
21. Safely dispose of any shop towels that may have become soaked with fuel.
22. Install the cover on the fuel injectors.
23. Check that no spilled fuel remains near the engine.
24. Start the engine and check that no fuel is leaking from any of the connections that were opened when the tool was installed.
25. Stop the engine.
26. Ensure that all residual fuel has drained from the gauge set and adaptors before storing them.