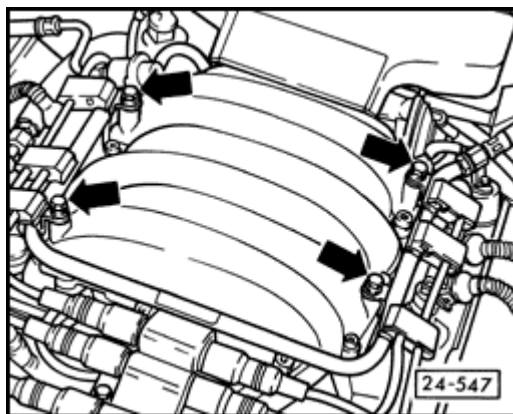


Fuel injector leak testing and delivery quantity, checking

CAUTION!

Fire hazard! Do not smoke, work near heaters or open flame, or have anything in the area that could ignite fuel.

- System pressure OK ⇒ [page 24-20](#)
- Remove intake air duct between Mass Air Flow (MAF) sensor and sound dampener.
- Loosen ignition wires only as far as necessary to remove fuel rail, and lay to one side.
- Disconnect fuel injector harness connectors.
- Disconnect fuel rail from intake manifold.
- Disconnect vacuum hose from fuel pressure regulator.
- Lift (and afterward support) fuel rail (complete with fuel injectors) from intake manifold.



A

Checking fuel injector leakage

CAUTION!

Fire hazard! Do not smoke, work near heaters or open flame, or have anything in the area that could ignite fuel.

- Use scan tool "Output Diagnostic Test Mode" function 03 to trigger fuel pump relay -J17- ⇒ Repair Group 01.
- Visually inspect fuel injector for leaks (with fuel pump running).

Maximum: Two drops per minute per fuel injector

If fuel loss exceeds 2 drops per minute:

- Switch ignition OFF and replace leaking fuel injector.

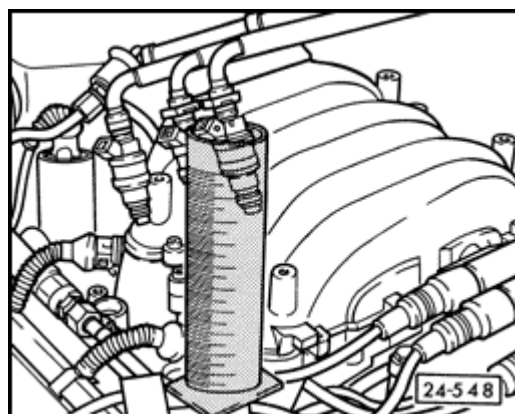
Note:

Always replace O-rings!

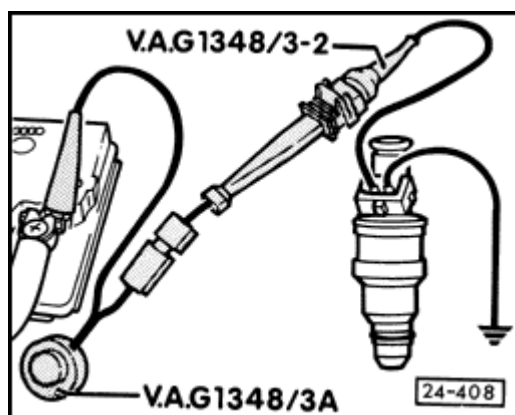
Checking fuel injector delivery quantity

CAUTION!

Fire hazard! Do not smoke, work near heaters or open flame, or have anything in the area that could ignite fuel.



- A**
- Insert fuel injector to be tested into calibrated measuring container from 1602 fuel analyzer kit.



- A**
- Connect one terminal of each fuel injector being tested to engine Ground (GND) using jumper wire from connector test kit VW 1594.
 - Connect remaining fuel injector terminal to B+ using remote control VAG 1348/3A, adapter wire VAG 1248/3-2 and jumper wire from connector test kit VW 1594.
 - Use scan tool "Output Diagnostic Test Mode" function 03 to trigger fuel pump relay -J17- ⇒ Repair Group 01.
 - Operate remote control VAG 1348/3A for 30 seconds.

CAUTION!

Fire Hazard. Do NOT smoke or have anything in area that can ignite fuel.

- After each 30 second fuel injector fill, place measuring container on level surface (to facilitate accurate reading) and record fuel quantity delivered.

Specified value (each fuel injector): 85-110 ml
(2.9-3.7 oz.)

If the measured quantity for one or more fuel injectors is under or over the specified value:

- Replace faulty fuel injector(s).

If the measured values for all of the fuel injectors (as a set) are under or over the specified values:

- Check system pressure ⇒ [page 24-20](#) .
- Re-install fuel injectors in reverse order of removal.
- Replace O-rings on all fuel injectors and lightly coat with engine oil.

- Slide fuel injectors into correct position in fuel rail and secure with retaining clips.
- Install fuel rail (complete with fuel injectors) into intake manifold by pressing it evenly all around.