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Golf IV, model years 09.2000 – 2004 engine 1.9 TDI (engine code AXR)

Engine vibrates and/or shakes when idling

If this fault is complained about, then one or several pump nozzle elements (injectors) might be defective. Affected are vehicles with engine codes **AXR 001000** through **AXR 025181**. No error code is stored in the engine control unit. Due to increased wear of the magneto inductor in the pump element, inadmissible tolerances occur and the amount of fuel injected is too large (overrich mixture). The idling smoothness regulation tries to adjust the overrich mixture by reducing the injection quantity. The very different injection quantities then lead to the vibration during idling. To check the injection quantities of the individual pump nozzle elements, proceed as follows:

- Connect the diagnostic tester to the vehicle. The engine must be at operating temperature.
- Select menu item "Parameters/measured values".
- Select vehicle type.
- Select menu item "Idling" and confirm the idling smoothness regulation for all cylinders.
- The screen then shows the measured values (see Fig.). If the values deviate from zero (far in the plus or minus range), then the pump nozzle element with the negative value needs to be checked and if need be replaced.

Einspritzmenge (mg/H) 1.4
Zyl.1 Laufruberey.E(mg/H) -2.3
Zgl.2 Laufrubereg.E(mg/H)
Zyl.3 Laufrubereg.E(mg/H) 0.3
Zyl.4 Laufruhereg.Elmg/Hl 2.3



