■ febi 107993

To fit:

Toyota Avensis, Corolla 2.0 D4d







Suction Control Valve

Problem

Engine surging, erratic idle and a sudden lack of power which can be intermittent. Engine fault codes logged relating to fuel rail pressure deviation.

Cause

The suction control valve (SCV) solenoid has extremely fine tolerances within its moving parts, which are quickly affected by dirt and or contaminated fuel.

A worn or contaminated SCV will cause the high-pressure fuel pump to deliver an inconsistent fuel pressure compared to what is being requested, by the engine control unit (ECU). Inconsistent fuel pressure at the injectors can cause surging as the ECU attempts to find the correct operating fuel pressure.

Solution

Before starting any work, always create a clean and safe working environment and ensure safety measures are in place. Ensure that no dirt particles enter the fuel pump during the exchange of any component, as dirt in the fuel system can cause damage.

Check the fuel system for contamination, replace the fuel filter and suction control valve.

Remove the SCV, noting the connector position of the SCV to the pump, loosen bolts and remove. Then remove the large O-ring.

Install the new large O-ring to the fuel pump. Then, screw the two new guide pins into the mounting holes and apply engine oil on the small O-ring located on the SCV before fitting to the pump.

Install the SCV by carefully pushing it into the housing. When the SCV is in position, remove the guide pins, fit the new bolts, and tighten them according to the manufacturer's tightening torque.

Once the installation is complete, carry out the supply pump learning procedure and perform a high-pressure pump test using a suitable diagnostic tool to confirm that there are no leaks and that the fuel system is performing correctly.

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