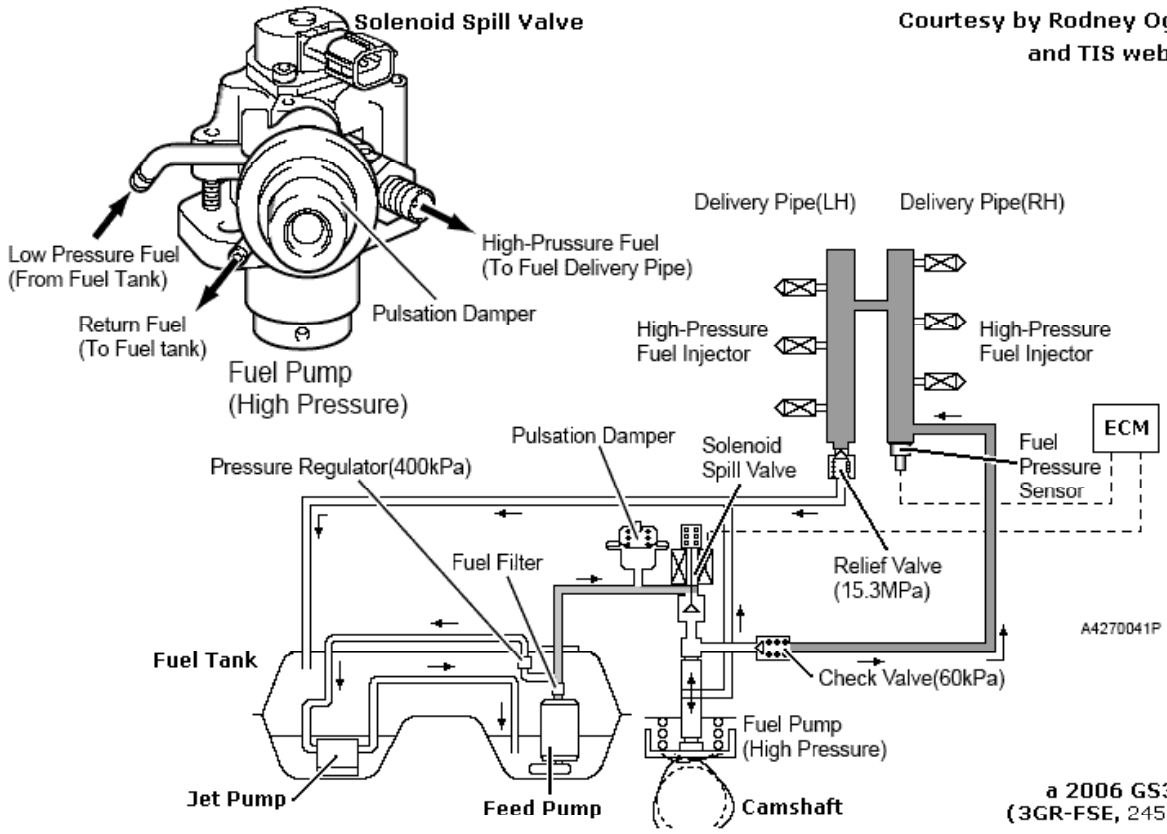
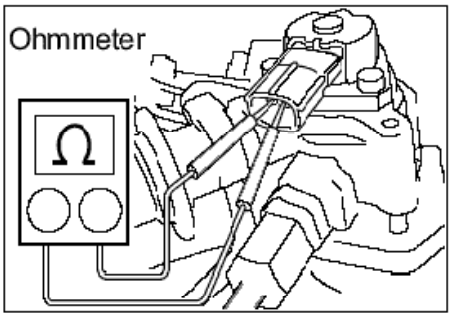
Courtesy by Rodney Ogata
and TIS website



High Pressure Fuel Pump Operation

- The plunger in the pump moves up and down to pressurize fuel. The solenoid spill valve, which is provided at the suction side of the pump, closes at an optimal timing during the compression stroke in order to control the fuel to the required pressure and volume. If the solenoid spill valve closes at an early timing, the effective stroke of the plunger becomes longer, thus pressurizing the fuel to an even higher pressure.
- The fuel that has been pressurized by the plunger pushes open the check valve (60 kPa), flows into the fuel delivery pipe, and is controlled to a pressure between 4 and 13 MPa (approximately 40 to 130 bars).
- The fuel pressure sensor that is provided on the fuel delivery pipe detects the fuel pressure and gives feedback to the engine ECU, enabling the engine ECU to control the fuel to a target pressure.



2. INSPECT HIGH PRESSURE SIDE FUEL PUMP

(a) Measure the resistance between the terminals.

Standard resistance:

1.19 to 1.39 Ω at 20°C (68°F)

If the result is not as specified, replace the fuel pump.