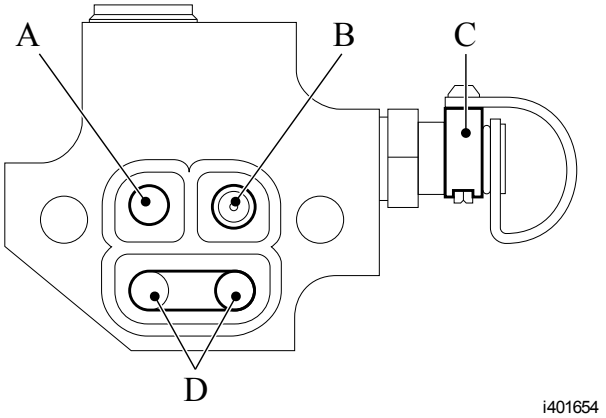
Fuel pressure control valve

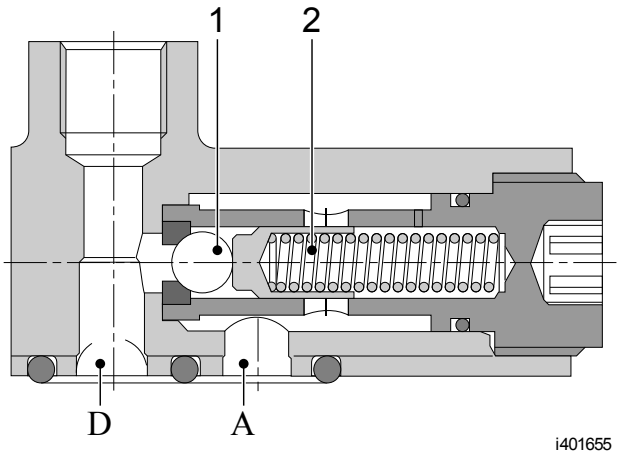
The fuel pressure control valve is mounted directly onto the cylinder block. From the supply gallery, the fuel can flow into the fuel pressure control valve via bore (D). When the pressure rises above 108.8 psi (7.5 bar), the valve in the inlet bore (D) opens and connects bore (A) with bore (D). The fuel can now flow from the supply gallery to the supply side of the lift pump.

The filling connection (C) is used to fill the fuel system during production. This connection point can also be used to measure the pressure in the supply gallery using a pressure gauge.



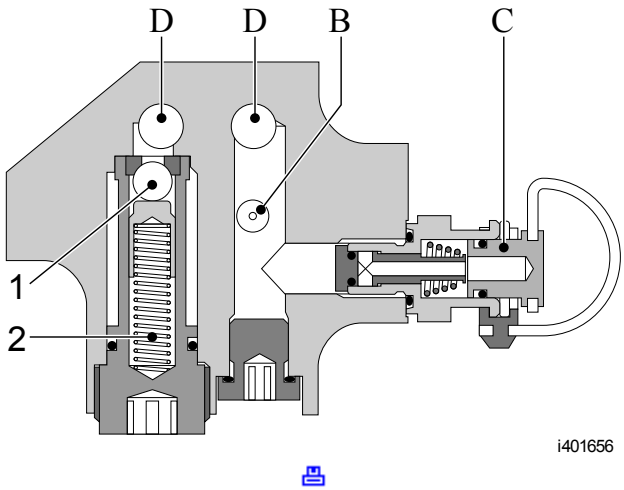
A Outlet via pressure control valve (P >108.8 psi (7.5 bar))
B Outlet via orifice to return gallery
C Filling and test connection
D Inlet from supply gallery

When idling, the fuel can flow from the supply gallery to the return gallery in the cylinder block via the orifice (B). This constant flow creates a more stable pressure in the supply gallery when fuel pressure is low (idling); any air can always escape to the return gallery. Also, when the system is bled, the fuel can be pumped to the return gallery via this orifice.



1 Ball
2 Spring

The fuel pressure control valve opens when the pressure in the supply gallery increases to over approximately 108.8 psi (7.5 bar). From the supply gallery, the fuel now flows to the supply side of the lift pump (A) via opening (D). The lift pump then pumps the fuel to the fuel filter.



M027501 - 02.19.2010

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