

Title (en)  
Fuel system

Title (de)  
Kraftstoffsystem

Title (fr)  
Système d'alimentation en combustible

Publication  
**EP 1143139 B1 20051228 (EN)**

Application  
**EP 01303137 A 20010402**

Priority  
GB 0008598 A 20000407

Abstract (en)  
[origin: EP1143139A1] A fuel system comprising a fuel injector (13) having a delivery chamber (18) for fuel, a valve needle (16) which is engageable with a seating to control fuel delivery through an outlet opening (20) and a control valve arrangement (28) for controlling communication between a source (10) of pressurised fuel and the delivery chamber (28). The fuel system further comprises means (34, 64) for applying a force to a surface of the valve needle (16) so as to urge the valve needle against the seating should the control valve arrangement (28) fail. The fuel system may be arranged such that, upon opening or closing movement of a control valve member (30) of the control valve arrangement (28), pressurised fuel is applied to a surface associated with the valve needle (16). This provides the advantage that opening or closing movement of the valve needle (16) is delayed, thereby enabling control and consistency of the injection of small amounts of fuel to be improved. <IMAGE>

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Citation (examination)  
• WO 9915783 A1 19990401 - BOSCH GMBH ROBERT [DE], et al  
• WO 9904160 A1 19990128 - CUMMINS WARTSILA S A [FR], et al

Cited by  
US7278593B2; US7083126B2; US7021565B2; US7111614B1

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