

Title (en)
Fuel system

Title (de)
Kraftstoffsystem

Title (fr)
Système d'alimentation en combustible

Publication
EP 1143139 A1 20011010 (EN)

Application
EP 01303137 A 20010402

Priority
GB 0008598 A 20000407

Abstract (en)
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>

IPC 1-7
F02M 63/00; **F02M 63/02**; **F02M 61/20**

IPC 8 full level
F02M 61/20 (2006.01); **F02M 63/00** (2006.01); **F02M 63/02** (2006.01)

CPC (source: EP)
F02M 61/205 (2013.01); **F02M 63/0003** (2013.01); **F02M 63/0005** (2013.01); **F02M 63/0205** (2013.01)

Citation (search report)

- [XY] US 5941215 A 19990824 - AUGUSTIN ULRICH [DE]
- [X] US 5988533 A 19991123 - AUGUSTIN ULRICH [DE]
- [XP] EP 1036931 A2 20000920 - DELPHI TECH INC [US]
- [XP] WO 0055490 A1 20000921 - DELPHI TECH INC [US], et al
- [Y] DE 19548610 A1 19970626 - BOSCH GMBH ROBERT [DE]

Cited by
US7021565B2; US7278593B2; US7111614B1; US7083126B2

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
EP 1143139 A1 20011010; **EP 1143139 B1 20051228**; AT E314575 T1 20060115; DE 60116173 D1 20060202; DE 60116173 T2 20060831; GB 0008598 D0 20000531

DOCDB simple family (application)
EP 01303137 A 20010402; AT 01303137 T 20010402; DE 60116173 T 20010402; GB 0008598 A 20000407