



(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
26.11.2003 Bulletin 2003/48

(51) Int Cl.⁷: **F02M 47/02**, F02M 63/00

(43) Date of publication A2:
04.09.2002 Bulletin 2002/36

(21) Application number: **02251468.1**

(22) Date of filing: **01.03.2002**

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR
 Designated Extension States:
AL LT LV MK RO SI

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(30) Priority: **02.03.2001 GB 0105193**

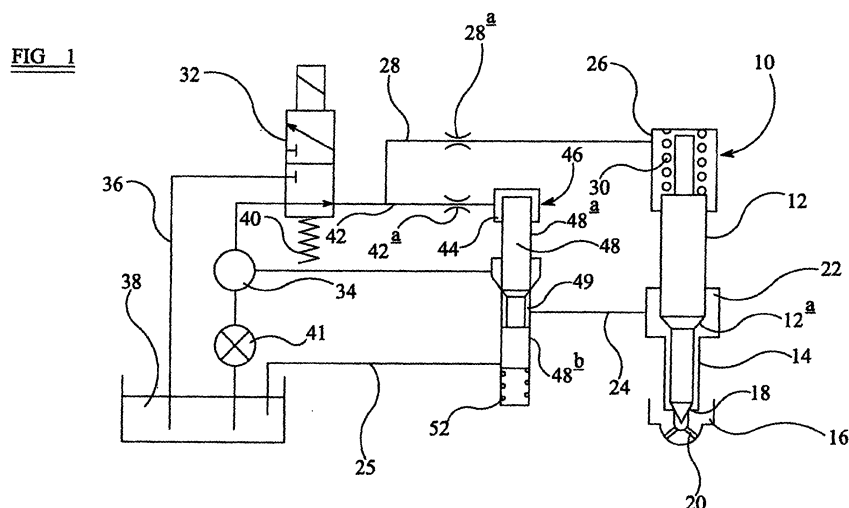
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(54) **Fuel system**

(57) A fuel system comprising a fuel injector (10) having a delivery chamber (22) which is arranged to receive fuel from a source (34) of high pressure fuel and from which fuel is delivered to a combustion space upon initiation of injection, comprising first and second control chambers (26, 44) for receiving a control fluid, a three way control valve arrangement (32) which is operable to control fluid pressure within the first control chamber (26) so as to control fuel injection timing, and to control fluid pressure within the second chamber (44), and a shut-off valve arrangement (46) operable in response to fluid pressure variations within the second control chamber (44) so as to control the flow of fuel between the

source (34) of high pressure fuel and the delivery chamber (22) of the injector. The three way control valve arrangement (32) is actuatable between a first position in which the first control chamber (26) communicates with a source (34; 61) of control fluid at relatively high pressure and a second position in which the first control chamber (26) communicates with a low pressure control fluid reservoir (38; 60).

The invention provides the advantage that leakage of fuel into the engine cylinder or other combustion space of the associated engine is reduced as the flow of high pressure fuel into the delivery chamber (22) is terminated between successive injections of fuel.





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 02 25 1468

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			F02M
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 6 October 2003	Examiner Kolland, U
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82