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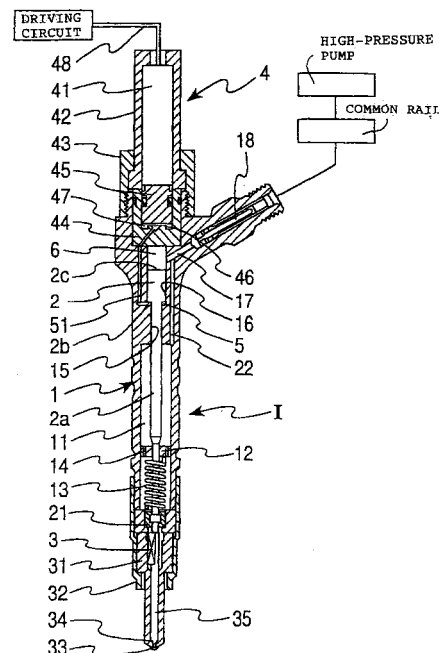
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(54) **Fuel injection device**

(57) A fuel injection device for internal combustion engines includes a needle valve (3) for opening and closing an injection port (33), a control chamber (5) for applying a fuel pressure to the needle valve (3) in a needle valve opening direction, a spring (13) for applying a biasing force to the needle valve (3) in a needle valve closing direction, a piezoelectric actuator (4) for increasing and decreasing a fuel pressure in the control chamber (5), a piston (2) which slides with the needle valve (3) so as to receive the fuel pressure in the control chamber (5) at a lower end face (2b) thereof, and a pressure storage chamber (11) for storing a fuel to be supplied to the injection port (33). The fuel injection device further includes another control chamber (6) which communicates with a fuel supply line (17) for applying a fuel pressure to an upper end face (2c) of the piston (2) in a needle valve closing direction. The another control chamber (6) communicates with the pressure storage chamber (11) via communication means (22).

FIG. 1





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EUROPEAN SEARCH REPORT

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Place of search	Date of completion of the search	Examiner	
MUNICH	16 October 2003	Godrie, P	
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**ANNEX TO THE EUROPEAN SEARCH REPORT
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