

Title (en)
INJECTOR CONTROL METHOD

Title (de)
VERFAHREN ZUR STEUERUNG EINES EINSPRITZVENTILS

Title (fr)
PROCEDE DE COMMANDE D'INJECTEUR

Publication
EP 1463882 A1 20041006 (FR)

Application
EP 02801120 A 20021212

Priority
• FR 0204318 W 20021212
• FR 0116271 A 20011217

Abstract (en)
[origin: FR2833654A1] The invention relates to a fuel injection device comprising: a fuel injector; a tube which is used to supply fuel to the injector; a needle which moves and thereby opens or closes the injector; and a valve which controls a fuel leak in order to cause the needle control pressure to drop below a switching pressure threshold, said tube being supplied with fuel at a source pressure (Ps). The invention comprises the following two steps, namely: the valve is opened, outside of the injection phases, for short periods at an excitation frequency in order to create an oscillatory phenomenon in relation to the pressure in the tube around the source pressure (Ps), the opening duration being shorter than a predetermined period which is necessary for the control pressure to reach the switching pressure; and the fuel injection is started at a moment when the pressure in the tube is increasing and greater than the source pressure (Ps).
[origin: FR2833654A1] The procedure for controlling a fuel injection system with a feed pipe and an injector with a mobile pintle and control valve consists of producing brief openings of the valve outside the injection phases at an excitation frequency to create a pressure oscillation in the feed pipe around the source pressure. The excitation frequency is a sub-multiple of the feed pipe's resonance frequency, and the duration of the valve openings is lower than the predetermined delay necessary for the control pressure to reach commutation pressure, and the start of fuel injection is governed so it coincides with an increasing pressure in the feed pipe above the source pressure.

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