

Title (en)

METHOD FOR DETERMINING THE RAIL PRESSURE OF AN INJECTION VALVE HAVING AN PIEZOELECTRIC ACTUATOR

Title (de)

VERFAHREN ZUR BESTIMMUNG DES RAILDRUCKS EINES EINSPRITZVENTILS MIT EINEM PIEZOELEKTRISCHEN AKTOR

Title (fr)

PROCEDE DE DETERMINATION DE LA PRESSION DE RAMPE D'UNE SOUPAPE D'INJECTION COMPRENANT UN ACTIONNEUR PIEZO-ELECTRIQUE

Publication

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Application

EP 01909484 A 20010117

Priority

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Abstract (en)

[origin: WO0173282A1] The invention relates to a method for determining the rail pressure of an injection valve having a voltage-controlled piezoelectric actuator. Said piezoelectric actuator (2) actuates a nozzle needle (11) by means of a hydraulic coupler (4). The pressure in the high pressure channel (13), via the hydraulic coupler (4), builds up a coupler pressure (Pk) that induces a piezovoltage (Ui) in the actuator (2). As this voltage is redundant with respect to the pressure in the high pressure channel (13) measured by a pressure sensor (D), it can be used to monitor the function of the pressure sensor (D). If the pressure sensor (D) fails, an emergency operation for the injection valve (1) can be established using the induced voltage (Ui). The injection valve (1) is preferably used for injecting fuel into an internal combustion engine.

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