

Title (en)  
Fuel-injection system for an internal-combustion engine

Title (de)  
System zur Kraftstoffeinspritzung für einen Verbrennungsmotor

Title (fr)  
Système d'injection de carburant pour moteur à combustion interne

Publication  
**EP 2226491 B1 20110126 (EN)**

Application  
**EP 09425060 A 20090216**

Priority  
EP 09425060 A 20090216

Abstract (en)  
[origin: EP2226491A1] The fuel-injection system comprises a variable-capacity high-pressure pump (7), having at least one pumping element (18) provided with an intake valve (25) in communication with an intake duct (10) and with a delivery valve (30) in communication with a delivery duct (8). A dosage device (27) is designed to dose the flow rate of the pump (7) as a function of the running conditions of the engine and is associated with a pressure regulator (32) designed to discharge the excess fuel into a compartment (35) of a sump (33) of the high-pressure pump (7) for lubricating the usual actuation mechanism (26) of the pumping element (18). The dosage device (27) is provided with two outlets (29, 39), of which one outlet (29) supplies the delivery valve (25), whilst the other outlet (39) is in communication with a discharge duct (12), through a compartment (35) of the sump (33) of the pump (7). A control unit (16) activates the two outlets (29, 39) alternately in a complementary way, so that the formation of any pressure wave on the intake duct (10) is prevented when the outlet (29) towards the pumping element (18) is deactivated.

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