Title (en)

FUEL INJECTION SYSTEM AND METHOD FOR OPERATING A FUEL INJECTION SYSTEM

Title (de)

KRAFTSTOFFEINSPRITZSYSTEM SOWIE VERFAHREN ZUM BETREIBEN EINES KRAFTSTOFFEINSPRITZSYSTEMS

Title (fr)

SYSTÈME D'INJECTION DE CARBURANT ET PROCÉDÉ POUR FAIRE FONCTIONNER UN SYSTÈME D'INJECTION DE CARBURANT

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Application

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- EP 2014072122 W 20141015

Abstract (en)

[origin: WO2015078634A1] The invention relates to a fuel injection system, in particular a common rail injection system, comprising: a volumetrically non-compensated high-pressure pump (1) having only one high-pressure element (2); and an overflow valve (3) for regulating the inlet pressure of the high-pressure pump (1), said overflow valve (3) having a valve member (5), that can move against the spring force of a spring (4) in order to expose at least one spill opening (6), via which an inlet region (7) of the high-pressure pump (1) can be connected to a return line (8) of the fuel injection system. According to the invention, the overflow valve (3) has a storage volume that can be activated in accordance with the displacement volume (Qgeo) of the high-pressure pump (1), said storage volume corresponding to at least half of the displacement volume (Qgeo) at a maximum notional pressure amplitude of 1 bar in the inlet region (7). The invention also relates to a method for operating a fuel injection system comprising a volumetrically non-compensated high-pressure pump (1) having only one high-pressure element (2).

IPC 8 full level

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