

Title (en)

Hydraulic pressure relief system for a fuel injection apparatus

Title (de)

Hydraulische Druckentlastungseinrichtung für eine Kraftstoffeinspritzanlage

Title (fr)

Système hydraulique de décharge de pression pour un dispositif d'injection de carburant

Publication

**EP 1338787 B1 20061018 (DE)**

Application

**EP 02026058 A 20021122**

Priority

DE 10208576 A 20020221

Abstract (en)

[origin: EP1338787A1] Pressure-discharge device for an injection system of an internal combustion engine is designed as a hydraulically controlled pressure relief valve (33). The pressure on the front side (25) of a low lift pump (21) serves as the control pressure. Preferred Features: The pressure relief valve has a housing (35) with a stepped bore (37) guiding a stepped piston (39). An annular surface of the stepped piston and the stepped bore define an annular chamber (41) which is impinged upon by the pressure on the front side of the low lift pump. The stepped piston is spring-loaded and is pressed with a first end face (43) onto a seal seat (45) against the hydraulic pressure exerted by the annular chamber on the stepped piston. A hydraulic connection between the intake side (3) of a high pressure fuel pump (1) and a fuel return (55) is interrupted by the seal seat.

IPC 8 full level

**F02M 37/00** (2006.01); **F02M 37/14** (2006.01); **F02M 37/18** (2006.01); **F02M 47/00** (2006.01); **F02M 55/02** (2006.01)

CPC (source: EP)

**F02M 37/0029** (2013.01); **F02M 37/0052** (2013.01); **F02M 37/14** (2013.01); **F02M 37/18** (2013.01); **F02M 63/025** (2013.01)

Cited by

CN109154404A; US2012180765A1; US9316187B2; US8973557B2; WO2007051675A1; WO2008148598A1; WO2008017547A1; WO2009059833A1; WO2017152280A1; US10865718B2

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