

Title (en)  
FUEL INJECTION DEVICE FOR AN INTERNAL COMBUSTING ENGINE

Title (de)  
KRAFTSTOFFEINSPRITZEINRICHTUNG FÜR EINE BRENNKRAFTMASCHINE

Title (fr)  
DISPOSITIF D'INJECTION DE CARBURANT POUR MOTEUR A COMBUSTION INTERNE

Publication  
**EP 1864017 A1 20071212 (DE)**

Application  
**EP 06707840 A 20060125**

Priority  
• EP 2006050445 W 20060125  
• DE 102005012940 A 20050321

Abstract (en)  
[origin: US2008189025A1] A fuel injection device comprising a high-pressure pump supplying a fuel to a high-pressure area in which an injector for injecting fuel into an internal combustion engine cylinder is arranged. An electric control unit for controlling fuel injection by at least one injector is provided. A pressure adjusting valve which adjusts a pressure in the high-pressure area and controls a connection between said high pressure area and a low-pressure fuel-filled area is controlled by the control unit. When the pressure adjusting valve is not controlled by the control unit it is placed in an open switching position in such a way that the connection between the high- low-pressure areas is opened, thereby preventing a gas formation in the high pressure area when the internal combustion engine is switched off and the fuel is cooled.

IPC 8 full level  
**F02M 63/02** (2006.01); **F02M 59/46** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP KR US)  
**F02M 51/0603** (2013.01 - EP US); **F02M 51/061** (2013.01 - EP US); **F02M 59/46** (2013.01 - KR); **F02M 63/00** (2013.01 - KR);  
**F02M 63/0052** (2013.01 - EP US); **F02M 63/02** (2013.01 - KR); **F02M 63/0225** (2013.01 - EP US); **F02M 63/025** (2013.01 - EP US);  
**F02M 2200/703** (2013.01 - EP US)

Citation (search report)  
See references of WO 2006100141A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**US 2008189025 A1 20080807; US 7574297 B2 20090811**; AT E443209 T1 20091015; CN 101146995 A 20080319; CN 101146995 B 20100811;  
DE 102005012940 A1 20060928; DE 502006004862 D1 20091029; EP 1864017 A1 20071212; EP 1864017 B1 20090916;  
KR 101087465 B1 20111125; KR 20070110378 A 20071116; WO 2006100141 A1 20060928

DOCDB simple family (application)  
**US 81352706 A 20060125**; AT 06707840 T 20060125; CN 200680009131 A 20060125; DE 102005012940 A 20050321;  
DE 502006004862 T 20060125; EP 06707840 A 20060125; EP 2006050445 W 20060125; KR 20077021555 A 20060125