

Title (en)  
Pilot valve for an injector and injector

Title (de)  
Steuerventil für einen Injektor und Injektor

Title (fr)  
Soupape de distribution pour un injecteur et injecteur

Publication  
**EP 1916410 A3 20081217 (DE)**

Application  
**EP 07114577 A 20070820**

Priority  
DE 102006049533 A 20061020

Abstract (en)  
[origin: EP1916410A2] The injector has a nozzle needle, a control valve (3) and a piezoelectric actuator, where the valve has a valve unit (35) and controls a hydraulic connection between a control chamber and a fuel return. The valve unit has a ball (37) and a pressure pin (39), where the ball is guided in a guiding borehole (43) of a valve housing (33). A linear contact surface (45) is provided between the ball and the borehole and is interrupted by a flat portion in the ball surface, where the pin is arranged in the borehole.

IPC 8 full level  
**F02M 47/02** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP)  
**F02M 47/027** (2013.01); **F02M 63/0026** (2013.01); **F02M 63/0031** (2013.01); **F02M 63/0071** (2013.01); **F02M 2200/703** (2013.01)

Citation (search report)

- [XY] WO 0223036 A1 20020321 - ORANGE GMBH [DE]
- [X] DE 10255328 A1 20040617 - BOSCH GMBH ROBERT [DE]
- [Y] WO 2004097209 A1 20041111 - BOSCH GMBH ROBERT [DE], et al
- [A] DE 3312067 A1 19841004 - BOSCH GMBH ROBERT [DE]
- [A] EP 0042799 A2 19811230 - BENDIX CORP [US]

Cited by  
EP2218906A1

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 MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR MK RS

DOCDB simple family (publication)  
**EP 1916410 A2 20080430; EP 1916410 A3 20081217; EP 1916410 B1 20101020**; AT E485444 T1 20101115; DE 102006049533 A1 20080424; DE 502007005398 D1 20101202

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