

Title (en)

Solenoid valve for controlling an injection valve of an internal combustion engine

Title (de)

Magnetventil zur Steuerung eines Einspritzventils einer Brennkraftmaschine

Title (fr)

Electrovanne de commande d'une soupape d'injection d'un moteur à combustion interne

Publication

EP 1256709 A3 20041201 (DE)

Application

EP 02008633 A 20020417

Priority

DE 10122168 A 20010508

Abstract (en)

[origin: EP1256709A2] The device has an electromagnet (29) and a movable armature with an armature plate (28) and a bolt (27) movable in an opening in a fixed slide part (34). A fuel control valve element (25) is movable with the armature and a shoulder (33) that limits bolt opening movement. The armature moves on the bolt in the closing direction under the effect of its inertial mass and the shoulder comes into contact with a stop surface (37) via an intermediate part (50).

IPC 1-7

F02M 47/02

IPC 8 full level

F02M 51/00 (2006.01); **F02M 47/00** (2006.01); **F02M 47/02** (2006.01); **F02M 59/46** (2006.01); **F02M 61/16** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP)

F02M 47/027 (2013.01); **F02M 63/0015** (2013.01); **F02M 63/0021** (2013.01); **F02M 63/0022** (2013.01); **F02M 63/0075** (2013.01); **F02M 2200/304** (2013.01); **F02M 2200/80** (2013.01); **F02M 2547/003** (2013.01)

Citation (search report)

- [X] EP 0604915 A1 19940706 - ELASIS SISTEMA RICERCA FIAT [IT]
- [AD] DE 19708104 A1 19980903 - BOSCH GMBH ROBERT [DE]

Cited by

WO2009074426A1; EP2987993A1; EP2218904A1; EP1970558A3; WO2015165625A1; EP1970558A2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

EP 1256709 A2 20021113; **EP 1256709 A3 20041201**; **EP 1256709 B1 20080827**; DE 10122168 A1 20021114; DE 50212693 D1 20081009; JP 2002371939 A 20021226; JP 3663389 B2 20050622; TW 575715 B 20040211

DOCDB simple family (application)

EP 02008633 A 20020417; DE 10122168 A 20010508; DE 50212693 T 20020417; JP 2002133207 A 20020508; TW 91108202 A 20020422