

Title (en)

ELECTROVALVE FOR CONTROLLING AN INJECTION VALVE IN AN INTERNAL COMBUSTION ENGINE

Title (de)

MAGNETVENTIL ZUR STEUERUNG EINES EINSPRITZVENTILS EINER BRENNKRAFTMASCHINE

Title (fr)

ELECTROVANNE DESTINEE A COMMANDER LA SOUPAPE D'INJECTION D'UN MOTEUR A COMBUSTION INTERNE

Publication

**EP 1266135 B1 20040804 (DE)**

Application

**EP 01995615 A 20011215**

Priority

- DE 0104752 W 20011215
- DE 10100422 A 20010108

Abstract (en)

[origin: WO02053905A1] The invention relates to an electrovalve which is used to control an injection valve in a combustion engine. The inventive electrovalve comprises an electromagnet (29), a moveable armature consisting of a plate (28) and a pin (27), in addition to a control valve member (25) which is moved with the armature and cooperates with a valve seat (24) in order to open and close the fuel discharge line (17) of a control pressure chamber (14) of the injection valve (1). The armature plate (28) is mounted in such a way that it can be slidingly displaced on the armature pin (27) as a result of the inert mass thereof in the direction in which the control valve member (25) closes, counter to the tension force of a restoring spring acting upon the armature plate (28). The maximum slide path of the armature plate (28) can be easily adjusted using a final controlling element which is provided on the armature plate. Said controlling element is disposed on a section (42) of said plate (28) opposite the electromagnet (42) and can be moved in relation to the front surface (41) of the armature plate facing the electromagnet in the direction in which the armature plate can slide.

IPC 1-7

**F02M 51/06**; F02M 47/02; F02M 59/46

IPC 8 full level

**F02M 47/00** (2006.01); **F02M 47/02** (2006.01); **F02M 51/00** (2006.01); **F02M 51/06** (2006.01); **F02M 59/46** (2006.01); **F02M 61/16** (2006.01); **F02M 61/20** (2006.01)

CPC (source: EP US)

**F02M 47/027** (2013.01 - EP US); **F02M 63/0019** (2013.01 - EP US); **F02M 63/0022** (2013.01 - EP US); **F02M 2200/306** (2013.01 - EP US); **F02M 2200/8092** (2013.01 - EP US); **F02M 2547/003** (2013.01 - EP US)

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

**WO 02053905 A1 20020711**; DE 10100422 A1 20020711; DE 50103110 D1 20040909; EP 1266135 A1 20021218; EP 1266135 B1 20040804; JP 2004516425 A 20040603; JP 4083014 B2 20080430; US 2003178593 A1 20030925; US 6688579 B2 20040210

DOCDB simple family (application)

**DE 0104752 W 20011215**; DE 10100422 A 20010108; DE 50103110 T 20011215; EP 01995615 A 20011215; JP 2002554387 A 20011215; US 22128502 A 20021223