

Title (en)

ELECTROMAGNETIC 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 DE SOUPAPE D'INJECTION DE MOTEUR A COMBUSTION INTERNE

Publication

**EP 1390614 B1 20041006 (DE)**

Application

**EP 02729870 A 20020417**

Priority

- DE 0201418 W 20020417
- DE 10123171 A 20010512

Abstract (en)

[origin: DE10123171A1] The magnetic valve has an electromagnet with an armature with a movable armature bolt and an armature plate movable on the bolt. The armature plate is mounted so as to move between an excess movement stop and a stop fixed to an armature bolt so as to be free of elastic restoring spring forces.

IPC 1-7

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

IPC 8 full level

**F02M 45/04** (2006.01); **F02M 47/00** (2006.01); **F02M 47/02** (2006.01); **F02M 51/00** (2006.01); **F02M 59/46** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP US)

**F02M 47/027** (2013.01 - EP US); **F02M 63/0015** (2013.01 - EP US); **F02M 63/0022** (2013.01 - EP US); **F02M 63/004** (2013.01 - EP US); **F02M 63/0042** (2013.01 - EP US); **F02M 63/0043** (2013.01 - EP US); **F02M 63/022** (2013.01 - EP US); **F02M 2200/304** (2013.01 - EP US); **F02M 2200/306** (2013.01 - EP US)

Designated contracting state (EPC)

DE ES FR GB IT SE

DOCDB simple family (publication)

**DE 10123171 A1 20021114**; DE 50201241 D1 20041111; EP 1390614 A1 20040225; EP 1390614 B1 20041006; ES 2229143 T3 20050416; JP 2004519609 A 20040702; JP 4058349 B2 20080305; US 2004026644 A1 20040212; US 6997432 B2 20060214; WO 02092991 A1 20021121

DOCDB simple family (application)

**DE 10123171 A 20010512**; DE 0201418 W 20020417; DE 50201241 T 20020417; EP 02729870 A 20020417; ES 02729870 T 20020417; JP 2002590232 A 20020417; US 33272903 A 20030819