

Title (en)
FUEL INJECTION VALVE

Title (de)
BRENNSTOFFEINSPRITZVENTIL

Title (fr)
SOUPAPE D'INJECTION DE CARBURANT

Publication
EP 1078157 B1 20080305 (DE)

Application
EP 99957920 A 19991020

Priority
• DE 9903356 W 19991020
• DE 19911048 A 19990312

Abstract (en)
[origin: DE19911048A1] The invention relates to a fuel injection valve (1), especially a fuel injection valve for fuel injection systems of internal combustion engines, comprising a piezoelectric or magnetostrictive actuator (13), a valve closing body (3) which can be actuated by the actuator (13) by means of a valve needle (2) and which interacts with a valve seating (5) to form a tight seat. The inventive fuel injection valve also comprises a multiplication device which is arranged between the actuator (13) and the valve needle (2) and which is provided for multiplying an actuator stroke of the actuator (13) into a larger valve needle stroke of the valve needle (2). To this end, the multiplication device comprises at least one lever plate (21) which has at least one radially extending rigid lever segment (26, 27).

IPC 8 full level

F02M 51/06 (2006.01); **F02M 61/08** (2006.01); **F02M 63/00** (2006.01); **F16K 31/02** (2006.01); **F16K 31/44** (2006.01); **H01L 41/09** (2006.01);
H01L 41/12 (2006.01)

CPC (source: EP KR US)

F02M 51/06 (2013.01 - KR); **F02M 51/0607** (2013.01 - EP US); **F02M 61/08** (2013.01 - EP US); **F02M 2200/701** (2013.01 - EP US)

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)

DE 19911048 A1 20000914; DE 59914675 D1 20080417; EP 1078157 A1 20010228; EP 1078157 B1 20080305; JP 2002539370 A 20021119;
KR 20010043148 A 20010525; US 6494382 B1 20021217; WO 0055492 A1 20000921

DOCDB simple family (application)

DE 19911048 A 19990312; DE 59914675 T 19991020; DE 9903356 W 19991020; EP 99957920 A 19991020; JP 2000605092 A 19991020;
KR 20007012048 A 20001030; US 70031001 A 20010124