

Title (en)

Fuel injection valve

Title (de)

Brennstoffeinspritzventil

Title (fr)

Injecteur de carburant

Publication

EP 1550804 B1 20070221 (DE)

Application

EP 04106142 A 20041129

Priority

DE 10361761 A 20031229

Abstract (en)

[origin: EP1550804A1] The fuel injection valve has an armature (20) that interacts with a magnetic coil, a valve needle (3) with a force-locking connection to the armature with a valve closure body that forms a sealing seat with a valve seat surface and an armature stop (32) with a force- and shape-locking connection to the valve needle. The valve needle is stepped by cold-drawing and a pre-lift spring (15) is arranged between the armature and a step (35) of the valve needle.

IPC 8 full level

F02M 51/06 (2006.01); **F02M 61/16** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP)

F02M 51/0682 (2013.01); **F02M 51/0685** (2013.01); **F02M 61/168** (2013.01); **F02M 2200/306** (2013.01); **F02M 2200/8053** (2013.01); **F02M 2200/8084** (2013.01); **F02M 2200/852** (2013.01)

Cited by

EP2527637A1; EP2535552A1; CN102828873A; US9316194B2; US8505835B2; US9651011B2; US8931718B2; WO2013167597A1; WO2012160100A1; US7721713B2; US7946274B2; US8113177B2

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 1550804 A1 20050706; **EP 1550804 B1 20070221**; DE 10361761 A1 20050728; DE 502004002949 D1 20070405; JP 2005195015 A 20050721

DOCDB simple family (application)

EP 04106142 A 20041129; DE 10361761 A 20031229; DE 502004002949 T 20041129; JP 2004378096 A 20041227