

Title (en)

Fuel injection valve for internal combustion engines with directly actuated valve needle

Title (de)

Kraftstoffeinspritzventil für Brennkraftmaschinen mit direkt angesteuerter Ventilnadel

Title (fr)

Soupape d'injection de carburant pour moteurs à combustion interne avec pointeau de soupape commandé directement

Publication

EP 2581597 B1 20140709 (DE)

Application

EP 12185618 A 20120924

Priority

DE 102011084342 A 20111012

Abstract (en)

[origin: EP2581597A1] The valve has a valve sealing surface cooperating with a valve seat (7) for opening and closing an injection opening (10). A pressure chamber (5) is filled with fuel under injection pressure, and hydraulic forces are developed on a valve needle (8) and are raised with contact of the valve needle on the valve seat. A bolt extension (13) is formed at the valve needle and opposite to the valve seat surface. The bolt extension is projected into a low pressure chamber (18) and is connected with a mechanical coupler (20). Opening force is exerted on the valve needle by the coupler.

IPC 8 full level

F02M 51/06 (2006.01)

CPC (source: EP)

F02M 51/0603 (2013.01); **F02M 2200/28** (2013.01); **F02M 2200/702** (2013.01); **F02M 2200/703** (2013.01)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 2581597 A1 20130417; **EP 2581597 B1 20140709**; DE 102011084342 A1 20130418

DOCDB simple family (application)

EP 12185618 A 20120924; DE 102011084342 A 20111012