

Title (en)

Electromagnetic fuel injector with hydraulic damping

Title (de)

Elektromagnetische Kraftstoffeinspritzdüse mit hydraulischer Dämpfung

Title (fr)

Injecteur de carburant électromagnétique avec amortissement hydraulique

Publication

EP 2249022 B1 20150805 (EN)

Application

EP 10162035 A 20100505

Priority

IT BO20090274 A 20090506

Abstract (en)

[origin: EP2249022A1] An electromagnetic fuel injector (1) provided with: a tubular body (4) which has a feeding duct (5); an injection nozzle (3) which is regulated by an injection valve (7) provided with a mobile needle (15); and an electromagnetic actuator (6) which has a coil (8), a fixed magnetic pole (10) located inside the tubular body (4), and a mobile anchor (11) located inside the tubular body (4), integral with the needle (15) of the injection valve (7) and adapted to be magnetically attracted by the magnetic pole when the coil (8) is energized; at least one portion of the anchor (11) has at least one central through hole which allows the fuel to flow towards the injection nozzle (3) and through the anchor (11); and the magnetic pole (10) has a number of side passage ducts (20), which are obtained at the external side surface of the magnetic pole (10) and allow the fuel to flow towards the injection nozzle (3) and through the magnetic pole (10).

IPC 8 full level

F02M 51/06 (2006.01); **F02M 61/04** (2006.01); **F02M 61/10** (2006.01)

CPC (source: EP)

F02M 51/0671 (2013.01); **F02M 61/042** (2013.01); **F02M 61/10** (2013.01)

Cited by

US2012227709A1; DE102012215448B3; DE102004056424B4; EP2574768A1; CN104632486A; CN104653373A; US11067045B2; US10711749B2; US11703021B2; WO2016058773A1; US9470194B2

Designated contracting state (EPC)

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DOCDB simple family (publication)

EP 2249022 A1 20101110; EP 2249022 B1 20150805; IT 1394019 B1 20120525; IT BO20090274 A1 20101107

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