

Title (en)

FUEL INJECTOR COMPRISING A PIEZOACTUATOR

Title (de)

KRAFTSTOFFINJEKTOR MIT PIEZOAKTOR

Title (fr)

INJECTEUR DE CARBURANT DOTÉ D'UN ACTIONNEUR PIÉZOÉLECTRIQUE

Publication

EP 2914838 A1 20150909 (DE)

Application

EP 13770891 A 20130926

Priority

- DE 102012219867 A 20121030
- EP 2013070073 W 20130926

Abstract (en)

[origin: WO2014067720A1] The invention relates to a fuel injector for a fuel injection system, in particular a common rail injection system, comprising a nozzle needle (3) that is guided in a high-pressure bore (1) of the nozzle body (2) so as to be able to carry out a stroke movement, by means of which at least one injection opening can be released or closed, a piezoactuator (6), received in a low-pressure zone (5), for directly controlling the stroke movement of the nozzle needle (3), and a coupling mechanism (7) via which the piezoactuator (6) is hydraulically coupled to the nozzle needle (3). According to the invention, the coupling mechanism (7) comprises a coupling volume (8) which is formed inside a sleeve-shaped coupling piston (9), said coupling piston (9) being guided via an inner pin (10) that delimits the coupling volume (9) in an axial direction so as to be able to carry out a stroke movement, an end section (12) of the nozzle needle (3) extending into the coupling volume (8) or into a fuel volume connected to the coupling volume (8).

IPC 8 full level

F02M 61/10 (2006.01); **F02M 51/06** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP)

F02M 51/0603 (2013.01); **F02M 61/10** (2013.01); **F02M 2200/21** (2013.01); **F02M 2200/701** (2013.01); **F02M 2200/704** (2013.01); **F02M 2200/708** (2013.01)

Citation (search report)

See references of WO 2014067720A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

DE 102012219867 A1 20140430; CN 104769269 A 20150708; CN 104769269 B 20180119; EP 2914838 A1 20150909; EP 2914838 B1 20190828; WO 2014067720 A1 20140508

DOCDB simple family (application)

DE 102012219867 A 20121030; CN 201380056149 A 20130926; EP 13770891 A 20130926; EP 2013070073 W 20130926