

Title (en)
FUEL INJECTION NOZZLE

Title (de)
KRAFTSTOFF-EINSPRITZDÜSE

Title (fr)
INJECTEUR DE CARBURANT

Publication
EP 1144846 B1 20080116 (DE)

Application
EP 00979439 A 20001020

Priority
• DE 0003694 W 20001020
• DE 19953562 A 19991108

Abstract (en)
[origin: WO0134967A1] The invention relates to a fuel injection nozzle comprising a nozzle body (10), a nozzle needle (12) which can be moved in the nozzle body, a piezo actuator (20) which is connected to the nozzle needle and a compensating piston (30) on which the piezo-actuator rests and which projects into a fluid-filled compensating chamber (32). The compensating chamber is connected to a supply volume (34) by a supply line with a small cross section. The aim of the invention is to provide a more simple construction. To this end, the supply volume (34) is subjected to variable pressure. This eliminates the need for a separate restoring spring for the nozzle needle.

IPC 8 full level
F02M 51/06 (2006.01); **F02M 61/16** (2006.01); **F02M 61/20** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP KR US)
F02M 51/0603 (2013.01 - EP US); **F02M 61/167** (2013.01 - EP US); **F02M 61/18** (2013.01 - KR)

Designated contracting state (EPC)
DE ES FR GB IT

DOCDB simple family (publication)
WO 0134967 A1 20010517; CZ 20012471 A3 20021113; CZ 295573 B6 20050817; DE 19953562 A1 20010523; DE 50014918 D1 20080306; EP 1144846 A1 20011017; EP 1144846 B1 20080116; JP 2003514189 A 20030415; KR 100665935 B1 20070109; KR 20010093246 A 20011027; US 6758409 B1 20040706

DOCDB simple family (application)
DE 0003694 W 20001020; CZ 20012471 A 20001020; DE 19953562 A 19991108; DE 50014918 T 20001020; EP 00979439 A 20001020; JP 2001536870 A 20001020; KR 20017008523 A 20010704; US 86990701 A 20011217