

Title (en)
FUEL INJECTOR FOR AN INTERNAL COMBUSTION ENGINE

Title (de)
KRAFTSTOFFINJEKTOR FÜR EINE BRENNKRAFTMASCHINE

Title (fr)
INJECTEUR DE CARBURANT POUR MOTEUR A COMBUSTION INTERNE

Publication
EP 1171706 B1 20041013 (DE)

Application
EP 00926906 A 20000413

Priority

- DE 19917190 A 19990416
- EP 0003319 W 20000413

Abstract (en)
[origin: US6622932B1] Within an injector housing, a nozzle needle comprising a nozzle needle shaft is accommodated in a first guide boring in a longitudinally displaceable manner. A nozzle prechamber which is arranged in front of the nozzle needle shaft and which is situated on the fore-part of the first guide boring is supplied with fuel via a high pressure channel. A control valve permits a control chamber, which is coupled to the nozzle needle and which is subjected to the action of highly pressurized fuel, to be relieved from pressure by opening the nozzle needle. According to a second embodiment, a spring chamber is configured as a high-pressure chamber on the rear side of the first guide boring that guides the nozzle needle shaft. The spring chamber is separate from the control chamber and contains a readjusting spring that impinges upon the nozzle needle in a direction of closure. This configuration prevents fuel exiting the nozzle prechamber from overflowing over the guide boring which guides the nozzle needle.

IPC 1-7
F02M 47/02

IPC 8 full level
F02M 47/00 (2006.01); **F02M 47/02** (2006.01); **F02M 61/10** (2006.01)

CPC (source: EP US)
F02M 47/027 (2013.01 - EP US)

Designated contracting state (EPC)
AT DE GB IT

DOCDB simple family (publication)
US 6622932 B1 20030923; AT E279647 T1 20041015; DE 19917190 A1 20001026; DE 50008236 D1 20041118; EP 1171706 A1 20020116; EP 1171706 B1 20041013; JP 2002542427 A 20021210; WO 0063550 A1 20001026

DOCDB simple family (application)
US 95880401 A 20011016; AT 00926906 T 20000413; DE 19917190 A 19990416; DE 50008236 T 20000413; EP 0003319 W 20000413; EP 00926906 A 20000413; JP 2000612616 A 20000413