

Title (en)
High pressure fuel injector for an internal combustion engine

Title (de)
Injektor für eine Brennkraftmaschine mit Direkteinspritzung

Title (fr)
Injecteur de carburant pour injection directe dans un moteur à combustion interne

Publication
EP 1088985 A3 20031119 (DE)

Application
EP 00121484 A 20000929

Priority
DE 19946766 A 19990929

Abstract (en)
[origin: EP1088985A2] The injector has an injector body (20) with injector body section (30) and a nozzle body section (40) with an axial bore (50). A fuel delivery bore (60) in the injector body opens into the axial bore. A control piston (70) moves within the axial bore below a control chamber (100) with a relief valve (90). A nozzle needle (80) connected to the piston extends through the axial bore to open and close an injection opening (290). A nozzle spring (160) biases the needle in a seat (170) near the injection opening. The fuel delivery bore opens into a region beneath the control piston in the axial bore and the delivery of fuel to the control chamber from the region of the bore beneath the control piston takes place via a bore (110) in the control piston.

IPC 1-7
F02M 47/02; **F02M 61/10**; **F02M 61/12**; **F02M 61/20**; **F02M 61/16**

IPC 8 full level
F02M 47/02 (2006.01); **F02M 61/12** (2006.01); **F02M 61/16** (2006.01); **F02M 61/20** (2006.01)

CPC (source: EP)
F02M 47/027 (2013.01); **F02M 61/12** (2013.01); **F02M 61/168** (2013.01); **F02M 61/20** (2013.01)

Citation (search report)

- [XY] EP 0921301 A2 19990609 - LUCAS IND PLC [GB]
- [Y] DE 4203343 C1 19930519 - MTU FRIEDRICHSHAFEN GMBH [DE]
- [X] US 5671715 A 19970930 - TSUZUKI YOSHIHIRO [JP]
- [X] US 4826080 A 19890502 - GANSER MARCO A [CH]
- [X] US 5860597 A 19990119 - TARR YUL J [US]

Cited by
US6976638B2; JP2008509311A; EP1873393A1; EP1422418A1; AT500774A1; AT500774B1; US7934669B2; US7309031B2; WO2009016004A1; WO2005111407A1; WO2006012665A1; WO03050408A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
EP 1088985 A2 20010404; **EP 1088985 A3 20031119**; **EP 1088985 B1 20060322**; DE 19946766 A1 20010426; DE 19946766 C2 20010726; DE 50012433 D1 20060511

DOCDB simple family (application)
EP 00121484 A 20000929; DE 19946766 A 19990929; DE 50012433 T 20000929