

Title (en)

FUEL INJECTOR WITH DIRECT NEEDLE CONTROL AND SERVO VALVE ASSISTANCE

Title (de)

KRAFTSTOFFINJEKTOR MIT DIREKTER NADELSTEUERUNG UND SERVOVENTIL-UNTERSTÜTZUNG

Title (fr)

INJECTEUR DE CARBURANT AVEC COMMANDE DIRECTE DU POINTEAU ET SERVOSOUPAPE D'ASSISTANCE

Publication

EP 2052148 B1 20100512 (DE)

Application

EP 07730183 A 20070615

Priority

- EP 2007055939 W 20070615
- DE 102006036780 A 20060807

Abstract (en)

[origin: US7946509B2] The invention relates to an injector for injecting fuel into a combustion chamber of an internal combustion engine. The injector is actuated by an actuator and is connected to a fuel supply line via which fuel is supplied under system pressure. At least one injection opening can be opened or closed off by an injection valve member, which is activated by a control piston via a control chamber to which the control piston and a piston section of the injection valve member are exposed with respective pressure faces. The control piston is a valve piston of a control valve. The pressure face of the control piston and the pressure face of the piston section of the injection valve member are exposed to the control chamber at the same side. The control piston and the piston section of the injection valve member also enclose a further control chamber which is connected to a fuel return line when the control valve is open and to the fuel supply line when the control valve is closed.

IPC 8 full level

F02M 47/02 (2006.01); **F02M 51/06** (2006.01)

CPC (source: EP US)

F02M 47/027 (2013.01 - EP US); **F02M 51/0603** (2013.01 - EP US); **F02M 2200/704** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2008017538 A1 20080214; AT E467758 T1 20100515; CN 101501324 A 20090805; DE 102006036780 A1 20080221; DE 502007003775 D1 20100624; EP 2052148 A1 20090429; EP 2052148 B1 20100512; US 2009179086 A1 20090716; US 7946509 B2 20110524

DOCDB simple family (application)

EP 2007055939 W 20070615; AT 07730183 T 20070615; CN 200780029624 A 20070615; DE 102006036780 A 20060807; DE 502007003775 T 20070615; EP 07730183 A 20070615; US 30606007 A 20070615