

Title (en)
Injector with a valve element which opens to the outside

Title (de)
Injektor mit nach außen öffnendem Ventilelement

Title (fr)
Injecteur doté d'un élément d'aération s'ouvrant vers l'extérieur

Publication
EP 2011995 A2 20090107 (DE)

Application
EP 08104395 A 20080613

Priority
DE 102007030711 A 20070702

Abstract (en)
The injector (1) has a relay valve (38) provided for controlling a valve element (12) opening outwards. A control chamber (11) is formed as an annular space, co-operates with the valve element, and is combinable with a low-pressure area (9) for opening the valve element. The control chamber is defined by a diameter step (57) of the valve element. Fuel e.g. diesel, flows from the control chamber into the low-pressure area via an outlet throttle (33) by an opened relay valve. The control chamber is provided with fuel which is fixed below high pressure, via an inlet throttle (28).

Abstract (de)
Die Erfindung betrifft einen Injektor (1) zum Einspritzen von Kraftstoff in einen Brennraum einer Brennkraftmaschine, insbesondere Common-Rail-Injektor, mit einem nach außen öffnenden Ventilelement (12). Erfindungsgemäß ist vorgesehen, dass zur Steuerung des Ventilelementes (12) ein Servoventil (38) vorgesehen ist.

IPC 8 full level
F02M 47/02 (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP)
F02M 47/027 (2013.01); **F02M 61/08** (2013.01); **F02M 63/0042** (2013.01); **F02M 63/0073** (2013.01); **F02M 63/0015** (2013.01); **F02M 63/0043** (2013.01); **F02M 2200/28** (2013.01); **F02M 2200/40** (2013.01)

Citation (applicant)
• EP 1734250 B1 20080827 - DENSO CORP [JP]
• DE 19827267 A1 19991223 - BOSCH GMBH ROBERT [DE]

Cited by
WO2015049210A1; EP2602476A1; EP2857670A1; CN105579698A; US10094348B2; US9970400B2; WO2017048738A1; WO2013083626A1; US11231001B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA MK RS

DOCDB simple family (publication)
EP 2011995 A2 20090107; **EP 2011995 A3 20100127**; **EP 2011995 B1 20111026**; AT E530759 T1 20111115; BR PI0803705 A2 20090616; DE 102007030711 A1 20090108

DOCDB simple family (application)
EP 08104395 A 20080613; AT 08104395 T 20080613; BR PI0803705 A 20080627; DE 102007030711 A 20070702