

Title (en)  
High-pressure fuel pump and fuel injection system for a combustion engine

Title (de)  
Kraftstoffhochdruckpumpe und Kraftstoffeinspritzsystem für eine Brennkraftmaschine

Title (fr)  
Pompe à carburant haute pression et système d'injection de carburant pour moteur à combustion interne

Publication  
**EP 1911964 A1 20080416 (DE)**

Application  
**EP 07115205 A 20070829**

Priority  
DE 102006048356 A 20061012

Abstract (en)  
The pump (1) has a drive shaft (35) supported in pump housing by bearings (39, 41), and a pump unit (21), which is arranged radially relative to the drive shaft. A conveying pump (5) e.g. external gear pump, conveys fuel to a fuel inlet (15) and a metering unit (19) regulates conveying amount of the pump unit (21). The metering unit and a pressure regulating valve (20) are supplied with the fuel by a fuel return line (18). A non-return valve (43) is provided downstream to the bearing (39) and another non-return valve (45) is provided downstream to the bearing (41).

Abstract (de)  
Es wird eine Kraftstoffhochdruckpumpe (1) vorgeschlagen, bei der die Lager (39 und 41) der Antriebswelle (35) zwangsweise von Kraftstoff durchströmt werden und bei der dadurch die mechanische und thermische Belastbarkeit der Lager und damit der gesamten Kraftstoffhochdruckpumpe (1) deutlich erhöht wird.

IPC 8 full level  
**F02M 59/06** (2006.01); **F02M 59/10** (2006.01); **F02M 63/02** (2006.01); **F04B 1/04** (2006.01); **F04B 53/18** (2006.01)

CPC (source: EP)  
**F02M 59/06** (2013.01); **F02M 59/102** (2013.01); **F02M 59/36** (2013.01); **F02M 59/44** (2013.01); **F02M 63/0265** (2013.01); **F04B 1/0404** (2013.01); **F02M 63/0001** (2013.01); **F02M 63/024** (2013.01); **F02M 63/025** (2013.01); **F02M 2200/28** (2013.01)

Citation (search report)

- [PA] DE 102005027851 A1 20061221 - BOSCH GMBH ROBERT [DE]
- [A] EP 1389683 A2 20040218 - BOSCH GMBH ROBERT [DE]
- [A] EP 1350948 A1 20031008 - BOSCH GMBH ROBERT [DE]
- [A] EP 1298307 A2 20030402 - ISUZU MOTORS LTD [JP]
- [A] DE 19746563 A1 19990429 - BOSCH GMBH ROBERT [DE]

Cited by  
CN103511216A; CN102356229A; US8485159B2; WO2012097952A1; WO2009141188A1; WO2010105861A1; JP2012520422A

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DOCDB simple family (application)  
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