

Title (en)  
Fuel pump

Title (de)  
Kraftstoffpumpe

Title (fr)  
Pompe à carburant

Publication  
**EP 2557306 A1 20130213 (EN)**

Application  
**EP 11176843 A 20110808**

Priority  
EP 11176843 A 20110808

Abstract (en)

A fuel pump (1) is provided for pressurising fuel in a high-pressure fuel injection system. The fuel pump (1) comprises a pump head (7), a pumping element (8), a frame (12) and a casing (3). The pump head (7) has a pumping chamber (7a) that is arranged to receive fuel to be pressurised. The pumping element (8) is arranged to reciprocate responsive to movement of a driving element (10), the pumping element (8) defining, in part, the pumping chamber (7a) so that, in use, as the pumping element (8) reciprocates, a force, transferred from the driving element (10), is applied to the fuel within the pumping chamber (7a) to pressurise the fuel. The frame (12) is arranged to support the driving element (10) and the pump head (7). The casing (3) defines an internal volume (5) for containing fluid, wherein at least a part of the frame (12), at least a part of the drive element (10), and at least a part of the pumping element are received in the casing.

IPC 8 full level

**F02M 59/02** (2006.01); **F02M 59/44** (2006.01); **F04B 1/04** (2006.01)

CPC (source: EP KR US)

**F02M 59/02** (2013.01 - EP KR US); **F02M 59/44** (2013.01 - EP KR US); **F04B 1/04** (2013.01 - KR); **F04B 1/0404** (2013.01 - EP US);  
**F04B 1/0426** (2013.01 - EP US); **F04B 35/002** (2013.01 - KR US); **F04B 53/16** (2013.01 - EP KR US)

Citation (search report)

- [A] DE 102008007028 A1 20090806 - CONTINENTAL AUTOMOTIVE GMBH [DE]
- [A] EP 0516196 A2 19921202 - NIPPON DENSO CO [JP]
- [A] EP 1394403 A2 20040303 - BOSCH GMBH ROBERT [DE]
- [A] EP 1770274 A1 20070404 - DENSO CORP [JP]

Cited by

CN112292520A; WO2016055203A1; WO2016045852A1; WO2019243297A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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ES 2543318 T3 20150818; JP 2014521877 A 20140828; JP 5863969 B2 20160217; KR 101567794 B1 20151111; KR 20140041899 A 20140404;  
US 2014170002 A1 20140619; WO 2013020789 A1 20130214

DOCDB simple family (application)

**EP 11176843 A 20110808**; CN 201280038611 A 20120719; EP 12735582 A 20120719; EP 2012064209 W 20120719; ES 12735582 T 20120719;  
JP 2014524320 A 20120719; KR 20147004994 A 20120719; US 201214237578 A 20120719