

Title (en)
High-pressure fuel supply pump

Title (de)
Hochdruck-Kraftstoffförderpumpe

Title (fr)
Pompe d'alimentation en combustible à haute pression

Publication
EP 1767771 A1 20070328 (EN)

Application
EP 06121057 A 20060921

Priority
JP 2005276162 A 20050922

Abstract (en)
A high-pressure fuel supply pump (4) has a camshaft (11), a cam (14), a housing (12, 20) and a plunger (19). The cam is provided on the camshaft such that a central axis of the cam is deviated from a central axis of the camshaft. The cam rotates with the camshaft. The housing is formed with a cam chamber (27) for accommodating the camshaft and with a fuel pressurization chamber (21) for pressurizing fuel. The plunger reciprocates due to the rotation of the cam to pressurize and to pressure-feed the fuel suctioned into the fuel pressurization chamber. The camshaft is rotatably held by bearings (13) formed in the housing at sliding faces (11a) formed on the camshaft on both sides of the cam. The fuel supply pump is formed with a lubricating passage (11 b) for introducing the fuel in the cam chamber into a space between at least one of the sliding faces and the bearing.

IPC 8 full level
F02M 59/06 (2006.01); **F02M 59/10** (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 59/16** (2013.01); **F02M 59/44** (2013.01); **F04B 1/0404** (2013.01); **F04B 1/0413** (2013.01)

Citation (search report)
• [X] DE 10208574 A1 20030612 - BOSCH GMBH ROBERT [DE]
• [X] US 2003101970 A1 20030605 - UTSUMI YASUTAKA [JP]
• [A] WO 2005015020 A1 20050217 - VERDICHTER OE GES M B H [AT], et al
• [DA] US 2002104514 A1 20020808 - MORI KATSUMI [JP], et al
• [A] WO 2004036031 A1 20040429 - BOSCH GMBH ROBERT [DE], et al

Cited by
CN103047100A; CN104307830A; DE102011079781A1; EP3139029A1; US12012917B2; WO2009053178A1; WO2009121823A1; WO2009068448A1; WO2023034888A1

Designated contracting state (EPC)
DE FR GB

Designated extension state (EPC)
AL BA HR MK YU

DOCDB simple family (publication)
EP 1767771 A1 20070328; EP 1767771 B1 20080702; DE 602006001615 D1 20080814; JP 2007085270 A 20070405; JP 4428327 B2 20100310

DOCDB simple family (application)
EP 06121057 A 20060921; DE 602006001615 T 20060921; JP 2005276162 A 20050922