

Title (en)
HIGH-PRESSURE PUMP FOR A FUEL SYSTEM OF AN INTERNAL COMBUSTION ENGINE

Title (de)
HOCHDRUCKPUMPE FÜR EIN KRAFTSTOFFSYSTEM EINER BRENNKRAFTMASCHINE

Title (fr)
POMPE HAUTE PRESSION POUR UN SYSTEME DE CARBURANT D'UN MOTEUR A COMBUSTION INTERNE

Publication
EP 1395753 B1 20060823 (DE)

Application
EP 02747167 A 20020524

Priority
• DE 0201888 W 20020524
• DE 10125784 A 20010526
• DE 10213625 A 20020327

Abstract (en)
[origin: WO02097268A1] The invention relates to a piston pump (20), in particular a high-pressure pump for a fuel system of an internal combustion engine, comprising a housing (72). Said pump is also provided with a piston (94), which delimits a working chamber (100). A drive shaft (78) is retained in the housing (72) by means of at least one shaft bearing and comprises at least one crank section (86). The piston (94) is at least indirectly supported on the crank section (86) of the drive shaft (78) using a piston bearing. A hydrostatic bearing system (62) is provided between parts of at least one of the bearings that can be displaced in relation to one another. Said bearing system is connected to the working chamber (100) via a fluidic connection. To improve the efficiency of the piston pump (20), a device (56; 118), which can temporarily interrupt the fluidic connection, is provided in said fluidic connection between the working chamber (100) and the hydrostatic bearing system (62).

IPC 8 full level
F04B 1/04 (2006.01); **F02M 59/06** (2006.01); **F02M 59/10** (2006.01); **F02M 63/02** (2006.01); **F04B 49/22** (2006.01); **F04B 53/18** (2006.01); **F02M 59/02** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP US)
F02M 59/06 (2013.01 - EP US); **F02M 59/102** (2013.01 - EP US); **F02M 63/0225** (2013.01 - EP US); **F04B 1/0404** (2013.01 - EP US); **F04B 1/0413** (2013.01 - EP US); **F04B 49/22** (2013.01 - EP US); **F04B 53/18** (2013.01 - EP US); **F02M 59/02** (2013.01 - EP US); **F02M 2200/315** (2013.01 - EP US)

Designated contracting state (EPC)
DE FR GB IT TR

DOCDB simple family (publication)
WO 02097268 A1 20021205; DE 50207940 D1 20061005; EP 1395753 A1 20040310; EP 1395753 B1 20060823; US 2004047746 A1 20040311; US 6889665 B2 20050510

DOCDB simple family (application)
DE 0201888 W 20020524; DE 50207940 T 20020524; EP 02747167 A 20020524; US 33371503 A 20030916