

Title (en)  
HIGH-PRESSURE FUEL PUMP

Title (de)  
KRAFTSTOFF-HOCHDRUCKPUMPE

Title (fr)  
POMPE À CARBURANT HAUTE PRESSION

Publication  
**EP 4127447 A1 20230208 (DE)**

Application  
**EP 21702980 A 20210201**

Priority  

- DE 102020204348 A 20200403
- DE 102020214037 A 20201109
- EP 2021052247 W 20210201

Abstract (en)  
[origin: WO2021197684A1] A high-pressure fuel pump (10) comprises a pump housing (12), a pump piston (18) accommodated in a receiving opening (16) of the pump housing (12), a high-pressure seal (42) which surrounds the pump piston (18) in a sealing manner and which seals off a high-pressure region (72) from a low-pressure region (74), and a guide device (36) which comprises at least two guide portions (38, 40) that are axially spaced apart from one another and guide the pump piston (18) with a sliding fit. The present document proposes arranging the at least two guide portions (38, 40) in the receiving opening (16) of the pump housing (12), a first guide portion (38) being arranged, as seen in an axial direction (14), on a side of the high-pressure seal (42) facing toward the delivery space (24), and a second guide portion (40) being arranged, as seen in the axial direction (14), on a side of the high-pressure seal (42) facing away from the delivery space (24).

IPC 8 full level  
**F02M 59/10** (2006.01); **F02M 59/44** (2006.01); **F04B 53/10** (2006.01)

CPC (source: EP KR US)

**F02M 59/027** (2013.01 - US); **F02M 59/102** (2013.01 - EP KR); **F02M 59/442** (2013.01 - EP KR US); **F02M 59/48** (2013.01 - US);  
**F04B 1/0408** (2013.01 - EP KR); **F04B 1/0439** (2013.01 - EP KR); **F04B 1/0448** (2013.01 - EP KR); **F04B 1/053** (2013.01 - EP KR);  
**F04B 53/02** (2013.01 - EP KR); **F04B 53/164** (2013.01 - EP KR); **F04B 53/166** (2013.01 - EP KR); **F04B 53/168** (2013.01 - EP KR)

Citation (search report)

See references of WO 2021197684A1

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**DE 102020214037 A1 20211007**; CN 115398089 A 20221125; EP 4127447 A1 20230208; KR 20220156955 A 20221128;  
US 2023228237 A1 20230720; WO 2021197684 A1 20211007

DOCDB simple family (application)

**DE 102020214037 A 20201109**; CN 202180025300 A 20210201; EP 2021052247 W 20210201; EP 21702980 A 20210201;  
KR 20227037791 A 20210201; US 202117914595 A 20210201