

Title (en)
PISTON PUMP

Title (de)
KOLBENPUMPE

Title (fr)
POMPE À PISTON

Publication
EP 3655650 A1 20200527 (DE)

Application
EP 18731760 A 20180607

Priority
• DE 102017212498 A 20170720
• EP 2018065037 W 20180607

Abstract (en)
[origin: WO2019015862A1] The invention relates to a piston pump (16), in particular a high-pressure fuel pump for an internal combustion engine, said piston pump comprising a pump housing (26), a pump piston (28) and a delivery chamber (38) delimited at least by the pump housing (26) and the pump piston (28). According to the invention, a seal (44) for sealing the delivery chamber (38) and a separate guide element (46) for guiding the pump piston (28) are arranged preferably between the pump piston (28) and the pump housing (26), the seal (44) being formed as a plastic ring with a substantially sleeve-shaped base portion (45).

IPC 8 full level
F04B 1/04 (2020.01); **F04B 53/14** (2006.01); **F04B 53/16** (2006.01)

CPC (source: CN EP KR US)
F02M 59/102 (2013.01 - US); **F02M 59/442** (2013.01 - CN EP KR); **F04B 1/04** (2013.01 - CN EP); **F04B 1/0408** (2013.01 - CN EP KR US); **F04B 1/0421** (2013.01 - KR); **F04B 1/0439** (2013.01 - KR); **F04B 1/0448** (2013.01 - CN EP KR); **F04B 53/02** (2013.01 - CN EP KR); **F04B 53/14** (2013.01 - CN EP); **F04B 53/143** (2013.01 - CN EP); **F04B 53/16** (2013.01 - CN EP); **F02M 59/442** (2013.01 - US); **F04B 1/0421** (2013.01 - US); **F04B 1/0448** (2013.01 - US); **F04B 53/143** (2013.01 - US); **F04B 53/16** (2013.01 - US); **F05B 2210/11** (2013.01 - KR); **F05B 2240/57** (2013.01 - KR)

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)
WO 2019015862 A1 20190124; CN 110945239 A 20200331; CN 110945239 B 20220426; CN 114738220 A 20220712; CN 114738220 B 20240510; DE 102017212498 A1 20190124; EP 3655650 A1 20200527; EP 3655650 B1 20230809; ES 2961951 T3 20240314; JP 2020527209 A 20200903; JP 2022009152 A 20220114; JP 6963090 B2 20211105; JP 7263476 B2 20230424; KR 102537643 B1 20230531; KR 20200033255 A 20200327; US 11261853 B2 20220301; US 2020191129 A1 20200618

DOCDB simple family (application)
EP 2018065037 W 20180607; CN 201880048683 A 20180607; CN 202210478768 A 20180607; DE 102017212498 A 20170720; EP 18731760 A 20180607; ES 18731760 T 20180607; JP 2020502344 A 20180607; JP 2021168953 A 20211014; KR 20207001721 A 20180607; US 201816622224 A 20180607