

Title (en)

Rotating piston pump with pockets for lubricant

Title (de)

Rotationskolbenpumpe mit Taschen für Schmiermittel

Title (fr)

Pompe à piston rotatif dotée de sacs pour lubrifiants

Publication

EP 2151542 A3 20111214 (DE)

Application

EP 09166834 A 20090730

Priority

DE 102008036273 A 20080804

Abstract (en)

[origin: EP2151542A2] The pump has a rotor rotatable around a rotation axis (R) in a chamber (4) of a housing (1). The rotor exhibits a sliding surface (15) at a side, where the surface forms a sliding pairing with another sliding surface (16) of the chamber. A pocket is formed in one of the surfaces for lubricants. The pocket is limited with respect to the rotation axis in a circumferential direction and radially outside by the former surface. The pocket is formed such that a hydrodynamic lubricating film is developed between the surfaces by the rotating rotor. The rotor is made of sintered steel or plastic.

IPC 8 full level

F01C 21/08 (2006.01); **F04C 18/344** (2006.01); **F04C 29/02** (2006.01)

CPC (source: EP)

F01C 21/0809 (2013.01); **F04C 18/3441** (2013.01); **F04C 29/02** (2013.01); **F04C 2240/54** (2013.01)

Citation (search report)

- [X1] GB 2012874 A 19790801 - SEIKO INSTR & ELECTRONICS
- [X1] DE 3014519 A1 19811022 - SKF KUGELLAGERFABRIKEN GMBH [DE]
- [XDI] JP H1068393 A 19980310 - MIKUNI KOGYO KK
- [X1] US 4402653 A 19830906 - MARUYAMA TERUO [JP], et al

Cited by

JP2017172472A; CN103038452A; CN109563740A; CN109072915A; US2019101117A1; US11035363B2; US11168691B2; WO2017163770A1; WO20111131598A3; WO2018068806A1

Designated contracting state (EPC)

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 SE SI SK SM TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

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DOCDB simple family (application)

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