

Title (en)

RADIAL RECIPROCATING ENGINE HAVING A BALL PISTON

Title (de)

RADIALKOLBENMASCHINE MIT EINEM KUGELKOLBEN

Title (fr)

MACHINE À PISTONS RADIAUX COMPRENANT UN PISTON À BILLE

Publication

**EP 3987183 A1 20220427 (DE)**

Application

**EP 20735095 A 20200618**

Priority

- DE 102019116680 A 20190619
- EP 2020066976 W 20200618

Abstract (en)

[origin: WO2020254501A1] The invention relates to a radial reciprocating engine (1) having cylinders (5) arranged in a cylinder carrier (16) and a piston element (21) arranged in every cylinder (6), which piston element is connected to a guide element (22), wherein the guide element (22) runs on a sliding surface (14), as a result of which a stroke movement is imposed on the piston element (21). Because the piston element (21) is spherical, at least in the region of the piston element (21) which effects a seal during the stroke movements on inner walls (51) of the cylinder (5), a linear seal is created which allows a more compact design compared to radial pumps having cylindrical piston elements.

IPC 8 full level

**F04B 1/0404** (2020.01); **F04B 1/0408** (2020.01); **F04B 1/0413** (2020.01); **F04B 1/0426** (2020.01); **F04B 1/1071** (2020.01)

CPC (source: EP US)

**F04B 1/0404** (2013.01 - EP); **F04B 1/0408** (2013.01 - EP US); **F04B 1/0413** (2013.01 - EP US); **F04B 1/0426** (2013.01 - EP US); **F04B 1/1071** (2013.01 - EP US)

Citation (search report)

See references of WO 2020254501A1

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)

**DE 102019116680 A1 20201224**; CN 113994091 A 20220128; EP 3987183 A1 20220427; US 2022349394 A1 20221103; WO 2020254501 A1 20201224

DOCDB simple family (application)

**DE 102019116680 A 20190619**; CN 202080043421 A 20200618; EP 2020066976 W 20200618; EP 20735095 A 20200618; US 202017618267 A 20200618