

Title (en)

Pump, recirculating device for a pump and rotor shaft for a pump

Title (de)

Pumpe, sowie eine Rezirkulationseinrichtung für eine Pumpe

Title (fr)

Pompe, installation de recirculation pour une pompe et arbre de rotor pour une pompe

Publication

**EP 2626563 A3 20180321 (DE)**

Application

**EP 12176181 A 20120712**

Priority

- EP 12154903 A 20120210
- EP 12176181 A 20120712

Abstract (en)

[origin: EP2626564A1] The pump (1) has a pump rotor (4) rotatably supported around a rotational axis (A) in a pump stator (3) in an operating state, and a rotor shaft (5) arranged in a shaft feedthrough (6) such that a lubricating film of a lubricating fluid is formed in a ring gap between the shaft and the feedthrough. A separation device (7) is arranged at the shaft for separating a predefinable quantity of an ingredient from pump fluid (2) by centrifugal force for providing the lubricating fluid to the gap. A recirculation device (8) is arranged such that gas (201) is recirculated with the separation device. The separation device is designed as a separation disk.

IPC 8 full level

**F04D 7/04** (2006.01); **F04D 29/06** (2006.01)

CPC (source: EP US)

**F04D 7/04** (2013.01 - EP US); **F04D 13/086** (2013.01 - EP); **F04D 29/06** (2013.01 - US); **F04D 29/061** (2013.01 - EP US); **F04D 29/708** (2013.01 - EP); **F04D 13/0606** (2013.01 - US); **F04D 13/062** (2013.01 - US)

Citation (search report)

- [X] CH 672007 A5 19891013 - HERMETIC PUMPEN GMBH
- [A] WO 9112412 A1 19910822 - INGERSOLL RAND CO [US]
- [A] US RE26570 E 19690429

Cited by

EP3623633A1

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)

**EP 2626564 A1 20130814**; **EP 2626564 B1 20201209**; BR 102013003215 A2 20150714; BR 102013003215 B1 20210928; BR 102013003795 A2 20150616; BR 102013003795 B1 20211103; EP 2626563 A2 20130814; EP 2626563 A3 20180321; EP 2626563 B1 20200603; ES 2796733 T3 20201130; US 10082149 B2 20180925; US 2013209226 A1 20130815; US 2013315709 A1 20131128; US 9683575 B2 20170620

DOCDB simple family (application)

**EP 13151407 A 20130116**; BR 102013003215 A 20130208; BR 102013003795 A 20130208; EP 12176181 A 20120712; ES 12176181 T 20120712; US 201313763554 A 20130208; US 201313763577 A 20130208