

Title (en)

ROTARY POSITIVE DISPLACEMENT PUMP FOR CONVEYING FLOWABLE SUBSTANCES, IMPELLER FOR A PUMP OF THIS TYPE, AND CONVEYING METHOD USING A POSITIVE DISPLACEMENT PUMP OF THIS TYPE

Title (de)

ROTIERENDE VERDRÄNGERPUMPE ZUM FÖRDERN VON FLIEßFÄHIGEN STOFFEN, LAUFRAD FÜR EINE SOLCHE UND VERFAHREN ZUM FÖRDERN MIT EINER SOLCHEN VERDRÄNGERPUMPE

Title (fr)

POMPE VOLUMÉTRIQUE ROTATIVE POUR TRANSPORTER DES SUBSTANCES APTE À L'ÉCOULEMENT, ROTOR POUR UNE TELLE POMPE ET PROCÉDÉ DE TRANSPORT AYANT UNE TELLE POMPE VOLUMÉTRIQUE

Publication

**EP 3717775 A1 20201007 (DE)**

Application

**EP 18822262 A 20181119**

Priority

- DE 102017011154 A 20171202
- EP 2018000516 W 20181119

Abstract (en)

[origin: WO2019105578A1] A rotary positive displacement pump (100, 200) for conveying flowable substances (P), comprising: • a circumferential groove-type impeller channel (32) which cuts axially into at least one of the end faces of the cylindrical impeller (30) and is concentric with the rotational axis (R) of same, • the impeller channel (32), the groove flanks of which are formed as a uniformly undulating, radially outer channel delimitation (34) having a constant curve and an identical radially inner channel delimitation (36), and when seen in the radial direction and on a plane perpendicular to the rotational axis (R) are equidistant and terminate at a channel base (38) and • an annular guide ring (50) which is permanently connected to the cover body (6) or the housing body (4), engages with the impeller channel (32) and extends up to the channel base (38). When seen in the radial direction, the entire extent of all the outer wave crests (WKa) of the outer channel delimitation (34) and all the inner wave crests (WKi) of the inner channel delimitation (36) lies against the guide ring (50). An impeller (30, 30\*) for a positive displacement pump of this type and a conveying method using a positive displacement pump of this type.

IPC 8 full level

**F04C 2/22** (2006.01)

CPC (source: EP US)

**C25B 1/04** (2013.01 - EP); **F01C 21/08** (2013.01 - EP); **F01C 21/0809** (2013.01 - EP); **F04C 2/22** (2013.01 - EP); **F04C 2/356** (2013.01 - EP); **F04C 11/001** (2013.01 - EP US); **F04C 13/001** (2013.01 - EP); **F04C 15/0007** (2013.01 - EP); **H01M 8/04007** (2013.01 - EP); **H01M 8/04089** (2013.01 - EP); **H01M 8/0656** (2013.01 - EP); **H01M 10/465** (2013.01 - EP); **H01M 16/00** (2013.01 - EP); **H01M 16/006** (2013.01 - EP); **H02J 1/00** (2013.01 - EP US); **H02J 3/381** (2013.01 - EP US); **H02J 7/35** (2013.01 - EP); **H02S 10/10** (2014.12 - EP); **H02S 10/20** (2014.12 - EP); **F04C 2/44** (2013.01 - EP); **F04C 2/46** (2013.01 - EP); **H01M 2220/10** (2013.01 - EP); **H01M 2250/10** (2013.01 - EP); **H01M 2250/402** (2013.01 - EP); **H02J 2300/24** (2020.01 - EP US); **Y02B 90/10** (2013.01 - EP); **Y02E 10/56** (2013.01 - EP); **Y02E 60/10** (2013.01 - EP); **Y02E 60/36** (2013.01 - EP); **Y02E 60/50** (2013.01 - EP); **Y02E 70/30** (2013.01 - EP)

Citation (search report)

See references of WO 2019105578A1

Designated contracting state (EPC)

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BA ME

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**DE 202017006441 U1 20180115**; DE 102017011154 B3 20181011; EP 3717775 A1 20201007; WO 2019105578 A1 20190606

DOCDB simple family (application)

**DE 202017006441 U 20171202**; DE 102017011154 A 20171202; EP 18822262 A 20181119; EP 2018000516 W 20181119