

Title (en)  
CONTROLLING THE GAP GEOMETRY IN AN ECCENTRIC SCREW PUMP

Title (de)  
REGELUNG DER SPALTGEOMETRIE IN EINER EXZENTERSCHNECKENPUMPE

Title (fr)  
RÉGULATION DE LA GÉOMÉTRIE D'ÉCARTEMENT DANS UNE POMPE À VIS EXCENTRIQUE

Publication  
**EP 3568596 A1 20191120 (DE)**

Application  
**EP 18701291 A 20180116**

Priority  
• DE 102017100715 A 20170116  
• EP 2018050986 W 20180116

Abstract (en)  
[origin: WO2018130718A1] The invention relates to an eccentric screw pump (1) for delivering liquids loaded with solids, having a rotor (4) wound helically, a stator (2), having an inlet (10) and an outlet (12), in which the rotor (4) is rotatably arranged about a longitudinal axis (L1) of the stator, and which has a screw-like inner wall (8) corresponding to the rotor (4), wherein the rotor has a form tapering toward the outlet (12) or the inlet (10), preferably a conical form and/or a varying eccentricity (e1, e2), and wherein rotor (4) and stator (2) are arranged relative to each other and formed such that at least one chamber (5) is formed, which is used for conveying the liquid, and the chamber is separated off by a narrowing (7) in particular a sealing line (D). The invention is characterized by an adjusting device for adjusting an axial relative position of rotor (4) and stator (2), wherein the adjusting device (39) is designed to widen the narrowing (7) between rotor (4) and stator (2).

IPC 8 full level  
**F04C 2/107** (2006.01); **F04C 3/06** (2006.01); **F04C 14/06** (2006.01); **F04C 15/00** (2006.01)

CPC (source: CN EP KR US)  
**F04C 2/107** (2013.01 - CN); **F04C 2/1071** (2013.01 - EP KR); **F04C 2/1073** (2013.01 - US); **F04C 3/06** (2013.01 - EP KR US);  
**F04C 14/06** (2013.01 - US); **F04C 15/003** (2013.01 - US); **F04C 14/06** (2013.01 - EP KR); **F04C 15/0003** (2013.01 - KR);  
**F04C 15/003** (2013.01 - EP); **F04C 2240/10** (2013.01 - CN); **F04C 2240/20** (2013.01 - CN); **F04C 2250/201** (2013.01 - EP KR US)

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 2018130718 A1 20180719**; AU 2018208543 A1 20190801; AU 2018208543 B2 20210812; BR 112019014558 A2 20200218;  
BR 112019014558 B1 20231031; CA 3050182 A1 20180719; CN 110392785 A 20191029; CN 110392785 B 20210330;  
CN 113107835 A 20210713; CN 113107835 B 20230818; DE 102017100715 A1 20180719; EP 3568596 A1 20191120;  
EP 3568596 B1 20230809; EP 3568596 C0 20230809; EP 4137698 A1 20230222; ES 2957935 T3 20240130; JP 2020504266 A 20200206;  
JP 7015839 B2 20220203; KR 102356133 B1 20220126; KR 20190105632 A 20190917; MX 2019008481 A 20191128; PL 3568596 T3 20240212;  
US 11286928 B2 20220329; US 2020124046 A1 20200423

DOCDB simple family (application)  
**EP 2018050986 W 20180116**; AU 2018208543 A 20180116; BR 112019014558 A 20180116; CA 3050182 A 20180116;  
CN 201880017146 A 20180116; CN 202110446437 A 20180116; DE 102017100715 A 20170116; EP 18701291 A 20180116;  
EP 22195723 A 20180116; ES 18701291 T 20180116; JP 2019538395 A 20180116; KR 20197024083 A 20180116; MX 2019008481 A 20180116;  
PL 18701291 T 20180116; US 201816478023 A 20180116