

Title (en)
MULTI-STAGE ROTARY LOBE PUMP

Title (de)
MEHRSTUFIGE WÄLZKOLBENPUMPE

Title (fr)
POMPE ROOTS À ÉTAGES MULTIPLES

Publication
EP 3583319 A1 20191225 (DE)

Application
EP 18701730 A 20180124

Priority
• DE 202017001029 U 20170217
• EP 2018051641 W 20180124

Abstract (en)
[origin: CA3053679A1] The invention relates to a multi-stage rotary lobe pump having a plurality of pump chambers (14) in a pump housing (16, 18). Said pump chambers form respective pump stages (26, 28, 30, 32, 34), each pump stage having two bidentate rotary pistons (10). The pump stages (26, 28, 30, 32, 34) are separated from each other by intermediate walls (44). Substantially radially extending connecting channels (48) are arranged in the intermediate walls (44). The connecting channels (48) are connected to an inflow chamber (40), the inflow opening (42) of which has a larger cross-section than the connecting channels (48).

IPC 8 full level
F04C 23/00 (2006.01); **F04C 18/08** (2006.01); **F04C 18/12** (2006.01)

CPC (source: EP KR US)
F04C 18/084 (2013.01 - EP KR US); **F04C 18/126** (2013.01 - EP KR US); **F04C 23/001** (2013.01 - EP KR US); **F04C 29/12** (2013.01 - KR); **F04C 2240/30** (2013.01 - EP KR US)

Citation (search report)
See references of WO 2018149598A1

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 202017001029 U1 20180518; CA 3053679 A1 20180823; CN 110168227 A 20190823; EP 3583319 A1 20191225; EP 3583319 B1 20240515; JP 2020507704 A 20200312; KR 102490780 B1 20230119; KR 20190112002 A 20191002; US 11255328 B2 20220222; US 2019376515 A1 20191212; WO 2018149598 A1 20180823

DOCDB simple family (application)
DE 202017001029 U 20170217; CA 3053679 A 20180124; CN 201880006099 A 20180124; EP 18701730 A 20180124; EP 2018051641 W 20180124; JP 2019540089 A 20180124; KR 20197023787 A 20180124; US 201816476817 A 20180124