

Title (en)
DELIVERY UNIT

Title (de)
FÖRDERAGGREGAT

Title (fr)
UNITÉ DE CIRCULATION

Publication
EP 2616685 A2 20130724 (DE)

Application
EP 11735661 A 20110726

Priority
• DE 102010040758 A 20100914
• EP 2011062798 W 20110726

Abstract (en)
[origin: WO2012034759A2] A delivery unit is already known, which comprises a drive shaft and a rotor driven by the drive shaft. The rotor is rotatably arranged in a stator housing, wherein the rotor has a toothing on the end face of said rotor that is remote from the drive shaft, wherein said toothing meshes with a toothing constructed on the stator housing. The drive shaft comprises an oblique sliding plane interacting with the rotor and which is constructed on a shoulder of the drive shaft and allows the rotor to gyrate with the rotor axis thereof about the drive axis of the drive shaft. Work spaces are formed between the toothing of the rotor and the toothing of the stator housing, wherein said work spaces can be filled via an inlet and emptied via an outlet. In one embodiment the fluid is admitted axially and discharged radially, and in the other embodiment the fluid is admitted and discharged axially. For that purpose, control valves in the form of non-return valves are required. The non-return valves cause additional internal leakages, resulting in a reduction in the volumetric efficiency of the pump. The valves are additional parts, which are associated with additional costs and an increased risk of failure. In the delivery unit according to the invention the control valves can be dispensed with. According to the invention the inlet (15) is provided in a channel (20) of the drive shaft (2) and the outlet (16) is provided at the shoulder (6) of the drive shaft (2).

IPC 8 full level
F04C 15/06 (2006.01); **F04C 3/08** (2006.01)

CPC (source: EP US)
F04C 2/00 (2013.01 - US); **F04C 3/08** (2013.01 - EP US); **F04C 15/062** (2013.01 - EP US); **F04C 2240/603** (2013.01 - EP US)

Citation (search report)
See references of WO 2012034759A2

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 102010040758 A1 20120315; CN 103429897 A 20131204; CN 103429897 B 20160224; EP 2616685 A2 20130724; EP 2616685 B1 20180328; US 2013189142 A1 20130725; US 9046099 B2 20150602; WO 2012034759 A2 20120322; WO 2012034759 A3 20130404

DOCDB simple family (application)
DE 102010040758 A 20100914; CN 201180043698 A 20110726; EP 11735661 A 20110726; EP 2011062798 W 20110726; US 201113823727 A 20110726