Title (en)
LIQUID SUPPLY SYSTEM

Title (de)
FLÜSSIGKEITSZUFUHRSYSTEM

Title (fr)
SYSTÈME D'ALIMENTATION EN LIQUIDE

Publication
EP 3505760 A4 20200122 (EN)

Application
EP 17843487 A 20170818

Priority
• JP 2016162907 A 20160823
• JP 2017029592 W 20170818

Abstract (en)
[origin: EP3505760A1] A liquid supply system in which the generation of twisting of a bellows is prevented. The liquid supply system has a first bellows 130 which is fixed to a shaft 150 and expands or contracts in accordance with the reciprocating motion of the shaft 150 and a second bellows 200 which expands or contracts in accordance with the reciprocating motion of the shaft 150., The second bellows 200 and the first bellows 130 forms a pump chamber therebetween and the second bellows 200 has an outer diameter smaller than an outer diameter of the first bellows 130. One end of the second bellows 200 is fixed to one of the shaft 150 and a cylindrical member 161, and the other end of the second bellows 200 is positioned to the other of the shaft 150 and the cylindrical member 161 in a state being allowed to move in a circumferential direction.

IPC 8 full level
F04B 43/08 (2006.01)

CPC (source: EP KR US)
F04B 43/08 (2013.01 - US); **F04B 43/084** (2013.01 - EP); **F04B 43/088** (2013.01 - KR US); **F04B 53/00** (2013.01 - KR); F05B 2210/11 (2013.01 - KR)

Citation (search report)
• No further relevant documents disclosed
• See references of WO 2018038005A1

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

DOCDB simple family (publication)
EP 3505760 A1 20190703; **EP 3505760 A4 20200122**; CN 109563826 A 20190402; CN 109563826 B 20200428; JP WO2018038005 A1 20190620; KR 20190026900 A 20190313; US 2019211816 A1 20190711; WO 2018038005 A1 20180301

DOCDB simple family (application)
EP 17843487 A 20170818; CN 201780050106 A 20170818; JP 2017029592 W 20170818; JP 2018535635 A 20170818; KR 20197004204 A 20170818; US 201716327087 A 20170818