

Title (en)

IMPROVED PULSE-FREE METERING PUMP AND METHODS RELATING THERETO

Title (de)

VERBESSERTE IMPULSFREIE DOSIERPUMPE UND VERFAHREN IM ZUSAMMENHANG DAMIT

Title (fr)

POMPE DE DOSAGE SANS IMPULSIONS AMÉLIORÉE ET PROCÉDÉS S'Y RAPPORTANT

Publication

**EP 3334931 A4 20190102 (EN)**

Application

**EP 16835724 A 20160805**

Priority

- US 201562204958 P 20150813
- US 2016045921 W 20160805

Abstract (en)

[origin: WO2017027424A1] A method of dispensing a continuous fluid flow is described, the method includes: (i) filling a first cylinder chamber, having a first predefined volume, with fluid received through a first manifold from a first fluid inlet; (ii) dispensing the first predefined amount of the fluid present inside the first cylinder chamber through the first manifold to a fluid outlet; (iii) filling a second cylinder chamber, having a second predefined volume, with fluid received through a second manifold from a second fluid inlet, and wherein filling is carried out contemporaneously with dispensing; (iv) exerting, during dispensing, a deflection-causing force on a first housing that is disposed adjacent to the first cylinder chamber; and (v) preventing, using the deflection-prevention feature, transfer of the deflection-causing force from the first housing to a second housing, which is disposed adjacent to the second cylinder chamber and is disposed adjacent to the first housing.

IPC 8 full level

**F04B 53/16** (2006.01); **F04B 1/02** (2006.01); **F04B 9/02** (2006.01); **F04B 11/00** (2006.01); **F04B 13/00** (2006.01)

CPC (source: EP US)

**F04B 1/02** (2013.01 - EP US); **F04B 9/02** (2013.01 - EP US); **F04B 11/00** (2013.01 - EP US); **F04B 11/005** (2013.01 - EP US); **F04B 13/00** (2013.01 - EP US); **F04B 39/121** (2013.01 - US); **F04B 53/16** (2013.01 - EP US); **F04B 53/162** (2013.01 - US); **F04B 27/005** (2013.01 - US)

Citation (search report)

- [XAI] US 4681513 A 19870721 - SAITO TOSHINORI [JP], et al
- [XAI] US 4808077 A 19890228 - KAN TSUNEO [JP], et al
- See references of WO 2017027424A1

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)

**WO 2017027424 A1 20170216**; CN 108350868 A 20180731; EP 3334931 A1 20180620; EP 3334931 A4 20190102; US 2018209405 A1 20180726

DOCDB simple family (application)

**US 2016045921 W 20160805**; CN 201680047495 A 20160805; EP 16835724 A 20160805; US 201615745140 A 20160805