

Title (en)

METHOD FOR OPERATING A DEVICE FOR CONVEYING A FLUID

Title (de)

VERFAHREN ZUM BETRIEB EINER VORRICHTUNG ZUR FÖRDERUNG EINER FLÜSSIGKEIT

Title (fr)

PROCÉDÉ PERMETTANT DE FAIRE FONCTIONNER UN DISPOSITIF DESTINÉ À REFOULER UN LIQUIDE

Publication

**EP 3004581 A1 20160413 (DE)**

Application

**EP 14724394 A 20140509**

Priority

- DE 102013105710 A 20130604
- EP 2014059516 W 20140509

Abstract (en)

[origin: WO2014195082A1] The invention relates to a method for operating a device (1) for conveying a fluid by means of a conveying pipe (2) which can be divided into a suction pipe section (4) from at least one tank (6) to at least one pump (3) and into a pressure pipe section (5) from the pump (3) to at least one injector (7), and has at least one pressure sensor (8) on the pressure pipe section (5). In a step A) of the method an activation of the device is detected. In a step B) of the method the conveying pipe (2) is filled with the fluid by an operation of the at least one pump (3) having a conveying direction (9) from the at least one tank (6) to the at least one injector (7), and a complete filling of the conveying pipe is detected on the basis of at least one dramatic pressure increase (10) at the at least one pressure sensor (8). In step C) an operation of the pump (3) and a provision of fluid at the injector (7) take place. In step D) a deactivation of the device (1) is detected. In step E) a partial emptying of the conveying pipe (2) takes place by back-suction of the fluid by means of an operation of the at least one pump (3) contrary to the conveying direction, wherein the emptying is stopped when the pressure measured at the least one pressure sensor (8) corresponds to an ambient pressure (12).

IPC 8 full level

**F01N 3/20** (2006.01)

CPC (source: EP US)

**F01N 3/2066** (2013.01 - EP US); **F01N 3/208** (2013.01 - EP US); **F01N 2560/08** (2013.01 - EP US); **F01N 2610/02** (2013.01 - EP US);  
**F01N 2610/144** (2013.01 - EP US); **F01N 2610/1486** (2013.01 - EP US); **F01N 2610/1493** (2013.01 - EP US); **F01N 2900/1808** (2013.01 - EP US);  
**Y02A 50/20** (2017.12 - EP US); **Y02T 10/12** (2013.01 - EP US)

Citation (search report)

See references of WO 2014195082A1

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 102013105710 A1 20141204**; CN 105408595 A 20160316; CN 105408595 B 20180213; EP 3004581 A1 20160413;  
JP 2016526128 A 20160901; JP 6092474 B2 20170308; KR 20160007655 A 20160120; US 2016131004 A1 20160512;  
US 9816418 B2 20171114; WO 2014195082 A1 20141211

DOCDB simple family (application)

**DE 102013105710 A 20130604**; CN 201480032238 A 20140509; EP 14724394 A 20140509; EP 2014059516 W 20140509;  
JP 2016517206 A 20140509; KR 20157035459 A 20140509; US 201414895775 A 20140509