

Title (en)

Equalization of the supply flow of oscillating pressure pumps

Title (de)

Vergleichmäßigung des Förderstroms bei oszillierenden Verdrängerpumpen

Title (fr)

Egalisation du débit dans des pompes volumétriques oscillantes

Publication

EP 2249033 A3 20111102 (DE)

Application

EP 10004530 A 20100429

Priority

DE 102009020414 A 20090508

Abstract (en)

[origin: EP2249033A2] The method involves producing a fluid flow rate in a common conveyor line (5) by two oscillating positive displacement pumps i.e. diaphragm pumps (1, 2). Drive motors (6, 7) of the respective displacement pumps are controlled in such a manner that an overall fluid flow rate produced in the conveyor line is extensively uniform or constant. Rotational speed of each drive motor is changeable. The drive motor is designed as a high dynamic drive motor i.e. permanently excited three-phase synchronous servo motor. An independent claim is also included for a device for equalizing a fluid flow rate in an oscillating positive displacement pump.

IPC 8 full level

F04B 11/00 (2006.01); **F04B 49/06** (2006.01); **F04B 49/20** (2006.01)

CPC (source: EP US)

F04B 11/00 (2013.01 - EP US); **F04B 11/0041** (2013.01 - EP US); **F04B 11/0058** (2013.01 - EP US); **F04B 49/06** (2013.01 - EP US); **F04B 49/20** (2013.01 - EP US)

Citation (search report)

- [X] DE 4130295 A1 19930325 - BLUECHER LUDWIG [DE]
- [X] DE 10134138 A1 20030206 - ORANIENBURGER PUMPEN VERDICHTTE [DE]
- [A] WO 02084117 A2 20021024 - JOMA HYDROMECHANIC GMBH [DE], et al
- [A] WO 9509305 A1 19950406 - DIVERSEY CORP [CA]

Cited by

EP2949931A1; RU2761258C1

Designated contracting state (EPC)

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 SE SI SK SM TR

Designated extension state (EPC)

AL BA ME RS

DOCDB simple family (publication)

EP 2249033 A2 20101110; EP 2249033 A3 20111102; EP 2249033 B1 20141112; DE 102009020414 A1 20101111; ES 2529678 T3 20150224; JP 2010261461 A 20101118; JP 5567385 B2 20140806; US 2010284827 A1 20101111

DOCDB simple family (application)

EP 10004530 A 20100429; DE 102009020414 A 20090508; ES 10004530 T 20100429; JP 2010107949 A 20100510; US 77519110 A 20100506