Title (en)

Reciprocating pump having two diaphragms

Title (de)

Verdrängungspumpe mit zwei Membranen

Title (fr)

Pompe alternative ayant deux membranes

Publication

EP 1855004 B1 20090408 (EN)

Application

EP 07115113 A 20030423

Priority

- EP 03719171 A 20030423
- JP 2002296638 A 20021009

Abstract (en)

[origin: EP1855004A1] In a reciprocating pump, drive power of a drive-power supply member is transmitted to a diaphragm within a diaphragm drive chamber via operating fluid. An operating-fluid-flow regulation chamber for regulating the flow of operating fluid is located between the drive-power supply member and the diaphragm drive chamber. A first gas discharge member and a second gas discharge member are respectively located in an upper part of the inside of the operating-fluid-flow regulation chamber and an upper part of the inside of the diaphragm drive chamber. The first gas discharge member is held in fluid communication with the second gas discharge member so as to constitute a single gas discharge mechanism. This single gas discharge mechanism is provided with a reverse-flow prevention member for preventing a reverse flow of fluid from the first gas discharge member to the second gas discharge member.

IPC 8 full level

F04B 43/067 (2006.01); **F04B 43/02** (2006.01); **F04B 43/073** (2006.01); **F04B 53/10** (2006.01)

CPC (source: EP KR US)

F04B 43/028 (2013.01 - KR); **F04B 43/04** (2013.01 - KR); **F04B 43/067** (2013.01 - EP US); **F04B 43/0736** (2013.01 - EP US); **F04B 53/10** (2013.01 - KR); **F04B 53/1002** (2013.01 - EP); **F04B 53/101** (2013.01 - EP); **F04B 53/1012** (2013.01 - EP US); F05B 2210/11 (2013.01 - KR); F05B 2260/40 (2013.01 - KR); Y10S 417/00 (2013.01 - KR)

Cited by

TWI396795B

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 1553296 A1 20050713; **EP 1553296 A4 20060405**; **EP 1553296 B1 20070912**; AT E373172 T1 20070915; AU 2003235093 A1 20040504; CN 100417811 C 20080910; CN 101334022 A 20081231; CN 101334022 B 20100811; CN 101413497 A 20090422; CN 101413497 B 20110504; CN 1685155 A 20051019; DE 60316333 D1 20071025; DE 60316333 T2 20080605; DE 60325122 D1 20090115; DE 60327117 D1 20090520; EP 1803937 A1 20070704; EP 1803937 B1 20081203; EP 1855004 A1 20071114; EP 1855004 B1 20090408; KR 100743691 B1 20070730; KR 100743693 B1 20070730; KR 20050048672 A 20050524; KR 20060125626 A 20061206; WO 2004033908 A1 20040422

DOCDB simple family (application)

EP 03719171 A 20030423; AT 03719171 T 20030423; AU 2003235093 A 20030423; CN 03823128 A 20030423; CN 200810145976 A 20030423; CN 200810145977 A 20030423; DE 60316333 T 20030423; DE 60325122 T 20030423; DE 60327117 T 20030423; EP 07103700 A 20030423; EP 07115113 A 20030423; JP 0305164 W 20030423; KR 20057005769 A 20050401; KR 20060094493 A 20060928