

Title (en)

RECIPROCATING PUMP AND CHECK VALVE

Title (de)

HUBKOLBENPUMPE UND RÜCKSCHLAGVENTIL

Title (fr)

POMPE ALTERNATIVE ET CLAPET ANTIRETOUR

Publication

**EP 1553296 A1 20050713 (EN)**

Application

**EP 03719171 A 20030423**

Priority

- JP 0305164 W 20030423
- JP 2002296638 A 20021009

Abstract (en)

A reciprocating pump is provided with diaphragm drive chambers and a drive-power supply member 40, in which drive power of the drive-power supply member 40 is transmitted to diaphragms 1A, 1B within the diaphragm drive chambers via operating fluid. Operating-fluid-flow regulation chambers 5A, 5B each are located between the drive-power supply member and a corresponding one of the diaphragm drive chambers. A first gas discharge member and a second gas discharge member are respectively located in an upper part of the inside of each operating-fluid-flow regulation chamber and an upper part of the inside of each 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 20A, 20B. This single gas discharge mechanism 20A, 20B 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. <IMAGE>

IPC 1-7

**F04B 43/06; F16K 15/04; F04B 53/00; F16K 15/18**

IPC 8 full level

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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)

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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;  
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