

Title (en)
Folding bellows pump

Title (de)
Faltenbalgpumpe

Title (fr)
Pompe à soufflet à plis

Publication
EP 2589807 A1 20130508 (DE)

Application
EP 12191587 A 20121107

Priority
• DE 202011051879 U 20111107
• DE 202012100944 U 20120316

Abstract (en)
The pump (300) has an intake opening (302) closed by a non-return valve (314), and a discharge opening (304) closed by another non-return valve (316). An armature plate (328) represents a part of an electromagnetic regulating unit for a pumping stroke together with an armature (330). A pump volume (340) is formed by an inner area (342). Metallic bellows (322) i.e. stainless steel bellows, are connected to a housing base (354). A base body projects between the plate and the bellows. The inner area has a prechamber and a working chamber, where the plate has an attachment element. The non-return valves are designed as ball seat valves. An independent claim is also included for a method for starting a pump.

Abstract (de)
Die vorliegende Erfindung betrifft eine Pumpe mit einem Balg, insbesondere mit einem Edelstahlbalg, wobei durch Nutzung der Längserstreckung des Balgs eine Förderung eines zu fördernden Mediums wie Treibstoff durchführbar ist. Die vorliegende Erfindung lehrt zudem, wie selbst mit niedrigen Startdrücken eine erfindungsgemäße Balgpumpe startbar ist.

IPC 8 full level
F04B 17/04 (2006.01); **F04B 43/09** (2006.01); **F04B 49/08** (2006.01)

CPC (source: EP)
F04B 17/042 (2013.01); **F04B 43/09** (2013.01); **F04B 49/08** (2013.01)

Citation (applicant)
• DE 19522943 A1 19970102 - DAGMA GMBH & CO [DE]
• DE 2234311 B2 19760805 - WALBRO CORP
• DE 1866945 U 19630207 - URATA KENROKORO [JP]
• DE 4032555 A1 19920416 - TEVES GMBH ALFRED [DE]
• DE 102004011123 A1 20050331 - HYDRAULIK RING GMBH [DE]
• DE 102006044254 B3 20080327 - THOMAS MAGNETE GMBH [DE]
• DE 867627 C 19530723 - MONO CAM LTD
• DE 19548074 A1 19960725 - AISIN SEIKI [JP]
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• DE 3333977 A1 19840322 - INFUSAID CORP [US]
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Citation (search report)
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CN107638611A; US10677239B2

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

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