(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 2 366 905 A3

(12) EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
18.07.2012 Bulletin 2012/29

(43) Date of publication A2:
21.09.2011 Bulletin 2011/38

(21) Application number: **11158552.7**

(22) Date of filing: **16.03.2011**

(51) Int Cl.:
F04D 1/06 *(2006.01)* ***F04D 13/10*** *(2006.01)*
F04D 29/08 *(2006.01)* ***F04D 29/62*** *(2006.01)*

(84) Designated Contracting States:
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 States:
BA ME

(30) Priority: **18.03.2010 IT VI20100075**

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(54) Improved tight multi-stage pump

(57) The invention is a multi-stage pump (1) comprising an external jacket (2) with a suction port (3) and a delivery port (4), provided at one end with a casing cover (5) and at the opposite end with a lantern bracket (6) supporting an electric motor (7) associated with rotary pumping members (8). The casing cover (5) and the lantern bracket (6) are coupled to the ends of the external jacket (2) through fixing means with the interposition of annular gaskets (17). Each gasket is housed in an annular seat (18) defined by a shaped annular area (19) present in the casing cover (5) and the lantern bracket (6) and by a counter-shaped annular area (20) present in the corresponding end of the external jacket (2), opposing each other. The counter-shaped annular area (20) comprises an annular counteracting surface (20a), inclined with respect to the longitudinal axis (Y) defined by the external jacket (2), suited to compress the annular gasket (17) when the casing cover (5) and the lantern bracket (6) are coupled to the external jacket (2) through the tie rods. The external jacket (2) is provided with a plurality of shaped annular portions (28) suited to make the external jacket (2) elastically yielding along the direction defined by its longitudinal axis (Y) and the fixing means comprise a plurality of tie rods (12) each one of which is provided with a first end (12a) constrained to the casing cover (5) and a second end (12b) constrained to the lantern bracket (6).

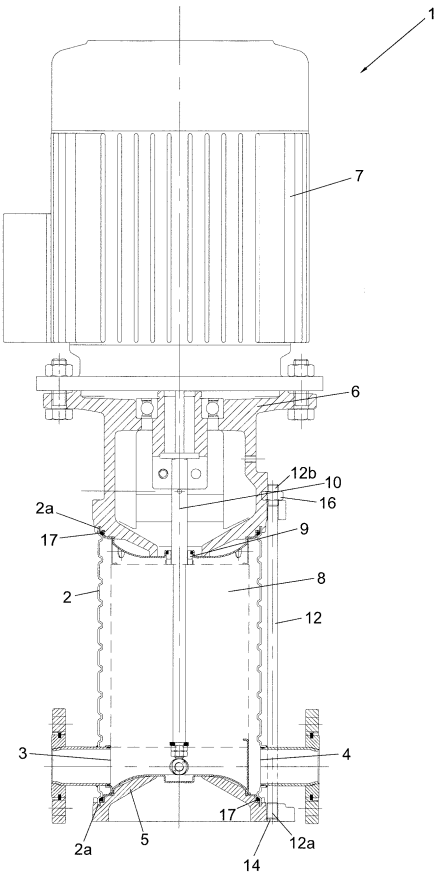

Fig.1

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EUROPEAN SEARCH REPORT

Application Number
EP 11 15 8552

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	11 June 2012	Ingelbrecht, Peter

CATEGORY OF CITED DOCUMENTS

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EPO FORM 1503 03.82 (P04C01)

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