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(54) **Pump impeller**

(57) A pump impeller has two impeller bodies (10, 10A, 20, 20A) attached to each other. Each impeller body (10, 10A, 20, 20A) has an annular base wall (11, 11A, 21, 21A) and multiple partition protrusions (12, 12A, 22, 22A) separately formed on an inner surface of the base wall (11, 11A, 21, 21A). Multiple outlet channels (30, 30A) are respectively defined between the partition protrusions (12, 12A, 22, 22A). Each outlet channel (30, 30A) has a cross-sectional area decreasing from an inner end to an outer open end of the outlet channel (30, 30A). Thus, liquid flowing through the outlet channels (30, 30A) does not become turbulent and a working efficiency of a pump with the pump impeller is certainly improved.

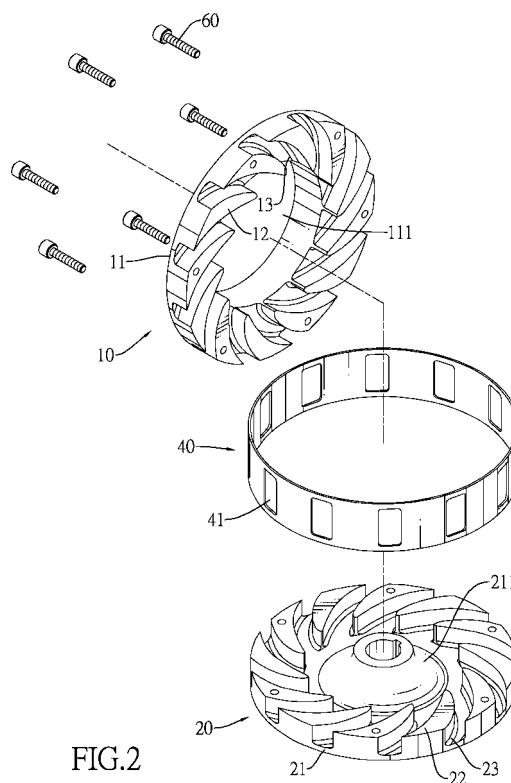


FIG.2



## EUROPEAN SEARCH REPORT

Application Number  
EP 11 15 9937

| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                        |                                                       |                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------------------------|
| Category                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Citation of document with indication, where appropriate, of relevant passages                                                                          | Relevant to claim                                     | CLASSIFICATION OF THE APPLICATION (IPC) |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                        |                                                       | F04D                                    |
| The present search report has been drawn up for all claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                        |                                                       |                                         |
| Place of search<br>The Hague                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                        | Date of completion of the search<br>17 September 2012 | Examiner<br>de Verbigier, L             |
| <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone<br/>Y : particularly relevant if combined with another document of the same category<br/>A : technological background<br/>O : non-written disclosure<br/>P : intermediate document</p> <p>T : theory or principle underlying the invention<br/>E : earlier patent document, but published on, or after the filing date<br/>D : document cited in the application<br/>L : document cited for other reasons<br/>&amp; : member of the same patent family, corresponding document</p> |                                                                                                                                                        |                                                       |                                         |

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
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EP 11 15 9937

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
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17-09-2012

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