11) Publication number:

**0 267 444** A3

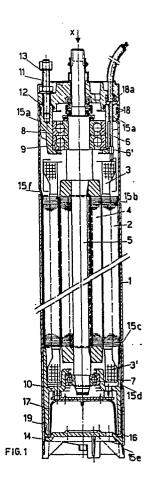
(12)

## **EUROPEAN PATENT APPLICATION**

- 21 Application number: 87114883.9
- ② Date of filing: 13.10.87

(51) Int. Cl.4: F04D 29/62 , F04D 13/10 , H02K 5/173 , H02K 7/14

- @ Priority: 11.11.86 IT 2229686
- Date of publication of application: 18.05.88 Bulletin 88/20
- Designated Contracting States:
  DE ES FR
- Date of deferred publication of the search report:
  31.01.90 Bulletin 90/05
- Applicant: GRUPPO INDUSTRIALE ERCOLE
   MARELLI S.p.A.
   Via Sabbionara 1
   Arzignano (VI)(IT)
- Inventor: Violi, Giuseppe Via Tito Speri, 8 I-Pogliano Milanese (MI)(IT)
- Representative: Forattini, Amelia et al c/o Internazionale Brevetti Ingg. ZINI, MARANESI & C. S.r.l. Piazza Castello 1 I-20121 Milano(IT)
- Electric motor for submersible pump.
- ln a submersible pump, the axial thrust exerted by the impeller of the pump is withstood by the upper bearings (6, 6') of the motor, and the stator (2, 3) of the motor is anchored and centered in the frame (1) by means of a system of projections (15a, 15f) provided in the wall of the frame and engaged in corresponding notches of the supporting system of the bearing and of the stator assembly. This produces a reduction in the dimensions of the motor shaft with a reduction of scrap, an improvement in electromechanical performance, as well as simplifications and economies in construction and in assembly.



EP 0 267 444 A3



## **EUROPEAN SEARCH REPORT**

.EP 87 11 4883

|            | DOCUMENTS CONSIL   | *  | <del></del>                                      |   |
|------------|--|--|--|---|
| ategory    | Citation of document with ind<br>of relevant pass  |  | Relevant<br>to claim                             | CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)              |
| A          | GB-A- 448 449 (ELE<br>* Page 1, lines 23-3<br>2, lines 43-46,68-84<br>lines 60-68; figure  | 3,50-53,58-62; page<br>,101-105; page 3,                 | 1  | F 04 D 29/62<br>F 04 D 13/10<br>H 02 K 5/173<br>H 02 K 7/14 |
| A          | US-A-4 293 288 (WEBER)<br>* Abstract; figures 1,4 *  |  | 1,3-4  |   |
| <b>E</b> . | EP-A-0 280 660 (EKC<br>* Abstract; column 2<br>column 4, lines 13-1<br>lines 45-52,59-62; f  | 2, lines 58-62;<br>.8,28-37; column 5,                   | 1-2  |   |
|            |  |  |  |   |
|            |  |  |  | TECHNICAL FIELDS<br>SEARCHED (Int. Cl.4)                    |
|            |  |  |  | F 04 D  |
|            |  |  |  | H 02 K  |
|            | -  | ,  |  |   |
|            |  |  |  |   |
|            |  |  |  |   |
|            |  |  |  |   |
|            |  |  |  |   |
|            | The present search report has b  | een drawn up for all claims                              |  |   |
|            | Place of search  | Date of completion of the sear                           | į.   | Examiner  |
| T          | HE HAGUE   | 30-10-1989   |  | DI K.   |
| Y:p        | CATEGORY OF CITED DOCUME<br>particularly relevant if taken alone<br>particularly relevant if combined with an<br>locument of the same category<br>echnological background<br>norwritten disclosure<br>ntermediate document | E: earlier pat after the f other D: document L: document | cited in the applicati<br>cited for other reason | iblished on, or<br>ion<br>                                  |