



11) Publication number:

0 435 193 A3

EUROPEAN PATENT APPLICATION

(21) Application number: 90125094.4

(51) Int. Cl.5: F04C 18/107

2 Date of filing: 21.12.90

(12)

Priority: 26.12.89 JP 337524/89 13.04.90 JP 96304/90 13.04.90 JP 98432/90

13.04.90 JP 98437/90

(43) Date of publication of application: 03.07.91 Bulletin 91/27

(84) Designated Contracting States: DE IT

Bate of deferred publication of the search report: 19.02.92 Bulletin 92/08

(71) Applicant: Kabushiki Kaisha Toshiba 72, Horikawa-cho Saiwai-ku Kawasaki-shi(JP)

⁷² Inventor: Fujiwara, Takayoshi, c/o Intellectual **Property Div** Kabushiki Kaisha Toshiba, 1-1 Shibaura 1-chome

Minato-ku, Tokyo 105(JP)

Inventor: Honma, Hisanori, c/o Intellectual

Property Div.

Kabushiki Kaisha Toshiba, 1-1 Shibaura

1-chome

Minato-ku, Tokyo 105(JP)

Inventor: Sone, Yoshinori, c/o Intellectual

Property Div.

Kabushiki Kaisha Toshiba, 1-1 Shibaura

1-chome

Minato-ku, Tokyo 105(JP)

Inventor: Hirayama, Takuya, c/o Intellectual

Property Div.

Kabushiki Kaisha Toshiba, 1-1 Shibaura

1-chome

Minato-ku, Tokyo 105(JP)

(4) Representative: Henkel, Feiler, Hänzel & **Partner**

Möhlstrasse 37

W-8000 München 80(DE)

⁶⁴ An axial flow fluid compressor and a method of assembling the same.

57) A compressor includes a cylinder (7), and a rotating body (8) located in the cylinder. A spiral groove (11) is formed on the outer periphery of the rotating body. A spiral blade (9) is fitted in the groove and divides the space between the inner periphery of the cylinder and the outer periphery of the rotating body into operating chambers (10) which have volumes gradually decreasing with distance from one end of the cylinder. A drive motor (4) rotates the cylinder and the rotating body relative to each other. The drive motor includes a cylindrical stator (17) fixed on a closed casing and a rotor (18) mounted on the cylinder (7) and situated inside the stator (17) coaxially, with a motor air gap provided therebetween. A main bearing (15) is engaged with the axial end portion of the cylinder (7) and fixed on the inner wall of the casing by means of a fixing member (20) situated radially more inward than the

stator. The main bearing is fixed on the closed casing, with the position of the main bearing adjusted by a master rotor.

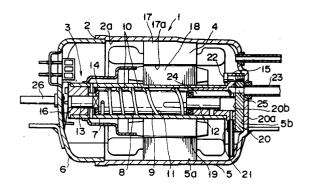


FIG. 1



EUROPEAN SEARCH REPORT

EP 90 12 5094

| DOCUMENTS CONSIDERED TO BE RELEVANT | | | | | |
|-------------------------------------|--|---|---------------------------------------|------------------------------------|--|
| Category | | th indication, where appropriate, vant passages | | elevant o claim | CLASSIFICATION OF THE APPLICATION (Int. CI.5) |
| D,X | US-A-4 875 842 (IIDA ET | AL.) | 1-0 | 3 | F 04 C 18/107 |
| Y A | US-A-4 875 842 (* the who | ole document *) | 9,1 5,6 | | |
| P,Y | PATENT ABSTRACTS OF (M-1029)25 September 199 & JP-2 176 185 (TOSHIBA * abstract * * | 0 | 9,1 | 10 | |
| P,A | PATENT ABSTRACTS OF (M-1029)25 September 199 & JP-A-2 176 189 (TOSHIE * abstract * * | 0 | 11 | | |
| D,X | US-A-4 871 304 (IIDA ET | AL.) | 1,2 | 2 | |
| Α | US-A-4 871 304 (* the who | - | 5,6 | 6 | |
| | The present search report has I | peen drawn up for all claims | | | TECHNICAL FIELDS SEARCHED (Int. CI.5) |
| | Place of search | Date of completion of s | earch | | Examiner |
| The Hague 26 November 91 | | |)1 | DIMITROULAS P. | |
| Y: A: O: P: | CATEGORY OF CITED DOCU particularly relevant if taken alone particularly relevant if combined wit document of the same catagory technological background non-written disclosure intermediate document theory or principle underlying the in | h another | the filing of D: document L: document | late cited in th cited for c | |