



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
13.08.2008 Bulletin 2008/33

(51) Int Cl.:
F04C 18/02 (2006.01) F04C 27/00 (2006.01)

(43) Date of publication A2:
25.06.2008 Bulletin 2008/26

(21) Application number: **07024243.3**

(22) Date of filing: **13.12.2007**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR
Designated Extension States:
AL BA HR MK RS

(72) Inventors:
• **Kobayashi, Noriyuki**
Isesaki-shi,
Gunma 372-8502 (JP)
• **Higashiyama, Akiyoshi**
Isesaki-shi,
Gunma 372-8502 (JP)

(30) Priority: **15.12.2006 JP 2006338311**

(71) Applicant: **Sanden Corporation**
Isesaki-shi,
Gunma 372-8502 (JP)

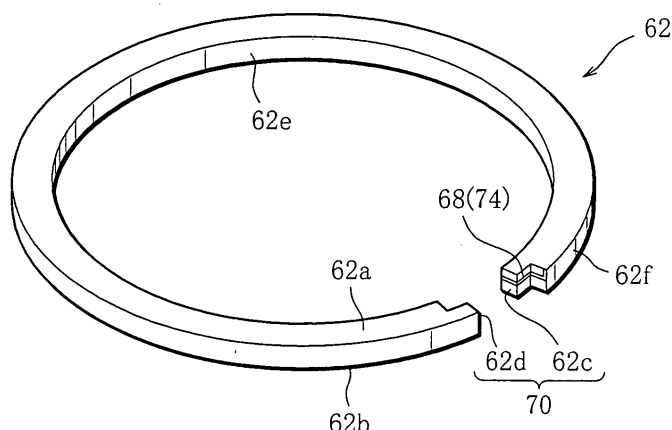
(74) Representative: **Feldmeier, Jürgen et al**
Prüfer & Partner GbR
Patentanwälte
Sohnckestrasse 12
81479 München (DE)

(54) **Fluid machine**

(57) There is provided a seal ring (62) that is supported by a frame (18) concentrically with the axis of a rotary shaft (16), has an abutment joint (70) formed when opposite circumferential end surfaces (62c and 62d) contact each other due to circumferential elongation of the ring which is caused by thermal expansion, and slidingly contacts the back surface (50) of a movable scroll (34)

to separate an oil passage (52). The seal ring has depressurizing means that depressurizes a high-pressure chamber (72) and creates an intermediate-pressure chamber (76) of lower pressure than the high-pressure chamber and of higher pressure than a low-pressure chamber (42). The depressurizing means is formed in the abutment joint.

FIG. 3





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 07 02 4243

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	US 4 645 437 A (SAKASHITA WATARU [JP] ET AL) 24 February 1987 (1987-02-24) * column 5, line 5 - line 42; figures 7-17 *	1-4	INV. F04C18/02 F04C27/00
A	JP 61 079884 A (TOKYO SHIBAURA ELECTRIC CO) 23 April 1986 (1986-04-23) * abstract *	1-4	
A	JP 61 011485 A (TOKYO SHIBAURA ELECTRIC CO) 18 January 1986 (1986-01-18) * abstract *	1-4	
			TECHNICAL FIELDS SEARCHED (IPC)
			F04C
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 30 June 2008	Examiner Descoubes, Pierre
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

2
EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 07 02 4243

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

30-06-2008

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4645437 A	24-02-1987	DE 3522854 A1 GB 2162899 A	09-01-1986 12-02-1986
JP 61079884 A	23-04-1986	JP 1838751 C JP 5051071 B	25-04-1994 30-07-1993
JP 61011485 A	18-01-1986	JP 1838106 C JP 5050597 B	11-04-1994 29-07-1993