



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 1 006 279 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
13.12.2000 Bulletin 2000/50

(51) Int. Cl.⁷: **F04B 43/00**

(43) Date of publication A2:
07.06.2000 Bulletin 2000/23

(21) Application number: **99203755.6**

(22) Date of filing: **10.11.1999**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

(72) Inventor: **Fabrizio, Fabrizio**
41100 Modena (IT)

(30) Priority: **03.12.1998 IT RE980058 U**

(74) Representative:
Corradini, Corrado et al
Studio Ing. C. CORRADINI & C. S.r.l.
4, Via Dante Alighieri
42100 Reggio Emilia (IT)

(71) Applicant:
Annovi Reverberi S.p.A.
41100 Modena (IT)

(54) **Device for indicating diaphragm rupture in high pressure pumps**

(57) A device for indicating diaphragm rupture in high pressure pumps, comprising a small vessel connected to the pump crankcase and located higher than the level of the highest point of the crankcase, in the interior of which there are provided oil level-sensitive means arranged to operate an indicator device when the oil level increases even by a minimum amount beyond the normal crankcase filling level.

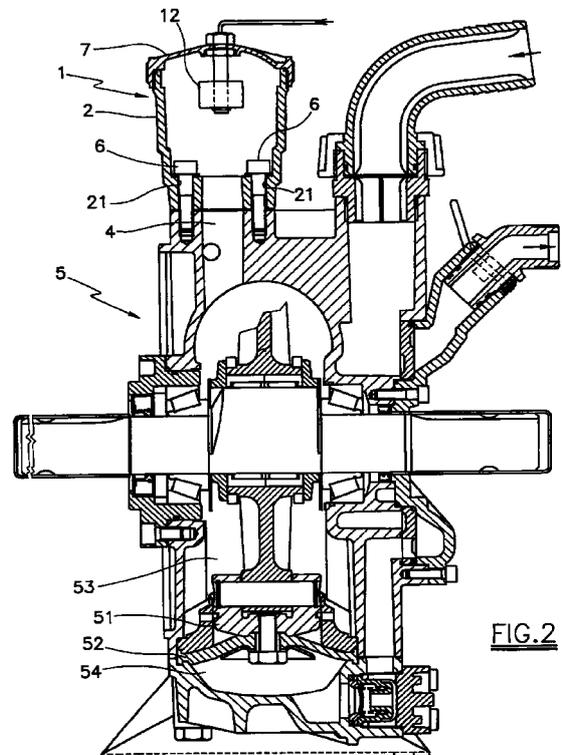


FIG.2

EP 1 006 279 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 99 20 3755

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	CH 223 832 A (CORBLIN HENRI) 15 October 1942 (1942-10-15) * the whole document *	1	F04B43/00
A	--- PATENT ABSTRACTS OF JAPAN vol. 013, no. 267 (M-840), 20 June 1989 (1989-06-20) & JP 01 069783 A (MITSUBISHI KASEI CORP), 15 March 1989 (1989-03-15) * abstract *	1	
A	--- PATENT ABSTRACTS OF JAPAN vol. 017, no. 217 (M-1403), 28 April 1993 (1993-04-28) & JP 04 353278 A (NIPPON SOKEN INC), 8 December 1992 (1992-12-08) * abstract *	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			F04B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 24 October 2000	Examiner Ingelbrecht, P
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	

EPO FORM 1503 03/82 (F04C01)

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

EP 99 20 3755

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.

24-10-2000

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
CH 223832 A	15-10-1942	NONE	
JP 01069783 A	15-03-1989	NONE	
JP 04353278 A	08-12-1992	NONE	

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82