11 Publication number:

**0 317 716** A3

(12)

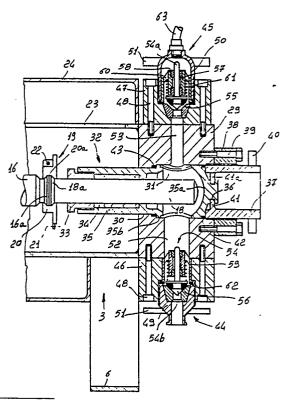
## **EUROPEAN PATENT APPLICATION**

- (21) Application number: 88114447.1
- 2 Date of filing: 05.09.88

(5) Int. Cl.4: F04B 15/02 , F04B 21/08 , F04B 21/02 , F04B 21/00

- 3 Priority: 23.11.87 IT 370287
- © Date of publication of application: 31.05.89 Bulletin 89/22
- Designated Contracting States:
  BE CH DE ES FR GB IT LI NL SE
- Date of deferred publication of the search report: 09.08.89 Bulletin 89/32
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- 54 Suction and force plunger pump.
- The suction and force plunger pump has at least one pumping chamber (31) in which a suction and force plunger (18), actuated by a cross-head crank system (14), is inserted at a packing-gland sealing device (32, 33). While said plunger is connected to said cross-head by means of a quick coupling (19), the packing-gland device is mounted so as to be extractable from said pumping chamber through an opening (23) thereof opposite to said cross-head and, at the same opening, its casing (35) is axially but not tangentially engaged by a ring (37) which is normally adapted to ensure the sealing lock between said chamber (31), said casing (35) and said ring (37) and vice versa to determine the extraction of the Apacking-gland device and, if said coupling is open, of the related plunger.

FIG.3



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## **EUROPEAN SEARCH REPORT**

EP 88 11 4447

DOCUMENTS CONSIDERED TO BE RELEVANT				
Category		indication, where appropriate, nt passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. CI 4)
Z	US-A-2 655 870 (Y	OHPE)		F 04 B 15/02
	* Column 1, line	1 - column 4, line	1	F 04 B 21/08
	19; figures 1-4	*		F 04 B 21/02
_				F 04 B 21/00
Y	US-A-4 500 267 (BIRDWELL)			
	* Column 2, line line 36 *	20 - column 3,	1	·
A	US-A-2 131 749 (O	FELDT)		
	* Page 1, right-h 50 - page 2, ri line 19; figure	ght-hand column,	1	
Ą	US-A-3 819 303 (P	•		
	* Column 2, lines	25-64; figure 1 *	3-5	
_				TECHNICAL FIELDS SEARCHED (Int. Cl.4)
A	US-A-3 679 332 (Y			·
	* Column 2, line line 55; figure	43 - column 3, 3 *	3,5	F 04 B
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	Place of search	Date of completion of the search	<del></del>	Examiner
	THE HAGUE	12-05-1989		VON ARX
Y : p	CATEGORY OF CITED DOCU articularly relevant if taken alone articularly relevant if combined w locument of the same category echnological background	E : earlier pa after the t	itent documer filing date	erlying the invention nt, but published on, or application er reasons



CLAIMS INCURRING FEES					
The present European patent application comprised at the time of filing more than ten claims.					
ш.	All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.				
	Only part of the claims fees have been paid within the prescribed time limit. The present European search				
	report has been drawn up for the first ten claims and for those claims for which claims fees have been paid,				
	namely claims:				
	No claims fees have been paid within the prescribed time limit. The present European search report has been				
	drawn up for the first ten claims.				
X LAC	K OF UNITY OF INVENTION				
	Division considers that the present European patent application does not comply with the requirement of unity of relates to several inventions or groups of inventions,				
namely:					
1 (1=	ims 1 2. Mounting of an auturn 12				
I. CIA	<pre>ims 1,2: Mounting of an extractable packing-gland</pre>				
	*				
2. Cla	<pre>ims 3-5: Details relating to suction and delivery     valves/passages</pre>				
3 (1)	im 6. Doviding the best of the				
J. CIA	im 6: Deviding the body of a pump with a plurality of chambers into tree removably joined box-like				
	parts				
	•				
	All further search fees have been paid within the fixed time limit. The present European search report has				
1	been drawn up for all claims.				
Only part of the further search fees have been paid within the fixed time limit. The present European sear					
	report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid,				
	namely claims: 1-5				
	None of the further search fees has been paid within the fixed time limit. The present European search report				
-	has been drawn up for those parts of the European patent application which relate to the invention first				
	mentioned in the claims.				
1	namely claims:				