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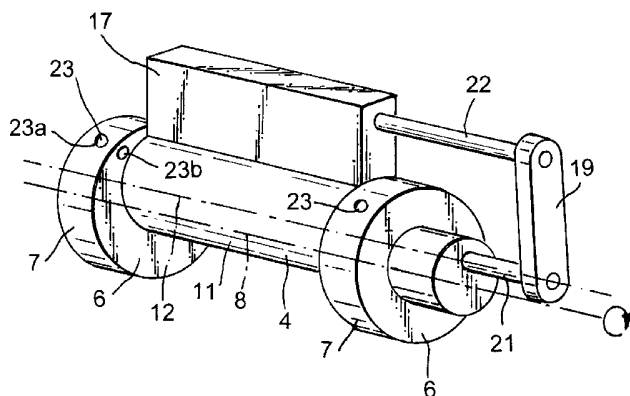
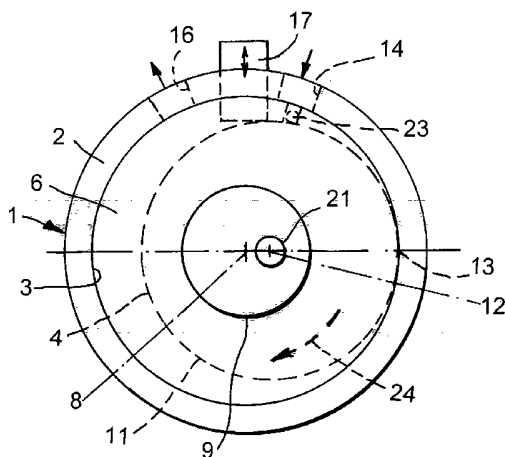
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- Published:**
— with international search report

[Continued on next page]

(54) Title: ROTARY POSITIVE DISPLACEMENT MACHINE



(57) Abstract: A stator (1) has a circular cylindrical internal surface (3) delimiting an operating chamber. A rotor (4) is mounted so as to be rotatable about the axis (8) of the internal surface (3) and has a cylindrical external surface (11), with one generatrix (13) adjacent to the internal surface (3), a diametrically opposite generatrix being spaced from the internal surface. A sealing member (17), projecting through a slot in the stator (1) into the operating chamber and being movable substantially radially, has an axial length substantially equal to that of the rotor (4). The sealing member (17) is connected to the rotor (4) by a linkage which causes the radially inner end of the sealing member to closely follow the external surface (3). A shutter disc (6) at one end of the rotor (4) covers a port (14), in particular an inlet port, in the stator (1). The disc (6) has a through-hole with a first end remote from the operating chamber and a second end opening into the operating chamber, the first end periodically overlapping the port (14) as the rotor (4) rotates.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

Inter al Application No
PCT/GB 01/03089

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F01C21/12 F01C1/46 F01C21/08 F04C29/08 F04C18/46

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F01C F04C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 895 609 A (ARMSTRONG JOHN M) 22 July 1975 (1975-07-22) claim 1; figures 1-11 ---	1-3,5, 7-10
A	US 1 698 815 A (JAWOROWSKI JOSEPH F) 15 January 1929 (1929-01-15) claim 1; figures 1,2 ---	1
A	DE 43 20 423 A (OPEL ADAM AG) 22 December 1994 (1994-12-22) claim 1; figure 2 -----	1,4

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

3 October 2001

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB 01/03089

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-10

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-10

A rotary positive displacement machine with a shutter valve.

2. Claims: 11-14

A rotary positive displacement machine with a linkage mechanism.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 01/03089

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 3895609	A	22-07-1975	DE 2340059 A1 JP 49124411 A	28-02-1974 28-11-1974
US 1698815	A	15-01-1929	NONE	
DE 4320423	A	22-12-1994	DE 4320423 A1 JP 7054660 A	22-12-1994 28-02-1995