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[Continued on next page]

(54) Title: VALVE ARRANGEMENT

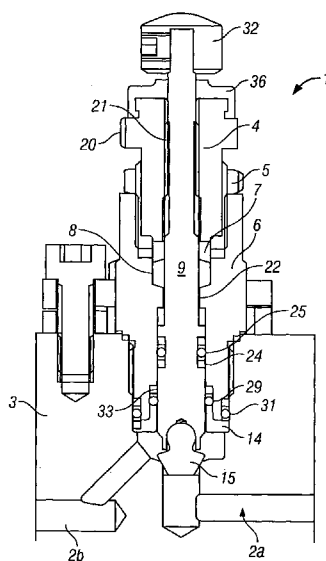


FIG. 1

(57) Abstract: A valve body (S) has a bore and a spindle (9) received in the bore, the spindle being actuable to open and close the valve. A compression gland seal (8) is provided about the spindle and between the spindle and the bore in the valve body. A first O ring seal (25) is provided about the spindle at a position spaced along the spindle from the gland seal, and provides a seal between the spindle and the bore of the valve body. A second O ring seal (29) provided about the spindle at a position spaced along the spindle from the gland seal and the first O ring seal, and provides a further seal between the spindle and the bore of the valve body.

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— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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INTERNATIONAL SEARCH REPORT

International application No

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A. CLASSIFICATION OF SUBJECT MATTER

INV. F16K5/06 F16K41/04

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)

F16K

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)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 44 19 426 A1 (KLEIN SCHANZLIN & BECKER AG [DE]) 7 December 1995 (1995-12-07) column 3, line 9 - line 60; figure 1 -----	1,2,5-7, 9-11,13, 14,17
X	DE 199 52 140 A1 (SCHUTH HORST [DE]) 3 May 2001 (2001-05-03) the whole document -----	1,2,5-7, 9-11,13, 14,17
X	US 2005/151107 A1 (SHU JIANCHAO [US]) 14 July 2005 (2005-07-14) paragraphs [0363], [0404]; figures A1,A2,B13 ----- -/--	1,2, 5-12,15, 17

☒ Further documents are listed in the continuation of Box C.☒ See patent family 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

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& document member of the same patent family

Date of the actual completion of the international search

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2 757 897 A (CLINE EARL E) 7 August 1956 (1956-08-07) the whole document	1-7, 9-12, 15-17
X	US 5 188 335 A (PETTINAROLI GIUSEPPE [IT]) 23 February 1993 (1993-02-23) figures	1,2,5-7, 9-12,14, 17
X	DE 86 12 500 U1 (R. & G. SCHMOELE METALLWERKE GMBH & CO KG, 5750 MENDEN, DE) 3 July 1986 (1986-07-03) the whole document	1,3,5,6, 8-12,17
A	DE 100 58 530 A1 (MHA ZENTGRAF MERZIGER HOCHDRUC [DE]) 29 May 2002 (2002-05-29) the whole document	1,4-7, 14,16
A	FR 2 653 522 A (FERRERO RUBINETTERIA R FERRERO [IT]) 26 April 1991 (1991-04-26) the whole document	1,2,5-7, 10-12,15

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2008/002454

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 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 No. III Observations where unity of invention is lacking (Continuation of item 3 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 allsearchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search reportcovers 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.:

1-17

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

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

1. claims: 1-17

Details of valve spindle sealing

2. claims: 18-20

Details of connector

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/GB2008/002454

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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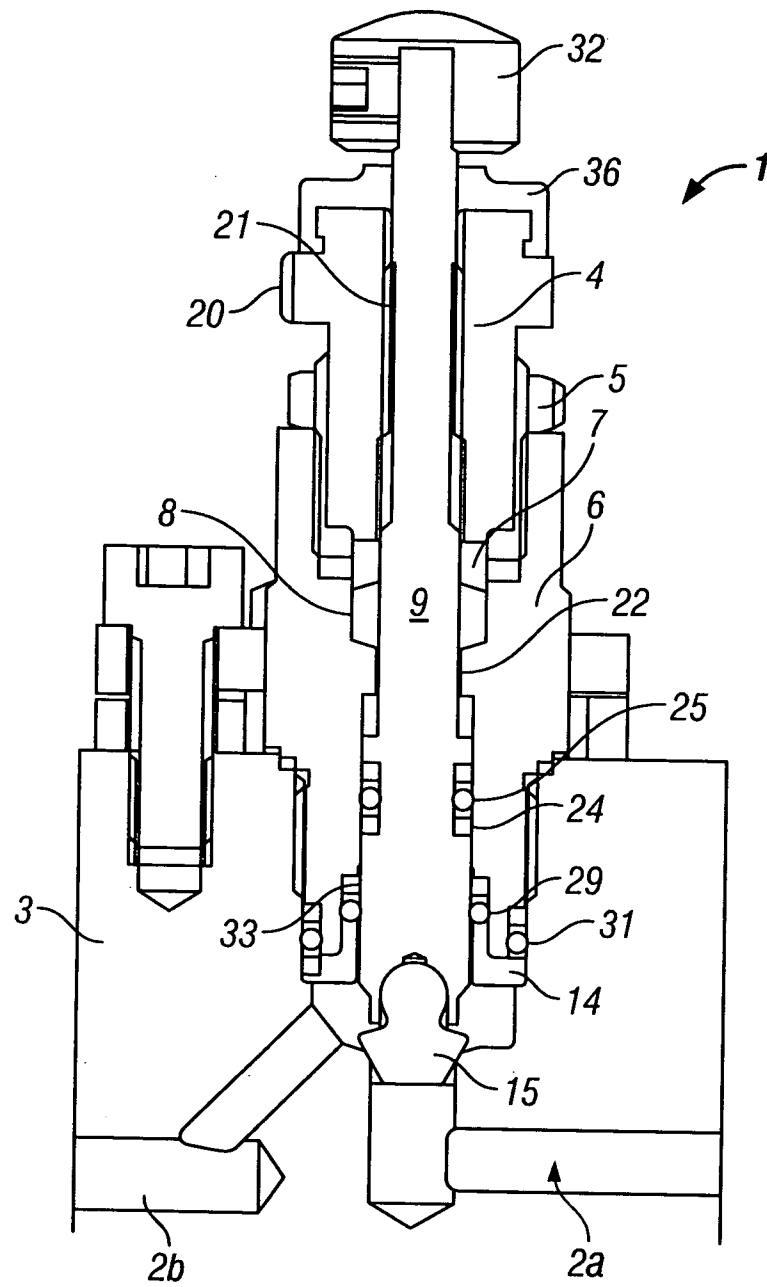


FIG. 1