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**Datasheet for the decision
of 19 June 2008**

Case Number: T 1160/06 - 3.2.05

Application Number: 97306193.0

Publication Number: 0824203

IPC: F16K 17/04

Language of the proceedings: EN

Title of invention:

Valve

Applicant:

FORT VALE ENGINEERING LIMITED

Headword:

-

Relevant legal provisions:

EPC Art. 54

Relevant legal provisions (EPC 1973):

-

Keyword:

"Novelty (all requests, no)"

Decisions cited:

-

Catchword:

-



Case Number: T 1160/06 - 3.2.05

D E C I S I O N
of the Technical Board of Appeal 3.2.05
of 19 June 2008

Appellant: FORT VALE ENGINEERING LIMITED
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 22 February 2006
refusing European application No. 97306193.0
pursuant to Article 97(1) EPC 1973.

Composition of the Board:

Chairman: W. Zellhuber
Members: P. Michel
M. J. Vogel

Summary of Facts and Submissions

- I. The appellant (applicant) lodged an appeal against the decision of the Examining Division refusing European patent application No. 97 306 193.0.

The Examining Division held that the subject-matter of claim 1 according to a main request and first, fourth, and fifth auxiliary requests was not new, whilst the subject-matter of claim 1 according to second, third, and sixth auxiliary requests lacked an inventive step.

The appellant requested that the decision under appeal be set aside and that a patent be granted in the version of Request A (main request), or of auxiliary requests B to G, all annexed to the decision under appeal.

- II. Oral proceedings before the Board of Appeal took place on 19 June 2008.

- III. The following document is referred to in the present decision:

D1: US-A-2,608,992

- IV. Claim 1 of the main request reads as follows:

"1. A pressure relief valve comprising a housing (10), an annular valve seat (12), a valve closure plate (14) having a deformable annular seal (52) and biasing means (16, 18) for biasing the valve closure plate into engagement with the valve seat, the valve closure plate being movable by means of fluid pressure within the

valve from a first, closed condition in which it engages the valve seat and into a second, open condition in which it is displaced from the valve seat, the valve closure plate (14) comprising first (14a) and second (14b) portions which are releasably securable together to retain the deformable seal (52) on the valve closure plate and the second portion (14b) of the closure member being removable from the downstream side of the valve seat with the valve in the closed condition to allow removal and/or replacement of the deformable seal (52), characterised in that the valve has a single assembled configuration, in which the annular valve seat (12) is fixed with respect to the housing (10) and by securing means (30, 78) for securing the valve housing (10) in fixed sealing contact with a tank container."

Claim 1 of the first auxiliary request (request B) differs from claim 1 of the main request in that the words "located on the opposite side of the valve seat from the valve closure plate" are introduced into the claim after "biassing means (16,18)".

Claim 1 of the second auxiliary request (request C) differs from claim 1 of the main request in that it is directed to "the combination of a pressure relief valve and a tank container" and that the words "with the container" are introduced after the words "a single assembled configuration".

Claim 1 of the third auxiliary request (request D) differs from claim 1 of the second auxiliary request in that the amendment of the first auxiliary request is made.

Claim 1 of the fourth auxiliary request (request E) differs from claim 1 of the main request in that the words "in the said single assembled configuration" are added at the end of the claim.

Claim 1 of the fifth auxiliary request (request F) differs from claim 1 of the first auxiliary request in that the words "in the said single assembled configuration" are added at the end of the claim.

Claim 1 of the sixth auxiliary request (request G) differs from claim 1 of the second auxiliary request in that the words "and wherein the first portion (14a) of the valve closure plate (14) sealingly engages the annular valve seat (12) when the valve is in the closed condition and the deformable seal (52) is not present" are added at the end of the claim.

V. The appellant has argued substantially as follows:

In column 3, lines 16 to 23 of document D1, it is stated that, "when the parts are in the position shown in Fig. 1 the safety valve with its extension will maintain the stop valve 26 in its full open position or at least in such a position that an area for passage of material into tube 74 is provided which is equal to or greater than the total discharge area past the safety valve when open or "popped"." It is thus disclosed that the position of the stop valve can be adjusted, so that the valve seat can also be moved relative to the housing.

In addition, the valve of document D1 has two operable positions. In the first operable position, shown in

Fig. 1, the valve acts as a pressure relief valve. In the second operable position, shown in Fig. 2, the valve is shut off. The valve is thus intended to be used in both of these configurations, in both of which pressure is maintained, so that the valve does not have a single assembled configuration. In contrast, the valve of the present invention is no longer in an assembled position as soon as the bolts 26 are loosened (see column 6, lines 24 to 28 of the application, published version).

Accordingly, document D1 does not disclose a valve which has a single assembled configuration, in which the annular valve seat is fixed with respect to the housing.

The subject-matter of claim 1 according to the main request is thus new.

The additional feature introduced into claim 1 of the second auxiliary request (request C) is also not disclosed in document D1, since the valve does not have a single assembled configuration with respect to the container.

Document D1 also does not disclose the feature specified in claim 1 of the fourth auxiliary request (request E), requiring securing means for securing the valve housing in fixed sealing contact with a tank container in the said single assembled configuration.

The subject-matter of claim 1 according to the auxiliary requests is thus also new.

Reasons for the Decision

1. *Main Request*

- 1.1 Document D1 discloses a safety relief valve, illustrated in Figures 1 and 2, comprising a housing (4), an annular valve seat (46), a valve closure plate (48,60) having a deformable annular seal (64,66) and biasing means (52) for biasing the valve closure plate into engagement with the valve seat, the valve closure plate being movable by means of fluid pressure within the valve from a first, closed condition in which it engages the valve seat and into a second, open condition in which it is displaced from the valve seat, the valve closure plate comprising first and second portions (48,60) which are releasably securable together to retain the deformable seal (64,66) on the valve closure plate and the second portion (60) of the closure member being removable from the downstream side of the valve seat with the valve in the closed condition to allow removal and/or replacement of the deformable seal (64,66).

The safety valve thus comprises all the features of the preamble of claim 1. This is not disputed by the appellant.

- 1.2 In Fig.1 of document D1, the valve is shown in its assembled configuration, that is, the valve is assembled so as to be capable of carrying out its intended function of acting as a pressure relief valve. It was suggested on behalf of the appellant that the configuration illustrated in Fig. 2 of document D1 also represents an assembled configuration, attention being

drawn to the passage at column 3, lines 16 to 23. This cannot be accepted by the Board. Fig. 2 shows a partially disassembled configuration in which the safety valve is in position for removal (column 1, lines 44 and 45).

The passage at column 3, lines 16 to 23, of document D1 is merely concerned with the operation of the stop valve (26) and indicates that, for proper functioning of the valve as a safety relief valve, it is necessary for the stop valve to be "at least in such a position that an area for passage of material into tube 74 is provided which is equal to or greater than the total discharge area past the safety valve when open or "popped"." This does not mean that the position of the stop valve is adjustable in the operable Fig. 1 configuration. It accordingly does not follow that the valve seat is not fixed with respect to the housing in the assembled configuration.

Whilst it is possible, for the purposes of removal and servicing of the valve, for the valve seat to be moved with respect to the housing, as shown in Fig. 2 of document D1, this necessitates the loosening of bolts (38) and nuts (80). This condition cannot be referred to as an "assembled configuration", since the valve is partly disassembled and does not serve its intended function as a pressure relief valve. In the valve of the present application, it is similarly possible for the valve seat (12) to be moved relative to the housing (10) after loosening of the nuts (26) so as to be in a partly disassembled condition.

Thus, in the single assembled configuration of the valve as illustrated in Figure 1 of the drawings of document D1, the annular valve seat (46) is fixed with respect to the housing (4).

1.3 In addition, in the safety valve of document D1, the housing (4) is secured in fixed sealing contact (6), for example by welding, with a tank container (2) (see column 1, line 53 to column 2, line 2).

1.4 The subject-matter of claim 1 according to the main request is thus not new.

2. *First Auxiliary Request ("Request B")*

In the pressure relief valve known from Document D1, the biasing means are also on the opposite side of the valve seat from the valve closure.

3. *Second Auxiliary Request ("Request C")*

The pressure relief valve known from Document D1 is shown in the assembled configuration illustrated in Figure 1 as being welded to the tank shell. Since, as discussed above under point 1.2 above, the valve has a single assembled configuration, in which the valve is fixed with respect to the housing, and the housing is fixed relative to the tank container, it follows that the valve has a single assembled configuration with respect to the container.

4. *Third Auxiliary Request ("Request D")*

Claim 1 includes the amendments of the first and second auxiliary requests, so that points 2 and 3 in connection with the first and second auxiliary requests also apply to this request.

5. *Fourth Auxiliary Request ("Request E")*

In the single assembled configuration shown in Fig. 1 of document D1, the valve housing (4) is in fixed sealing contact with the tank container (2), for example by welding as disclosed at column 1, line 53 to column 2, line 2.

6. *Fifth Auxiliary Request ("Request F")*

Claim 1 includes the amendments of the first and fourth auxiliary requests, so that points 2 and 5 above in connection with the first and fourth auxiliary requests also apply to this request.

7. *Sixth Auxiliary Request ("Request G")*

In the pressure relief valve known from Document D1, the first portion (48) of the valve closure plate sealingly engages with the annular valve seat (46) when the valve is in the closed position and the deformable seal is not present.

8. The subject-matter of claim 1 according to the auxiliary requests is thus also not new.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

D. Meyfarth

W. Zellhuber