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**Datasheet for the decision
of 8 November 2019**

Case Number: T 1892/16 - 3.2.01

Application Number: 05717964.0

Publication Number: 1730028

IPC: B63C9/00, B65D25/42, F16K15/20,
F16K41/08

Language of the proceedings: EN

Title of invention:
FLUID FLOW CONNECTOR

Patent Proprietor:
MANGAR INTERNATIONAL LIMITED

Opponent:
JUWEL Medizinprodukte GmbH

Headword:

Relevant legal provisions:
EPC Art. 54, 56

Keyword:
inventive step (auxiliary request 3 : yes)
main request (novelty : no)

Decisions cited:

Catchword:



Beschwerdekammern

Boards of Appeal

Chambres de recours

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Case Number: T 1892/16 - 3.2.01

D E C I S I O N
of Technical Board of Appeal 3.2.01
of 8 November 2019

Appellant: JUWEL Medizinprodukte GmbH
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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 13 June 2016
rejecting the opposition filed against European
patent No. 1730028 pursuant to Article 101(2)
EPC.**

Composition of the Board:

Chairman H. Geuss
Members: C. Narcisi
P. de Heij

Summary of Facts and Submissions

I. The opposition against European patent No. 1 730 028 was rejected and the patent was maintained as granted by the decision of the Opposition Division posted on 13 June 2016. Against this decision an appeal was lodged by the Opponent in due form and in due time pursuant to Article 108 EPC.

II. Oral proceedings were held on 8 November 2019. The Appellant (Opponent) requested that the impugned decision be set aside and that the patent be revoked. The Respondent (Patentee) requested that the appeal be dismissed (i.e. that the patent be maintained as granted (main request)) or, alternatively, that the decision under appeal be set aside and that the patent be maintained in amended form according to any of auxiliary requests 1 to 7 (filed on 26 April 2017 with the reply to the Appellant's statement of grounds of appeal).

III. Granted claim 1 reads as follows:

"A structure comprising a flexible membrane (B) defining an interior volume into which a fluid can be introduced and a fitting attached to the membrane, said fitting comprises a mounting adaptor (1) secured to said membrane and an insert (2) characterized in that the insert is releasably received in the mounting adaptor and the mounting adaptor has a resiliently deformable part (5c) arranged to embrace and hold the insert (2), wherein the mounting adaptor (1) is secured in an aperture in the membrane (B) such that said resiliently deformable part (5c) projects into the interior volume defined by the membrane so as to be exposed to the pressure of fluid in the interior

volume, the fitting being configured such that exposure to the fluid pressure inside the interior volume urges the resiliently deformable part into gripping engagement with the insert (2)".

Claim 1 of auxiliary request 1 differs from granted claim 1 in that the wording "characterized in that the insert is releasably received in the mounting adaptor and the mounting adaptor has" is replaced by "the insert being releasably received in the mounting adaptor and the mounting adaptor having" and in that the wording "into gripping engagement with the insert" is replaced by "into gripping engagement with the insert (2); characterized in that the insert (2) is provided with ribs (8, 9) to engage with said resiliently deformable part (5c)".

Claim 1 of the second auxiliary request differs from claim 1 of the first auxiliary request in that the wording "characterized in that the insert (2) is provided with ribs (8, 9) to engage with said resiliently deformable part (5c)" is replaced by "characterized in that the insert (2) is provided with circumferential ribs (8, 9) and a circumferential recess (10) there between for receiving said resiliently deformable part (5c)".

Claim 1 of the third auxiliary request differs from claim 1 of the first auxiliary request in that the wording "characterized in that the insert (2) is provided with ribs (8, 9) to engage with said resiliently deformable part (5c)" is replaced by "characterized in that the resiliently deformable part (5c) comprises a sleeve for receiving the insert, said sleeve joined by a radially extending web (5b) to an outer cylindrical part (5a) of the mounting adaptor".

IV. The Appellant's arguments, as far as relevant for the present decision, may be summarized as follows:

The subject-matter of granted claim 1 is not new over D3 (DE-U-723 83 13) as all disputed features are known from D3, i.e. the feature reading "the mounting adaptor has a resiliently deformable part arranged to embrace and hold the insert" (hereinafter designated as feature (i)), the feature reading "the fitting is configured such that exposure to the fluid pressure inside the interior volume urges the resiliently deformable part into gripping engagement with the insert" (hereinafter designated as feature (ii)) and the feature reading "wherein the insert is releasably received in the mounting adaptor" (hereinafter designated as feature (iii)). Indeed, D3 discloses a mounting adaptor ("Haltering", see figures 2, 4), having cylindrical outer walls 27, 28 being elastically and resiliently deformable, and embracing and holding an insert ("Ventilkörper", see figure 1). Moreover, said walls are exposed to fluid pressure inside the interior volume, said pressure urging said walls into gripping engagement with the insert. Furthermore, D3 explicitly discloses that the insert is releasably received in the mounting adaptor.

The subject-matter of claim 1 of the first and second auxiliary request is not new over D3 since the added features are likewise known therefrom.

The subject-matter of claim 1 of auxiliary request 3 is not inventive over D3 in combination with the disclosure of document D1. The additional feature introduced by amendment into claim 1 does not contribute to inventive step since the skilled person,

in an endeavour to improve the sealing function of the known device of D3, would implement this feature in an obvious manner. Indeed, said feature is disclosed in D1, which belongs to the same technical field as D3, and the skilled person would clearly realize that this feature would solve the posed technical problem.

No other lines of arguments (either on novelty or inventive step) are submitted in relation to claim 1 of auxiliary request 3.

V. The Respondent's arguments, as far as relevant to the present decision, may be summarized as follows:

The subject-matter of granted claim 1 (main request) is new over D3, as features (i) to (iii) are not known therefrom.

Firstly, feature (i) is missing in D3, despite the retaining ring ("Haltering") admittedly having a resiliently deformable wall. Indeed, as noted by the Opposition Division, this does not necessarily mean that certain parts or every part of the retaining ring is resiliently deformable. The lower portion (or cylindrical wall) 27 of the retaining ring must have a certain rigidity in order to support and centralize the valve insert (so as to ensure the sealing function of the valve).

Secondly, feature (ii) is also missing in D3. The inner surface of the cylindrical wall 27, 28 is exposed to the fluid pressure inside the interior volume. The outer sleeve section 20 of the valve body however does not circumferentially engage said inner cylindrical wall 27, 28, but only the projections 13 formed on said wall. Thus, the volume formed between inner cylindrical

wall 27, 28 and outer sleeve section 20 of the valve body will be exposed to the pressure inside the interior volume, compensating the pressure acting on the oppositely located outer portion of said cylindrical wall 27, 28 and inner sleeve section 20. Likewise, as regards other portions of cylindrical wall 27, 28, no net pressure arises acting on said cylindrical wall 27, 28 and urging it into gripping engagement with the insert (valve body) as claimed.

Finally, feature (iii) is missing in D3, the force with which the retaining ring is clamped is necessarily high, as this is what holds the assembly together and attaches it to the flexible membrane to form a seal. In order to separate the valve body from the retaining ring, it is necessary to deflect the snap ring 6 at the end of the sleeve section 20 radially inwardly. Since it is not possible to access the snap ring 6 when the valve is assembled, this does not appear to be possible.

In relation to claim 1 of auxiliary requests 1 and 2 reference is made to the written submissions. The subject-matter of claim 1 of auxiliary request 1 is new over D3, the ribs 5 in (the insert or valve member of) D3 not engaging with the retaining ring but with the neck 33 of the bladder (membrane) and so not engaging with a resiliently deformable part of the retaining ring. Further, the ribs 5 are provided on the upper portion of the sleeve 20, opposite the upper portion 28 of the retaining ring wall, which cannot be regarded as being the claimed resiliently deformable part of the mounting adaptor because it does not embrace and hold nor engage with the valve body.

For the same reasons the subject-matter of claim 1 of auxiliary request 2 is new over D3, the further added features (relating to a circumferential recess formed between the circumferential ribs to receive said resiliently deformable part) also not being derivable from D3.

The subject-matter of claim 1 of auxiliary request 3 is inventive over D3, as the combination with D1 would not be obvious for the skilled person.

Reasons for the Decision

1. The appeal is admissible.
2. The subject-matter of granted claim 1 (main request) is not new (Article 54 EPC) over D3, said disputed features (i) to (iii) being known from D3.

Firstly, feature (i) is clearly and unambiguously disclosed in D3, as the mounting adaptor 14 or retaining ring ("Haltering") is entirely made of an elastic material (see e.g. D3, page 5, last paragraph; page 13, second paragraph, "elastische Ausbildung"), thus in particular cylindrical walls 27, 28 (clearly directly or indirectly (through the interposed membrane) embracing and holding the valve body (insert)). Any elastic material necessarily has a certain amount of rigidity, and as granted claim 1 and the patent specification do not include any numerical values related to specific elastic or resiliency properties of the materials used, feature (i) has to be regarded as disclosed by the inherent material properties derivable from the mentioned passages of D3.

Further, feature (ii) is likewise clearly and unambiguously disclosed in D3. In particular, it is explicitly stated in D3 that the membrane (bladder) is sealingly clamped in the space defined between the internal cylindrical wall portion 27, 28 of the retaining ring 14 (mounting adaptor) and the outer cylindrical wall 20 of valve body (or insert) (see passage bridging pages 13 and 14, in particular "Einquetschen wird zwecks Herbeiführung einer wirksamen Halterung und Abdichtung begünstigt"; "bei einem sicheren Einklemmen und Abdichten der Blase"; see also page 4, third paragraph). Therefore, no fluid pressure from the interior volume can act in this intermediate space, as this will be effectively sealed (at least in the space or region between upper cylindrical wall 28 and the valve body). Consequently, the pressure in the interior volume acting on the outer cylindrical wall portion 27, 28 and on the opposite interior cylindrical wall portion of the valve body (insert) will urge these two wall portions into gripping engagement, thereby implementing feature (ii).

Feature (iii) is also clearly and unambiguously disclosed in D3, as this results literally from D3 (see page 4, last paragraph - page 5, first paragraph). The Respondent asserts that this passage is in contradiction to the figures of D3, since the snap ring 6 ("Schnappring 6") impedes and obstructs the release of the insert. However this argument is not convincing. A clear and unambiguous disclosure in the description has to be taken at face value, unless manifestly and evidently contradicted, and thereby rendered invalid by the figures. However, in the present case there is no clear and unambiguous evidence (in the figures) that the snap fit engagement between the retaining ring

(mounting adaptor) and the valve body is not releasable. Quite to the contrary, it appears (see figure 4 of D3) that in the deflated state of the bladder (or membrane) a force can be exerted on the upper portions and on the bottom portions of the retaining ring and of the valve member (using appropriate tools if necessary) to disengage these two parts.

As the remaining features of claim 1 are undisputedly known from D3, this document anticipates the claimed subject-matter.

3. The subject-matter of claim 1 of auxiliary request 1 and 2 is not new over D3, the added features being likewise known from D3. In effect, D3 discloses (see figures 1, 2, 4, 5) that the valve body (insert) is provided with ribs 5 and snap ring 6 ("Schnapping 6"), forming a recess therebetween to engage and receive (at least partly) said resiliently deformable part of the retaining ring (mounting adaptor) ("Haltering"). The ribs and the recess are circumferential (see page 11, line 7: "der in Fig. 1 gezeigte Ventilkörper ist rotationssymmetrisch").

4. The subject-matter of claim 1 of auxiliary request 3 is not rendered obvious by D3 in view of D1 (Article 56 EPC). The skilled person starting from D3 would not combine these documents in an obvious manner, for there is no indication in D3 that would provide an incentive for the skilled person to modify the device of D3 in the way required so as to arrive at the claimed subject-matter. In particular, there is no hint or suggestion in the prior art that the known device of D3 suffers from specific technical difficulties related to its sealing functions, let alone that these could be

improved by implementing the structural features disclosed in D1.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance with the order to maintain the patent in amended form on the basis of claims 1 to 21 according to the third auxiliary request (filed on 26 April 2017 with the reply to the statement of grounds of appeal) and with a description to be adapted accordingly.

The Registrar:

The Chairman:



D. Magliano

H. Geuss

Decision electronically authenticated