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D E C I S I O N
of 28 November 2002

Case Number: T 0168/00 - 3.2.4

Application Number: 92306410.9

Publication Number: 0523946

IPC: F16J 15/08

Language of the proceedings: EN

Title of invention:
Metallic gasket

Patentee:
NIPPON GASKET COMPANY Ltd.

Opponent:
ElringKlinger AG

Headword:
-

Relevant legal provisions:
EPC Art. 54(3), (4), 56

Keyword:
"Novelty and inventive step - yes"

Decisions cited:
-

Catchword:
-

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Case Number: T 0168/00 - 3.2.4

D E C I S I O N
of the Technical Board of Appeal 3.2.4
of 28 November 2002

Appellant: (Opponent)
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Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted 17 November 1999 rejecting the opposition filed against European patent No. 0 523 946 pursuant to Article 102(2) EPC.**

Composition of the Board:

Chairman: C. A. J. Andries
Members: M. G. Hatherly
C. Holtz

Summary of Facts and Submissions

I. The opposition division's decision rejecting the opposition against European patent No. 0 523 946 was posted on 17 November 1999.

On 7 January 2000 the appellant (opponent) filed an appeal and paid the appeal fee. The statement of grounds was filed on 27 March 2000.

II. Claim 1 as granted reads:

"A metallic gasket comprising first and second elastic metallic plates (1,8) provided with beads (4,10) which constitute seal portions, and which are formed on the portions of said metallic plates (1,8) which are spaced from the circumferences of cylinder bore-aligned holes (2,9) in the radially outward direction thereof, so as to extend along the circumferences of said holes (2,9), one surface of said beads (4,10) extending incliningly from flat portions of said metallic plates (1,8) so as to form projecting portions, the other surface of said beads (4,10) extending incliningly from flat portions of said metallic plates (1,8) so as to form recessed portions, said second elastic metallic plate (8) being provided with beads (10) opposed to said beads (4) on said first elastic metallic plate (1);

gasket wherein the first elastic metallic plate (1) has folded portions (5) formed by bending said metallic plate (1) along the circumferences of said cylinder bore-aligned holes (2) onto the surface thereof on which said projecting portions of said beads (4) extend, said folded portions (5) serving to prevent said beads (4) from being fully compressed; and said projecting portions of said beads (4) on said first

elastic metallic plate (1) and those of said beads (10) on said second elastic metallic plate (8) are arranged so as to be opposed to each other in a contacting state."

III. The following documents played a role in the appeal proceedings:

E1: EP-A-0 486 255

E2: US-A-4 799 695

IV. Both parties attended oral proceedings on 28 November 2002.

During the appeal proceedings the appellant argued that the metallic gasket of the granted claim 1 lacked novelty over the explicit and implicit disclosure of E1 and lacked inventive step over the combined teachings of E2 and E1.

During the appeal proceedings the respondent (patentee) countered the appellant's arguments.

V. The appellant requested that the decision under appeal be set aside and the patent revoked.

The respondent requested that the appeal be dismissed i.e. that the patent be maintained unamended.

Reason for the Decision

1. The appeal is admissible.

2. *E1*

The appellant cited EP-**B**-0 486 255 under Article 54(3)(4) EPC but since Article 54(3)(4) EPC refers to "... the content of European patent **applications as filed** ...", it should have been EP-**A**-0 486 255 (numbered E1 above).

In this decision the board construes all arguments based on EP-**B**-0 486 255 as being based on E1.

3. *Novelty - claim 1*

3.1 Figure 13 of E1 shows the projecting portion (i.e. the male side) of a bead (4) on a first plate (1) fitting into the recessed portion (i.e. the female side) of a bead in a second plate (6), the beads of the two plates pointing in the same direction.

3.2 Column 25, lines 1 to 5 of claim 1 as granted however specifies that

a "said projecting portions of said beads (4) on said first elastic metallic plate (1) and those of said beads (10) on said second elastic metallic plate (8) are arranged so as to be opposed to each other in a contacting state".

3.3 Thus the gasket of Figure 13 of E1 wherein the projecting portion of the bead (4) on one plate (1) contacts the **recessed** portion of the bead on the other

plate (6) is not in accordance with claim 1 as granted which specifies that the projecting portion of the bead (4) on one plate (1) contacts the **projecting** portion of the bead (10) on the other plate (8).

Accordingly the gasket of the present claim 1 is novel over the gasket shown in Figure 13 of E1.

3.4 In the appeal proceedings the appellant did not cite any passage or Figure in E1. Section 23.1.1 (sic) on page 4 of the opposition division's decision refers only to Figure 13 of E1. The last paragraph of page 1 of the notice of opposition cites the embodiment of Figures 11 to 17 of E1 but Figures 11, 12 and 14 to 17 and the written parts of E1 bring nothing more relevant than what can be seen on Figure 13 of E1. In the oral proceedings before the board the appellant stated that the feature a referred to in the above section 3.2 admittedly could not be found in E1 but that it was implicitly contained in D1 in view of the interpretation of claim 1 as granted. However the appellant did not cite any passages in E1 to support his allegation of its implicit disclosure of the claimed subject-matter.

3.5 The board finds that the feature a referred to in the above section 3.2 is unambiguous and sees no need to resort to the rest of the patent specification for interpretation of the claim (as permitted by Article 69(1) EPC). Moreover, even if the rest of the patent specification is in fact examined, nothing is found which places doubt on the meaning of this feature a.

3.6 The present claim 1 specifies

b "one surface of said beads (4,10) extending incliningly from flat portions of said metallic plates (1,8) so as to form projecting portions" - see column 24, lines 43 to 46,

c "the other surface of said beads (4,10) extending incliningly from flat portions of said metallic plates (1,8) so as to form recessed portions" - see column 24, lines 46 to 48, and

d "said second elastic metallic plate (8) being provided with beads (10) opposed to said beads (4) on said first elastic metallic plate (1)" - see column 24, lines 48 to 51.

3.7 Features b and c explain clearly the construction of and difference between the projecting and recessed portions so that referring (further on in claim 1) in feature a to the projecting portions cannot possibly cause any difficulty for the skilled reader.

3.8 Feature d repeats almost word for word the final part of claim 1 as originally filed (lines 28 to 30 of column 30 of EP-A-0 523 946).

This originally filed claim 1 covered

- gaskets where the projecting portions of the beads of one plate fitted in the **recessed** portions of the beads of the other plate (as shown clearly in the cross-sectional Figures 4, 5, 7 , 8, and 10 to 13, and specifically claimed in the originally filed dependent claim 2),

as well as

- gaskets where the projecting portions of the beads of one plate contacted the **projecting** portions of the beads of the other plate (as shown clearly in the cross-sectional Figures 16 to 23, and specifically claimed in the originally filed claim 9 which was directly dependent on claim 1).

The originally filed claim 1 (and in particular this general wording of feature d) was restricted by adding the originally filed claim 9 (i.e. feature a) to it to arrive at the granted claim 1. The originally filed description was amended to state in lines 52 to 54 of column 11 of the granted patent that "The metallic gaskets shown in Figures 1 to 13 are not in accordance with the present invention and are included for illustrative purposes only."

3.9 Thus the argument that the granted claim 1 also covers gaskets where the projecting portions of the beads of one plate fit in the recessed portions of the beads of the other plate cannot be accepted by the board.

3.10 The appellant cited the description of the granted patent, starting at line 14 of column 20 which states that "The upper bead plate (8) is laminated on the lower bead plate (1) with only the projecting portions of the beads 4, 10 contacting each other ..." but this passage is in no way inconsistent with claim 1 as granted and so does not cast doubt on its meaning.

The argument of the appellant that a modification of the spring constants of the metallic plates could also be achieved when the beads of one plate lay inside the beads of the other plate, even if accepted, remains irrelevant because claim 1 as granted clearly excludes this construction.

3.11 The board is thus satisfied that E1 does not disclose a metallic gasket with all the features of claim 1.

3.12 During the oral proceedings the appellant referred to five hand-drawn sketches of gaskets. Since such gaskets do not correspond with those shown in E1 (the sole document used for attacking novelty), the sketches are irrelevant. Moreover the appellant did not present any proof that such gaskets had ever existed.

It is not the task of the board to comment on whether any of these sketched gaskets falls within the scope of claim 1 as granted. However, while the sketches were being discussed, the respondent did comment that claim 1 in the context of the patent as a whole meant that, while the opposed beads might have a different width and shape, they would have to be in general alignment.

3.13 The subject-matter of claim 1 is thus novel within the meaning of Article 54 EPC.

4. *Inventive step - claim 1*

4.1 In the appeal proceedings the appellant argued that the differences between the gasket of claim 1 as granted and that shown in Figure 9 of E2 are merely that

e the folded portions (5A and 5B on Figure 16 of the patent for example; 44a on Figure 9 of E2) are on the first metallic plate (1 on Figure 16 of the patent) instead of on a separate plate (44 on Figure 9 of E2); and

f there is no intermediate element (44 and 46 on Figure 9 of E2).

4.2 The appellant continued as follows:

The compensating plate (44) of the intermediate element of E2 serves as a stopper. The thickness of the intermediate plate (46) of the intermediate element of E2 is chosen to provide the gasket with the necessary thickness to fill the gap specified by the motor manufacturer. If the gap is sufficiently small, no intermediate element (44) and (46) is needed and the projecting portions of the beads (56) and (58x) will automatically contact each other. However one would still need the stopper. Faced with this problem, the skilled person would look around for a suitable solution and would hit upon the solution according to E1, i.e. providing the stopper directly on the elastic metallic plate.

4.3 The inventive step argument of the appellant thus starts from E2 and proceeds via E1 to the claimed gasket.

However E1 is a citation under Article 54(3)(4) EPC and according to Article 56 EPC "documents within the meaning of Article 54, paragraph 3 ... are not to be considered in deciding whether there has been an inventive step."

Despite the respondent pointing out in the letter of 10 August 2000 that an inventive step argument based on an Article 54(3) EPC citation was unallowable, the appellant maintained this argument in the oral proceedings and, when the board confirmed said unallowability, presented no alternative argument.

The sole inventive step argument therefore fails since it relies on a false link.

Therefore, there is no remaining valid argument that the difference e of the above section 4.1 is obvious.

4.4 Moreover the board does not accept that even the difference f of the above section 4.1 is obvious.

If the skilled person reading E2 wished a thin gasket he would immediately choose one of the thin gaskets shown in E2 rather than modifying the thick gasket of Figure 9.

Moreover lines 26 to 44 of column 9 of E2 referring to Figure 9 specifically refer to the "laminated structure consisting of the compensating plate 44 and intermediate plate 46" and state that "the summit of the first bead 56 contacts the intermediate plate 46 and the summit of the second base 58x contacts the compensating plate 44" and that "only the summits of the first and second beads 56 and 58x come into contact with the plates 46 and 44, respectively" and so point away from the compensating plate (44) and intermediate plate (46) being optional.

Indeed claim 1 of E2 even teaches away from the intermediate element (44) and (46) being optional

because it specifies two non-beaded plates (column 11, lines 37, 38, 49 and 50) i.e. the compensating plate (44) and the intermediate plate (46).

Also claim 8 of E2 (which is the independent claim directed to the embodiment of Figure 9) specifies two non-beaded plates (see column 14, lines 11 to 13) so the intermediate element (44) and (46) cannot be optional.

Moreover, all the claims of E2 specify at least three plates so that a modification of the gasket of Figure 9 of E2 to reduce it to two plates would not be obvious.

The appellant has failed to cite a clear pointer and a good reason in the available prior art to deviate from the arrangement shown in Figure 9 of E2.

4.5 The appellant's sole obviousness argument is based on E2 and E1 and, as argued in the above sections 4.3 and 4.4, this argument fails.

5. Thus the board finds that the subject-matter of claim 1 of the present patent is patentable. Claims 2 to 16 are dependent on this claim 1 and are also patentable.

The patent may therefore be maintained unamended.

Order

For these reasons it is decided:

The appeal is dismissed.

The Registrar: The Chairman:

G. Magouliotis C. Andries