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D E C I S I O N
of 1 December 1999

Case Number: T 0735/98 - 3.2.1

Application Number: 91309060.1

Publication Number: 0486150

IPC: F16J 15/08

Language of the proceedings: EN

Title of invention:

Steel laminate gasket with seal protecting member

Patentee:

Ishikawa Gasket Co. Ltd.

Opponent:

T&N Holdings GmbH
Reinz-Dichtungs-GmbH

Headword:

-

Relevant legal provisions:

EPC Art. 84, 123(2)

Keyword:

"Addition of subject-matter (no)"

Decisions cited:

-

Catchword:

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Boards of Appeal

Chambres de recours

Case Number: T 0735/98 - 3.2.1

D E C I S I O N
of the Technical Board of Appeal 3.2.1
of 1 December 1999

Appellant: Ishikawa Gasket Co. Ltd.
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Decision under appeal: Interlocutory decision of the Opposition Division of the European Patent Office posted 5 June 1998 concerning maintenance of European patent No. 0 486 150 in amended form.

Composition of the Board:

Chairman: F. Gumbel
Members: S. Crane
J. Willems

Summary of Facts and Submissions

- I. European patent No. 0 486 150 was granted on 20 December 1995 on the basis of European patent application No. 91 309 060.1.
- II. The granted patent was opposed by the present respondents on the grounds that its subject-matter lacked novelty and/or inventive step (Article 100(a) EPC).
- III. With its decision posted on 5 June 1998 the Opposition Division found that the patent could be maintained in amended form on the basis of a set of claims 1 to 5 according to the fourth auxiliary request presented by the present appellants (proprietors of the patent) at the oral proceedings held on 22 April 1998.

Claim 1 of this request reads as follows:

"A steel laminate gasket (A; B) for an internal combustion engine having a plurality of cylinder bores (Hc) and at least one fluid hole (Hw) therein, comprising:

a plurality of plates (A10, A11, A12; B10, B11, B12) for constituting the steel laminate gasket, each plate having first holes corresponding to the cylinder bores (Hc) and at least one second hole corresponding to the fluid hole (Hw) of the engine, said second hole being located between the first hole and a gasket edge portion (A11c; B11c),

means (A11a; B11a) for sealing around the fluid hole of the engine, said sealing means entirely surrounding the fluid hole, and

a supporting bead (A11b; B10a) situated between the gasket edge portion (A11c; B11c) and the sealing means facing the gasket edge portion, said supporting bead being integrally formed on one of the plates,

said supporting bead (A11b; B10a) operating as a bead which is effective for only partly supporting the sealing means (A11a; B11a) and which extends only partly round the sealing means (A11a; B11a) without extending around the entire edge of the gasket, said supporting bead being located separately and curving generally along the sealing means at a predetermined distance away from both the sealing means and the gasket edge portion so that when the gasket is tightened, the supporting bead receives a part of the tightening pressure applied to the sealing means and provides surface pressure higher than the surface pressure of the sealing means, the higher surface pressure being achieved by virtue of the supporting bead being either higher (A11b; B10a) than the sealing means or by being formed on a plate (B10) which is thicker than the plate (B11c) containing the sealing means so as to protect the sealing means against creep relaxation."

Dependent claims 2 to 5 relate to preferred embodiments of the gasket according to claim 1.

In its decision the Opposition Division had given the reasons for not allowing the main and first to third auxiliary requests considered by it. These were that the subject-matter of claim 1 of the main request lacked novelty, that the subject-matter of claim 1 of the first and second auxiliary request lacked inventive step and that claim 1 according to the third auxiliary

request was unclear.

- IV. An appeal against this decision was filed on 23 July 1998 and the fee for appeal paid at the same time.

The statement of grounds of appeal was filed on 29 September 1998. With this statement the appellants submitted a new set of claims 1 to 4 on the basis of which the patent was to be maintained in amended form.

The new claim 1 corresponds to the claim 1 accepted by the Opposition Division except in that the statement at the end of the claim as to how the higher surface pressure is achieved has been amended to read:

"the higher surface pressure being achieved by virtue of the supporting bead having a characteristic selected from at least one of: the supporting bead being higher (A11b; B10a) than the sealing means; being formed on a plate (B10) which is thicker than the plate (B11) containing the sealing means; and, being formed on a plate (B10) which is harder than the plate (B11) containing the sealing means so as to protect the sealing means against creep relaxation."

Dependent claims 2, 3 and 4 correspond to the dependent claims 2, 3 and 5 accepted by the Opposition Division.

In support of their request the appellants argued that in drafting the fourth auxiliary request at the oral proceedings before the Opposition Division in order to meet the objection that claim 1 according to the third auxiliary request was too broad in ambit they had introduced references to two specific possibilities of

achieving the required technical result of a higher surface pressure at the supporting bead, but had inadvertently relegated the third specific possibility - wherein the supporting bead is formed on a plate which is harder than the plate containing the sealing bead - to the role of a preferred feature to be used in combination with the other two possibilities, as stated in dependent claim 4. That there were indeed three distinct possibilities envisaged in the original application for achieving the desired technical result was clear for example from column 4, paragraph 3 of the published A-document and from the originally filed claims.

- V. With a letter dated and received 28 January 1999, the second respondents (opponents 02) stated that they had no objection to the patent being maintained in the form now requested by the appellants.

The first respondents (opponents 01) have made no response to the appeal.

- VI. In reply to a communication of the Board dated 15 July 1999, the appellants submitted on 15 September 1999 revised pages 1 and 1b, adapted to the terms of the new claim 1.

Reasons for the Decision

1. The appeal complies with the formal requirements of Articles 106 to 108 and Rules 1(1) and 64 EPC. It is therefore admissible.

2. Present claim 1 has been derived from granted claim 1 by the addition of the features of granted dependent claims 2 and 3 concerning the nature and location of the supporting bead together with, as alternatives (which may be combined with each other), a definition of three techniques by means of which a higher surface pressure at the supporting bead is achieved. These three techniques are by providing a supporting bead which is higher than the sealing means; by providing the supporting bead on a plate which is thicker than the plate containing the sealing means; and by providing the supporting bead on a plate which is harder than the plate containing the sealing means. The second and third of these techniques formed the subject of granted dependent claims 7 and 8, which corresponded in essence to originally filed claims 7 and 8. The first of the techniques was not mentioned specifically in the granted claims, it is however the one used in the embodiment of Figures 1 to 3 of the patent specification. It was the omission of the third of the techniques from claim 1 of the fourth auxiliary request accepted by the Opposition Division (it was in fact retained as a preferred embodiment in the then dependent claim 4, now deleted) which forms the basis of the present appeal.

Given that present claim 1 incorporates all of the features of granted claim 1 it is apparent that the requirement of Article 123(3) EPC has been met. With regard to the requirement of Article 123(2) EPC what needs to be investigated is whether the original application indeed disclosed to the person skilled in the art the three techniques discussed above as genuine alternatives which could be employed individually. This

is certainly the case with respect to the first of those techniques, namely the provision of a supporting bead which is higher than the sealing means, since, as already indicated above, it is this technique exclusively which is used in the embodiment of Figures 1 to 3. In the embodiment of Figure 4 on the other hand the supporting bead, as discussed in column 4, paragraph 3, of the published A-document, is both higher than the sealing means and on a plate which is thicker than the plate containing the sealing means. Moreover, as stated at the end of this paragraph, the plate with the supporting bead may also be harder than the other plate. Thus here there is an explicit disclosure of both the combination of the first two techniques and of all three techniques, but no explicit disclosure of the use of the second and third techniques individually. However, a clear indication that the possibility is envisaged of using either the second or third technique independently of the first or of each other is to be found in the terms of original dependent claims 7 and 8 which are separately directed to those two techniques and are not dependent one on the other or on a claim which requires the use of the first technique. For this reason the Board is satisfied that the subject-matter of present claim 1 is properly disclosed in the original application, so that this claim meets the requirements of Article 123(2) EPC.

3. The arguments in the decision of the Opposition Division concerning inventive step apply *mutatis mutandis* to the new claim 1 with its added option of achieving higher surface pressure by means of the third technique mentioned above. The arguments do not rely in any way on the two specific techniques previously

stated in the claim being in themselves of special merit.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the patent in amended form on the basis of the following documents:

Description: Pages 1 (columns 1 and 2) and 1b submitted on 15 September 1999; page 1a submitted on 22 April 1998 and columns 3 and 4 as granted.

Claims: 1 to 4 submitted on 29 September 1998.

Drawings: Figures 1 to 4 as granted.

The Registrar:

The Chairman:

S. Fabiani

F. Gumbel