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**Datasheet for the decision
of 21 September 2018**

Case Number: T 0917/14 - 3.2.04

Application Number: 03000076.4

Publication Number: 1340448

IPC: A47L15/42, D06F39/10

Language of the proceedings: EN

Title of invention:

A screen filter for a liquid-conducting device, in particular
a dishwashing machine

Patent Proprietor:

WHIRLPOOL CORPORATION

Opponent:

Electrolux Rothenburg GmbH Factory and Development

Headword:

Relevant legal provisions:

EPC Art. 54(2), 56, 83, 84
RPBA Art. 13

Keyword:

Amendments - deletion of features (yes) - auxiliary request -
intermediate generalization (no)
Late-filed auxiliary requests - admitted (yes)
Novelty - auxiliary request (yes)
Inventive step - auxiliary request (yes)
Clarity, Sufficiency - auxiliary request (yes)

Decisions cited:

Catchword:



Beschwerdekammern

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Chambres de recours

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Case Number: T 0917/14 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 21 September 2018

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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
3 March 2014 concerning maintenance of the
European Patent No. 1340448 in amended form.**

Composition of the Board:

Chairman A. de Vries
Members: G. Martin Gonzalez
W. Van der Eijk

Summary of Facts and Submissions

- I. The appellant-opponent lodged an appeal ,received on 14 April 2014, against the interlocutory decision of the Opposition Division of the European Patent Office posted on 3 March 2014 concerning maintenance of the European Patent No. 1340448 in amended form, and simultaneously paid the appeal fee. The statement setting out the grounds of appeal was received on 4 July 2014.
- II. Opposition was filed under Article 100(a) EPC based on lack of novelty and of inventive step, and under Article 100(c) EPC based on added subject-matter. The Opposition Division held that the patent as amended according to auxiliary request 1 met the requirements of the Convention, having regard *inter alia* to following documents
- (E1) US 3,434,671
 - (E2) US 3,322,285
 - (E3) DE 25 55 153
 - (E10) US 3,334,750
 - (E12) US 5,377,707
 - (V4a) G. W. Ehrenstein: "Mit Kunststoff Konstruieren -Eine Einführung", 2nd Edition, Carl Hanser Verlag Munich Vienna, 2002; preface, index and pages x - x+9, 16f, 118-121, yf)
- III. Oral proceedings took place before the Board of Appeal on 21 September 2018.
- IV. The appellant-opponent requests that the decision under appeal be set aside and that the European patent No. 1340448 be revoked.

The respondent-proprietor requests that the appeal be dismissed and the patent be maintained as upheld in the decision under appeal or, auxiliarily, the decision under appeal be set aside and the patent be maintained on the basis of one of auxiliary requests 1-3, filed with letter of 12 September 2018, or on the basis of auxiliary request 4, filed during the oral proceedings before the Board.

V. The wording of claim 1 of the requests relevant to this decision reads as follows:

(a) main request - as upheld by the Opposition Division

"A household dishwashing machine having a screen filter (10) that is designed flat with flow holes (17), separates the water-conducting space from a drainage shaft and lies at the bottom of the water-conducting space, characterized in that the screen filter (10) is designed and manufactured as a plastic-injection mould part that on its underside (13) is divided at least in partitions by means of injected reinforcement links (15) in fields (16) designed as regular hexagons that border each other in a honeycomb shape and cover the vast majority of the surface space of the screen filter (10), such fields (16) being provided with the flow holes (17) that are arranged in rows."

(b) first auxiliary request

Vis-a-vis claim 1 of the main request, claim 1 is amended as follows (emphasis added by the Board to indicate added text)

"...lies at the bottom of the water-conducting space, **the filter comprising an edge 14 that encompasses the**

circumference of the screen filter 10 also protrudes on the underside 13, sealing the perimeter, characterized in that..."

(c) second auxiliary request

Vis-a-vis claim 1 of the main request, , claim 1 is amended as follows (emphasis added by the Board to indicate added text)

"...manufactured as a plastic-injection mould part **with a material thickness of approximately 1 to 1.2 mm, ...** with the flow holes (17) that are arranged in rows, **said reinforcement links (15) stick up and are injected on an underside 13 next to edges (12) and (14) that have a thickness of between 0.5 mm and 0.8 mm and a height of approximately 2 mm and separate the fields (16) "**.

(d) third auxiliary request

Vis-a-vis claim 1 of the main request, both amendments of the first and the second auxiliary requests are introduced in claim 1.

(e) fourth auxiliary request

Vis-a-vis claim 1 of the main request, claim 1 is amended as follows (emphasis added by the Board to indicate added text)

"...lies at the bottom of the water-conducting space, **sealing the perimeter,** characterized in that..."

VI. The appellant-opponent argues as follows:

Claim 1 of the main request contains subject-matter extending beyond the contents of the originally filed application documents. Its subject-matter is furthermore not clear and insufficiently disclosed. Subject-matter of claim 1 of the main request is not new in the light of E1 or E10 and does not involve an inventive step having regard to E1, E2, E3, E10, E12 and V4a. Auxiliary requests 1-4 are late filed, raise new issues and are not clearly allowable. Therefore they should not be admitted into the proceedings. In particular, auxiliary request 4 raises new issues of added subject-matter, extension of protection, sufficiency of disclosure and clarity. The arguments in respect of added subject-matter, sufficiency of disclosure, clarity, novelty and inventive step put forward for the main request also hold for the fourth auxiliary request.

VII. The respondent-proprietor argues as follows:

The invention according to the main request is sufficiently disclosed and does not contain added subject-matter. Claim 1 is clear, new and involves an inventive step in the light of the cited prior art. This is also valid for auxiliary request 4. Auxiliary requests 1-4 are admissible.

Reasons for the Decision

1. The appeal is admissible.
2. Background

The invention is concerned with a household dishwasher having a screen filter that separates the tub (water-conducting space) and the sump (drainage shaft). The

invention aims at providing a screen filter design that can be easily and cost efficiently manufactured and is optimized in terms of flow restriction and surface use, see paragraph [0006] of the specification. To that end the claimed filter - in contrast to known metal punch-hole filters - is manufactured as a plastic-injection mould part with injected reinforcement links on its underside, forming fields in the form of regular hexagons in a honeycomb shape. The fields are provided with the flow holes arranged in rows. The links provide stability and stiffness even in thin screen filters, while their honeycomb shape provides optimal use of surface space, see specification paragraphs [0007]-[0009].

3. Main request - amendments - feature "sealing the perimeter"
- 3.1 The feature that the screen filter is "sealing the perimeter" of the drainage shaft appears in the only originally filed independent claim 1, forming the basis of present claim 1, as also appears in paragraph [0001] of the original description. The above feature has however been omitted from the claim. The Board is unable to find any basis in the original documents (description and figures) indicating or suggesting screen filters not sealing the perimeter of the drainage shaft. This omission thus results in a generalization of claim scope that includes embodiments not considered in the original disclosure, such as screen filters covering only part of the perimeter of the drainage shaft, whereas sealing the rest of the perimeter of the drainage shaft may be done by a further element; or screen filters that cannot effectively seal the edges, as the known filters described in the patent specification paragraph [0003].

3.2 The respondent-proprietor submits that this feature was one of two independent inventive concepts identified in a lack of unity objection during the grant procedure, which would justify the omission of the feature from claim 1 directed at the other invention, without infringing Article 123(2) EPC. The Board is unconvinced by this argument. In the Board's understanding, the presence of non-unity may indicate that features corresponding to two inventive concepts solve different technical problems. However, non-unity as such does not indicate or suggest, let alone directly and unambiguously disclose, that they have been described in the original claims, description or drawings as forming part of separate embodiments. Therefore, non-unity considerations do not on their own justify the omission of features from one original embodiment or claim without infringing Article 123(2) EPC. Indeed in this particular case all embodiments include both aspects, and there is no suggestion anywhere that sealing the perimeter can be dispensed with.

3.3 The respondent-proprietor also sees the feature "sealing the perimeter" of the drainage shaft as an implicit feature of a screen filter which lies at the bottom of the machine and seals the sump. The omission of such an implicit feature would thus not contravene Article 123(2) EPC. This submission is also not convincing. Firstly, sealing the edges appears, according to the patent specification, not to be an implicit feature of every screen filter. See in this respect paragraph [0003] where known filters are described that "...cannot effectively seal the edges...". Furthermore, admitting for the sake of argument that sealing might have been an implicit feature of the edges of screen filters, a screen filter

that was sealed at its edges but covered only part of the perimeter of the drainage shaft would now fall within the scope of the present claim. Such an embodiment represents added subject-matter vis-a-vis the original disclosure, where original claim 1 required the feature and it was indeed present in all embodiments.

3.4 The respondent-proprietor also seeks to rely on the essentiality test of T331/87 to defend allowability of the omission. The Board notes firstly that the essentiality test cannot replace the "gold standard" of at least implicit disclosure when assessing the issue of added subject-matter, see CLBA, 8th edition 2016, II.E.1.2.4 and the case law cited therein. It is in any case explained in original paragraphs [0003]-[0004] that sealing the drainage shaft edges is essential for avoiding small solid particles into the sump or drainage shaft, whereas known filters that cannot effectively seal the edges are unable to successfully perform this task. Removal of the sealing feature would thus encompass "non-sealing" embodiments that do not effectively filter small solid particles from the liquid, which is an essential characteristic of all the originally disclosed screen filters. The first condition of the test that the feature was not explained as essential in the disclosure is thus not fulfilled. Thus, even if the Board were to apply the essentiality test, it would have found the omission of the above feature from the independent claim 1 to be not allowable.

3.5 The Board thus concludes that the subject-matter of claim 1 of the main request extends beyond the contents of the originally filed application documents.

4. Auxiliary requests 1-4 - admissibility

Auxiliary requests 1-4 represent an amendment to the respondent's case filed with its reply to the grounds of appeal and were also filed after oral proceedings have been arranged. The admission of these new requests is therefore at the discretion of the Board, Article 13(1) and 13(3) RPBA. In this regard one crucial criterion to be considered is whether the new claims are clearly allowable, see CLBA, IV.E.4.4.2.

- 4.1 Auxiliary requests 1 and 3 incorporate the feature that the filter comprises an edge 14 that encompasses the circumference of the screen filter 10 and also protrudes on the underside 13, sealing the perimeter. This feature is taken from the description paragraph [0014]. By reintroducing the feature "sealing the perimeter" these requests address the issue of added subject-matter resulting from its omission discussed above. However, this amendment also adds further features that prima facie raise a number of new issues. In particular, the original wording in paragraph [0014] recites that the edge 14 on the underside 13 "serves the same purpose", not that it seals the perimeter. The "same purpose" referred to is the fitting of the screen filter to a coarse filter embedded in the screen filter, see the preceding lines in paragraph [0014]. Whether this description amounts to a direct and clear basis that the edge at the circumference of the filter seals the perimeter of the drainage shaft is not immediately apparent. Furthermore, this feature is described as part of the particular embodiment of figure 1 together with the further sealing of the opening 11 for the coarse filter, which is however not included in claim 1 of any of these auxiliary requests. Adding to a claim features that are isolated from a

given context in the description results in an intermediate generalization that is normally allowable only if it is immediately apparent to the skilled person that there is no functional and structural relationship between the feature added and those not. In this case whether this is so, is not immediately clear to the Board and would need to be examined.

Therefore, although the amendment to claim 1 of the auxiliary requests may address the above added subject-matter issue, it goes beyond the mere reintroduction of the originally omitted feature and gives rise to new issues. The auxiliary requests 1 and 3 do not therefore fulfil the criterion of clear allowability.

In the exercise of its discretion under Article 13(1) RPBA, the Board does not admit auxiliary requests 1 and 3.

- 4.2 Claim 1 of auxiliary request 2 still lacks the feature that the filter seals the perimeter of the drainage shaft. It does not therefore successfully address the above added subject-matter issue and is not clearly allowable.

For this reason, auxiliary request 2 is not admitted into the proceedings.

- 4.3 Auxiliary request 4 filed at the oral proceedings before the Board is amended by reinstating the omitted original feature using the literal wording of original claim 1 "sealing the perimeter" at the same position in the preamble. The appellant-opponent objects that the amendment anyhow gives rise to new issues of added subject-matter, extension of protection, clarity and sufficiency of disclosure and should not be admitted.

Those objections are however in the Board's view not convincing. The amendment merely reinstates the original wording of the claim preamble of original claim 1, without any further addition. It can thus hardly be said to add new subject-matter. As the feature represents a limitation (as previously argued by the appellant-opponent) it can but further restrict, and not extend the scope of protection vis-a-vis the granted claim 1.

The appellant-opponent also objects that "sealing the perimeter" is a functional feature, whereas it is not explained in the claim how this function is achieved, giving rise to objections of sufficiency and clarity. However, in the Board's opinion, it is not only immediately apparent from the examples in the description, see e.g. figure 5, how the sealing can be achieved, but the formulation itself provides instructions that are sufficiently clear for the skilled person to reduce them to practice without undue burden. Nor would this formulation pose any problem in ascertaining whether or not a given screen filter fulfils the new feature, i.e. whether it seals the perimeter or not.

Thus the new request successfully addresses the above added subject-matter objection with the simplest and minimum amount of amendment, without giving rise to new issues, it is considered to be clearly allowable.

Auxiliary request 4 is therefore admitted into the proceedings by the Board.

5. Fourth auxiliary request - amendment

5.1 The feature that the reinforcement links are designed as regular hexagons that border each other in a honeycomb shape and cover the vast majority of the surface space of the screen filter was added to original claim 1 during examination and opposition proceedings .

The almost literal wording of the above added feature in claim 1 of the fourth auxiliary request is taken from paragraph [0015] of the original disclosure, except for the use of *regular* instead of *standard* hexagons.

5.1.1 The appellant-opponent objects that this feature is described in the context of a specific embodiment. Accordingly, in paragraph [0015] there would only be an unambiguous disclosure of screen filters with reinforcement links forming a honeycomb shape having links of any dimensions in conjunction with the height and thickness dimensions of the particular embodiment described in paragraph [0015]. These specific dimensions would be closely linked in function to the claimed hexagonal shape, i.e. to obtain improved stiffness and structural stability. Therefore, according to the appellant-opponent this amendment would represent an intermediate generalization.

5.1.2 In the Board's opinion, however, it is immediately apparent for the skilled person from the original paragraph [0015] and from the structure of the claims, that arrangements comprising reinforcement links forming regular hexagons in a honeycomb shape are also originally indicated or suggested without restriction as to height and thickness of the links.

Indeed, the first part of paragraph [0015] describes the particular thickness and height dimensions of the reinforcement links "to maintain sufficient stability", whereas the added feature of the honeycomb shape is described as providing a different functionality linked to "optimal use of space". The skilled person will read those features in paragraph [0015] in that understanding and not linked to any specific values. Furthermore, original claim 6, which introduces the reinforcement links designed as regular hexagons is also directly dependent on original claim 1 without any restriction as to the thickness or height dimensions of the reinforcement links. Thus in the Board's view the combination of features without specific dimensions of the reinforcement links is directly and unambiguously disclosed by the original claim 6.

- 5.1.3 The Board is also not convinced by the appellant-opponent's counter-argument in this respect that the original wording of claim 6 discloses the disputed feature in combination with a particular arrangement of the holes within the hexagon and cannot be isolated from it. On the contrary, it is directly and unambiguously derivable from the last sentence in paragraph [0015] that a particular arrangement of the holes is merely disclosed as an example for the hexagonal shaped fields described in that paragraph and consequently in original claim 6. It will be clear from this passage that the honeycomb fields are thus also originally contemplated as part of the invention without restriction to a particular arrangement of the holes within them. Their omission therefore does not result in an unallowable intermediate generalization.

5.1.4 The Board thus concludes that the addition of this feature does not represent an intermediate generalization.

5.2 The appellant-opponent also objects to the use of *regular* hexagons instead of the original expression in paragraph [0015] *standard* hexagons. The Board however holds that both expressions convey the same technical meaning in the present context. Admitting, for the sake of argument, that *standard* defines only frequency of use, as submitted by the appellant-opponent, and not a geometrical shape, the most frequently used hexagon geometry to form a honeycomb shape is a regular hexagon in the Board's understanding. Thus, the skilled person is not confronted with new technical information due to the use of these two different expression.

5.3 fields... with flow holes

The feature "fields (16) with flow holes (17)" was already recited in originally filed claim 1, that forms the basis of present claim 1. Thus, contrary to the submissions of the appellant-opponent, maintaining this feature as part of claim 1 is not in conflict with Article 123(2) EPC.

5.4 The Board thus concludes, that claim 1 of the fourth auxiliary request meets the requirements of Article 123(2) EPC.

6. Fourth auxiliary request - novelty

6.1 Novelty over E10 and E1 is contested. The Board is convinced that at least the feature that the underside of the screen filter is divided in partitions by means of injected reinforcement links in fields designed as

regular hexagons, the fields being provided with the flow holes, is not disclosed in either E1 or E10. More in particular, these documents do not disclose partitions in the sense of the contested patent.

6.2 On the contrary, both E1 and E10 describe flat continuous surfaces without any partitions. Those surfaces are provided with hexagonal holes. The appellant-opponent contends, that each individual hexagonal hole represents a field in the sense of the contested claim, that in turn comprises only one hole. The remaining sections of the flat surface, between the holes, embody according to the appellant-opponent the reinforcement links.

6.3 The Board however considers that this interpretation of claim 1 is not reconcilable with general principles of claim interpretation, see in respect of these principles CLBA II.A.6.1. In the present case, the skilled person reading claim 1 with a mind willing to understand and against the backdrop of the description understands the claim as relating to a (sump) filter in a dish washer which is partitioned by reinforcement links into fields of hexagonal shape arranged in a honeycomb shape, where the fields are provided with flow holes arranged in rows. With this understanding he is unable to identify such a structure in E1 or E10. These filters may have a honeycomb structure with hexagonal holes but they have no reinforcing partitions defining fields of holes as the claim is to be reasonably understood. The structures of E1 and E10 are continuous. They are not divided by any element, let alone by reinforcement elements. They do not therefore disclose partitions, which must be something that divides. Furthermore, it also appears to be sufficiently clear for the reader from the claim

wording itself, that the claimed fields within the partitions must be provided with a plurality of holes arranged in rows. It cannot reasonably be said that a single hole as such can be equated with one such field.

The above feature is thus not disclosed by either document E1 or E10.

6.4 The Board concludes that the subject-matter of claim 1 of the fourth auxiliary request is therefore novel over the cited prior art.

7. Fourth auxiliary request - inventive step.

7.1 The appellant-opponent challenges inventive step starting from E2, E3, E10 or E12. Each of these documents describe screen filters for dishwashers, but none discloses partitions by means of a structure of injected reinforcement links forming fields in the form of regular hexagons in a honeycomb shape. This structure of the challenged claim provides stability and stiffness even in thin - more economic - plastic moulded screen filters, while its honeycomb shape provides optimal use of surface space, see specification paragraphs [0007]-[0009]. The associated technical problem could thus be formulated accordingly as how to modify any of the known screen filters so that it is cheaper to manufacture while use of the surface space is optimized.

7.1.1 In this respect, the appellant-opponent has advanced document V4a as teaching to provide a plastic injection moulded structure with reinforcement links forming a honeycomb shape with holes within the hexagonal fields. The Opposition Division held, see section 3.4 of the impugned decision, that the skilled person would not

apply the particular teaching of V4a, limited to air vents or loudspeakers, to the filter of a dishwasher, as is also argued by the respondent-proprietor.

- 7.1.2 In the Board's understanding, document V4a is generally concerned with the manufacture and design of plastic structures, see section 5.5.4, in particular, which concerns the construction of light weight grid structures "Gitterleichtbauweise". A grid honeycomb shape is only disclosed by figure 5.19, which is an example of a grid for a loudspeaker. Otherwise section 5.5.4 teaches the advantages of reinforcement-grid structures that are not linked to any particular shape (see figures 5.20, 5.21) for light weight housings and without filtering function. V4a, furthermore, does not mention or suggest the use of a honeycomb structure in water flow screen filters. Nor does the Board believe that it is within the routine skills of the skilled person to realise that this particular kind of plastic moulded structure using reinforcement links might also be specifically suitable or adapted for water flow screen filters. The skilled person would then need to understand that the particular honeycomb geometry, only described in V4a for use as a loudspeaker housing, can be advantageous for filtering structures due to flow performance.
- 7.1.3 Firstly, there is no indication in V4a that the choice of its lightweight structure in an air vent might in any way be connected to flow performance or particular filtering qualities. But even if there had been, filtering dust out while letting air and sound pass through is, in the Board's view, of a rather different nature to filtering out larger solid particles from water in a dishwasher sump filter.

7.1.4 For these reasons the Board concludes that the skilled person would not consider V4a in his search for a solution to the problem identified above starting from any of E2, E3, E10 or E12.

7.2 The appellant-opponent also argued lack of inventive step in light of the combination of E1 and E3, starting from either document

The Board is unconvinced by either argument.

7.2.1 Starting from E3 the Board does not believe the skilled person would look toward E1 to make the filter of E3 stiffer and more stable.

Document E1 teaches a honeycomb structure that itself serves as a coarse filter. This structure, however, does not reinforce any other part or element attached to it, but merely gives the filter itself, which is the structure, structural integrity. Thus, the skilled person finds in E1 absolutely no suggestion or hint that the hexagonal grid could be used as reinforcement for a further element. Without any such hint, the skilled person would therefore not consider the E1 disclosure, when confronted with the problem to increase stiffness and stability of E3.

7.2.2 Starting from E1 the Board notes that, as explained in CLBA I.D.3.4.3, the person skilled in the art although being free in choosing a starting point, would of course be bound afterwards by that choice. Thus, if the skilled person chooses as starting point the coarse filter at the inlet of a recirculating pump of E1, he will only work on improving such a recirculating pump coarse filter. In particular he would not, as a matter

of obviousness, consider redesigning such a filter to be used as a sump filter as presently claimed.

7.3 For the above reasons the Board concludes that the subject-matter of claim 1 involves an inventive step in the light of the cited prior art.

8. Fourth auxiliary request : clarity and sufficiency of disclosure

The appellant-opponent has also submitted based on his reading of the feature "partitions", in combination with the feature that the fields must cover the vast majority of the filter surface, that claim 1 is neither sufficiently disclosed nor clear, see written submissions of 6 July 2018. However, the appellant-opponent conceded during the oral proceedings that, in the light of the above Board's interpretation of claim 1 those objections become moot.

9. For the above reasons the Board holds that the claims as amended according to the fourth auxiliary request meet the requirements of the EPC. The Board is also satisfied that the consequential amendments to the description bringing it into line with the amended claims are unobjectionable; nor were they objected to by the appellant-opponent. The Board concludes that the patent can be maintained as amended pursuant to Article 101(3)(a) EPC.

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 European patent Nr. 1340448 in amended form, as follows:

Claims:

1-8 of auxiliary request 4, filed during oral proceedings before the Board

Description:

Page 2 as filed during oral proceedings before the Board

Page 3 of the published patent specification

Figures:

1-7 of the published patent specification

The Registrar:

The Chairman:



G. Magouliotis

A. de Vries

Decision electronically authenticated