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**Datasheet for the decision
of 12 January 2022**

Case Number: T 1685/18 - 3.2.01

Application Number: 10700278.4

Publication Number: 2385910

IPC: B60R16/02, B60R13/02, H05K3/00

Language of the proceedings: EN

Title of invention:
HEADLINER WITH INTEGRAL WIRE HARNESS

Patent Proprietor:
Johnson Controls Technology Company

Opponent:
Grupo Antolín-Ingeniería, S.A.

Headword:

Relevant legal provisions:
EPC Art. 54, 56, 84, 123(2), 13(1)
RPBA Art. 12(4)

Keyword:

Novelty - (yes)

Inventive step - (yes) - neighbouring field

Claims - clarity (yes)

Late-filed facts - submitted during oral proceedings -
admitted (no)

Decisions cited:

Catchword:



Beschwerdekammern

Boards of Appeal

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Case Number: T 1685/18 - 3.2.01

D E C I S I O N
of Technical Board of Appeal 3.2.01
of 12 January 2022

Appellant: Grupo Antolín-Ingeniería, S.A.
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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
24 April 2018 concerning maintenance of the
European Patent No. 2385910 in amended form.**

Composition of the Board:

Chairman G. Pricolo
Members: M. Geisenhofer
S. Fernández de Córdoba

Summary of Facts and Submissions

- I. The appeal was filed by the opponent (appellant) against the interlocutory decision of the opposition division finding that, on the basis of the auxiliary request II (then on file), the European patent EP 2 385 910 met the requirements of the EPC.
- II. The opposition division came to the conclusion that
- the claimed subject-matter according to auxiliary request II underlying the decision under appeal was novel and involved an inventive step over the cited prior art (Article 100(a) EPC in combination with Articles 54 and 56 EPC); and
 - the subject-matter of the claims according to auxiliary request II did not extend over the disclosure of the application as originally filed (Article 100(c) EPC).

The opposition division further decided with regard to the higher ranked requests filed in opposition proceedings that the subject-matter of the main request (patent as granted) and of auxiliary request I (then on file) was not novel (Article 54 EPC).

- III. The following documents are mentioned in the present decision:

D9	US 2004/0226939 A1
D10	JP 2007-35474 A
D15	WO 92/20489 A1

- IV. Oral proceedings were held before the Board on 12 January 2022.

- (a) The respondent filed new claims 1 - 11 and replacement pages 1 - 7 of the description (new main request).
- (b) The appellant (opponent) requested that the decision under appeal be set aside and that the European patent be revoked.
- (c) The respondent (patent proprietor) requested that the patent be maintained in amended form on the basis of the new main request (sole request) filed during oral proceedings before the Board.

V. Independent claim 1 according to the **main request** reads as follows:

"Roof structure (100) in a vehicle, wherein the roof structure (100) is a vehicle overhead system including a headliner having a headliner substrate, wherein the headliner is provided with printed electrical connection means (110) for connecting electrical devices in the vehicle, said electrical devices being electrical components integrated into the headliner of the roof structure (100), and said printed electrical connection means (110) being a wire harness for electrically connecting to said electrical components, characterized in that the wire harness is printed on the headliner substrate of the roof structure (100) using a conductive ink, and in that the wire harness includes a strain relief circuit."

Claim 9 of the main request reads as follows:

"Method for manufacturing a roof structure (100) according to claim 1 in a vehicle, wherein the wire harness is printed on the headliner of the roof structure (100) using a conductive ink."

Claim 10 of the main request reads as follows:

"System comprising an electrical device, a roof structure (100) according to claim 1 with printed electrical connection means (110), a printed conductive pad (112, 212, 312, 412) and an electrical connector (530, 730), wherein the electrical connector (530, 730) is pierced through the roof structure (100) to connect the electrical device with the conductive pad (112, 212, 312, 412)."

VI. The appellant's arguments can be summarised as follows:

- (a) The term "headliner substrate" is vague and undefined such that claim 1 is not clear.
- (b) Claims 2 and 3 define further electrical connection means in addition to the electrical connection means of claim 1. A roof structure with two distinct electrical connection means was, however, not disclosed in the application as originally filed.
- (c) Claim 6 defines further strain relief means in addition to those of claim 1. A roof structure with two strain relief means lacks disclosure in the application as originally filed.
- (d) Claim 9 claims printing using a conductive ink which is a printing step additional to the printing step defined in claim 1. Printing twice a wire harness on the headliner lacks disclosure in the application as originally filed.

(e) A roof structure according to claim 1 is already known from D15, at least obvious from a combination of document D15 with either of documents D9 or D10.

VII. The respondent's arguments can be summarised as follows:

(a) The objection of lack of clarity and the objections of lack of disclosure were late-filed and hence should not be admitted.

(b) The term "headliner substrate" is broad but not vague such that claim 1 is clear.

(c) Document D15 does not disclose a wire harness including a strain relief circuit. Such a strain relief circuit is furthermore not obvious from documents D9 and/or D10.

Reasons for the Decision

New main request filed in appeal proceedings

1. The new main request was filed at the beginning of the oral proceedings and is based on auxiliary request II filed with letter dated 9 September 2020, the only difference being the feature of the headliner "having a headliner substrate" added in line 2 of claim 1.

1.1 The respondent submitted in writing that auxiliary request II contained an error as it was never intended to leave out this feature. This was demonstrated in particular by the fact that this feature was present in claim 1 of both the main request and the auxiliary

request I filed with the reply to the statement of grounds of appeal. Accordingly, the amendment made only served the purpose of bringing auxiliary request II in line with the respondent's clearly stated intentions and anyway did not change substantially the claimed subject-matter as compared to auxiliary request II.

The admissibility of the new main request was not disputed by the appellant.

- 1.2 Under these circumstances the Board saw no reasons not to admit the new main request into the appeal proceedings.

Admissibility of the objections of lack of disclosure (Article 123(2) EPC)

2. The appellant raised several objections of lack of disclosure with regard to claims 2, 3, 6 and 9 respectively. The respondent countered that these lines of argument should have been raised earlier and hence the objections should not be admitted.
 - 2.1 The present appeal was filed in June 2018 and the summons to oral proceedings were notified in December 2019 such that, in accordance with Article 25 RPBA 2020, Article 12(4) RPBA in the version 2007 applies and Article 13(2) RPBA 2020 does not apply; instead Article 13 RPBA 2007 continues to apply.
 - 2.2 The objections with regard to **claims 6 and 9** were first raised during oral proceedings before the Board such that the Board had a discretion both under Article 13(1) RPBA 2007 and Article 13(1) RPBA 2020 (see T 2227/15) to admit them.

2.2.1 The objection is based on claims 1 and 6 both referring to strain relief means, whereby the strain relief means of claim 6 would be in addition to the strain relief means of claim 1. However, the application as originally filed disclosed a roof structure with one strain relief means only. Analogously, claim 9 defined a step of printing a wire harness on the headliner using conductive ink which would be in addition to the printing according to claim 1.

2.2.2 These newly presented lines of argument constitute an amendment of the appeal's case at a very late stage, namely during the oral proceedings before the Board. These objections could have been submitted well in advance, in particular considering that the same objections would apply to claims 6 and 9 of the request maintained by the opposition division (these claims being identical to claims 6 and 9 of the main request now under consideration). Moreover, if admitted, these objections would have necessitated a detailed discussion and possibly the interruption of the oral proceedings for giving the respondent time to reply and, in case, to prepare amended requests. Under these circumstances the Board decided to exercise its discretion not to admit the objections with regard to claims 6 and 9 .

2.3 The objections with regard to **claims 2 and 3** were first raised with the statement of grounds of appeal (cf. page 31, section D.2) and hence their admissibility must be judged under Article 12(4) RPBA 2007.

2.3.1 The appellant argued that claims 2 and 3 would define an additional electrical connection means on the cover layer in addition to the electrical connection means on the headliner substrate as defined in claim 1.

2.3.2 The board notes that claim 1 of the auxiliary request II in opposition proceedings defines an electrical connection means printed on the headliner substrate. Claims 2 and 3 of this request are identical to claims 2 and 3 of the present main request in appeal proceedings. Therefore, the objection with regard to current claims 2 and 3 could, and should, have been raised during opposition proceedings when discussing the auxiliary request II on which basis the patent was maintained by the opposition division. The appellant did not justify why such objection was only presented with the statement of grounds of appeal.

2.3.3 The objections with regard to claims 2 and 3 were therefore not admitted either (Article 12(4) RPBA 2007).

Clarity (Article 84 EPC) and admissibility of the clarity objection

3. The appellant objected that the term "headliner substrate" is unclear since it remains undefined whether the term refers to a layer of the headliner or to the material from which the headliner is made. Furthermore, the claim does not provide any information with regard to the physical properties of the headliner.

3.1 It was disputed between the parties whether this objection was already raised during opposition proceedings and whether a decision was taken by the opposition division on this issue. The respondent argued that the objection was first raised with the statement of grounds of appeal and requested to not admit the objection under Article 12(4) RPBA 2007.

- 3.2 The Board notes that the term "headliner substrate" is not used in isolation but in the context of "a headliner having a headliner substrate" (cf. lines 2 and 3 of claim 1). This term hence defines a layer which is designated as "headliner" and which is made of a particular material - the "headliner substrate".
- 3.3 The Board shares the respondent's opinion that it is not necessary to define the material of each member of a device. The headliner defined in claim 1 can therefore be produced from any suitable material, its definition being thus broad, but not vague and unclear.
- 3.4 Claim 1 therefore complies with the requirements of Article 84 EPC.
- 3.5 There is thus no need to discuss the issue of admissibility of the clarity objection.

Novelty (Article 54 EPC)

4. It was disputed between the parties whether the wire harness of D15 includes a strain relief circuit.
5. The appellant argued that the wire harness shown at the bottom of figure 1 of D15 is provided with several bends which implicitly provide a strain relief circuit.
- 5.1 The board does not agree that each and every bend of a wire harness can be considered as a strain relief circuit. Without a clear indication that one of the bends shown in D15 serves to provide the function of a

strain relief circuit, D15 fails to disclose such a strain relief circuit.

- 5.2 On the contrary, D15 discloses that the wire harness can be bent as disclosed in figure 1 in the middle part of the wire harness even without strain relief circuit since in the deformed areas of the wire harness no bends are provided.
- 5.3 The subject-matter of claim 1 hence differs from the roof system of claim 1 at least in that the wire harness includes a strain relief circuit.
- 5.4 The subject-matter of claim 1 is hence novel over D15. The same applies to claims 9 and 10 referring to the roof structure of claim 1.

Further novelty objections were not raised.

Inventive step (Article 56 EPC)

6. The appellant argued that D9 and/or D10 would render it obvious to provide strain relief circuits within the wire harness of D15.
- 6.1 Documents D9 and D10 concern a heating system using a flexible heating foil on which a meandering heating track is provided (cf. [0015] of D9), or a planar heating element with electrodes having a plurality of slits (cf. [0046] of D10). The Board sees no reason why the skilled person should provide the headliner of D15 with such a heating foil or heating electrodes. The skilled person would not even consider documents D9 and D10 relating to heating system when working on the roof structure of D15 since it would make no sense to provide a vehicle's roof with a heating system.

6.2 Even if the skilled person would consider D9 and D10, these documents do not teach the use of strain relief circuits to allow bending of the underlaying structure; in fact, documents D9 and D10 both refer to an expansion reserve that allows stretching of the underlaying structure. The expansion reserve therefore cannot be considered as a strain relief circuit in the sense of the patent in suit.

6.3 The subject-matter of claim 1 is hence not rendered obvious by a combination of D15 with either of D9 or D10. The same applies to claims 9 and 10 referring to the roof structure of claim 1.

Further inventive step objections were not raised.

7. The adaptation of the description filed during oral proceedings was not objected by the appellant and the Board either sees no reasons to object. Accordingly, the claims according to the main request, the description as adapted and the figures of the patent as granted form a suitable basis for the maintenance of the patent in amended form.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the opposition division with the order to maintain the patent on the basis of the claims 1 to 11 of the main request (filed during oral proceedings before the Board per email at 09:06h),

pages 1 to 7 of the description (filed during oral proceedings before the Board at 12:12h) and the figures of the patent specification.

The Registrar:

The Chairman:



A. Vottner

G. Pricolo

Decision electronically authenticated