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**Datasheet for the decision  
of 19 January 2024**

**Case Number:** T 0489/22 - 3.2.01

**Application Number:** 17209724.8

**Publication Number:** 3345794

**IPC:** B60R21/215, B29C45/16,  
B29C45/14

**Language of the proceedings:** EN

**Title of invention:**

AIRBAG ARRANGEMENT AND METHOD FOR MANUFACTURING THE SAME

**Patent Proprietor:**

International Automotive Components Group GmbH

**Opponent:**

K.L. Kaschier- und Laminier GmbH

**Headword:**

**Relevant legal provisions:**

EPC Art. 54, 56

RPBA 2020 Art. 13(2)

**Keyword:**

Novelty - Main Request, Auxiliary Requests 1 to 3 - (no) -  
Auxiliary request 4 - (yes)  
Inventive step - (yes)  
Amendment after summons - exceptional circumstances (yes)

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**  
**Boards of Appeal**  
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Case Number: T 0489/22 - 3.2.01

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.01**  
**of 19 January 2024**

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**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
21 December 2021 concerning maintenance of the  
European Patent No. 3345794 in amended form.**

**Composition of the Board:**

**Chair** A. Wagner  
**Members:** J. J. de Acha González  
M. Millet

## **Summary of Facts and Submissions**

- I. The appeals of the patent proprietor and of the opponent lie against the interlocutory decision of the Opposition Division, which found that the contested patent, as amended in accordance with the auxiliary request 2 filed during the opposition proceedings, complied with the requirements of the EPC.
- II. The following documents cited in the impugned decision are relevant for the present decision:
- D6: EP 3034361 A1; and  
D8: EP 2727775 A1.
- III. Oral proceedings before the Board were held by videoconference on 19 January 2024 with the consent of the parties.

The appellant (patent proprietor) requested that the decision under appeal be set aside and the patent be maintained as granted (main request), or, in the alternative, that the patent be maintained in amended form on the basis of any of the auxiliary requests 1 or 2 filed with the statement of grounds of appeal, or, further in the alternative, that the appeal of the opponent be dismissed and the patent be maintained on the basis of the auxiliary request 3 corresponding to auxiliary request 2 underlying the impugned decision, or, further in the alternative, that the patent be maintained in amended form on the basis of the auxiliary request 4 filed during the oral proceedings before the Board.

The appellant (opponent) requested that the decision of the Opposition Division be set aside and the patent be revoked.

- IV. Claim 1 of the main request, i.e. as granted, reads as follows (features numbered as in the patent proprietor's statement of grounds of appeal):
1. *An airbag arrangement comprising:*
  - 1.2 *a flap component (12), which closes a passage opening for an airbag;*
  - 1.3 *a hinge section (16) along one side of the flap component (12);*
  - 1.4 *a chute component, which is connected to the flap component (12) via the hinge section (16); and*
  - 1.5 *a material web (30), which is partially arranged in the flap component (12) and partially in the chute component, and transverses the hinge section (16);*
  - 1.6 *wherein the material web (30) is molded into the chute component and is anchored in the material of the chute component;*
  - 1.7 *wherein the chute component forms a wall (182, 184) of an airbag chute 18,*  
**characterized in that**
  - 1.8 *the material web (30) is arranged on the inner side of the wall (182, 184) from the hinge section across a first distance, and on the outer side of the wall across a second distance, and wherein*
  - 1.9 *the material web (30) penetrates the wall (182, 184) between the first distance and the second distance.*

Claim 1 of auxiliary request 1 differs from granted claim 1 in that it also includes the following additional feature in feature 1.7:

*wherein the wall (182, 184) has an inner side of the wall which faces the airbag chute (18), and an outer side of the wall which faces away therefrom*

Claim 1 of auxiliary request 2 is based on claim 1 as granted and differs therefrom in that it adds the following feature:

- 1.10 *wherein the material web (30) has an edgefolding (308, 310, 312), wherein the two layers of the material web are connected to one another adjoining the edgefolding (308, 310, 312) on both sides of the edgefolding.*

Claim 1 of auxiliary request 3 combines the amendments made in claim 1 of auxiliary request 1 and auxiliary request 2.

Claim 1 of auxiliary request 4 reads as follows:

*A method for manufacturing an airbag arrangement, comprising:*

*providing a mold comprising a first mold shell and a second mold shell, which are configured to integrally form a flap component (12), which closes a passage opening for an airbag, a hinge section along a side of the flap component (12), and a chute component, which is connected to the flap component (12) via the hinge section (16);*

*placing a material web (30) into the mold in such a way that a first part of the material web (30) comes to rest on a first surface section of the mold, which is configured to form a surface of the flap component (12), which faces the airbag, a second part of the material web (30) comes to rest on a second surface section of the mold, which is configured to form an adjoining surface of the chute component, and a third*

*part of the material web (30) comes to rest on a third surface section of the mold, which is configured to form an opposite surface of the chute component; closing the mold; introducing plastic material into the closed mold, wherein the first, the second, and the third part of the material web (30) are pressed against the first, the second, and the third surface section; wherein the material web (30), placed into the mold, has an edgefolding (308, 310, 312) between the second and the third part of the material web, into which the plastic material penetrates, when it expands in the mold, wherein the penetrating plastic material pushes apart the second and the third part of the material web and against the opposite surfaces of the mold; wherein the edgefolding (308, 310, 312) is preformed and fixed prior to placing the material web into the mold.*

## **Reasons for the Decision**

1. *Auxiliary request 3 - D6 - Article 54 EPC*
- 1.1 The subject-matter of claim 1 of auxiliary request 3 is not new in view of the airbag arrangement disclosed in D6.
- 1.2 The patent proprietor contended that the airbag arrangement of D6 did not disclose features 1.4 to 1.10 of claim 1.  
In particular, the arrangement of D6 did not include the chute component recited in features 1.4 to 1.9. The ribs 59, 29 and the hinge portions 21a, b formed part

of the reinforcement portion 23 of the dashboard 1 (see e.g. figures 3 and 7 of D6). Since, for the skilled person, the chute was a part of the airbag arrangement in which the airbag with its gas generator was housed, the reinforcement ribs 59, 29 did not form a chute component being a wall of the airbag chute, but merely a wall of the dashboard. Since the first rib 59 could not be considered as a wall of the airbag chute, it followed that none of the features 1.4 to 1.9 were disclosed in D6.

Furthermore, feature 1.10 of claim 1 implied a Y-geometry of the edgerefolding because the two layers of the material web on either side of the edgerefolding were in direct physical contact. In its decision, the Opposition Division also considered that feature 1.10 was not disclosed in D6.

1.3 This is not persuasive for the following reasons:

1.3.1 The view taken by the Opposition Division in its decision is correct as regards features 1.4 to 1.9. According to the patent itself (see paragraph [0006]), the chute component is a part of the chute, which is located below the flap and controls the passage of the airbag, and comprises a wall of the airbag chute, in particular, a boundary wall, a reinforcing wall, a guiding wall or a positioning wall. In D6, the portion of the carrier structure 13 covering the airbag system 7 forms the airbag cover 17 (see paragraph [0055]). It is clear that the first rib 59 of the carrier structure 13 in D6 forms, together with the walls of the housing 33, the chute, since it is located below the flaps 19a, b and controls the passage of the airbag (see figure 5 of D6). The first rib 59 thus forms a wall of the airbag chute according to features 1.4 and 1.7 (see

figures 3, 4 and 7 in D6 in comparison with figures 1 and 4 of the patent in suit).

- 1.3.2 Furthermore, claim 1 does not exclude that the airbag cover directly forms the surface of the vehicle's dashboard.
- 1.3.3 The argument that, for the skilled person, the chute is a part of the airbag arrangement in which the airbag with its gas generator is housed, cannot be accepted because, firstly, the airbag (with its housing) is not shown in the patent in suit (see paragraph [0019] of the patent) and could therefore be located outside the chute walls 181 and 182, and, secondly, the patent proprietor has failed to prove such an assertion.
- 1.3.4 With respect to feature 1.10, the interpretation of the Opposition Division and of the patent proprietor is too narrow. Claim 1 is directed to the airbag arrangement and feature 1.10 only requires that the edgefolding of the material is such that the two layers of material web adjacent to the edgefolding on either side of the edgefolding are connected to one another. The term "*connected*" is broader than fixed/attached directly (with physical contact) to each other by adhesion, welding, sewing, riveting, stapling or otherwise (see end of paragraph [0022] of the patent), such that a connection by means of the injected material forming the flaps and the ribs as shown in figures 3 and 7 falls within the subject-matter of claim 1.

2. *Main request, auxiliary requests 1 and 2*

The subject-matter of claim 1 of the main request and of the auxiliary requests 1 and 2 is broader than that of claim 1 of auxiliary request 3. Consequently, the

subject-matter of claim 1 of the main request and of the auxiliary requests 1 and 2 lacks also novelty over D6 for the same reasons as set out above for auxiliary request 3.

The question of the admissibility of auxiliary request 2, to which the opponent objected, can therefore be left aside.

3. *Auxiliary request 4*

3.1 *Admittance*

3.1.1 The Board exercised its discretion under Article 13(2) RPBA (Rules of Procedure of the Boards of Appeal, see amended provision entering into force on 1 January 2024) and admitted the auxiliary request 4 into the proceedings.

3.1.2 The auxiliary request 4 was filed for the first time during the oral proceedings before the Board. The request corresponds to the auxiliary request 4 filed with the statement of grounds of appeal of the patent proprietor whereby claims 1 to 9 relating to the airbag arrangement have been deleted, leaving only the method claims 10 and 11.

3.1.3 The opponent contended that the auxiliary request 4 was inadmissible. They argued that it had been late filed and should have been filed earlier, since the points at issue and the arguments in support of them had not changed. Therefore there were no sound reasons for filing it at the latest possible moment in the proceedings.

- 3.1.4 Under Article 13(2) RPBA any amendment to a party's appeal case made after notification of a communication under Article 15(1) RPBA shall, in principle, not be taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned.
- 3.1.5 Method claims 1 and 2 of auxiliary request 4 correspond to claims 10 and 11 of the auxiliary request 4 filed with the the patent proprietor's statement of grounds of appeal, but also to claims 11 and 12 of the auxiliary request 2 underlying the contested decision (version found allowable by the Opposition Division). These claims therefore relate to the appeal of the opponent, who has already set out in the statement of grounds of appeal the reasons why the Opposition Division was incorrect in this respect. Accordingly, there is no change in the case as regards the method claims and the discussion in this respect is the same as that put forward from the outset of the appeal proceedings.
- Moreover, by deleting claims 1 to 9 of the former auxiliary request 4 filed with the statement of grounds of appeal, the patent proprietor has contributed to procedural economy, since the objections to claim 1 of that request, in particular the insufficiency of disclosure, no longer need to be addressed.

The Board judged these circumstances to be exceptional and duly justified by the patent proprietor. Accordingly, the request was admitted.

3.2 D6 - Article 54 EPC

3.2.1 The subject-matter of claim 1 is new over the method for manufacturing an airbag arrangement disclosed in D6.

3.2.2 The opponent argued that the last feature of claim 1 derived from the disclosure in D6, namely:

*"...wherein the edgefolding (308, 310, 312) is preformed and fixed prior to placing the material web into the mold."*

In particular, paragraphs [0042] and [0077] of D6, which described the method for making the airbag arrangement (see paragraphs [0034] et seq. and [0069] et seq.), disclosed that it was also feasible to preform the shape of the mesh member 35 before it was provided, or when it had been placed on the mould before the fluid material was injected. Accordingly, the edgefolding was preformed before the material web - mesh member 35 - was placed in the mold. Furthermore, by forming the edgefolding in a triangular shape (see paragraphs [0018] and [0067]; bulge with a triangular cross-sectional shape), the material web was automatically stiffened and its mechanical dimensional stability was achieved in the area of the edgefolding. This was sufficient to anticipate the feature of fixing the edgefolding prior to placing the web in the mold, as the claim left open the manner in which a "fixing" of the edgefolding was to be achieved.

3.2.3 This is not the case for the following reasons.

It is true that D6 discloses the possibility of preforming the shape of the material web before placing

it in the mold. However, the preformed shape of the material web remains unspecified in D6, let alone its correspondence to the final shape shown in figures 3 and 7 (i.e. with the edgefolding). The final shape is disclosed to be achieved in step g) of the disclosed process (see paragraphs [0041] and [0076] of D6). Accordingly, it does not derive directly and unambiguously from the disclosure in paragraphs [0042] and [0077] that the preformed shape of the material web includes an edgefolding prior to placement in the mold.

Even if the preforming of edgefolding were considered to be disclosed in D6, a stiffness of the material which would ensure a mechanical stability of the material web after the formation of an edgefolding would not fall under "*edgefolding ...fixed prior to placing the material web in to the mould*". This ensues also from paragraph [0022] of the contested patent, which distinguishes between a fixed (e.g. adhered, welded, sewn, riveted, stapled, or prefixed in a different way) edgefolding and an unfixed (merely folded over, i.e. preformed) edgefolding.

As a result, D6 does not directly disclose either the preforming or the prefixing of the edgefolding prior to its placement in the mold.

- 3.2.4 The question of the admissibility of the novelty objection in view of D6, which objection was raised by the opponent for the first time in appeal, can therefore remain unanswered, since it is not successful on the merits.

3.3 *Article 56 EPC*

3.3.1 The subject-matter of claim 1 is not rendered obvious by the combination of D6 with common general knowledge or D8.

3.3.2 The opponent submitted that the method according to claim 1 differed from that disclosed in D6 on account of the fixing of the edgefolding prior to its placement in the mold. The problem to be solved could be formulated as avoiding that the preformed edgefolding is lost during injection.

Such fixing of the edgefolding prior to its placement in the mold was obvious to the skilled person and resulted from the forming of the edgefolding itself, namely by pressing together the sections of the material web leading into the edgefolding, which, according to common general knowledge, was done by applying heat (ironing). This not only formed the shape of the edgefolding but also fixed it in such a way that it was more difficult to open.

This was also hinted at in the disclosure of D8 (paragraph [0017], lines 39-45), which provided a solution, namely bonding of the fold by melting the surface of the material web, which could be achieved directly and in a simple manner when creating the edgefolding by applying heat (ironing).

3.3.3 The opponent's inventive step objections starting from D6 in combination with common general knowledge or D8 cannot succeed because they are based on the assumption that the method of D6 discloses the performing of an edgefolding. However, this is not the case, as has been put forward above under point 3.2. For this reason

alone, the inventive step attacks of the opponent fail.

- 3.3.4 Furthermore, D6 teaches as an advantage of the described method that the mesh member is pressed into shape by the fluid material without the need for any preforming (paragraph [0041]). Even if the skilled person were to preform the mesh member with a triangular shape, the idea of D6 is to push the triangle and therewith the edgefolding apart into its final shape. D6 thus does not hint to fix the edgefolding prior to placing the material web in the mold.
- 3.3.5 Finally, the skilled person would not combine D6 with D8. As argued by the patent proprietor, D8 is concerned with a folding of the material web at the hinge portion, not with a material web molded into a wall of the airbag chute. The combination would rather result in a folded material web at the hinge portion of the airbag arrangement of D6.

#### 4. *Description*

- 4.1 The claims of auxiliary request 4 form a suitable basis for the maintenance of the patent in amended form.
- 4.2 The parties considered that the description needed adaptation. Since both parties did not oppose to remit the case for adapting the description and since the Board considered that this could be dealt with more expediently before the Opposition Division, the case is remitted to the Opposition Division for adaptation of the description.

## 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 the claims 1 and 2 of auxiliary request 4 filed during oral proceedings and a description to be adapted.

The Registrar:

The Chair:



A. Voyé

A. Wagner

Decision electronically authenticated