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Datasheet for the decision of 10 July 2025

Case Number: T 1948/23 - 3.2.01

Application Number: 14790608.5

Publication Number: 3063053

IPC: B62D29/00

Language of the proceedings: EN

Title of invention:
BAFFLE OR REINFORCEMENT ELEMENT FOR SEALING AND/OR REINFORCING A CAVITY AND METHOD FOR PRODUCING SUCH A BAFFLE OR REINFORCEMENT ELEMENT

Patent Proprietor:
Sika Technology AG

Opponent:
L & L Products Europe S.A.S.

Headword:

Relevant legal provisions:
EPC Art. 56
RPBA 2020 Art. 11

Keyword:
Auxiliary requests 1 and 2 - Inventive step - (no)
Remittal - special reasons for remittal (yes)

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

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Case Number: T 1948/23 - 3.2.01

D E C I S I O N
of Technical Board of Appeal 3.2.01
of 10 July 2025

Respondent: (Patent Proprietor)	Sika Technology AG Zugerstrasse 50 6340 Baar (CH)
Representative:	Sika Patent Attorneys C/o Sika Technology AG Corp. IP Dept. Tüffenwies 16 8048 Zürich (CH)
Appellant: (Opponent)	L & L Products Europe S.A.S. 1, Rue Lindberg ZA Activeum, Altorf 67129 Molsheim, Cedex (FR)
Representative:	Kutzenberger Wolff & Partner Waidmarkt 11 50676 Köln (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 11 October 2023 concerning maintenance of the European Patent No. 3063053 in amended form.**

Composition of the Board:

Chairman	G. Pricolo
Members:	S. Mangin
	P. Guntz

Summary of Facts and Submissions

I. The appeal was filed by the appellant (opponent) against the interlocutory decision of the opposition division finding that, on the basis of the auxiliary request 11, the patent in suit (hereinafter "the patent") met the requirements of the EPC.

II. In particular, the opposition division held that the subject-matter of this request involved an inventive step:
- starting from D2 (US6,413,611 B1) or D4 (US 7,422,088 B2) in combination with the common general knowledge,
- starting from D4 in combination with D40 (US 6,199,940 B1) or D41 (Article: FEATURE RECOGNITION AND DESIGN ADVISORY, SYSTEM FOR SHEET METAL COMPONENTS, 5th International Advanced Technologies, Symposium, May 13-15, 2009 Karabuk, Turkey), and
- starting from D40 in combination with D2.

III. While both the opponent and the patent proprietor initially appealed the decision of the opposition division, the patent proprietor withdrew their appeal with letter of 23 June 2025.

IV. Oral proceedings were held before the Board on 10 July 2025. As announced with letter of 29 April 2025, the patent proprietor did not attend the oral proceedings.

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

The respondent (proprietor) had requested in writing that the appeal be dismissed (i.e. that the patent be maintained in amended form as upheld by the opposition division) or, in the alternative, that the patent be maintained in amended form based on one of auxiliary requests 2, 3, 3A, 4, 4A, 4B, 4C, 5, 5A, whereby auxiliary requests 2-5 were filed with the statement of grounds of appeal and correspond to auxiliary requests 12-15 filed on 21 April 2023 in opposition proceedings and auxiliary requests 3A, 4A, 4B, 4C, 5A were filed on 4 November 2024 in appeal proceedings.

VI. Independent product claim 1 of the patent as maintained by the opposition division (auxiliary request 1), with the feature numbering used by the appellant reads as follows:

1.1 A baffle or reinforcement element for sealing and/ or reinforcing a cavity, in particular a cavity of a vehicle, comprising:
1.2 - a carrier element (18),
1.3 - an expandable element (12), in particular expandable foam element, supported by the carrier element (18), wherein the expandable element (12) is arranged on an edge (32) of the carrier (18),
1.4 - connection means including a plurality of bendable tabs (10) provided on the carrier element (18), for connecting the carrier element (18) and the expandable element (12),
1.4' - wherein a thickness of the tabs is less than 0.5 of a width of the tabs and wherein a length of the tabs is at least 2.0 of a width of the tabs, and
1.5 a cover element (19) covering the expandable element (12), at least in part, wherein the tabs connect the cover element with the carrier element and/ or the expandable element.

Auxiliary request 1 does not comprise any method claims.

VII. Independent product claim 1 of auxiliary request 2 corresponds to claim 1 of auxiliary request 1 with the following additional feature:
"wherein the carrier element (18) and the cover element (19) define a profile (27) forming a peripheral recess for receiving the expandable element (12)".

Auxiliary request 2 does not comprise any method claims.

VIII. The claims of auxiliary request 3, 3A, 4, 4A, 4B, 5 and 5A are directed to method claims only. All product claims are deleted.

IX. The following documents are further cited in the present decision:
D50: Snap-Fit Joints for Plastics, Bayer Material Science
D51: Snap-Fit Design Manual, BASF (2007)
D52: Snap-Fit Design Manual, AlliedSignal Plastics (1998)
D53: Integral Mechanical Attachment, A resurgence of the Oldest Method of joining, Robert W.Messler, Jr., Elsevier (2006)
D54: JAVA™-BASED DESIGN CALCULATOR FOR INTEGRAL SNAP-FITS, Jung S. Oh and Al. Proceedings of the 1999 ASME Design Engineering Technical Conferences September 12-15,1999, Las Vegas, Nevada DETC99/CIE-9075
D55: Waybackmachine for snap-fit design software tool from BASF referred to as "Snap Fit Design Calculator" (2008).

Reasons for the Decision

1. Patent as maintained by the opposition division - Auxiliary request 1

1.1 Inventive step starting from D2 in combination with common general knowledge

The subject-matter of claim 1 does not involve an inventive step when starting from D2 in combination with the common general knowledge represented by documents D50-D55.

1.1.1 The appellant argued that there was a need for the person skilled in the art to dimension the "prong" 252, so that it fastened the cover 264 at the carrier element 260, 262 in figure 18 of D2. This could be done without a "reconfiguration" of the prong. The shape of the prong could stay the same and during routine optimisation the skilled person would select a material thickness and design a width and a length, without changing the configuration of the prong, and would arrive within the claimed ranges according to feature 1.4' of claim 1.
In paragraph [0025] of the patent, from which feature 1.4' was taken, not a single advantage of the claimed dimensions of the prong was provided. Furthermore, the wording of feature 1.4' covered a huge dimensional range. If for example a material thickness of 1 mm was selected, any prong with a width > 2 mm and a length > 4 mm fell within the scope of protection of feature 1.4'. Particularly for automotive applications, it was more than likely that a skilled person during routine optimisation of the prong 252 would end up within the range covered by feature 1.4'.

This was made even more probable in view of the accompanying evidence that the design of snap joints like the one depicted in figures 18 and 19 of D2 were routine and well within the common general knowledge of the skilled person. Prior to the filing date of the application of the opposed patent, there existed an abundance of industry guides and resources specifically addressing the calculations to use, along with Tabulated Data in support, and even sample calculations that depict the claimed parameter. See, e.g., D50 at page 16 of 26 (published by Bayer in 2005), D51 at pages IV-4 and IV-5 (published by BASF). See also, D52 examples at page IV-5. In the textbook of D53, at page 123, the author proclaimed the virtues of these tools, and characterised the development of design tools as advanced. Further, as early as 1999, software tools were developed to replace classic manual calculations for design of snap fits D54 (RPI ASME paper). Further, BASF made available on the internet a snap-fit design software tool referred to as "Snap Fit Design Calculator". This calculator tool was documented to have existed at least as early as 2008 (see D55). It should further be noted that neither a shape nor a material of the tab was specified in the upheld claim 1, and therefore any fastener that had a certain width and a length was covered by feature 1.4' as long as these dimensions fell within the claimed ranges. It could hardly be expected that there was any practical utility over the entire scope of such claims. Consequently, the claims of auxiliary request I did not involve an inventive step in combination with the common general knowledge represented by D50-D55.

The appellant submitted that documents D50-D55 were prima facie relevant and were submitted because the respondent denied that the skilled person knew or even

inherently understood that snap fit joints were per se flexible. Documents D50-D55 represented the general common knowledge of the person skilled in the art such that the prima facie relevance argument did not apply. Regarding document D50, its last page was a printout of "web.archive.org" and proved that the document was apublished in November 2005.

1.1.2 The respondent requested not to admit documents D50-D55. In their view they were not prima facie relevant and they could and should have been filed during the opposition proceedings. Furthermore, D50 did not indicate a publication date and documents D50-D55 were not substantiated.

According to the respondent at least the distinguishing feature - namely the bendable tabs and the dimensioning of the tabs regarding the thickness and length of the tabs - was not disclosed in D2.
- Starting from D2: the prongs 252 could not be dimensioned freely, as D2 taught that the prongs were holding the second member 246 and the activatable material in place. D2 was silent about the dimensions of the tabs. The skilled person would not modify the whole element only to match the claimed dimensions of the tabs.
- There was no reason for the skilled person to consult additional prior art, especially D50-D55.
- The appellant did not give any substantiated hint where on page 16 of D50 the claimed dimensions for a prong for gripping the expandable material were to be found. D50 did not disclose the claimed dimensions of the tabs.
- With respect to D51 the appellant did not substantiate where on page IV-4 & IV-5 the claimed dimension of a snap fit without any expandable material

should be shown. The examples given on page IV-5 did not fall within the scope of the claimed subject matter. In example #1 the thickness was not less than half of the width and in example #2 the length was not double the width.
- D52 taught different forces needed for snap-fit designs arranged at different positions on a plate or on a block - see Figure IV-1 and Figure IV-2 (see insert below). The skilled person realised starting from D2 that Design 2 or 2T were relevant for the carrier embodiment. Example #1 related to the design 5 or 4 which had significantly different properties as taught by D52. The skilled person would realise that the values of example #1 were not applicable to the design taught in D2.
- D53 did not show any example teaching the claimed dimension of the prongs taught in D2. The appellant also did not substantiate by any means how D53 was relevant for the skilled person to arrive at the claimed subject matter.
- The appellant did not substantiate how D54 would teach the dimensions of the prongs of D2.
- D55 only showed that technical resources were available. The appellant did not substantiate in any way how the skilled person would find any hint towards the claimed solution.

1.1.3 The Board notes that claim 1 requires bendable tabs without defining the degree of bendability. The prongs of D2, made of resin, are bendable to a certain extent.

Furthermore, the patent does not confer any technical effect to the dimensions of the tabs. As neither the material of the tabs nor the dimensions of the carrier and the expandable element is claimed, no particular

effect can be associated with the dimensions of the tabs.

In document D2 no dimensions are provided. Thus, starting from figure 18 or 19 of D2, the skilled person has to choose dimensions suitable for the prongs 252.

The Board judges that starting from figure 18 or figure 19 of D2, it would have been obvious for the skilled person to dimension the prongs as claimed.

Indeed, considering that the prongs 252 of figures 18 and 19 of D2 are made of synthetic resin material, no inventive step can be recognized in selecting a thickness which is small as compared to the width and a length which is large as compared to the width, and in particular a value for the thickness less than 0.5 of the width and a value for the length of at least 2.0 of the width.

In fact, documents D50-D55, which illustrate the common general knowledge of the skilled person, show (D50, figure 19, D51 and D52 figure IV-4) that such ratios may typically be given to prongs made of plastics and thus also to the prongs of D2.

For this reason, and because they were submitted at the earliest stage of the appeal proceedings, the Board exercised its discretion under Article 12(4) RPBA to admit documents D50-D55 into the appeal proceedings.

(i) The Board notes, as mentioned by the appellant, that document D50 has been published before the date of priority of the patent application and is prior art as provided by the wayback machine on the last page of the document.

In example I, on page 16 of D50, a snap-fitting hook is illustrated, with a similar shape to the prongs of figures 18 and 19 with the following dimensions:
a. Material = Makrolon® polycarbonate
b. Length (1) = 19 mm (0.75 in)
c. Width (b) = 9.5 mm (0.37 in)
d. Undercut (y) = 2.4 mm (0.094 in)
e. Angle of inclination (a) = 30°

Solution for the thickness (h): 3,28 mm (0.13 in)

In this example:
- the thickness (h) is about 0,35 times the width (b), and
- the length (1) is twice the width (b) (should the total length be considered including the hook, then the ratio is above 2).

D2 does not disclose any dimensions for the expansible material 18 nor for the members 244 and 246, such that the skilled person will have to dimension the various components. A prong with the dimensions given in D50 is suitable for example if the cover in D2 is 4 mm thick and the expandable foam is 15 mm thick. These dimensions are suitable for the baffle of D2.

(ii) Also, D51 and D52 show in example 1 a snap fit having dimensions falling within the scope of claim 1.

In this example:
- the thickness (t) is about 0,4 times the width (b), and
- the length (L) is twice the width (b) (should the total length be considered including the hook, then the ratio is above 2).

While this example is for a snap-fit on a block (example 1 in figure IV-1), the same snap-fit on a plate (example 2 in figure IV-1) will have different properties. However, such a dimensioning is still suitable.
The ratio of L/t is 5 in the above example, which means that the deflection magnification factor Q, instead of being about 2 for a snap-fit on a block will be about 1,25 for a snap-fit on a plate (according to figure IV-1).
This means that maximum strain during assembly and the force needed for assembly will be different.

2. Auxiliary request 2

Claim 1 of auxiliary request 2 comprises the following additional feature:
1.6 "the carrier element (18) and the cover element (19) define a profile (27) forming a peripheral recess for receiving the expandable material (12).

2.1 Inventive step starting from D2 in combination with common general knowledge

Feature 1.6 is disclosed in D2. Therefore, the subject-matter of claim 1 does not involve an inventive step when starting from D2 for the same reasons given above for auxiliary request 1.

2.1.1 The respondent held that D2 did not clearly and unambiguously disclose a peripheral recess. Figure 18 of D2 only disclosed a cross-sectional section view of the carrier. The rim built by the prong 252 and the flange 262 and 264 was rather unlikely to form a peripheral recess, because at least at the corner of

the carrier the prong 252 needed to be interrupted in order to ensure the connection of the first and second member. Additionally, D2 taught the presence of a plurality of prongs 252. Those plurality of prongs could not form a peripheral recess, as at least in the space between the prongs no recess was formed.

2.2 The appellant argued that feature 1.6 was disclosed in D2. The description of figure 18 in column 10, lines 30-32 taught that a continuous band 266 of expandable material 18 was received between the flanges 262 and 264. This was a direct and unambiguous disclosure of feature 1.6. The existence of prongs 252 did not weaken this disclosure.

The appellant emphasised that claim 1 did not require that the recess be closed over the whole circumference of the carrier element and referred to paragraph [0013] of the patent:
"Thereby, a gap is provided in a periphery region of the carrier and cover element, wherein the gap is closed (or at least partly closed) in a central region. In essence, the carrier and cover element define a profile in which the expandable (foam) element may be arranged and which hinders the expandable (foam) element to expand in a central direction while expanding".

The appellant considered that in figure 18 of D2, the flange 260 of the first member 244 with the prongs 252 and the flange 264 of the second member 246 formed a recess, which as in the patent hindered the expandable material 18 from moving into the central space 243. The appellant referred to column 10, lines 28-34 of D2).

2.3 The Board agrees with the appellant that feature 1.6 does not require that the recess extends and be closed over the whole periphery of the carrier elements. As mentioned by the appellant the patent discloses that the *"gap [in the periphery region of the carrier and cover element]is closed (or partly closed) in a central region"*.

In figure 18 of D2, the prongs 252 can be considered as being part of the first member 244, forming with the second member 246 a recess at the location of the prongs. Therefore feature 1.6 is anticipated by D2.

3. Remittal to the opposition division - Article 11 RPBA

The Board considers that special reasons present themselves for remitting the case to the opposition division for further prosecution.

3.1 Auxiliary requests 3, 3A, 4, 4A, 4B, 4C, 5, 5A are limited to method claims which were not discussed in opposition proceedings. Although auxiliary requests 3A, 4A, 4B, 4C and 5A were filed in appeal proceedings, auxiliary requests 3, 4 and 5 were already filed in opposition proceedings (as auxiliary requests 13 to 15 on 21 April 2023, in advance of the oral proceedings held on 22 June 2023). Accordingly, the auxiliary requests raise various issues of admissibility, those for auxiliary requests 3 to 5 to be assessed in the context of the procedure before the department of first instance. Furthermore, if these auxiliary requests were admitted, the substantive issues in connection with the method claims would have to be discussed for the first time in appeal. However, the primary object of the appeal proceedings is to review the decision under appeal in a judicial manner (Article 12(2) RPBA 2020).

Furthermore, the appellant requested the remittal to the opposition division if these requests were to be considered. Under these circumstances the Board finds that there are special reasons justifying the remittal of the case to the opposition division.

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 for further prosecution.

The Registrar: The Chairman:

D. Grundner G. Pricolo

Decision electronically authenticated