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Datasheet for the decision
of 8 November 2016

Case Number: T 1599/15 - 3.2.01
Application Number: 09168821.8
Publication Number: 2289771
IPC: B62D25/16, B62D29/00
Language of the proceedings: EN

Title of invention:
Structural reinforcer with bonding material on orthogonal surfaces

Patent Proprietor:
Sika Technology AG

Opponent:
Henkel AG & Co. KGaA

Headword:

Relevant legal provisions:
EPC Art. 123(2), 54(2), 56
Keyword:
Amendments – added subject-matter (yes) main request – (no) auxiliary request
Novelty – (yes) auxiliary request
Inventive step – (yes) auxiliary request

Decisions cited:

Catchword:
Case Number: T 1599/15 - 3.2.01

DE C I S I O N
of Technical Board of Appeal 3.2.01
of 8 November 2016

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Decision under appeal: Decision of the Opposition Division of the European Patent Office posted on 12 June 2015 rejecting the opposition filed against European patent No. 2289771 pursuant to Article 101(2) EPC.

Composition of the Board:
Chairman G. Pricolo
Members: H. Geuss
O. Loizou
Summary of Facts and Submissions

I. The opponent’s appeal is directed against the decision of the Opposition Division of the European Patent Office posted on 12 June 2015 rejecting the opposition filed against European patent No. 2289771 pursuant to Article 101(2) EPC.

II. During oral proceedings held on 8 November 2016 the appellant (opponent) requested that the decision under appeal be set aside and that the patent be revoked.

The respondent (patent proprietor) requested that the patent be maintained as granted (main request), or in the alternative, that the patent be maintained in amended form on the basis of the set of claims of the first auxiliary request as filed with its reply to the statement of grounds of appeal and the description and figures as granted.

III. The following documents are cited in this decision:

   US 6,247,287 B1   (D1)  
   US 2006/0061115 A1 (D5)  
   WO 01/54893 A2   (D6)  

IV. Claim 1 as granted reads as follows:

A structural member sub-assembly, comprising:

a first reinforcer (20) having a rigid carrier (24) and a bonding material disposed on a first surface (26) and on a second surface (28) of said carrier (24) of said first reinforcer (22), said second surface (28) being substantially orthogonal to said first surface (26);
characterized in that

a bracket (29) is connected between said first reinforcer and a second reinforcer (32) having a rigid carrier and a bonding material disposed on a first surface (36) and on a second surface (38) of said carrier of said second reinforcer (32), said second surface (38) being substantially orthogonal to said first surface (36); and wherein said bracket (29) is connected between said second surfaces (28, 38) of said first and second reinforcers (22, 32).

V. Claim 1 of the first auxiliary request reads as follows:

A structural member sub-assembly, comprising:

a first reinforcer (20) having a rigid carrier (24) and a bonding material disposed on a first surface (26) and on a second surface (28) of said carrier (24) of said first reinforcer (22), said second surface (28) being substantially orthogonal to said first surface (26);

characterized in that

a substantially planar rigid bracket (29) is connected between said first reinforcer and a second reinforcer (32) having a rigid carrier and a bonding material disposed on a first surface (36) and on a second surface (38) of said carrier of said second reinforcer (32), said second surface (38) being substantially orthogonal to said first surface (36); and wherein said bracket (29) is connected between said second surfaces (28, 38) of said first and second reinforcers (22, 32).
VI. Claim 10 of the first auxiliary request reads as follows:

A structural member sub-assembly, comprising:
- a structural member (90);
- a reinforcer (92) disposed in said structural member (90), said reinforcer (92) having a rigid carrier (94), said rigid carrier (94) having a planar member (99);

characterized in that bonding material is disposed on a first surface (98) of said carrier (94) and on both sides (100, 101) of said planar member (99), said planar member (99) being substantially orthogonal to said first surface (98) and sandwiched between a pair of planar members (96, 97) of said structural member (90).

VII. The appellant’s submissions as relevant to the present decision may be summarized as follows:

Independent claim 1 as granted has been amended in such a way that it contains subject-matter which is not disclosed in the originally filed documents. There is no indication that the substantially rigid member according to claim 9 of the application as filed, which forms the basis for claim 1 as granted, is the bracket as described in paragraph [0023]. It is admitted that the reference sign 28 in claim 9 is erroneous but it is not apparent from the application documents as filed what is correct, e.g. what part corresponds to the “substantially planar rigid member”.

Since there is no link in the application documents as
filed between the bracket and the substantially planar rigid member, the amendment of claim 1 (and claim 7 respectively) of the first auxiliary request ("a substantially planar rigid bracket (29)") infringes Article 123 (2) EPC: there is no disclosure at all that the bracket is substantially planar and rigid, and further, it is not unambiguously and directly derivable that the substantially planar rigid member must be the bracket member. In any case, the subject-matter of claim 1 of the first auxiliary request is not novel in view of document D1. In particular, the horizontal surfaces of the respective connecting pieces 13a and 13b (cf. fig. 4(A)) belong to the respective first and second reinforcer and have to be considered as being second surfaces 28 and 38 according to the invention. Further, the reinforcement panel 8 has the function of the bracket and is connected between these horizontal second surfaces of the connecting pieces.

Furthermore, the subject-matter of claim 1 of the first auxiliary request is not new in view of document D6. The reinforcing member of D6 is without any doubt in the form of a bracket and denominated in the description as a carrier (28). This carrier is located between two second surfaces at the bottom of the foaming shelves 76, cf. fig. 8 to 10.

In any event, the subject-matter of claim 1 (and claim 7 respectively) of the first auxiliary request is obvious in view of document D1. It is obvious to provide a bracket instead of a reinforcement panel. The person skilled in the art would consider this measure as an obvious alternative to the reinforcement panel as disclosed.

Further, document D5 discloses a first reinforcer
according to the preamble of claim 1. It is within the normal capabilities of the skilled person to provide the structural member according to D5 with a second reinfocer and a bracket, thereby solving the problem of improving stability. In this case the second reinfocer could be simply mirror-inverted. The hint to add a second reinfocer is given in document D5 in connection with the second embodiment (cf. figure 4).

The subject-matter of claim 10 lacks novelty with respect to document D6. In particular, the horizontal area of the foaming shelves corresponds to the feature of the planar member which is orthogonal to the first surface, the latter being the vertical wall of the foaming shelf. This horizontal area (planar member) is arranged between a pair of planar members of the structural member, the planar members being the base wall 50 of the channel 24 and the flat plate 26. Thus the horizontal area of the foaming shelf is sandwiched between the pair of planar members according to the characterizing part of claim 10.

VIII. The respondent’s rebuttal was essentially the following:

From the application as filed it is absolutely clear that the reference number 28 in claim 9 ("a substantially planar member (28)"") is erroneous. In the description no substantially planar member is mentioned to connect the second surfaces but a bracket. Further, the reference sign 28 was already allocated to one of the second surfaces. The amendment of the wording is, accordingly, the correction of an obvious error. The wording of claim 1 according to the first auxiliary request has been amended to overcome the objection with respect to undisclosed subject-matter in claim 1 as
granted. The “substantially planar rigid bracket” includes the structural features of the bracket as claimed originally in the wording of claim 9. Since there is no other part which is connected between the second surfaces, the amendment in claim 1 of the first auxiliary request is unambiguously and directly disclosed.

The subject-matter of claim 1 (and claim 7 respectively) of the first auxiliary request is novel in view of D1 and D6.

With respect to D1, the connecting pieces 13a and 13b correspond to the mechanical fastener 27 as described in the patent in suit which is used to connect the first and second reinforcing 22, 32 around bracket 29. According to D1, the connecting pieces 13a and 13b are provided with engagement lips, engaging an edge of the aperture 7a resp. 7b of the reinforcement panel 8 and connecting the reinforcement member 10a resp. 10b to the panel 8 (cf. figure 4). The second surfaces are part of the rigid carrier which belongs to the first and second reinfocer. From this context it is very clear that the second surfaces have the function of improving stability. The function of the mechanical fastener however is merely that of connecting parts and holding them together.

The subject-matter of claim 1 of the first auxiliary request is novel over document D6. It is clear from the wording of the claim and the patent description that the carrier of the reinfocer and the bracket are different parts. There is also no basis for an interpretation of the claim so that the carrier and the bracket can be formed by a single component. The situation is the same for claim 7.
The appellant's argument on inventive step starting from document D5 is based on hindsight. The general hint to provide multiple reinforcers does not lead the skilled person to the contested invention. It is not disclosed in which way two reinforcers would have to be arranged and put together.

The subject-matter of claim 10 of the first auxiliary request is novel. Document D6 does not disclose a planar member according to claim 10 on which bonding material is disposed on both sides. Further the foaming shelf according to D6 is not sandwiched between the base wall 50 and the flat plate 26 of the channel 24.

Reasons for the Decision

1. The appeal is admissible.

Main Request

2. The European patent is amended in such a way that it contains subject-matter which extends beyond the content of the application as filed, Article 100 c) EPC.

2.1 Claim 1 as granted defines a \textit{bracket} which is connected between the second surfaces. However claim 9 as originally filed forming the basis for claim 1 as granted discloses a \textit{substantially planar rigid member} connected between said second surfaces.

Claim 9 as originally filed relates to the second embodiment of the invention as disclosed in paragraph [0023] of the description as originally filed,
mentioning a bracket which is connected between the second surfaces (28,38) of the reinforcers 22 and 32.

The same situation applies for claim 7 as granted which is directed to a method.

2.2 The Board follows the respondent’s point of view that the expression *substantially planar rigid member* according to claim 9 as filed would be considered by a skilled person as referring, in particular, to the *bracket* as described in the description.

Nevertheless, this does not imply that these terms are identical. On the one hand, the term *bracket* has a more restrictive technical meaning than *member* with respect to its form; on the other hand, the feature *bracket* does not necessarily include the further properties as defined in claim 9, namely of being substantially planar and rigid. In fact, a bracket may well be curved and deformable.

Since there is no basis in the application as filed for the bracket being other than substantially planar and rigid, the general definition of *bracket* in claim 1 as granted introduces added subject-matter.

First auxiliary request

3. Claim 1 and claim 7 of the first auxiliary request have not been amended in such a way that they contain subject-matter which extends beyond the content of the application as filed, Article 123 (2) EPC.
3.1 The wording of claim 1 according to the first auxiliary request differs from the wording of claim 1 as granted (and claim 7 respectively) in that the bracket is now defined as “a substantially planar rigid bracket”. This amendment was objected to by the appellant.

3.2 As pointed out under 2.2, the Board is of the opinion that the term “bracket” as used in the description of the embodiment of the invention is a specific implementation of the feature “substantially planar rigid member (28)” recited in claim 9 as originally filed. There is no other part disclosed which is connected between the second surfaces. Thus, it is unambiguously and directly derivable from the application documents as originally filed that the substantially planar and rigid member is the bracket part in the embodiment of paragraph [0023].

4. The subject-matter of claim 1 according to the first auxiliary request is novel, Article 54 EPC. Neither D1 nor D6 disclose all features of claim 1.

4.1 As regards D1, the Board does not follow the appellant’s line of argument that the horizontal surfaces of the respective connecting pieces 13a and 13b (cf. fig. 4(A)) should be considered as the second surfaces 28 and 38 of the carriers of the first and second reinforcing members, respectively, and further, that the reinforcement panel 8 has the function of the bracket and is connected between these horizontal second surfaces of the connecting pieces.

The Board notes that according to the definition in claim 1 the second surfaces (28,38) belong to a rigid carrier which is part of the respective reinforcer (22 or 32).
The connecting pieces 13a and 13b according to D1 correspond to the mechanical fastener 27 as described in the patent. In the patent in suit, the mechanical fastener 27 is “used to connect the first and second reinforcing members 22, 32 around bracket 29”, cf. description, column 4, lines 11 to 13. The connecting pieces 13a and 13b of D1 (cf. figure 1), which are provided with elastically deformable engagement lips, engaging an edge of the aperture 7a resp. 7b of the reinforcement panel 8, connect the reinforcement member 10a resp. 10b to the panel 8 (cf. figure 4, column 5, lines 24 to 36), which is exactly the function of the mechanical fastener of the patent in suit.

Thus, the surfaces in D1 as indicated by the appellant being the second surfaces according to the invention do not belong to a reinforce having a rigid carrier but to fastener pins.

As a consequence, at least the feature of claim 1 that a bonding material is disposed on a first surface and on a second surface of said carrier of said first reinforce, said first reinforce being substantially orthogonal to said first surface is not disclosed in D1.

4.2 The appellant argued further that the subject-matter of claim 1 lacks novelty in view of document D6.

In particular its argument is based on the fact that the carrier 28 (resp. 48) of D6 is the reinforce and the bracket at the same time.

The Board here follows the decision of the opposition division (point 2.3.2) stating that part 28 (resp. 48
in figures 8 to 10) could be either a reinforcer or a bracket but not both at the same time. In particular, D6 discloses a structural member sub-assembly with a single rigid carrier provided with bonding material along two parallel surfaces. Consequently, a second reinforcer having a rigid carrier in accordance with the wording of claim 1 is not disclosed and further there is no bracket connecting a first and second reinforcer.

5. The invention as defined in claim 1 is considered as involving an inventive step, since the subject-matter of claim 1 is not obvious with regard to document D5 or D1.

5.1 As regards D5, here also the Board follows the decision of the opposition division (see point 2.4.1). This document discloses a sub-assembly according to the preamble of claim 1, but fails to disclose a second reinforcer and a bracket. In the absence of any suggestions in the prior art, providing a second reinforcer and connecting the first and the second reinforcer by a bracket, would require the specific knowledge of the contested invention. The reference to the embodiment of Fig. 4, showing a number of reinforcements members 10, would not suggest this feature, as the reinforcements members are provided at different sides of the vehicle (see par. [0037] of D5). Finally, even if the skilled person would provide a second reinforcer, there is no motivation to additionally provide a bracket, in particular in the embodiment of Fig. 4.

5.2 As regards D1, the line of argument of the appellant only considers the obviousness of the feature that the
bracket is connected between said second surfaces of said first and second reinforcing members, but leaves it open in which way the feature of claim 1 that a bonding material is disposed on a first surface and on a second surface of said carrier of said first reinforcing member, said first reinforcing member being substantially orthogonal to said first surface (which is seen by the Board as not disclosed in D1, see above, 4.1), would be obvious.

Therefore, this line of argument is moot.

6. The same lines of argument with regard to novelty and inventive step (see above, points 4 and 5) have been brought forward against independent claim 7, which is directed to a method of assembling a structural sub-assembly according to claim 1. Accordingly, the direct result of this method being a structural sub-assembly having all the features according to claim 1, for the reasons discussed above the invention defined in claim 7 likewise fulfils the criteria of novelty and inventive step.

7. The subject-matter of claim 10 is novel, Article 54 EPC.

7.1 The appellant objects lack of novelty with respect to document D6. The feature in dispute is the feature of the characterizing portion of claim 10 ("bonding material is disposed on a first surface (98) of said carrier (94) and on both sides (100, 101) of said planar member (99), said planar member (99) being substantially orthogonal to said first surface (98) and sandwiched between a pair of planar members (96, 97) of said structural member (90)").

In particular, it is argued that the horizontal area of
each foaming shelf is arranged between a pair of planar members of the structural member, the planar members being the base wall 50 of the channel 24 and the flat plate 26 (see Figs. 8, 9 and 10 in particular).

The Board is not convinced by this line of argument since none of the two horizontal base plates 78 of the respective foaming shelves 76 in D6 is provided with bonding material on both sides, and none of these base plates is in direct contact with the flat plate 26 and the base wall 50 at the same time. Thus, the base plates of the foaming shelves cannot be considered as being "sandwiched between" the base wall and the flat plate. Consequently the characterizing feature of claim 10 is not disclosed in D6.
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 following:

Description:
Columns 1-5 of the patent as granted.

Claims:
No 1-10 of the auxiliary request 1, as filed with the reply to the statement of grounds of appeal, dated 24 February 2016.

Drawings:
Fig. 1A-12 of the patent as granted.

The Registrar: The Chairman:

A. Vottner G. Pricolo

Decision electronically authenticated