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Datasheet for the decision of 27 October 2021

Case Number: T 1943/16 - 3.2.01

07101896.4 Application Number:

Publication Number: 1942045

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Language of the proceedings: ΕN

Title of invention:

Method for manufacturing a pillar for a vehicle

Patent Proprietor:

Ford Global Technologies, LLC

Opponent:

Daimler AG

Headword:

Relevant legal provisions:

EPC Art. 56 RPBA 2020 Art. 12(2), 12(3) RPBA Art. 12(4)

Keyword:

Inventive step - main request (no) - first auxiliary request
(yes)

Admissibility of first auxiliary request - (yes) Late-filed evidence of prior use - admitted (no)

Decisions cited:

T 0534/89, T 0017/91, T 1309/16

Catchword:



Beschwerdekammern Boards of Appeal

Chambres de recours

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Case Number: T 1943/16 - 3.2.01

DECISION
of Technical Board of Appeal 3.2.01
of 27 October 2021

Appellant 1: Ford Global Technologies, LLC

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Representative: Daimler AG

Intellectual Property and Technology Management

GR/PI - H512

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Decision under appeal: Interlocutory decision of the Opposition

Division of the European Patent Office posted on

24 June 2016 concerning maintenance of the European Patent No. 1942045 in amended form.

Composition of the Board:

Chairman P. Guntz
Members: W. Marx

H. GeussC. NarcisiO. Loizou

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Summary of Facts and Submissions

- I. The appeals by the patent proprietor (appellant 1) and the opponent (appellant 2) are directed against the decision of the opposition division to maintain European patent No. 1 942 045 in amended form on the basis of the claims 1-12 of the second auxiliary request filed on 24 March 2016.
- II. The appellant 2 relied on the following evidence filed during the oral proceedings:
 - E1: DE 10 048 233 A1;
 - E2: Kraftfahrtechnisches Taschenbuch, 25. Auflage, Vieweg Verlag, 2003; ISBN 3-528-23876-3, S. 254, S. 892-893;
 - E3: Slides of a presentation showing drawings relating to the alleged prior use by Daimler AG, vehicle Mercedes-Benz series W221, S-Class. The slides are dated 21.09.2010;
 - E4: E3 presentation, supplemented with additional information relating to the alleged prior use by Daimler AG, Mercedes-Benz series W221, S-class.
- III. The opposition division held, inter alia, that the vehicle Mercedes-Benz series W221, S-class, was available to the public before the priority date of the contested patent and that the A-pillar was manufactured as explained during the oral proceedings by the witness and also supported by document E4, thus taking away novelty of the method of claim 1 as granted. The subject-matter of claim 1 according to the second auxiliary request was considered inventive starting from the prior use Mercedes-Benz series W221, S-class, or from E1.

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- IV. With its grounds of appeal dated 20 October 2016 the appellant 1 filed a single auxiliary request, which was then replaced with letter dated 23 December 2019 by first to third auxiliary requests (this first auxiliary request corresponds to the second auxiliary request presented during the oral proceedings).
- V. The appellant 2 filed, *inter alia*, further evidence of alleged prior use with its grounds of appeal:
 - E5: Slides showing drawings relating to the alleged prior use by Daimler AG, B-pillar of vehicle Mercedes-Benz series W221, S-Class (slides 1-14 and 21), and A-pillar of vehicle Mercedes-Benz series C216, CL-Class (slides 15-20).
- VI. Oral proceedings before the Board took place on 27 October 2021.

The appellant 1 (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 one of the first to third auxiliary requests filed with letter of 23 December 2019 (the first auxiliary request corresponding to the set of claims that was allowed during the opposition proceedings).

The appellant 2 (opponent) requested that the decision under appeal be set aside and the patent be revoked.

VII. Claim 1 as granted according to the main request reads (broken into a feature analysis according to the contested decision) as follows:

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- M1.1 Method for manufacturing a pillar for a vehicle,
- M1.2 whereby the pillar comprises a substantially hollow body of any substantially open or closed, uniform or non-uniform cross section,
- M1.3 constituted by at least one member, characterized in that
- M1.4 it comprises the steps of manufacturing said at least one member from high strength steel,
- M1.5 providing said at least one member with a planar bonding surface
- M1.6 that is up to 15 mm wide, and
- M1.7 connecting said bonding surface to another part of the pillar or to part of a vehicle body
- ${\tt M1.8}$ by means of continuous bonding such as laser beam welding or adhesion.

Claim 1 according to the first auxiliary request was amended by adding the following feature:

- M1.9 whereby said high strength steel is an ultra-high strength steel (UHSS) having a tensile strength of at least 1000 MPa (when using UHSS alloyed with boron (boron steel) the strength is measured in the steel's hardened state), UHSS alloyed with boron, or an extra high strength steel (EHSS) having a tensile strength of at least 700 MPa.
- VIII. The appellant 1 (patent proprietor) essentially argued as follows:

Main request (patent as granted) - inventive step

The characterising portion of claim 1 specified three steps and implied by its wording a chronological order. The step of "connecting <u>said bonding</u> surface to another part" referred to a "planar bonding surface" which was

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used and had to be provided before, i.e. these two steps had to be carried out in the order in which they were recited in claim 1.

Closest prior art document E1 disclosed a method for connecting sheets of a vehicle body. It did not mention steel, but only (see paragraphs [0001], [0010]) metal or aluminium sheets. The embodiment described with reference to Figs. 2a-2c (flanges of an inner module and an outer module were connected via laser welding and then cut to a width of 2...5 mm) was not relevant, as it did not show the same order of steps as required by claim 1. As regards the alternative embodiment of the method disclosed in E1 and described with reference to Figs. 3a-3c (claim 3 of E1), this embodiment also led the skilled person away from the claimed method. It included spot welding as an essential method step and was recommended (see paragraph [0010]) for welding aluminium sheets (which were difficult to weld by laser welding), or in cases of poor accessibility for the laser beam or high reflection. Fig. 3a showed that the inner and outer modules were clamped together and spot welded in the desired assembly position (1st connecting step). In the workstation of Fig. 3b they were cut to the desired width with a laser, thereby cutting off the spot welded portion (see paragraph [0029]). Then, in Fig. 3c, the assembly was moved to another workstation for plasma arc welding (2nd connecting step). Firstly, E1 did not disclose that plasma arc welding could or should be used to weld steel. Secondly, it was referred to the "could-would approach" applied by the boards of appeal. As E1 only disclosed methods that included spot welding as an essential method step, it was not obvious for a skilled person to modify either of the methods disclosed in E1 and arrive at a method that did not involve spot welding.

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As regards the disclosure in E2, the Table on page 254 (see e.g. "ZE 420": "Für hoch beanspruchte Trägerteile, deren Verformungsgrad nicht zu schwierig ist") did not tell where (i.e. within which component) and how the metal sheets were to be used. It was left open what "highly stressed body part" was referred to, and whether "a degree of deformation not to difficult" referred to when being used or in crash situations. On page 892, which mentioned steel sheets for various body parts, it was left open which components were meant or how they were used. There was no explicit disclosure or clear prompt for the material of the hollow A-pillar, or what highly stressed/loaded body part was meant on page 254. Thus, there was no motivation to consider high strength steel in A-pillars, in particular not for a member of a hollow pillar, i.e. of a hollow profile. The statement in E2 (page 893, left column) that steel could not be substituted only referred to a metal reinforcement, not to a component of a hollow structure, as supported by the Table on page 254 (showing values of parameter A₈₀ indicating the material's ductility). A stronger steel was less ductile and formable. Hollow profiles required material easy to bend, so high strength steel was not obviously used for a component that had to be bend.

E2 did not tell to use high strength steel, but to use aluminium (see explicit disclosure on page 893, right column) in luxury cars. The properties of aluminium were equivalent or superior to steel (see page 893, manufacturers' opinion), so there was no reason why it should be used only for one luxury vehicle.

Even assuming that both materials were equivalent, the skilled person considering the advantages of laser

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welding described in El and using high strength steel would use the embodiment according to Figs. 2a-2c (paragraph [0007]: laser welding only produced local narrow heating, which adversely affected material characteristics; the components were produced accurately and precisely, as the parts remained in the desired assembly position, whereas in Fig. 3b - see paragraph [0029] - the flanges were only approximately held in place and not to the exact position when moving to the plasma workstation of Fig. 3c, contrary to the movement from the spot welding in Figs. 3a to Fig. 3b). A movement from a laser to a plasma welding workstation (or robot) was implied in Figs. 3b, 3c since E1 did not mention the advantage of using the same workstation. Moreover, it had to be considered that paragraph [0030] told that the members were welded with a flanged seem ("Bördelnaht") when using plasma arc welding. It was not possible to use laser welding in Fig. 3c. Although not shown in Figs. 3a-3c, the term "Bördelnaht" implied that the flanges needed to be provided with a bent shape to produce a flanged seem, i.e. not with a planar bonding surface, which would not lead to the method as claimed. The general disclosure in paragraph [0031] only referred to metal sheets, not to steel sheets.

Therefore, looking at E1 (Figs. 2a-2c and Figs.3a-3c; claims 1 and 3), which differentiated between laser and plasma welding with specific sequences of processing, the question was which sequence was to be used if high strength steel was used for one component of a hollow A-pillar. In case of Figs. 2a-2c, one would not arrive at the chronological order of granted claim 1, in case of a "Bördelnaht" claim 1 needed a planar bonding surface.

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First auxiliary request - admissibility, inventive step

The objection against a late-filing of this request was an amendment to the case of appellant 2, because it was first raised by the appellant 2 (opponent) only during oral proceedings. Moreover, this request had been on file since 23 December 2019 and had never been withdrawn. It was implicitly part of the appeal.

Neither E1 nor E2 disclosed or prompted to use EHSS or UHSS steel as claimed. E1 mentioned only metal sheets and aluminium. Page 892 of E2 disclosed that "for the body shell, steel sheets with distinguishable qualities are usually used" and referred to the Table entitled "Body shell sheets" on page 254, which listed a plurality of steels (ZE260 to ZE420) having a maximum tensile strength of 490 MPa suitable "for heavy-duty support members whose degree of deformation was not too difficult".

E2 led away from a solution to use other steel than disclosed in E2, in particular since increasing tensile strength further would reduce ductibility. There was no prompting in the prior art about one part of a specific hollow pillar which was made of UHSS or EHSS steel. Moreover, with regard to the embodiments known from E1 (see above), the subject-matter of claim 1 did not only rely on the use of a different material, but also on a different sequence of manufacturing as compared to E1. The problem solved by claim 1 was therefore to provide an improved method to produce a vehicle pillar, in order to save manufacturing time and complexity.

Admission of E5

E5 constituted a new allegation of public prior use based on the opponent's own activities (a new pillar of

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different dimensions and new material for vehicle W221 and even a new vehicle C216)) and no reason for its belated submission had been provided. E5 should not be admitted into the appeal proceedings. If admitted, it was requested that the Board remits the case and takes a decision on the apportionment of costs.

The patent was maintained in first instance proceedings on the basis of claims 1 and 5 as filed and granted, i.e. such an amendment and fall-back position had been known to the opponent and thus had been foreseeable. Therefore, there were no good reasons why E5 had not been presented in first-instance proceedings (a belated submission represented an abuse of proceedings, see T 534/89). The opponent should have looked for documents and prior uses during the nine month opposition period, at the latest in reaction to the second auxiliary request filed in opposition proceedings one month prior to oral proceedings (since the same witnesses were offered for E5 as for the alleged prior use put forward in first-instance proceedings). According to the Case Law no fresh case was allowed in appeal proceedings.

Moreover, E5 was not relevant, as it left open when the pillar was manufactured, when it was used in a car and in which car it was used, and whether it was made available to the public.

IX. The arguments of the appellant 2 (opponent) may be summarised as follows:

Main request (patent as granted) - inventive step

The contested patent (lacking terms like "subsequently" or a numeration of steps) defined no chronological order, but merely a list of process steps in the order of mentioning. Thus, claim 1 was broadly defined.

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The subject-matter of granted claims 1 and 13 was obvious in view of a combination of E1 with E2. E1 showed a method for manufacturing an A-pillar having a small flange to improve the driver's vision without reducing its strength (see col. 4, lines 2-6). The second embodiment according to claim 3 and Fig. 3 (also paragraphs [0010] and [0028] - [0030]) disclosed all features of claim 1 except for feature M1.4, which brought about a high strength pillar of reduced weight. Starting from E1 the objective was to increase the strength of the pillar while maintaining geometrical dimensions. The skilled person knew that the strength of the A-pillar was dependent upon the material of its components, so he would choose among known materials a high strength material and arrive without the use of an inventive skill at a high strength steel (supported by the hint in E1, paragraph [0023], that the A-pillar was relevant to safety). The skilled person was not deterred from using plasma arc welding, as he knew that it could be used to weld steel. In view of the hint in E1 (paragraph [0001]) to use body panels, he would also consult E2 which dealt with car body materials (see page 892, referring to the Table page 254). Looking for a material for safety-relevant parts, he would choose without the exercise of inventive skill a material such as ZE260 (or of higher strength) and thus a material from the group of high strength steels. E2 did not have to mention a hollow body, as it was common practice to have a hollow body in A-pillars. The highly stressed body parts mentioned on page 254 were structural parts as mentioned on page 893 (left column).

El generally talked about metal sheets, as summarised in paragraph [0031], so it did not lead away from using steel. It was not excluded in El to use plasma arc

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welding for steel and aluminium. A hint was given in E2 (see clear reference on page 892 to Table on page 254) to use steel for the body in white, comprising A-, B- and C-pillars. Steel was commonly used at that time as material for the vehicle body. The mention in E2 of using aluminium related to a very special embodiment (the Audi Space Frame) for a single series vehicle, which was an exception at that time. Thus, E2 taught to use either steel or aluminium, and steel was more in common as material for the body in white.

The term "Bördelnaht" in E1 did not imply a bending process, but was only a word designating the weld seam of Fig. 3c (a weld seam applied to the end of two planar flanges; welding parallel to the flanges).

First Auxiliary Request - admissibility, inventive step

The appellant 1 replaced the sole auxiliary request filed with its grounds of appeal with the first to third auxiliary requests filed with letter dated 23 December 2019. These requests were lately filed and not admissible, since they could have been filed with the grounds of appeal. According to Article 13(1) RPBA 2020, any amendment after having filed the grounds of appeal needed justification, and admission was within the discretion of the Board. The appellant 1 had not provided any reasons why it changed its requests. Originally, there was no longer an explicit request to maintain the patent as upheld in oral proceedings. Denying on the one side admission of E5 filed with the grounds of appeal, and on the other side admitting the late filed request would amount to an unfair treatment of the appellant 2.

The subject-matter of claims 1 and 12 according to the first auxiliary request was not inventive. Document E1 showed all features of claim 1 except for features M1.4 and M1.9. The technical effect of these features was (see also paragraph [0013] of patent) that the part's material strength was increased and material was saved without loosing rigidity/strength. The objective was therefore to save weight without loosing mechanical properties. It was well-known to the skilled person to choose a different material which allowed to maintain or even increase mechanical properties of the A-pillar, and starting from E1 it was not inventive to choose a steel with higher strength or ultra high strength steel (UHSS). This was also taught by E2, namely to increase steel strength for highly loaded structural parts in order to reduce the thickness of metal sheets and save weight (page 893, left column, second paragraph). Though E2 did not show ultra high strength steel, this was not necessary in view of the general teaching in E2 (and the common general knowledge) that higher strength led to reduced thickness and weight, in particular since UHSS steel had been known to the skilled person.

Admission of E5

E5 was filed with the grounds of appeal and formed, at least to the extent of sheets 1-14 and 21 describing vehicle W221, already part of the opposition proceedings. There was no reason to reject a prior use which had already been acknowledged, especially if this was fatal to the opponent (as the patent could never be maintained in light of E5). These sheets disclosed that the body side panel of the vehicle W221 also comprised a B-pillar which anticipated the subject-matter of claim 1, so it was also prima facie relevant. According to G 9/91, it could be in the interest of the patentee

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to have such prior use admitted in order to guarantee legal certainty and to avoid unstable patents. E5 did not represent new evidence, since E3/E4 (that were already admitted into the proceedings) showed the same object and subject-matter (at least as regards the vehicle W221). The vehicle W221 comprising an A-pillar according to the design status disclosed in E3/E4 was launched to market in 2005. E5 might show a version of 2002 ("Stand 2002"), but the same vehicle and only a different part of the side wall shown in E3. No delay of proceedings was expected to occur when taking into account E5, as the public availability of the disclosed subject-matter had been acknowledged and was quickly and clearly derivable.

Reasons for the Decision

- 1. Main request inventive step
- 1.1 The subject-matter of claim 1 as granted does not involve an inventive step in view of the teaching of document E1 in combination with E2 (Article 56 EPC).
- 1.2 Undisputedly, the preamble of claim 1 is known from E1, since E1 describes with regard to Figs. 2a-2c and Figs. 3a-3c two alternative methods for manufacturing an A-pillar for a vehicle comprising a substantially hollow body formed by an inner and outer member, made from a sheet of metal.

The Board concurs with the appellant 1 that the wording of the characterising portion of claim 1 implies a chronological order of method steps M1.5, M1.6 ("providing said at least one member with a planar bonding surface that is up to 15 mm wide") and steps

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M1.7, M1.8 ("connecting <u>said bonding</u> surface to another part of the pillar or to part of a vehicle body by means of a continuous bonding such as laser beam welding or adhesion"), since a bonding surface has to be provided (step M1.5) before it can be connected to another part (step M1.7).

Admittedly, the embodiment described with reference to Figs. 2a-2c shows a method in which these steps are carried out in the reverse order (i.e. a connecting step followed by a cutting step to provide a bonding surface that is less than 15 mm wide), which does not fall under the wording of claim 1. However, the alternative embodiment described in E1 with reference to Figs. 3a-3c shows method steps M1.5 to M1.8 in a chronological order as claimed. Fig. 3b discloses a step of cutting planar bonding surfaces of an inner module and an outer module (previously spot welded in the desired assembly position) with a laser to a desired width of 2 to 5 mm, thereby providing "at least one member with a planar bonding surface" as required by features M1.5 and M1.6. The broad wording of claim 1 leaves open how or by which process the planar bonding surface is provided, so a process comprising two steps as described in E1 with reference to Figs. 3a and 3b (i.e. spot welding two members of the A-pillar before cutting them to a desired width) falls under this wording. Thus, the argument of appellant 1 that it was not obvious to modify this embodiment when arriving at a method that did not involve spot welding (disclosed in E1 as an essential method step) was considered irrelevant. Then, as shown in Fig. 3c and described in paragraph [0030], the bonding surface of e.g. the inner module is connected to the outer module via plasma arc welding, i.e. a continuous bonding process as required by features M1.7 and M1.8.

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Undisputedly, E1 fails to disclose at least one member manufactured from high strength steel (feature M1.4). In the general part of E1 (paragraph [0010]) plasma arc welding is recommended not only for welding aluminium sheets, but also in cases of poor accessibility for the laser beam or high reflection. Thus, contrary to the allegation of the appellant 1, the teaching of E1 with respect to the alternative embodiment of Figs. 3a-3c is not limited to aluminium as material of the metal sheets used for manufacturing the inner module 3 and the outer module 5 (which comprises inner metal sheet 8 bonded to inner module 3, see paragraph [0023], Fig. 1) of the A-pillar manufactured according to Figs. 3a-3c.

- 1.3 E1 already shows short flanges and thus solves already the problem of the contested patent of improving the visibility of the driver. Therefore, the problem to be solved is seen in choosing an appropriate material for manufacturing the A-pillar as disclosed in Figs. 3a-3c. The problem formulated by the appellant 2 (to increase the strength of the pillar) seems to contain a pointer to the claimed solution and is therefore not accepted.
- 1.4 The Board concurs with the appellant 2 that the skilled person would consult E2, which summarises the knowledge on vehicle technology prior to the priority date of the contested patent. E2 states on page 892 that usually steel sheets with distinguishable qualities are used for parts of the body shell or body in white of a vehicle, including the A-pillar (see drawing page 892). Moreover, page 892 in E1 explicitly refers to the Table on page 254, which proposes to use steels ZE260, ZE340 and ZE420 for highly stressed support members whose degree of deformation is not too difficult. Looking at Figs. 1 and 3a in E1, the Board finds that the degree

of deformation of metal sheet 8 of the A-pillar is not difficult, as it only shows bending radii of less than 90 degrees. Moreover, the skilled person knows that the A-pillar is a safety-relevant part providing rigidity to the passenger compartment to protect the users of the vehicle in case of crash situations like rollover (as also recited as background of the invention in the contested patent). The skilled person when studying the Table on page 254 of E2 is therefore prompted to use one of the steel qualities ZE260, ZE340 or ZE420 proposed in this table for highly stressed support members, all materials from the group of high strength steels, as argued by the appellant 2 and also found by the opposition division. Steel Z420 having a tensile strength of about 490 MPa even falls under the definition of very high strength steel (VHSS) given in the contested patent itself (see third alternative according to paragraph [0013] or claim 5: having a tensile strength of at least 450 MPa).

1.5 The argument of appellant 1 that E2 left open which components were meant and how they were used was not convincing. The drawing on page 892 in E2 shows the body in white of a vehicle which includes A-pillars, and E2 explicitly states that usually steel sheets are used to manufacture the body in white (page 892, right column, which then refers to the Table in page 254). The skilled person, knowing that the A-pillar represents a body part which in crash or rollover situation might experience high stress, is prompted to use a high strength steel for the A-pillar as proposed in E2 (Table on page 254) for highly stressed body sheets or support members. The Board cannot see that a hollow profile of the A-pillar as specified in the preamble of claim 1 would lead away from using high strength steel for a component of the A-pillar that had to be bend, as argued by the appellant 1 (pointing in this respect also to the parameter A_{80} in the Table in page 254, which represents the material's ductility and thus its formability). The Table in page 254 in E2 explicitly states that high strength steel qualities can be used for parts which are not to difficult to be deformed, i.e. high strength steel are not excluded from being used for parts that have to be bend. As argued further above, at least the metal sheet 8 of outer member 5 of the A-pillar in E1 is considered suitable for being made from high strength steel. Moreover, the Table on page 254 shows steels for parts that are simple or even difficult to be drawn ("Für einfache/schwierige Ziehteile") having values of 28% or 32% of parameter A_{80} , i.e. values identical or close to the value of 28% as disclosed e.g. for high strength steel quality ZE260. Thus, the Board cannot see that the skilled person is deterred from using high strength steel for a part of the A-pillar formed by bending a steel sheet, irrespective of what specific parts are meant in E2 (see page 893, left column) when referring to highly stressed structural parts.

1.6 The argument of the appellant 1 that E2 did not suggest to use high strength steel, but to use aluminium in luxury cars (see page 893, right column), was not convincing either. This passage in E2 refers to a single series vehicle ("ein Serienfahrzeug der Oberklasse") in which metal sheets are integrated in the aluminium frame structure ("ASF Audi Space Frame"), showing properties equivalent or superior to steel. However, it is well-known to the skilled person that such construction was an exception in the automotive industry at that time, so it does not lead away from using steel for body parts, as commonly used according to page 892 in E2.

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1.7 Finally, the Board cannot follow the appellant 1 in that the skilled person using high strength steel would use the embodiment according to Figs. 2a-2c in E1 in view of the advantages of laser welding described in this respect. As argued by the appellant 1, according to this embodiment the components were produced accurately and precisely and remained in the desired assembly position, whereas according to the alternative embodiment of Figs. 3a-3c the flanges were not held exactly in place when moving to the plasma workstation of Fig. 3c. However, E1 is silent on whether a movement between workstations takes place between the steps of Fig. 3b and Fig. 3c, and such a movement is also not considered to be implicitly disclosed for technical reasons. As well-known in the art of manufacturing vehicles, a workstation might be equipped with different robots fulfilling different functions. Moreover, even assuming that such a movement is implied, it is purely speculative to argue that the skilled person would be deterred from using the method steps according to Figs. 3a-3c (which correspond to the method steps as claimed), since E1 explicitly proposes this embodiment as an alternative for manufacturing an A-pillar for a vehicle.

The further argument raised by the appellant 1, that the term "Bördelnaht" (flanged seam) disclosed in E1 when using plasma arc welding implied that the flanges needed to be provided with a bent shape and not with a planar bonding surface, is in contradiction with the disclosure of E1. The process steps of manufacturing an A-pillar according to Figs. 3a-3c are fully described in paragraphs [0028] to [0030], and there is no room for assuming that an additional (undisclosed) step of bending the flanges is foreseen before connecting them

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via plasma arc welding. As shown in Fig. 3b, the inner and outer member of the A-pillar are provided with a planar bonding surface prior to performing the step of plasma arc welding in Fig. 3c. The method step of "connecting said bonding surface with another part" according to feature M1.7 leaves open whether the welding process is performed perpendicular to the bonding surface, or from the flange end side as shown in Fig. 3c. Even assuming that the German term "Bördeln" normally refers to a bending process, the skilled person realises in the context of Figs. 3a-3c that e.g. the inner member 3 is provided with a flange bent by about 90° before welding it to the outer member 5, so it even makes sense to use the term "Bördelnaht" when describing the plasma arc welding step in Fig. 3c.

- 1.8 Thus, the Board concludes that the skilled person starting from E1 would take into account E2 and arrive in an obvious manner at the subject-matter of claim 1.
- 2. First auxiliary request admissibility
- 2.1 The appellant 2 (opponent) requested that the allegedly late-filed first auxiliary request filed by the appellant 1 (patent proprietor) with letter dated 23 December 2019 should not be admitted into the appeal proceedings, arguing that the appellant 1 did not further rely on its sole auxiliary request filed with its grounds of appeal. Allegedly, the first auxiliary request could have been filed with the grounds of appeal. Moreover, the appellant 1 had not provided any justification why it changed its requests, as required according to Article 13(1) RPBA 2020.
- 2.2 According to Article 12(2) RPBA 2020, the primary object of the appeal proceedings is to review the

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appealed decision in a judicial manner, and a party's appeal case shall be directed, *inter alia*, to the requests on which the decision under appeal was based.

In the present case, the opposition division decided that the subject-matter of the second auxiliary request fulfilled the requirements of the EPC. The opponent filed an appeal against this decision, requesting to set aside the contested decision, and submitted its complete case with the grounds of appeal, as required by Article 12(3) RPBA 2020, which essentially corresponds to Article 12(2) RPBA 2007. Therefore, its appeal is directed to the second auxiliary request as upheld by the opposition division, which corresponds to the first auxiliary request submitted with letter dated 23 December 2019 by the appellant 1 after having been summoned to oral proceedings.

As the Board has to review the contested decision also with respect to the opponent's appeal (appellant 2), requesting to set aside the decision to maintain the contested patent in amended form, the Board had to deal with this issue in any case (cf. T 1309/16, Reasons 2.1) irrespective of whether a corresponding formal request forming the basis for maintaining the patent in amended form (such as the first auxiliary request filed with letter dated 23 December 2019) was actually filed by the appellant 1 being the respondent in the appeal of the appellant 2.

Thus, this auxiliary request already formed part of the appeal proceedings in accordance with Article 12(2) and (3) RPBA 2020, in view of the appeal of the appellant 2 regardless of the timing of the filing of said request by the appellant 1.

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- 2.3 Since the Board is obliged to review the appeal of the appellant 2, it does not have a discretion not to consider the appeal of appellant 2, regarding the question basically whether the patent should be maintained as decided by the opposition division, according to the patent proprietor's former second (and present first) auxiliary request. Therefore, for the Board the argument of appellant 2 regarding an allegedly unfair treatment in case of admitting the first auxiliary request and at the same time denying admission of E5 into the appeal proceedings filed with the grounds of appeal is void. In any case, it is to be noted that these issues are not related to each other and have to be decided separately.
- 2.4 Thus, the first auxiliary request is to be considered as part of the appeal proceedings.
- 3. First auxiliary request inventive step
- 3.1 The subject-matter of claim 1 according to the first auxiliary request involves an inventive step starting from E1 as the closest prior art (Article 56 EPC).
- 3.2 Document E1 fails to show feature M1.4 specifying high strength steel as argued further above, so the further characterisation of high strength steel according to feature M1.9 (UHSS or EHSS having a tensile strength of at least 700 MPa) is also not known from E1.
- 3.3 With similar reasoning as above for granted claim 1, the skilled person might consult E2 in order to find an appropriate material for at least one member of the hollow A-pillar known from E1, or rely on its common general knowledge, as also argued by the appellant 2.

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However, the Board concurs with the appellant 1 that neither E1 nor E2 discloses or prompts to use EHSS or UHSS steel having a tensile strength (i.e. of at least 700 MPa or 1000 MPa) as specified in claim 1 of the first auxiliary request for at least one member of the hollow A-pillar known from E1. The Board was also not convinced, and the appellant 2 has not provided further support in this respect, that at the priority date of the contested patent it was obvious for the skilled person in view of his common general knowledge to use EHSS or even UHSS steel to manufacture a member of the A-pillar, which constituted part of the hollow body, and to provide it with a planar bonding surface which was then connected to another part of the pillar or to part of a vehicle body by means of a continuous bonding, as specified in claim 1. As argued by the appellant 1, increasing tensile strength of steel sheets reduces its ductibility, as indicated already in E2 (Table on page 254) by the parameter A_{80} .

Therefore, the Board can only confirm the opposition division's conclusion that the skilled person did not have any incentive to improve the strength of the high strength steel to the specific values as specified in claim 1 according to the first auxiliary request.

- 3.4 In the absence of further lines of attack regarding the first auxiliary request, the Board has no reason to deviate from the opposition division's position.
- 4. Admission of E5
- 4.1 Pursuant to Article 12(4) RPBA 2007 of the Rules of Procedure of the Boards of Appeal (OJ EPO 2007, 536; applicable according to Article 25(2) RPBA 2020, OJ EPO

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July 2019, A63), the Board has the power to hold inadmissible facts, evidence or requests which could have been presented in the first-instance proceedings.

- 4.2 E5 was submitted by the appellant 2 for the first time with its grounds of appeal and concerns an allegation of public prior uses, based on the own activities of the appellant 2, namely vehicles Mercedes-Benz series W221 (S-class) and series C216 (CL-class). The boards have set strict standards for the admissibility of late-filed evidence of public prior use by the opponent itself, see Case Law of the Boards of Appeal of the EPO, 9t edition 2019, V.A.4.13.6 a.
- 4.2.1 The vehicle Mercedes-Benz series C216 (CL-class) had never been mentioned before in opposition proceedings. Thus, it constitutes a new allegation of public prior use which would have to be discussed for the first time in appeal proceedings in order to assess when, where, and how it was made available to the public and whether an A-pillar as shown in E5 was made available to the public. The appellant 2 has not however provided any convincing reasons as to why this prior art was not introduced earlier. Moreover, the alleged prior use concerns a vehicle from the opponent's own company, so it must be assumed that it cannot only recently become aware of it. In accordance with the established Case Law of the Boards of Appeal, the Board sees no reason why such allegation of public prior use which could and should have been submitted in opposition proceedings should now be admitted into the appeal proceedings.
- 4.2.2 As regards the vehicle Mercedes-Benz W221 (S-class) described on slides 1-14 and 21 of E5, the appellant 2 argues that the alleged prior use had already been

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acknowledged by the opposition division, so, allegedly, it formed already part of the opposition proceedings.

The Board does not contest the opposition division's finding (point 4.1 of the contested decision) that the vehicle Mercedes-Benz series W221 was available to the public prior to the priority date. However, E5 does not relate to the A-pillar described in E3 and E4, which according to the contested decision (see point 4.2) formed part of the vehicle Mercedes-Benz series W221 launched in 2005. E5 relates to two reinforcing members of the B-pillar of this vehicle (part no. A2216370116 or A2216370516, see slide 1 or 8 of E5), allegedly manufactured from UHSS steel as specified by features M1.4, M1.9 of claim 1 of the first auxiliary request. Moreover, no reasonable explanation was provided why E5 referred to a B-pillar version 2002 (see slides 6, 13: "Stand Oktober 2002", which also corresponds to the date of construction change number "YAB" on slide 3 for part no. A2216370116), i.e. nearly three years before market launch of the vehicle. Thus, it would have to be discussed for the first time in appeal proceedings whether the side wall including a B-pillar as shown in E5 was the same as the side wall which formed part of the vehicle actually launched in 2005.

Moreover, the opponent's notice of opposition was directed against the granted patent in its entirety. Claim 1 according to the first auxiliary request (i.e. the second auxiliary request as upheld in opposition proceedings) combines granted claim 1 with features stemming from granted claim 5, so all evidence in this respect should have been submitted already within the nine month period for opposition. At the latest, E5 could and should have been filed in response to the second auxiliary request filed by the patent proprietor

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about one month prior to the oral proceedings in opposition proceedings, as it concerns a vehicle from the opponent's own activities, i.e. it must be assumed that the alleged prior use was known to the opponent. This is proven by the fact that the evidence E3 and E4 filed in time relates to the same vehicle, and that the same witnesses were offered for E5 as for the alleged prior use put forward in first-instance proceedings.

An essential part of the witness's testimony in firstinstance proceedings related to the assessment of the technical features of the A-pillar made available to the public via prior use, i.e. whether the version of the A-pillar shown in the drawings of E3/E4 was the version which was contained in the model launched in 2005. The same question now arises with regard to the B-pillar depicted in E5, and it could have been dealt with in first-instance proceedings, provided the appellant 2 had submitted E5 already in opposition proceedings. Dealing with this question for the first time in appeal proceedings would amount to a "fresh case", which is not in line with the purpose of the appeal proceedings and would run counter to the principle of procedural fairness. Moreover, in the absence of good reasons for the late submission of E5, the assertion of public prior use based on E5 represents an abuse of the proceedings and a breach of the principle of "good faith" (see T 534/89, OJ EPO 1994, 464; also T 17/91).

In view of the above, the Board did not admit document E5 into the appeal proceedings (cf Article 12(4) RPBA). This also applies to the belated submissions of the appellant 2 relating to the alleged public prior uses of vehicles W221 and C216.

Order

For these reasons it is decided that:

Both appeals are dismissed.

The Registrar:

The Chairman:



A. Voyé P. Guntz

Decision electronically authenticated