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D E C I S I O N
of 11 June 1997

Case Number: T 0238/94 - 3.2.1

Application Number: 87906288.3

Publication Number: 0287587

IPC: B60H 1/24

Language of the proceedings: EN

Title of invention:

Arrangement for preventing mist and ice formation on the side window of a motor vehicle

Patentee:

Saab Automobile Aktiebolag

Opponent:

VALEO Klimasysteme GmbH

Headword:

-

Relevant legal provisions:

EPC Art. 56

EPC R. 67

Keyword:

"Inventive step (yes) "

"Reimbursement of the appeal fee (no) "

Decisions cited:

-

Catchword:

-



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Boards of Appeal

Chambres de recours

Case Number: T 0238/94 - 3.2.1

D E C I S I O N
of the Technical Board of Appeal 3.2.1
of 11 June 1997

Appellant:
(Opponent) VALEO Klimasysteme GmbH
Werner-von-Siemens-Strasse 6
96473 Rodach (DE)

Representative: Cohausz Hase Dawidowicz & Partner
Patentanwälte
Schumannstrasse 97-99
40237 Düsseldorf (DE)

Respondent: Saab Automobile Aktiebolag
(Proprietor of the patent) 461 80 Trollhättan (SE)

Representative: Holmborn, Erland Karl
Scania CV AB
Patents, TY
151 87 Södertälje (SE)

Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 17 January 1994
rejecting the opposition filed against European
patent No. 0 287 587 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: F. A. Gumbel
Members: P. Alting van Geusau
J. Saisset

Summary of Facts and Submissions

I. The mention of grant of European patent No. 0 287 587 in respect of the international application No. PCT/SE87/00422 filed on 21 September 1987 and claiming priority from the SE application No. 8604163, was published on 18 December 1991.

II. Notice of opposition was filed on 18 September 1992 on the grounds of Article 100(a) EPC. In support of its objection as to lack of inventive step the opponent referred to the following evidence

D1: JP-U-50 16348

D2: prior use relating to deliveries of ventilation equipment by SIEMENS AG to BMW as shown in BMW drawing No. 1 376 849

D3: DE-B-2 124 304.

In its letter dated 18 February 1993 the patent proprietor requested to take into account also the prior art document

D4: JP-A-608110.

III. By a decision announced during oral proceedings held on 29 November 1993 and issued in writing on 17 January 1994 the Opposition Division rejected the opposition.

The Opposition Division was of the opinion that, starting from the prior art disclosed in D1 and considering that neither the documents D1, D3 or D4 nor the alleged prior use (D2) disclosed the use of an inlet duct which was connected to an air inlet located in the sound absorbing inside-wall panel of the vehicle

door, or gave any hint in this direction, the skilled person was not able to arrive at the claimed solution without the exercise of an inventive activity.

- IV. On 15 March 1994 a notice of appeal was lodged against that decision together with payment of the appeal fee.

In the statement of grounds of appeal, filed on 18 May 1994, the appellant additionally referred to the prior art document DE-C-2 750 671 (D5) cited in the European search report and in the description of the patent in suit.

The appellant requested setting aside of the decision under appeal and revocation of the patent in its entirety. The appellant further requested that the appeal fee be reimbursed because of a substantial procedural violation committed by the Opposition Division.

- V. In response to communications issued by the Board the respondent filed with facsimile dated 3 November 1995 an amended claim 1 and with facsimile dated 28 March 1996 an adapted description.

By implication the respondent requested maintenance of the patent in amended form on the basis of the newly filed claim 1, claims 2 to 7 as granted, description columns 1, 2 and 5 as filed with facsimile dated 28 March 1996, insert page 2b filed with facsimile dated 19 August 1996, description columns 3 and 4 and the drawings as granted.

Current claim 1 reads as follows:

"1. Arrangement for preventing mist and ice formation on a side window (4) in a door (1) of a motor vehicle, said door (1) comprising an outer bodywork panel (7)

and an inner sound absorbing inside wall panel (6) and to which window (4) is connected at least one air supply duct (13), with an outlet (30) located at the bottom part of the window (4) via which duct (13) and outlet air is fed from a fan (12) arranged in the door below the window (4) between the outer bodywork panel (7) and the inside wall panel (6) of the door, and the fan (12) draws air from an inlet (28); which is located in the inside wall panel (6) towards the vehicle interior, characterised in that the fan is connected to the inlet through an inlet duct (11), that the fan (12), the outlet duct (13) and the inlet duct (11) constitute a single integral unit (10) formed as a common housing in which the fan (12) is mounted and that the housing is secured to said inside wall panel (6) between the inside-wall panel (6) and a reinforcing structure (8) located between the inside wall panel (6) and the outer bodywork panel (7) of the door (1), which inside wall panel (6) towards the interior has preformed inward projecting wall parts (19) in which the unit (10) is fitted."

VI. At the appellant's request oral proceedings were held on 11 June 1997. With facsimile received on 7 May 1997 the respondent had informed the Board not to be present at the oral proceedings and the oral proceedings were held without him (Rule 71(2) EPC).

VII. In support of its requests the appellant essentially relied upon the following submissions:

Concerning the respondent's request, it was not clear whether the amended claim 1 filed with facsimile dated 3 November 1995 or the amended claim 1 filed with facsimile dated 28 March 1996 formed the basis of the request for maintenance of the patent in amended form.

Therefore, since no clear basis was specified for maintenance of the patent, already for this reason the patent should be revoked.

Considering the subject-matter of claim 1 filed on 28 November 1996, the closest prior art was represented by D4.

As was correctly stated in the preamble of this claim the fan drew air from an inlet duct. An inlet duct was shown in the embodiment depicted in Figure 3 but could also be derived from the embodiment of Figure 6 of D4. Admittedly the inlet duct shown Figure 6 of D4 was of very small length but in the absence of any further specification of the length of the inlet duct of the arrangement claimed in the amended claim 1 of the patent in suit such known inlet read onto the inlet duct specified in claim 1.

Furthermore, the known inlet and outlet ducts together with the ventilator formed a single unit and, although this was not disclosed in D4, the skilled person would see no other alternative than mounting the unit to the sound absorbing inner wall panel and thus between this panel and the reinforcing structure normally used in vehicle doors. When doing so he would obviously need some mounting clamps or stops to position the arrangement relative to the inner panel. Therefore, although the last features of claim 1 were not explicitly disclosed in D4, they would have been immediately adopted by the skilled person as a necessity when faced with the problem of mounting the known unit in or to the vehicle door. Moreover, it was not seen how these features could contribute anything to solving the problems as stated in the patent description in column 2, lines 25 to 34 and therefore the features in question were redundant.

In any case, the remaining differences between the known arrangement disclosed in D4 and the arrangement specified in the amended claim 1 of the patent in suit immediately followed from the professional considerations of the skilled person and did not involve any inventive activity.

As regards the decision under appeal, the Opposition Division did not take into account the argumentation for lack of inventive step given by the appellant. For example the Opposition Division did not consider the combination of the disclosures of D1 and D2 which the appellant considered obvious and which led immediately to the subject-matter of the granted claim 1, but rather used its conclusions about novelty of the subject-matter of claim 1 also for its decision on inventive step. Such a reasoning did not meet the requirements of the EPC and therefore the Opposition Division committed a substantial procedural violation justifying reimbursement of the appeal fee in accordance with Rule 67 EPC.

VIII. The respondent, in its written submissions, contested the appellant's views and its arguments can be summarised as follows:

None of the prior art documents disclosed a fan unit with both an outlet and inlet duct. D4, Figure 6 considered most pertinent by the appellant in this respect, merely related to an arrangement in which the inlet was directly arranged at the fan wheel chamber, thus without anything that could reasonably be defined as a duct.

The use of a duct between the fan wheel and the inlet provided a possibility for reaching a good compromise between using the limited space within the door for mounting the fan unit in a suitable position and still

getting an advantageous location of the inlet in the inside wall panel for catching the ventilation air streams in the floor region of the car and leading these to the side window through the fan unit.

Furthermore there was neither a disclosure nor teaching to be found in the prior art documents according to which a single integral unit as defined in the current claim was secured to the inside wall panel between the panel and the reinforcing structure of the door. The skilled person would rather fix the unit known from Figure 6 of D4 to the reinforcing structure which obviously would make a very stable mounting. Moreover, fitting the integral unit in preformed inward projecting parts of the inside wall panel as defined in claim 1 was also not suggested in the prior art. However, this feature led to a protected location of the fan unit which reduced heat losses to the inner air volume of the door. Additionally, by fitting the unit in the preformed parts easy location and mounting of the unit to the inside panel during its preassembly could be achieved.

Since nothing in the prior art anticipated or led to the combination of features of the arrangement of claim 1 the subject-matter of this claim should be considered inventive.

Reasons for the Decision

1. The appeal is allowable.
2. *The respondent's request for maintenance of the patent in amended form*
 - 2.1 The appellant submitted that the respondent's request for maintenance of the patent in amended form was not consistent and that therefore no valid request was submitted by the respondent. In particular there was a discrepancy between claim 1 filed with facsimile dated 28 March 1996 and claim 1 filed with facsimile dated 3 November 1995 and without any clarification by the respondent, which was not present at the oral proceedings, it was not clear what subject-matter should be considered for maintenance of the patent in amended form.
 - 2.2 It is to be noted that claim 1, filed together with the amendments to the description on 28 March 1996, essentially differs from the earlier filed claim 1 in that the feature relating to the fan drawing air through an inlet is mentioned twice: in the characterising portion and also in the pre-characterising portion.

However this is in clear contradiction to the respondent's remarks in the letter dated 3 November 1996 according to which claim 1 was amended no longer to include in its pre-characterising part the features "an inner reinforcing structure" nor "an inlet air duct" because these features were not present in the prior art according to document D4 to which the preamble of new claim 1 was related.

Having regard to the fact that the starting point for the granted version of claim 1 was D1, in which the outer door panels and inner door panels constituted the air ducts, it is immediately apparent that the amended claim 1 filed on 28 March 1996 is wrong in that the respondent forgot to delete the feature relating to the inlet air duct from the pre-characterising portion of claim 1.

- 2.3 Therefore the Board is of the opinion that the true intention of the respondent is evident and that the respondent's request for maintenance of the patent in amended form should be based on claim 1 filed with facsimile dated 3 November 1995, the granted claim 2 to 7 (see also points 1 and 1.3 of the respondent's facsimile dated 3 November 1995), the amended description columns 1, 2 and 5 filed with facsimile on 28 March 1996, the insert page 2b filed with facsimile on 19 August 1996, the granted description columns 3 and 4 and the granted drawings 1 to 4b.

3. *Amendments*

- 3.1 Claim 1 is essentially a combination of the features of the granted claims 1 and 8 and is now related in its pre-characterising portion to the prior art represented by D4, Figure 6.

Its subject-matter corresponds to the subject-matter of the originally filed claims 1, 2 and 9.

Claims 2 to 7 are repetitions of granted claims 2 to 7, which correspond to the originally filed claims 3 to 8.

In view of these assessments no objections in respect of the requirements of Article 123(2) and (3) EPC arise against the current set of claims.

- 3.3 The amendments to the description concern the adaptation to the subject-matter now claimed and a reference to the prior art disclosed in D4. These amendments do also not give rise to objections under the EPC.

4. *Novelty*

Novelty of the subject-matter of claim 1 follows from the fact that none of the cited prior art documents, including the alleged prior use as represented by D2, discloses an arrangement for preventing mist and ice formation on a side window in a door of a motor vehicle comprising the combination of features of claim 1. In particular none of the prior art documents discloses a single integral fan unit formed as a common housing comprising the fan, the outlet duct and an inlet duct and which unit is fitted in the inside wall panel of the vehicle door by means of preformed inward projecting wall parts.

Novelty was in fact not in dispute in the proceedings.

5. *Inventive step*

- 5.1 There is agreement between the parties and the Board that D4, cited during the opposition proceedings by the respondent constitutes the closest prior art document.

This document discloses in Figure 6 a fan arrangement in accordance with the pre-characterising portion of the amended claim 1 of the patent in suit.

- 5.2 The appellant was of the opinion that D4 additionally disclosed that the fan was connected with an inlet located in the inside wall panel towards the vehicle interior through an inlet duct. In particular the appellant argued that also the small distance between

the inside wall panel inlet and ventilator housing inlet could be considered a duct in the meaning of claim 1 and that moreover in Figure 3 a complete inlet duct was shown.

Also D5 would disclose an integral unit consisting of a fan and its inlet and outlet ducts.

5.3 The Board cannot follow this opinion for the following reasons.

Firstly, it is to be noted that the embodiment shown in Figure 3 of D4 is different from the embodiment shown in Figure 6 in that the fan is not mounted in the door but elsewhere, most probably under the dashboard. The fan outlet duct is indicated with reference numeral 10 which is the connecting duct to housing 7 mounted in the vehicle door (see in this respect the translation of document D4, page 3, lines 10 to 28).

Furthermore, considering the usual technical meaning of the word "duct" this term generally implies a certain length of the duct and clearly, in the present case when read in the context of the subject-matter claimed, a length sufficiently long to be able to position the fan at another position as the inlet opening in the inside wall panel.

Such mounting is not possible with the fan arrangement disclosed in Figure 6 of D4 because the fan is mounted directly behind the opening in the inside wall panel.

In this respect attention can also be drawn to page 5, lines 15 and 16 of the English translation of D4, according to which on the side of the scroll casing 39 an inlet 39a is provided through which air is drawn in from the interior of the car. No mention is made here of an air duct either.

Similar considerations apply to the fan arrangement disclosed in D5. Also here the inlet is directly positioned in the fan housing thus without an inlet duct in the meaning of the patent in suit.

- 5.4 Starting from the known construction the objects of the present patent are to reduce the necessary mounting time for the arrangement at the assembly line of the vehicle, while giving the arrangement a more moisture protected location as well as a mounting which will reduce transmission of vibrations and noise from the fan-unit to surrounding bodywork (see column 2, lines 25 to 34 of the patent).

These objects are achieved by the arrangement claimed in the amended claim 1. In particular by providing a unit construction consisting of the fan together with its inlet duct and outlet duct the fan unit can be fitted onto the prefabricated inside-wall panel of the door with its projecting wall parts. The fan unit is also easily serviceable after disassembly of the inner sidewall panel. When assembled between the reinforcing sheet metal structure and the sound absorbing inner side of inside-wall panel, the claimed arrangement provides a more moisture protected location of the fan unit and an effective sound insulation. The use of inlet- and outlet ducts provides the possibility to position the fan at an area where there is sufficient space for the fan and at the same time to be able to draw air from, for example, the bottom of the vehicle door and deliver it to the window. In such a manner an advantageous compromise between the limited available space in the door and the efficiency of the fan arrangement can be achieved.

5.5 The appellant considered that the skilled person would install the arrangement disclosed in D4 necessarily in the manner as claimed because this was, allegedly, the most obvious manner of mounting this known fan unit in a vehicle door.

However, not only does the fan unit disclosed in D4 lack an inlet duct and are there no details available about the installation of the fan unit in the vehicle door, there is also no reason to assume that this known unit would be mounted to the inner door panel, as was suggested by the appellant.

Considering the embodiments of the fan arrangement depicted in Figures 3 and 6 of D4, in the absence of any reference to the inner panel, in particular to adaptations of the inner panel for mounting of the fan unit or hints to the sound absorbing properties of the inside wall panel, in the Board's opinion, the skilled person would derive from D4 nothing else than that the fan unit is mounted to the door structure itself and that the inside wall panel is neither specially adapted for its specific functioning as support for the fan unit nor for absorbing sound and vibrations specifically relating to the fan unit.

In view of the teaching of D4, which quite generally relates to means for bringing heated air to the side windows or towards the driver's or passengers' seats, the skilled person did not derive any incentive from this prior art to envisage improved mounting and sound absorbing of the fan unit in the manner as claimed in the amended claim 1 of the patent in suit.

The cited prior art does also not hint to any of the effects achieved so that the skilled person could not be led by known effects either when solving the underlying problem of the patent in suit.

5.5 Such teachings can also not be derived from any of the other cited documents, which were not any longer relied upon by the appellant during the submissions made at the oral proceedings.

5.6 The Board therefore concludes that the subject-matter of claim 1 according to the respondent's request cannot be derived in an obvious manner from the cited prior art and accordingly involves an inventive step (Article 56 EPC). Consequently this claim, together with its dependent claims 2 to 7, relating to particular embodiments of the invention in accordance with Rule 29(3) EPC, are acceptable.

The description and drawings are in agreement with the actual wording and scope of the current claims. Hence these documents are also suitable for maintenance of the patent in amended form. Therefore, taking into account the amendments made by the respondent, the patent and the invention to which it relates meet the requirements of the EPC and the patent as amended is to be maintained in this form (Article 102(3) EPC).

6. *Request for reimbursement of the appeal fee*

6.1 The appellant argued that the Opposition Division committed a substantial procedural violation because the appellant's detailed objections and arguments in respect of lack of inventive step were entirely ignored in the decision under appeal.

6.2 Although indeed the decision does not contain any direct reference to the appellant's submissions as regards lack of inventive step, the Opposition Division considered the disclosures of all the documents cited by the appellant and respondent and also the possible combinations of their teachings in the decision.

Thus the Appellant's submissions were actually, albeit indirectly, taken into account when arriving at the contested decision.

6.3 Considering further in particular the Appellant's arguments submitted at the oral proceedings held in the opposition proceedings and concerning the obviousness of the use of an inlet duct instead of a direct air entrance from within the door itself as known from D1 (cf. the Appellant's submissions in the Statement of Grounds of Appeal, page 1, second paragraph), it appears to be clear from the last part of point II.3.1 on page 6 and the second paragraph of point II.3.4 of the contested decision that the Opposition Division was of the opinion that in view of the advantages achieved by the use of an inlet duct in accordance with Claim 1 of the patent in suit, in the absence of any hint to arrange an inlet duct in the manner defined in Claim 1, the provision of such inlet duct could not be considered as obvious.

6.4 The appellant submitted during the oral proceedings before the Board that the Opposition Division had also not sufficiently taken account of the submissions made by the appellant in respect of the obvious combination of the teachings of D1 and D2.

In this respect the Board draws attention to point II.3.2. of the decision under appeal in which such combination is indeed discussed and in which the Opposition Division came to the conclusion that such combination would not lead to the subject-matter of claim 1 because neither D1 nor D2 disclosed an inlet duct.

- 6.5 In view of these assessments, the Board cannot see a substantial procedural violation either in respect of Article 113(1) or of Rule 68(2) EPC. Hence there is no basis for reimbursement of the appeal fee (Rule 67 EPC).

Order

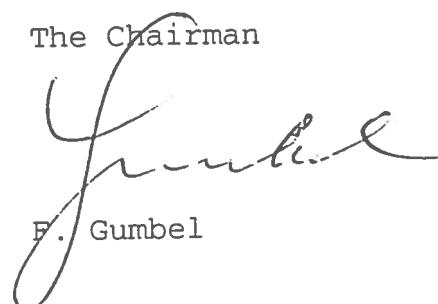
For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the patent with the following documents:
 - claim 1 filed on 3 November 1995
 - claims 2 to 7 as granted,
 - description columns 1, 2 and 5 filed on 28 March 1996, columns 3 and 4 as granted, insert page 2b filed on 19 August 1996, and
 - the drawings as granted.
3. The request for reimbursement of the appeal fee is rejected.

The Registrar:


S. Fabiani

The Chairman


F. Gumbel

