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**Datasheet for the decision  
of 18 April 2018**

**Case Number:** T 2489/13 - 3.2.04

**Application Number:** 02790223.8

**Publication Number:** 1412641

**IPC:** F04D29/32, F04D29/52

**Language of the proceedings:** EN

**Title of invention:**

VENTILATION UNIT

**Patent Proprietor:**

SPAL Automotive S.r.l.

**Opponent:**

ebm-papst Mulfingen GmbH & Co. KG

**Headword:**

**Relevant legal provisions:**

EPC Art. 123(2)

**Keyword:**

Amendments - intermediate generalisation

**Decisions cited:**

**Catchword:**



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Case Number: T 2489/13 - 3.2.04

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.04**  
**of 18 April 2018**

**Appellant:** SPAL Automotive S.r.l.  
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**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 18 October 2013  
revoking European patent No. 1412641 pursuant to  
Article 101(3) (b) EPC.**

**Composition of the Board:**

**Chairman** A. de Vries  
**Members:** S. Oechsner de Coninck  
C. Heath

## **Summary of Facts and Submissions**

I. The appellant (proprietor) lodged an appeal received on 11 December 2013 against the decision of the opposition division dispatched on 18 October 2013 on the revocation of the patent EP 1 412 641, and simultaneously paid the appeal fee. The statement setting out the grounds of appeal was received on 28 February 2014.

II. The opposition was based on Article 100(a) together with 52(1), 54(1) and 56 EPC as well as Article 100(c) together with Art 123(2) EPC.

In a first decision the opposition division maintained the patent in amended form. After a first appeal by the opponent this Board (in a different composition) in decision T0366/11 remitted the case to the first instance for further prosecution due to a substantial procedural violation.

The opposition division subsequently came to the conclusion that claim 1 according to the main and an amended first request lacked novelty, and an amended claim 1 according to the first to fourth auxiliary requests to lack clarity; a fifth auxiliary request was not admitted in the proceedings.

III. Oral proceedings were duly held before the Board on 18 April 2018.

IV. The appellant requests that the decision be set aside, and the patent be maintained in amended form on the basis of the main request filed on 7 October 2010, alternatively on the basis of one of first to sixth

auxiliary requests filed with the statement of grounds of the appeal.

The respondent requests dismissal of the appeal.

- V. The wording of the independent claim 1 of the relevant requests are as follows:

*Main request*

"A ventilation unit (1) of the type comprising a frame (2) having an annular wall (6), a central sleeve (7) coaxial with the annular wall (6) and a number of ribs (8) connecting the outer face of the central sleeve (7) with the inner face of the annular wall (6), an electric motor (4), the output shaft (5) of which is fitted with a fan (3) having a cup-shaped central body (11) and a number of blades (15); said central body (11) being defined by a base wall (12), and by an annular wall (13) ; characterized in that said annular wall (13) of the central body (11) extends from the base wall (12) towards said sleeve (7), wherein said blades (15) extend from the outer face of the annular wall (13), and at least one through window (25) is formed in said annular wall (13) of said central body (11) of the fan (3) to channel out, in use, any condensate formed inside said central body (11) by the centrifugal force to which the condensate is subjected by rotation of said fan (3)."

*First Auxiliary request*

Claim 1 of the first auxiliary request adds the following features in the first three lines of claim 1 of the main request (emphasis added by the Board):

"A ventilation unit (1) installable at an on-vehicle device, namely a radiator, and being of the type comprising a frame (2) fittable integrally to a fixed structure on the vehicle and having an annular wall (6), a central sleeve (7) coaxial with..."

*Second Auxiliary request*

Claim 1 of the second auxiliary request adds as a last characterising feature the following wording in claim 1 of the first auxiliary request:

", and the ventilation unit (1) is protected against infiltration of rainwater, thus safeguarding the electric motor (4) against damages by water and/or steam."

*Third auxiliary request*

Claim 1 of the third auxiliary request adds the following features in the last but one paragraph of claim 1 of the first auxiliary request:

"...the casing of the electric motor (4) is integral with the frame (2), the central body (11) and the sleeve (7) have the same inside diameter and define a seat (14) for housing the electric motor (4), and..."

*Fourth auxiliary request*

Claim 1 of the fourth auxiliary request adds as a last characterising feature the following wording in claim 1 of the third auxiliary request:

", and the ventilation unit (1) is protected against infiltration of rainwater, thus safeguarding the

electric motor (4) against damages by water and/or steam."

*Fifth auxiliary request*

A ventilation unit (1) installable at an on-vehicle device and being of the type comprising a frame (2) fittable integrally to a fixed structure on the vehicle and having an annular wall (6), a central sleeve (7) coaxial with the annular wall (6) and a number of ribs (8) connecting the outer face of the central sleeve (7) with the inner face of the annular wall (6), an electric motor (4), the output shaft (5) of which is fitted with a fan (3) having a cup-shaped central body (11) and a number of blades (15); said central body (11) being defined by a base wall (12), and by an annular wall (13) ;

characterized in that

said annular wall (13) of the central body (11) extends from the base wall (12) towards said sleeve (7), wherein said blades (15) extend from the outer face of the annular wall (13),

the sleeve (7) and the ribs (8) are formed at an axial end edge of the annular wall (6), wherein almost the whole length of sleeve (7) extends axially outside the space enclosed by the annular wall (6),

the casing of the electric motor (4) is integral with the frame (2),

the central body (11) and the sleeve (7) have substantially the same inside diameter and define a seat (14) for housing the electric motor (4), and

at least one through window (25) is formed in said annular wall (13) of said central body (11) of the fan (3) to channel out, in use, any condensate formed inside said central body (11) by the centrifugal force to which the condensate is subjected by rotation of said fan (3).

*Sixth auxiliary request*

A ventilation unit (1) installable at an on-vehicle device and being of the type comprising a frame (2) fittable integrally to a fixed structure on the vehicle and having an annular wall (6), a central sleeve (7) coaxial with the annular wall (6) and a number of ribs (8) connecting the outer face of the central sleeve (7) with the inner face of the annular wall (6), an electric motor (4), the output shaft (5) of which is fitted with a fan (3) having a cup-shaped central body (11) and a number of blades (15); said central body (11) being defined by a base wall (12), and by an annular wall (13) ;  
characterized in that  
said annular wall (13) of the central body (11) extends from the base wall (12) towards said sleeve (7), wherein said blades (15) extend from the outer face of the annular wall (13),  
the ribs (8) are formed at an axial end edge of the annular wall (6) and an axial end edge of the sleeve (7), so that almost the whole length of sleeve (7) extends axially outside the space enclosed by the annular wall (6),  
the casing of the electric motor (4) is integral with the frame (2),  
the central body (11) and the sleeve (7) have substantially the same inside diameter and define a seat (14) for housing the electric motor (4),  
at least one through window (25) is formed in said annular wall (13) of said central body (11) of the fan (3) to channel out, in use, any condensate formed inside said central body (11) by the centrifugal force to which the condensate is subjected by rotation of said fan (3).

VI. The Appellant's arguments are as follows:  
Claim 1 of each request specifies essential aspects of the invention. Thus, the ventilation unit includes features that are not structurally or functionally related with the features left undefined in the claim. Especially the number or spacing of ribs and blades is not related to the question of condensate removal. The first to sixth auxiliary request add further main features of the frame and central body to claim 1, and therefore restore conformity with the original disclosure.

VII. The respondents' arguments are as follows:  
The amendments to the claims add features from the description, which contains a single embodiment, where



all features are disclosed together in context on pages 4 and 5 of the published application as filed. All the features are at least structurally related to each other, so that leaving out some of them in the claim results in an unallowable intermediate generalization with respect to the original disclosure in the description. Whether a feature might be essential or not is not relevant for assessing the content of the originally disclosure and compliance with Art. 123(2) EPC.

None of the first to sixth auxiliary request adds all the features disclosed in combination in the single embodiment as originally disclosed.

### **Reasons for the Decision**

1. The appeal is admissible.
2. Main request - Added subject-matter
  - 2.1 The present European patent was filed as an international application PCT/EP2002/000492 which was published by WIPO under International publication number WO-A-03/010438, the content of which forms the application as filed for the purpose of Article 123(2) EPC. This original disclosure of the application includes a single embodiment of a ventilation unit shown in figures 1 to 4, and described in details from page 3, line 18 to page 5, line 23.
  - 2.2 Claim 1 as originally filed (identical with the granted claim 1) defined the electric motor and the special configuration of the central body of the fan, in particular of the windows formed therein. Claim 1 according to the main request has been amended with respect to the granted claim 1 by further defining the

frame of the ventilation unit as well as further features of the central body and its relationship with respect to the sleeve of the frame. The characterising portion also adds an explanation that the channeling out of condensation is the result of the action of centrifugal force, last two lines of the claim. All these additional features are said to derive from the description. As basis for these amendments passages on page 4, lines 3 to 7 and lines 1 to 16, as well as page 5 lines 18 to 21 of the published application are cited. These passages however appear in a wider context together with numerous other features.

- 2.3 Though amended claim 1 of the main request therefore includes a more restricted definition of the ventilation unit also including a frame and a more precisely defined central body, this is more general than the specific embodiment described in detail in the above mentioned passages. The question is therefore whether the amendments of claim 1 by incorporation of selected features from the description have resulted in an unallowable intermediate generalisation.

According to established jurisprudence, the extraction of an isolated feature from its specific context which results in an intermediate generalisation is justified only in the absence of any clearly recognisable functional or structural relationship among the features of the specific combination (T 1067/97, T25/03), or if the extracted feature is not inextricably linked with those features, see the Case Law of the Boards of Appeal, 8th edition 2016, (CLBA)II.E.1.7. Expressed differently, an intermediate generalisation is permissible under Art. 123(2) EPC only if the skilled person would recognise without any doubt from the application as filed that

characteristics taken from a detailed embodiment were not closely related to the other characteristics of that embodiment and applied directly and unambiguously to the more general context (T 962/98).

- 2.4 In the present case, it needs therefore to be established whether in the eyes of the skilled reader, the features of the frame added in the preamble of claim 1 and the features of the central body added in the characterising portion clearly appear structurally or functionally unrelated to the other remaining features that form part of the embodiment originally disclosed but were not incorporated into the amended claim.
- 2.5 The skilled person reading the passage on page 4, lines 3 to 11, from the first sentence (in reference to figures 1 and 2) explicitly derives that the "frame 2 comprises an annular wall 6; a central sleeve 7 coaxial with annular wall 6; and a number of equally spaced radial ribs 8 connecting the outer face of sleeve 7 to the inner face of annular wall 6". In the following sentence (lines 7 to 11) it is emphasised that "more specifically, the sleeve 7 and ribs 8 are formed at an axial end edge of annular wall 6", and that "in fact", i.e. to be precise "almost the whole length of sleeve 7 extends axially outside the space enclosed by annular wall 6".

The whole paragraph explains how the frame is composed of different components constructionally connected to each other to form a particular structural unit. Forming an integrated structural unit, the skilled person understands that these components at least functionally cooperate to confer to the frame a certain

rigidity, and ability to carry the central sleeve through the ribs.

Apart from drawing the reader's attention to ever more specific detail, the formulation used in the passage leaves little room for the skilled person to infer that the additionally specified details relating to the particular location of the sleeve and ribs at an axial edge would rather be unrelated to any structural or functional effect or advantage, or of no consequence, or merely illustrative or optional. If anything through the formulation "more specifically" and "in fact" those features are highlighted and given more significance than the preceding features.

It follows that the introduction into claim 1 of the set of features from the cited passage on page 4 and related to the frame having an annular wall, a central sleeve coaxial with the annular wall and a number of ribs connecting the outer face of the central sleeve with the inner face of the annular wall, yet without the features related to the equally spaced radial configuration of the ribs and the remaining more specific location at an axial edge conveys different information to the skilled person than the original passage. In particular, the features added to claim 1 from the cited passage are thereby raised to prominence with respect to those not included (equal spacing of the ribs, location at the annular wall axial end edge, length of the sleeve extending outside the space enclosed by the annular wall). As precisely those latter features define the positional and thus structural relationship between sleeve and annular wall, the Board is at pains to see how the skilled person should conclude from the cited passage an

absence of a relationship, structural or functional, between these features.

2.6 The Board is also unconvinced that the skilled person, without express statements to that effect, would not recognise any functional relationship between the spacing of the ribs or of the blades and the other parts of the frame and fan. The skilled person rather than recognising the absence of any clear functional relationship between the spacing of the ribs and the annular wall and central sleeve that it serves to connect, is, in the Board's view, much more likely to infer a structural and functional advantage in providing an equal spacing of the ribs, e.g. to have an even load distribution.

2.7 Whether or not the skilled person would recognise that some features, for example the spacing of the ribs, are not essential for condensate evacuation, or that he would realize that other known configurations of annular wall and sleeve, is of no concern for the question of ascertaining what is directly and unambiguously disclosed by the original application. Decisive is the interrelationship, if any, that the skilled person recognizes as existing between the features added and those not added from the context. That he might realize from further considerations that some are, and some are not essential to the inventive concept defined by the features already in the claim is of little importance in this respect.

As has been noted in recent case law, the essentiality or three point test has been found unhelpful or even misleading in cases of intermediate generalisation (see CLBA II.E.1.2.4, 8th edition, 2016 and the decisions cited therein in particular T 2311/10). That test, see

T 331/87 (OJ 1991, 22), was originally developed for the replacement or removal of features from an originally filed independent claim. In addition, the board finds this test not particularly helpful in the present case for the following reason: if the features not added (and thus omitted) from present claim 1 are not essential to the central concept of channeling out condensation, then this equally applies to the features that have been added and which do not contribute more to channeling out condensate from the hub than the spacing of the ribs or the relative position of sleeve and annular wall.

As for the knowledge of alternatives, the case law consistently finds this criterium not relevant for assessing compliance with Article 123(2) EPC. Concerning the unequal spacing of ribs as an obvious alternative, which is indeed well known in the field for noise reduction purposes, the board shares the same opinion as in T 598/12, namely that this cannot be taken as a valid approach for the investigation of at least an implicit disclosure of what is directly and unambiguously derivable from an application as filed within the meaning of Art. 123(2) EPC (see CLBA II.E. 1.2.3 a)). Indeed, the unequal spacing of the ribs was clearly not an alternative directly and unambiguously recognisable from the description of the sole embodiment in the application as filed.

- 2.8 In relation to the definition of the frame incorporated in claim 1, the board concludes that the equal spacing and radial configuration of the ribs as well as the fact that the sleeve and ribs are formed at an axial end edge have been omitted without any clearly recognisable basis to do so, because they appear

structurally and functionally related to form the single embodiment of the frame as originally disclosed.

- 2.9 Exactly the same conclusion must hold for the additional features defining the structure of the central body. The paragraph on page 4, lines 12 to 22 describes in greater detail the central body in relation to the sleeve, whereby the annular wall of the central body extends from the base wall towards said sleeve and the central body and sleeve have substantially the same inside diameter, and define a seat for housing an electric motor; and whereby the fan also comprises a number of equally spaced blades extending from the outer face of the annular wall towards the inner face of annular wall. In this passage, none of the features are given any particular prominence over others. Rather, they are presented together to define the specific structural arrangement of the central body with respect to the sleeve of the frame, and the functional relationship of the central body and the sleeve which together form a seat for housing the electric motor, and the outer face of its annular wall comprising equally spaced blades. In the light of this clearly recognizable functional and structural relationship between these features, including only some but not all results in a further unallowable intermediate generalization.

The board is not convinced by the appellant's submission whereby the seat for housing the electric motor would be seen as implicit by the skilled person from the extension of the annular wall of the central body towards the sleeve. In the cited passage, the two cooperate to form a seat exactly because they are co-extensive and of the same inner diameter. This particular configuration of the annular wall of the

central body with respect to the annular wall of the central sleeve is however left undefined by the mere statement in claim 1 that the annular wall of the central body extends towards the sleeve.

2.10 From the above, the board concludes that the amendments to claim 1 of the main request result in an unallowable intermediate generalisation that contravenes the provisions of Article 123(2) EPC.

3. First to sixth auxiliary requests - Added subject-matter

3.1 Claim 1 according to the first auxiliary request specifies further that the ventilation unit is installable at an on-vehicle device, and that the frame can be fitted integrally to a fixed structure on the vehicle. None of these added features restore any of the features of the frame or central body that were found missing from claim 1 of the main request. Hence, for the same reasons, claim 1 of the first auxiliary request is not allowable under Article 123(2) EPC.

3.2 Claim 1 according to the second auxiliary request further requires the ventilation unit to be protected against infiltration of rainwater. Also here, none of the features of the frame or central body originally disclosed in context has been added, and the same conclusion as for the main request must hold.

3.3 Claim 1 according to the third auxiliary request adds the following features of the central body and electric motor: "the casing of the electric motor (4) is integral with the frame (2), the central body (11) and the sleeve (7) have the same inside diameter and define a seat (14) for housing the electric motor (4)". Though



this amendment addresses some of the issues raised above in section 2.9, it does not address those discussed in sections 2.5 to 2.8. Thus, the equally spaced blades, or the features forming the specific configuration of the frame having a sleeve formed at an axial edge with equally spaced radial ribs are still lacking in this amended claim 1.

3.4 Claim 1 according to the fourth auxiliary request adds to claim 1 of the third auxiliary request the rainwater protection. Here again, this addition cannot restore the combination of features lacking from claim 1 of the third auxiliary request.

3.5 Claim 1 according to the fifth auxiliary request as well as claim 1 according to the sixth auxiliary request add in slightly different terms the additional limitation of the sleeve or ribs being formed at an axial end edge of the annular wall. As for the third auxiliary request, some of the features disclosed in combination for the specific structure of the frame with its sleeve have been added, while other features such as the equally spaced radial ribs or the features relating to the annular wall and sleeve cooperation to form a seat housing the electric motor are still missing in claim 1 of these requests.

3.6 Since none of the first to sixth auxiliary requests contain an independent claim 1 allowable under Art. 123(2) EPC, they must be refused.

4. From the above, the Board concludes that the decision of the opposition division to revoke the present patent can be upheld and consequently the appeal must be dismissed.

**Order**

**For these reasons it is decided that:**

**The appeal is dismissed**

The Registrar:

The Chairman:



G. Magouliotis

A. de Vries

Decision electronically authenticated