

**Internal distribution code:**

- (A) [ - ] Publication in OJ
- (B) [ - ] To Chairmen and Members
- (C) [ - ] To Chairmen
- (D) [ X ] No distribution

**Datasheet for the decision  
of 23 February 2024**

**Case Number:** T 2159/21 - 3.2.01

**Application Number:** 12007561.9

**Publication Number:** 2602136

**IPC:** B60H1/32

**Language of the proceedings:** EN

**Title of invention:**

Air conditioning system for a car

**Patent Proprietor:**

Valeo Klimasysteme GmbH

**Opponent:**

Mahle International GmbH

**Headword:**

**Relevant legal provisions:**

EPC Art. 83, 123(2), 54, 56

**Keyword:**

added subject-matter (no)  
sufficiency of disclosure (yes)  
novelty (yes)  
inventive step (yes)

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**  
**Boards of Appeal**  
**Chambres de recours**

Boards of Appeal of the  
European Patent Office  
Richard-Reitzner-Allee 8  
85540 Haar  
GERMANY  
Tel. +49 (0)89 2399-0  
Fax +49 (0)89 2399-4465

Case Number: T 2159/21 - 3.2.01

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.01**  
**of 23 February 2024**

**Appellant:** Mahle International GmbH  
(Opponent) Pragstr. 26-46  
70376 Stuttgart (DE)

**Representative:** Grauel, Andreas  
Grauel IP  
Patentanwaltskanzlei  
Wartbergstrasse 14  
70191 Stuttgart (DE)

**Respondent:** Valeo Klimasysteme GmbH  
(Patent Proprietor) Werner-von-Siemens Strasse 6  
96476 Bad Rodach (DE)

**Representative:** Innovincia  
11, avenue des Tilleuls  
74200 Thonon-Les-Bains (FR)

**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 23 November  
2021 rejecting the opposition filed against  
European patent No. 2602136 pursuant to Article  
101(2) EPC.**

**Composition of the Board:**

**Chairman** H. Geuss  
**Members:** C. Narcisi  
S. Fernández de Córdoba

## **Summary of Facts and Submissions**

- I. The opposition was rejected and European patent No. 2 602 136 was maintained as granted by the decision of the Opposition Division posted on 23 November 2021. Against this decision an appeal was lodged by the Opponent in due form and in due time pursuant to Article 108 EPC.
- II. The following documents are cited in this decision:
- EP-A (designating the published patent application of the contested patent);  
EP-B (designating the publication of the contested patent);  
D6 (DE 10 2004 060 130 A1);  
D7 (US 2006/0053818 A1).
- III. Oral proceedings were held on 23 February 2024. The Appellant (Opponent) requested that the decision under appeal be set aside and that the European patent be revoked.
- The Respondent (Patent Proprietor) requested that the appeal be dismissed and that the patent be maintained as granted (main request) or, in the alternative, according to one of auxiliary requests 1 to 9 (filed on 3 April 2023 with the reply to the statement of grounds of appeal).
- The Appellant withdrew its request that the appeal fee be reimbursed on account of an alleged substantial procedural violation.

IV. Granted claim 1 (main request) reads as follows:

"Air conditioning system (10) for a car comprising a housing (12), at least one evaporator (14) and an outlet path for condensation water that condenses on the evaporator (14), wherein the outlet path consists of a condensation water collection area (16) and a condensation water removal section (18), the condensation water collection area (16) being a collecting bowl (20), the collecting bowl (20) being limited on one side by a collection wall (22), the condensation water removal section (18) comprising at least one condensation water removal canal (40) extending from the collecting bowl (20), beneath the collection wall (22) or through at least one opening (39) arranged within the collection wall (22), to at least one water outlet opening (42), the condensation water removal canal (40) having a closed cross section, the condensation water removal canal (40) having a cover (66), the condensation water collection area (16) being formed directly downstream from the evaporator (14), characterized in that the collection wall (22) has two openings (39) that are arranged in the y-direction of the vehicle and in that the condensation water removal canal (40) comprises two coalescing branches extending from the openings (39) to the one water outlet opening (42)."

V. The Appellant's (Opponent) arguments may be summarized as follows:

The subject-matter of granted claim 1 of the main request in conjunction with the disclosure of the invention in the patent specification (see published

patent specification EP-B) does not disclose the invention in a manner sufficiently clear and complete for the skilled person to be able to carry it out.

Indeed, the features of claim 1 implying that the condensation water removal canal (40) extends "beneath the collection wall (22) or through at least one opening (39) arranged within the collection wall (22)" (features M1.8.4 and M1.8.5) in conjunction with the further claimed features implying that "the collection wall (22) has two openings (39)" and that "the condensation water removal canal (40) comprises two coalescing branches extending from the openings (39) to the one water outlet opening (42)" (features M1.12 and M1.14) do encompass an embodiment which is not sufficiently clearly and completely disclosed in EP-B. This conclusion is based on the obvious fact that said "or"-alternative in above features M1.8.4 and M1.8.5 is necessarily an exclusive "or"-alternative, and that only the embodiment including the second alternative (according to feature M1.8.5, i.e. "through at least one opening (39) arranged within the collection wall (22)") is disclosed in EP-B.

Therefore, the one alternative including said water removal canal (40) extending "beneath the collection wall", said collection wall having two openings (39) (with said "coalescing branches" extending therefrom) is not supported and illustrated in the description of EP-B and the skilled person would not be able to carry it out.

The subject-matter of claim 1 extends beyond the content of the application as filed (see EP-A), for the feature stating "the condensation water collection area (16) being formed directly downstream from the

evaporator (14)" (feature M1.11) has been taken in isolation from the description of EP-A (see paragraphs [0047] and [0048]), thus omitting that the water collection area 16 "extends from the evaporator 14 to a collection wall 38" and that "the collection wall 38 is formed by a rib or a plurality of elevated ribs", thereby leading to an impermissible (intermediate) generalization of the original disclosure in EP-A.

The subject-matter of claim 1 is not new over D6, given that the disputed features M1.8.1 ("the condensation water removal section (18) comprising"), M1.8.2 ("at least one condensation water removal canal (40)"), M1.8.3 ("extending from the collecting bowl (20),"), M1.8.4 ("beneath the collection wall (22) or"), M1.8.5 ("through at least one opening (39) arranged within the collection wall (22),"), M1.8.6 ("to at least one water outlet opening (42)"), M1.11, M1.12 and M1.14 (see above) are known from D6.

In particular, the term "canal" requires only that the function of a canal in itself be fulfilled (i.e. for channelling and guiding water flow), without any further specific structural or constructional features being present (such as walls, boundaries or recesses), said two coalescing branches being constituted by the water flow path as defined by the water flowing through holes 10 into the housing 7 and leaving through outlet 6 (see D6, figures 6, 7). Feature M1.11 is likewise known from D6, given D6 showing a water collection area necessarily extending (for obvious technical reasons) at least partly also downstream of the evaporator 4 (see D6, figure 1).

The subject-matter of claim 1 is not new over D7, since disputed features M1.11, M1.10 ("the condensation water removal canal (40) having a cover (66)"), M1.12, M1.13

("that are arranged in the y-direction of the vehicle") and M1.14 are known therefrom.

In particular, the tubular drain pipes 114, 115b (see D7, figure 3) can be considered as being water removal canals having a cover integrally formed therewith, a cover being therefore at least implicitly disclosed in D7. Furthermore, features M1.11, M1.12, M1.14 are disclosed by the apparatus according to figure 3 of D7, feature M1.13 being no limiting feature of the claim.

The subject-matter of claim 1 is not inventive over D6 in conjunction with common general knowledge, since features M1.8.1 to M1.8.6, as well as features M1.12 and M1.14 would be obvious for the skilled person. In effect, the skilled person would have no difficulty in forming a water removal canal within the cover 7 by providing the corresponding necessary structural features, for instance in order to improve and facilitate water flowing to the outlet 6, this being just part of common general knowledge. This water removal canal would also obviously include two coalescing branches, since two water inlets 10 are provided in said cover 7.

The subject-matter of claim 1 is not inventive over D7 in conjunction with common general knowledge, since feature M1.10 would be obvious for the skilled person. Indeed, the skilled person would consider replacing said tubular drain pipes 114, 115b by a corresponding condensation water removal canal having a cover if necessary, for instance if upon mounting in a vehicle (and for particular reasons) said tubular drain pipes had to be installed and oriented differently (e.g. substantially horizontally) as compared to their orientation disclosed in D7, which is essentially a

vertical orientation. Thereby the skilled person would arrive in an obvious manner at the claimed subject-matter.

VI. The Respondent's (Patentee) arguments may be summarized as follows:

The subject-matter of granted claim 1 in conjunction with the disclosure of the invention in the patent specification is sufficiently clear and complete for the skilled person to be able to put the invention into effect, as set out by the appealed decision in conjunction with the first embodiment of the invention (see EP-B, in particular figure 7). The embodiment of figures 8 to 10 in EP-B does not fall within the scope of claim 1 and does not form part of the invention, nonetheless no issues concerning sufficiency of disclosure being thereby implied.

The subject-matter of claim 1 does not extend beyond the content of the application as filed (EP-A), since the omitted features do not lead to a(n) (intermediate) generalization of the subject-matter of EP-A.

The subject-matter of claim 1 is not known from D6, as D6 at least does not disclose features M1.8.1 to M1.8.6 and feature M1.11.

The subject-matter of claim 1 is not known from D7, for D7 at least does not disclose features M1.10, M1.11, M1.12 and M1.14.

The subject-matter of claim 1 involves an inventive step over D6, given that the skilled person would have no incentive and no motivation to modify the apparatus of D6 according to features M1.11 and M1.8.1 to M1.8.6.

Similarly, the skilled person starting from D7 would have no incentive or motivation to modify the apparatus of D7 according to feature M1.10.

### **Reasons for the Decision**

1. The appeal is admissible.
2. The subject-matter of granted claim 1 (main request) in conjunction with the disclosure of the invention in EP-B discloses the invention in a manner sufficiently clear and complete for it to be carried out by the person skilled in the art (Article 83 EPC).

In the Board's view (in agreement with the appealed decision; see "Reasons for the decision", page 6) the first embodiment of the invention (EP-B, figures 1 to 7) discloses that said wording "or" in claim 1 does not imply mutual exclusion of alternative features M1.8.4 and M1.8.5, as it is clearly stated in the description of EP-B (see paragraph [0051]) that "the condensation water is collected within collecting bowl 36 and then flows from the collecting bowl 36 through openings, arranged beneath and/or through the collection wall 38, into a condensation water removal channel that leads to a water outlet opening 42. Particularly, the collecting bowl 36 has two openings 39 in the region of the collection wall 38, as shown on figures 4 and 5, that represent the transition from the condensation water

collection area 16 to the condensation water removal section 18". The same wording is included in EP-A (see paragraph [0051]).

Thus, this confirms that there is no reason for interpreting said "or" in claim 1 as an "exclusive or", since the wording of claim 1 has to be construed in conjunction with the description of EP-B in order to be able to infer whether the requirements of Article 100(b) EPC are fulfilled.

Indeed, figures 4 to 7 apparently illustrate that the condensation water removal canal 40 extends through said opening 39 and beneath the collection wall 38 (it is noted here that reference sign 22 for the collection wall in claim 1 is erroneous) as well.

Finally, it is noted that even though the embodiment shown in Figures 8-10 is not encompassed by the scope of claim 1 and hence does not form part of the claimed invention (as conceded by the Respondent), nevertheless this cannot lead to any objections under Article 100(b) EPC.

3. The subject-matter of claim 1 does not extend beyond the content of EP-A and therefore meets the requirements of Article 123(2) EPC.

In the Board's view the extraction of feature M1.11 ("the condensation water collection area (16) being formed directly downstream from the evaporator (14)") from the description of EP-A (see paragraph [0047]) does not lead to a generalization of the original disclosure of EP-A.

It is noted first, that feature M1.11 is a common feature to all embodiments disclosed in EP-A, as derivable from the description of EP-A (see in

particular paragraphs [0047], [0067] and [0074]) and from the figures, the reference sign 16 clearly defining in all embodiments the condensation water collection area as an area located downstream of and contiguously to the evaporator 14.

Further, the omission of the wording "that extends from the evaporator 14 to a collection wall 38" (see the wording "the condensation water collection area 16 is designed as a collecting bowl 36 that extends from the evaporator 14 to a collection wall 38" in EP-A, paragraph [0048])) does not alter or modify in any way whatsoever the definition of the condensation water collection area 16 as given in claim 1 by feature M1.6 ("the condensation water collection area (16) being a collecting bowl (20),"), M1.7 ("the collecting bowl (20) being limited on one side by a collection wall (22)") and M1.11 ("the condensation water collection area (16) being formed directly downstream from the evaporator (14)"). In particular, the omitted wording does not further or more precisely specify the upstream boundary of said condensation water collection area, i.e. whether at least a portion of said condensation water collection area 16 may be situated or not directly underneath the evaporator. Thus, said omission does not lead to a broader definition of said condensation water collection area.

Finally, the omission of the wording "the collection wall 38 is formed by a rib or a plurality of elevated ribs" (see paragraph [0048]) does not lead to a generalization of the original disclosure of EP-A, given that the collection wall 38 is already defined by feature M1.7 ("the collecting bowl (20) being limited on one side by a collection wall"), this definition providing in itself (in conjunction with the further

claimed features such as feature M1.6 (see above)) the skilled person with the essential information relating to the function performed by said collection wall. Therefore, the skilled person would understand from claim 1 in conjunction with said paragraph including the omitted feature, that various ways of implementing said collection wall are conceivable and possible (as known from common general knowledge), and that said "ribs" represent just a possible specific form of implementing said collection wall, said specific form being not inextricably linked to the broader term "collection wall".

Therefore it is concluded that said omissions do not lead to a generalization of the disclosure of EP-A.

4. The subject-matter of claim 1 is new over D6, since at least features M1.8.1 to M1.8.6, as well as features M1.12 and M1.14 are not known from D6 (Article 54 EPC).

In particular, D6 does not clearly and unambiguously disclose a condensation water removal canal, given that the cover 7 (see D6, figures 6, 7) guiding the condensation water from the lateral openings 10 to the bottom outlet 6 does not include any structural features delimiting and channelling water flow, let alone two coalescing branches extending from said openings 10 to said one water outlet opening 6.

5. The subject-matter of claim 1 is new over D7, since at least feature M1.10 ("the condensation water removal canal (40) having a cover (66)") is not known therefrom.

Indeed, feature M1.10 requires that two separate constructional components, i.e. a "condensation water removal canal" and a "cover" be clearly and unambiguously identifiable, specifically according to the function they perform. The tubular drain pipes 114, 115b (see D7, figure 3) cannot be regarded as including said two constructional components, since they are integrally formed and moreover due to their (substantially vertical) orientation (as shown in the figure and corresponding to their orientation upon mounting in the vehicle) it would not make (technical) sense to consider said drain pipes as being formed by joining two separate parts (e.g. each part resulting by cutting said pipes along an axial plane through their longitudinal cylinder axis), given that an open (e.g. semicylindrical) drain pipe having said vertical orientation would not be able to perform the intended function (removing and guiding condensed water to said outlet). Therefore, such an open drain pipe (having vertical orientation) would not represent a "condensation water removal canal" according to claim 1 (thus not fulfilling feature M1.10). Hence it is concluded that feature M1.10 is not explicitly or implicitly disclosed in D7.

6. The subject-matter of claim 1 is not rendered obvious in view of D6 and the skilled person's common general knowledge (Article 56 EPC). Specifically the Board considers that the skilled person starting from D6 would have no incentive or motivation to implement said features 1.8.1 to 1.8.6 and M1.12, M14 in the air conditioning system of D6, given that said cover 7, having a generally funnel-shaped structure, already effectively and efficiently removes and drains said condensation water entering the openings 10, guiding it to the outlet 6 under the

effect of gravitational force. There is no need for the skilled person to provide an additional structure defining a water removal canal within the cover 7, let alone to provide a water removal canal comprising two coalescing branches.

For these reasons the subject-matter of claim 1 is not rendered obvious in view of D6 and the skilled person's common general knowledge.

7. The subject-matter of claim 1 is not rendered obvious in view of D7 and the skilled person's common general knowledge (Article 56 EPC).

The skilled person starting from D7 would have no valid reason or incentive to configure or implement said tubular drain pipe 114, 115b (D7, Figure 3) as water removal canal having a cover and a closed cross section within the meaning of claim 1.

Referring to the foregoing discussion on novelty over D7, it is emphasized that the air conditioning system of D7 is considerably different from the air conditioning system according to the invention (see EP-B), given that said tubular drain pipes 114, 115b disclosed in figure 3 of D7 are arranged and located in a vertical plane and are themselves substantially vertically oriented (see drain pipe 114) or at least partially vertically oriented (see drain pipe 115b). Further, the condensation water flowing directly downwards through tubular drain pipes 114 and 115b, water flow in said tubular drain pipes is not exposed (to any significant extent) to incoming airflow directed towards the evaporator (or exiting the evaporator).

By contrast, the condensation water removal canal 40 according to the invention (see EP-B) is formed in a

(slightly inclined) bottom wall of the housing of the air conditioning system and having an open cross section (all along its length) it is exposed to airflow entering said housing and passing through the evaporator 14 (see EP-B, e.g. figures 4, 5 and 7).

In view of the above, the skilled person would not need (and would not have any incentive or motivation) to implement any cover in the apparatus of D7 in view of the geometrical configuration and orientation of the apparatus and of the tubular drain pipes (the tubular drain pipes having a closed cross section), whereas in the apparatus according to the invention a cover is needed (to form a closed cross section) due to the water removal canal being upwardly open (all along its length) and exposed to airflow passing through the evaporator (or outgoing airflow).

Moreover, the skilled would not (without any valid reason) in an obvious manner contemplate modifying the geometrical configuration, arrangement and orientation of said tubular drain pipes disclosed in D7, given that this would involve a radical change of the known apparatus according to D7. Anyway, even it did, there is no evidence that this would necessarily lead the skilled person to an arrangement or configuration according to claim 1 (and as shown in EP-B), wherein said drain pipes are formed as a water removal canal in the bottom wall of the housing (of said air conditioning apparatus), said water removal canal being provided with a cover, thus producing a closed cross section of said water removal canal. Indeed, other configurations and arrangements are conceivable and possible for the skilled person starting from D7.

In view of the above reasons it is considered that the subject-matter of claim 1 is not rendered obvious in view of D7 and the skilled person's common general knowledge.

**Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:



A. Voyé

H. Geuss

Decision electronically authenticated