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D E C I S I O N
of 2 April 1998

Case Number: T 0191/96 - 3.2.1

Application Number: 91903641.8

Publication Number: 0466888

IPC: B60S 1/48, F04D 13/00, F04D 29/62

Language of the proceedings: EN

Title of invention:
Impeller pump of cleaning liquid for motor vehicles

Patentee:
Fico Transpar, S.A.

Opponent:
Mannesmann VDO AG

Headword:
-

Relevant legal provisions:
EPC Art. 56

Keyword:
"Inventive step (no)"
"Late submitted amendments - not considered"

Decisions cited:
T 0095/83, T 0153/85, T 0611/90

Catchword:
-



Case Number: T 0191/96 - 3.2.1

D E C I S I O N
of the Technical Board of Appeal 3.2.1
of 2 April 1998

Appellant:
(Opponent)

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Representative:

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Respondent:
(Proprietor of the patent)

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Representative:

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Decision under appeal:

Decision of the Opposition Division of the
European Patent Office posted 28 December 1995
rejecting the opposition filed against European
patent No. 0 466 888 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: F. Gumbel
Members: S. Crane
J. van Moer

Summary of Facts and Submissions

- I. European patent No. 0 466 888 was granted on 16 March 1994 on the basis of European patent application No. 91 903 641.8 filed on 30 January 1991.

Claim 1 of the granted patent reads as follows:

"A cleaning liquid spray pump for motor vehicles, formed by a structure comprising the following operative members:

- an essentially cylindrical casing (E) whose constituent portions may be assembled together, and which is formed at one end thereof with an axial tubular cleaning liquid suction extension (1) which is provided at the free end thereof with one or several transverse suction notches, with a pumping chamber (2) dimensioned to house the suction-discharge impeller (7), with a discharge nozzle (3) disposed tangentially to the pumping chamber (2) and through which the cleaning liquid aspirated by the suction-discharge impeller (7) is discharged, said discharge nozzle (3) having mechanical means allowing the connection of the ducting distributing the discharged cleaning liquid to the points of use, and with a housing (4-p4) containing and positioning the suction-discharge impeller (7) electric drive motor (6);
- a suction-discharge impeller (7) comprising a variable number of suitably dimensioned, equidistantly spaced apart blades or fins, forming an axial suction extension co-extensive with the length of the axial tubular suction extension (1) of the casing (E) and in which it is contained,

the suction-discharge impeller (7) being provided also with mechanical means allowing it to be firmly coupled to the corresponding free end of the electric drive motor (6) shaft;

- an essentially cylindrical pumping chamber (2) sealing bushing (5-5') preventing the ingress of cleaning liquid in the housing (4-p4) locating the electric drive motor (6), the coupling of the free end of the drive motor (6) shaft to the suction-discharge impeller (7) being effected through said sealing bushing (5-5'); and,
- a d.c. electric drive motor (6) which is connected to the supply by means of terminals (9) integrated in the motor (6) structure itself and which project outwardly through the corresponding through slots (8) formed in the end of the casing (E) opposite to the end formed by the axial tubular suction extension (1);

wherein the casing (E) is formed by a one-piece pump body (CB) and by an also one-piece rear cover (TP) with said pump body (CB) and rear cover (TP) being susceptible of being connected together by corresponding mechanical means (10, 11), said pump body (CB) comprising an axial tubular suction extension (1), a pumping chamber (2), a discharge nozzle (3) and a housing (4) which, adjacent the said pumping chamber (2), is dimensioned to house the pumping chamber (2) sealing bushing (5-5') and, wholly or in part, the electric drive motor (6) characterized in that said housing (4) has an internal drain chamber (12), adjacent the pumping chamber (2), which is provided with radial drain openings (14) which communicate with the outside of said drain chamber (12) and, the rear cover (TP) of the casing (E) being provided with additional sealing means (21, 22, 23) in the interior

thereof for the external connexion terminals (9) of the electric drive motor (6) to the supply and which simultaneously act as dampers for the vibrations generated by operation of said suction-discharge impeller (7) electric drive motor (6)."

Dependent claims 2 to 6 relate to preferred embodiments of the pump according to claim 1.

II. The granted patent was opposed by the present appellants on the grounds that its subject-matter lacked inventive step (Articles 100(a) and 56 EPC). In this respect the appellants relied upon the state of art shown in the following pre-published documents:

(D1) DE-A-3 612 389

(D2) EP-A-0 027 077

III. With its decision given at oral proceedings on 12 December 1995 and posted on 28 December 1995 the Opposition Division rejected the Opposition.

The essential reasons given by the Opposition Division for its decision were that document D1 disclosed an arrangement where the motor was connected to the supply by means of terminals arranged on the rear cover of the pump casing and not integrated in the motor structure itself, as required by the preamble of claim 1, and that this document did not disclose the use of vibration damping sealing means as required by the characterising clause of the claim. Furthermore, document D2 did not disclose a pump with a drain chamber provided with a plurality of drain openings and in any case there was nothing to encourage the person skilled in the art to combine the teachings of documents D1 and D2.

IV. An appeal against this decision was filed on 23 February 1996 and the fee for appeal paid at the same time.

The appellants requested that the decision under appeal be set aside and the patent revoked in its entirety.

The statement of grounds of appeal was received on 26 April 1996. With their statement of grounds the appellants submitted evidence concerning the alleged prior use of a pump comprising all of the features of the preamble of granted claim 1 together with vibration damping sealing means as defined in the characterising clause of the claim.

V. Oral proceedings before the Board were held on 2 April 1998.

At the oral proceeding the respondents (proprietors of the patent) clarified the requests they had previously made in their letter of 29 January 1998 and made an additional substantive auxiliary request. The final set of requests was accordingly as follows:

1. To reject the appeal as inadmissible.
2. If request No. 1 could not be complied with, to disregard the alleged prior use.
3. To dismiss the appeal and maintain the patent unamended or in the alternative on the basis of granted claims 1 and 3.
4. If none of the above requests could be complied with, to remit the case to the first instance for further prosecution.

5. To apportion costs in their favour if the alleged prior use was not disregarded.

VI. The arguments presented by the appellants can be summarised as follows:

Once it had become evident at the oral proceedings before the Opposition Division that there were difficulties with the interpretation of document D1, the appellants had sought to clarify matters by reference to the public prior use of the pump shown in that document. Following the suggestion of the Opposition Division in this respect, they had introduced the relevant documentary evidence at the earliest opportunity available to them, namely with their statement of grounds of appeal. Thus there had been no procedural abuse and the appeal was clearly admissible.

From the supporting evidence concerning the public prior use it was incontrovertible that the known pump comprised all of the features set out in the preamble of granted claim 1 and was also equipped with additional sealing means for the external connection terminals of the drive motor, which sealing means also acted as a vibration damper for the drive motor. However, on any reasonable interpretation that was also implicit from the disclosure of document D1, so that even if the public prior use were to be disregarded this document would still be the appropriate starting point for the evaluation of inventive step. The subject-matter of granted claim 1 was distinguished from the known pump, as publicly prior used or as disclosed in document D1, solely by virtue of the provision of a drain chamber provided with drain openings. It was known from document D2 to provide an equivalent drain chamber with a drain opening in exactly the same basic form of pump and it was an

obvious measure to incorporate these features in any known pump of this type. Whether there was one drain opening or a plurality thereof, as claimed, was a trivial design option freely available to the person skilled in the art.

VII. In reply the respondents argued substantially as follows:

The statement of grounds of appeal did not specify the reasons on which the case for setting aside the appealed decision was based but instead relied on new facts and evidence not considered by the Opposition Division. The appeal was therefore inadmissible.

In any case, since the alleged prior use was by the appellants themselves, there was no excuse for the late introduction of the relevant evidence into the proceedings. This constituted an abuse of the proceedings and a breach of the principle of good faith. As a consequence the alleged prior use should be disregarded. Moreover, since the works drawings of the pump which had been allegedly prior used had been amended subsequent to the priority date of the patent, it was by no means clear that the pumps actually sold before this date comprised resilient sealing and vibration damping means required by granted claim 1.

The conclusion of the Opposition Division that document D1 did not disclose resilient sealing and vibration damping means was indisputably correct on the facts and the provision of such means was not suggested anywhere else in the state of the art. Furthermore, the provision of a drain chamber and drain openings combined with the new and inventive sealing means to minimise the possibility of corrosive damage to the electric motor. By having a plurality of drain openings arranged around the circumference of the drain chamber

proper drainage of any liquid leaking past the sealing bushing for the motor shaft was ensured irrespective of the orientation in which the pump was mounted. No equivalent suggestion could be found in document D2. This advantageous arrangement of the drain openings was specified more precisely in granted dependent claim 3. The features of this claim had therefore been incorporated into the main claim of the auxiliary request. There was nothing which spoke against the introduction of this request at the oral proceedings since, being a combination of features from granted claims 1 and 3, it was already inherently present.

Reasons for the Decision

1. The notice of appeal and the statement of grounds of appeal were filed in due time and form. The statement of grounds contained coherent arguments in support of the contention of the appellants that the subject-matter of granted claim 1 did not involve an inventive step, with the consequence that the decision under appeal had to be set aside and the patent revoked. The fact that the statement of grounds relied in the main on evidence which had not been considered by the Opposition Division does not, contrary to the view expressed by the respondent, make the appeal inadmissible for lack of substantiation. Even where, which given the fact that the new evidence related to the alleged public prior use of a pump as disclosed in the main citation considered by the Opposition Division is clearly not the situation here, a completely new case is developed in the statement of grounds, this is not considered as rendering the appeal inadmissible, see decision T 611/90 (OJ EPO 1993, 50).

2. At the oral proceedings before the Board the respondent succeeded in casting plausible doubt on whether the admittedly prior used pumps designated with the number 246 083 001 001 actually comprised a sealing member as shown in the drawing number 83 029 042. Since the later an allegation of prior use is introduced into the proceedings the more thorough and complete should be its substantiation and since the alleged prior use would only be of more relevance than the document D1 if it provided certainty with respect to the nature of the sealing means, the Board has decided to use its discretion under Article 114(2) EPC to disregard the late-filed evidence. That decision is not based to any extent on the allegation of the respondents that the late filing of the evidence constituted an abuse of the procedure, since there is nothing in the circumstances of the case which could point in this direction.

3. Document D1 relates to a cleaning liquid spray pump for motor vehicles in which the liquid is selectively delivered to one of two outlets depending on the direction of rotation of the discharge impeller. The document is particularly concerned with the provision of a flexible valve membrane which automatically closes the other of the two outlets when liquid is being delivered to either one of them.

Since the basis construction of the pump is taken in document D1 as being known, the description of it is kept in general terms. On top of this comes the fact that the drawings of the pump are poorly reproduced. Nevertheless, this much is clear: At the left-hand end of Figure 1 there is visible an unidentified element disposed between and in contact with the end of the electric motor and the bottom of the rear cover of the casing. The element bears similar cross-hatching to that used for the flexible valve membrane and for the motor shaft sealing bushing. In Figure 1 it can be seen

that part of the element projects through a slot in the bottom of the rear cover and that an electrical connection terminal for the motor extends through this part of the element. At lines 2 to 4, column 4 of document D1, it is stated that the electrical connection terminals are disposed ("angeordnet") on the rear cover.

The Opposition Division interpreted that passage of the description as meaning that the terminals were mounted on the rear cover and not "integrated in the motor structure itself", as required by the preamble of claim 1. As a consequence it concluded that the terminals must be rigidly connected to the rear cover, otherwise they would shake in operation. Accordingly, the element by which the terminals were mounted in the slots could not be elastic and could therefore not act to dampen vibrations of the motor, cf. page 3, second last paragraph of the minutes of the oral proceedings.

In the opinion of the Board that interpretation of document D1 represents a theoretical possibility which does not adequately reflect the common general knowledge of the person skilled in the art. This person would be aware that it was known to provide small electric motors of the type involved with integrated terminals to facilitate connection to the electrical supply. If he were to understand the reference to the terminals being "disposed" on the rear cover as meaning that the known integrated terminals were not to be used then he would expect some indication of the reasons for this and some instructions as how to ensure reliable electrical connection between terminals rigidly mounted on the rear cover and the motor itself. Since none of this is present he would therefore in all probability merely understand the relevant passage of document D1 as indicating that conventional integrated terminals are disposed with respect to the rear cover as shown in

the end view of Figure 2 and are accessible there for connection to the supply. Furthermore, since the element shown in Figure 1 through which the terminals pass is clearly intended to provide a seal with respect to the slots in the rear cover, the person skilled in the art would understand that the element should be of a flexible material, a view backed up by the fact that it bears similar cross-hatching to the flexible membrane and the shaft sealing bushing. Lastly, it is evident for the person skilled in the art that the element in question acts to position the drive motor in the casing, there being nothing else disposed between the motor and the rear cover. This being the case it is apparent that the flexible element will act as damper for vibrations generated by the motor in use.

The Board is therefore satisfied that the person skilled in the art, on the basis of his common general knowledge and the technical realities involved, would understand that a practical embodiment of the pump disclosed in document D1 would comprise connection terminals integrated in the electric motor structure and flexible sealing means for these terminals, and that sealing means also acted to dampen vibrations generated by operation of the electric motor. Consequently, since it is not in dispute that document D1 discloses the remaining bulk of the features of the preamble of granted claim 1, the subject-matter of the claim 1 is distinguished from what would be understood from document D1 solely by the feature that the pump housing has an internal drain chamber adjacent the pumping chamber, which is provided with drain openings which communicate with the outside of the drain chamber. (In granted claim 1, which corresponds to the original claim 1 in this respect, the drain openings are stated to be "radial" which is at odds with the description of the preferred embodiment where it is apparent that the openings extend axially. The

respondents had no explanation for this discrepancy and did not seek to rely on the term "radial" as providing any distinction over the prior art.)

Document D2 discloses a cleaning liquid spray pump for motor vehicles having a housing which defines, adjacent the pumping chamber, an internal drain chamber having a drain opening which is preferably located in the lowermost region of the housing when the pump is mounted for use. Thus, if there is a small leakage past the sealing bushing for the motor shaft, the cleaning liquid will be evacuated from the inside of the housing and the electric motor will be protected from humidity (page 5, penultimate paragraph). The provision of equivalent drainage means for the same purpose in the pump of document D1 must be seen as an obvious measure for the person skilled in the art. Furthermore, the replacement of a single drain opening by a plurality thereof to provide for example proper drainage where the pump is not always to be mounted in one orientation does not go beyond the routine considerations of this person.

Accordingly, the Board comes to the conclusion that the subject-matter of granted claim 1 does not involve an inventive step (Articles 52(1) and 56 EPC). The request of the respondents that the patent be maintained unamended can therefore not be complied with.

4. In the course of the oral proceedings before the Board the respondents submitted a new auxiliary request for maintenance of the patent in amended form on the basis of a combination of the features of granted claims 1 and 3.

It belongs to the established jurisprudence of the Boards of Appeal that the admission of amended claims into appeal proceedings, particularly when the amendments are first submitted at oral proceedings, is at the discretion of the Boards, see for example T 95/83 (OJ EPO 1985, 75) and T 153/85 (OJ EPO 1988, 1). The factors which need to be taken into account when exercising this discretion include whether there is some clear justification for the late submission of the amendment and whether the amended documents are clearly allowable, firstly in the sense of conforming with the formal requirement of EPC and secondly in the sense of having at least a reasonable prospect of removing the outstanding substantive objections against the documents previously on file.

In the present case the respondents argued that no justification was required for the late introduction of new auxiliary requests which merely went to the combination of features from the granted claims. In their view these requests were in effect always latently there and just needed to be activated. The Board cannot accept the validity of this contention of the respondents as a general proposition since to do so would imply that the Boards of Appeal and opponents could be required to deal at a very late stage and without proper preparation with a substantially indeterminate number of permutations of features on which no emphasis had previously been placed. In any case, the features which the respondents seek to add from granted claim 3 into a new main claim are merely concerned with minor constructional details of the drain chamber and the drain openings to which no particular significance is attached in the patent specification and do not appear capable of providing the basis for a different evaluation of inventive step.

The Board is therefore of the opinion that this auxiliary request of the respondents is inadmissible and accordingly rejects it.

5. Requests Nos. 4 and 5 of the respondents for remittal to the Opposition Division and the apportionment of costs respectively are conditional on the Board not deciding to disregard the alleged prior use. Since in fact the request of the respondents that the alleged prior use be disregarded was complied with, see point 2 above, requests Nos. 4 and 5 do not need to be considered further.

Order

For these reasons it is decided that:

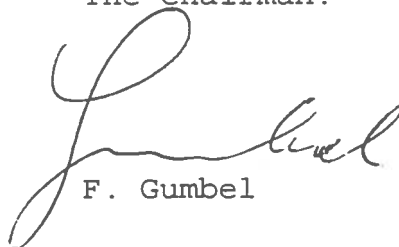
1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:



S. Fabiani

The Chairman:



F. Gumbel

