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D E C I S I O N
of 3 September 2002

Case Number: T 0920/99 3.3.1

Application Number: 92302837.7

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Language of the proceedings: EN

Title of invention:
Refrigerant compositions

Patentee:
Ineos Fluor Holdings Limited

Opponent:
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(02) Allied Signal Inc.
(03) RHONE-POULENC CHIMIE
(04) AUSIMONT S.p.A.
(05) Daikin Industries, Ltd.

Headword:
Refrigerants/INEOS FLUOR HOLDINGS

Relevant legal provisions:
EPC Art. 54(3),(4), 111(1), 123(2),(3)

Keyword:
"Novelty (yes) - multiple selection"
"Remittal"

Decisions cited:
T 0012/81, T 0401/94

Catchword:

-



Case Number: T 0920/99 - 3.3.1

D E C I S I O N
of the Technical Board of Appeal 3.3.1
of 3 September 2002

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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 6 August 1999
revoking European patent No. 0 509 673 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: R. Freimuth
Members: J. M. Jonk
S. C. Perryman

Facts and Submissions

- I. The Appellant (Proprietor of the patent) lodged an appeal against the decision of the Opposition Division by which the European patent No. 0 509 673 (European patent application No. 92 302 837.7) was revoked under Article 102 (1) EPC.
- II. The oppositions filed by Opponents 1 to 5 (Respondents 1 to 5) were based on the grounds that the claimed subject-matter of the patent in suit (i) lacked novelty and inventive step, (ii) did not sufficiently disclose the claimed invention, and (iii) extended beyond the content of the application as filed as indicated in Article 100 (a), (b) and (c) EPC, respectively. They were supported by several documents including:
- (2) EP-A-0 451 692,
 - (16) WO-A-9 211 339 and
 - (17) EP-A-0 430 169.
- III. The Opposition Division held that the subject-matter of the claims of the main and auxiliary requests as submitted during the oral proceedings on 29 June 1999 lacked novelty in view of said cited documents in combination with common general knowledge concerning the use of ester lubricants in refrigerant compositions. Concerning document (2), it considered that, although the esters mentioned in this document were indicated as stabilisers, they inherently exerted also a lubricating effect.

IV. Oral proceedings before the Board were held on 3 September 2002. The Respondents 1 to 5, who had been duly summoned, did not attend the oral proceedings, since they withdrew their oppositions during the appeal procedure.

V. The Appellant defended the patent in suit on the basis of two sets of Claims 1 and 2 as submitted during the oral proceedings before the Board for the designated contracting states AT to SE and for ES and GR, respectively. These claims corresponded to the Claims 1 and 2 of the two sets of claims of the main request forming the basis for the decision of the Opposition Division.

Claims 1 and 2 for the designated contracting states AT to SE read as follows:

"1. A refrigerant composition comprising:

(I) a refrigerant comprising a ternary mixture of:

- (a) 1,1,1,2-tetrafluoroethane;
- (b) difluoromethane; and
- (c) pentafluoroethane; and

(II) an ester lubricant,

the refrigerant (I) containing from 5 to 95 weight % of the 1,1,1,2-tetrafluoroethane and from 95 to 5 weight % of the other components."

"2. A heat transfer device in which the working fluid comprises a refrigerant composition as claimed in claim 1."

Claim 1 for the contracting states ES and GR was directed to a process for producing heating or cooling comprising using a refrigerant composition as defined in Claim 1 indicated above for the other contracting states, whereas the scope of Claim 2 for the contracting states ES and GR corresponded to that of Claim 2 indicated above for the other contracting states.

- VI. The Appellant argued in particular that the claimed subject-matter was novel, since the cited documents did not directly and unambiguously disclose refrigerant compositions comprising an ester lubricant. Moreover, he submitted with respect to the objection of lack of sufficiency within the meaning of Article 83 EPC that the skilled person, once taught that ester lubricants had utility with hydrofluorocarbon refrigerants, would be able to find a suitable ester lubricant and put the presently claimed invention into practice without undue burden.
- VII. Before withdrawing their oppositions, the Respondents 1, 2 and 5 maintained their point of view that the claimed subject-matter lacked novelty in line with the decision of the Opposition Division.
- VIII. The Appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of the claim request (two sets of Claims 1 and 2 for the respective designated contracting states) submitted on 3 September 2002 at the oral proceedings before the Board of Appeal.
- IX. At the end of the oral proceedings the decision of the Board was pronounced.

Reasons for the Decision

1. *Amendments (Article 123(2) and (3) EPC)*

1.1 Present Claim 1 for the designated contracting states AT to SE is supported by the patent application as filed in the following way:

- Claim 14 in combination with Claim 10, as well as page 3, lines 14 and 15, and page 10, line 33 to page 11, line 1, concerning a refrigerant composition comprising (I) a ternary refrigerant mixture as defined in the claim, and (II) a lubricant as a particular embodiment of the claimed invention,
- page 11, lines 1 to 3, with respect to the ester lubricant as the especially preferred embodiment of the claimed invention, and
- page 6, 30 to 34, concerning the claimed proportions of the 1,1,1,2-tetrafluoroethane and the other components.

Present Claim 2 for the designated contracting states AT to SE is based on Claim 15 in combination with Claim 14 of the application as filed, and the support indicated above for present Claim 1.

Present Claim 1 for the designated contracting states ES and GR finds its support as indicated above for present Claim 1 for the designated contracting states AT to SE in combination with page 11, lines 9 to 19, of the specification of the application as filed.

Present Claim 2 for the designated contracting states ES and GR is supported by the application as filed as indicated above for Claim 2 for the designated contracting states AT to SE.

2.2 Therefore the Board concludes that all the present claims meet the requirements of Article 123(2) EPC.

2.3 Furthermore, the subject-matter of the independent claims of the patent in suit as granted, in particular that of the independent Claims 1, 10 and 15 as granted for the designated contracting states AT to SE, and the independent Claims 1 and 16 as granted for the contracting states ES and GR, has been restricted in present Claims 1 and 2 to the use of an ester lubricant and the defined proportions of tetrafluoroethane and the other components.

2.4 Therefore, the subject-matter of all the present claims also meets the requirements of Article 123(3) EPC.

3. *Novelty*

3.1 In this respect, the Board firstly observes that having regard to the priority dates and publication dates of the European patent applications (2) and (17) and of the European patent application corresponding to document (16), the contents of all these documents represent state of the art within the meaning of Article 54(3) and (4) EPC. This finding has been acknowledged by all the parties.

3.2 Therefore, and having regard to the decision of the Opposition Division, the only substantial issue arising from this appeal is whether or not the claimed subject-

matter is novel in the light of said documents (2), (16) and (17).

- 3.3 Concerning the issue of novelty, the Board firstly observes that it is a generally applied principle that for concluding lack of novelty, there must be a direct and unambiguous teaching in a prior art document, which would inevitably lead the skilled person to something falling within the scope of what is claimed.

In this context, the Boards of Appeal developed a further principle with respect to the novelty of compounds or compositions, namely, that a substance resulting from **a specific combination of elements** requiring the selection of elements (e.g. starting compounds for preparing a chemical product or composition) from at least two lists or generic groups should normally be regarded as novel (see e.g. T 0012/81, point 13 of the reasons, OJ EPO 1982, 296, and T 0401/94 (not published in the OJ EPO), point 4.4. of the reasons).

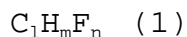
- 3.4 In the present case, the Opposition Division held with respect to document (2) that the claimed subject-matter lacked novelty since it disclosed a refrigerant comprising a ternary mixture corresponding to the ternary mixture as defined in present Claim 1 under (I) in combination with different esters, such as phosphites and thiophosphite esters, being labelled as stabilisers. Furthermore, it held that it was common general knowledge that such additives inherently exerted a lubricating effect and, therefore, could be considered as lubricants.

- 3.5 On the other hand, the Appellant argued that in the

technical field of refrigerant compositions stabilisers and lubricants represented different categories of additives, and that the phosphor and/or sulphur containing ester stabilisers, although showing some boundary surface lubricating properties, would not be considered by the skilled person as suitable refrigeration lubricants.

3.6 However, irrespective of the question whether or not there exists a clear distinction between ester stabilisers and ester lubricants, the Board has come to the conclusion that the claimed subject-matter is novel in the light of document (2) for the following reasons:

3.6.1 Document (2) concerns refrigerants comprising a mixture of three compounds selected from the group consisting of hydrofluorocarbons represented by the formula



wherein when l is 1, m is an integer 0, 1 or 2, n is an integer of 2 or 3 and $m + n = 4$; when l is 2, m is an integer of 1 to 4, n is an integer of 2 to 5 and $m + n = 6$; and when l is 3, m is an integer of 1 to 3, n is an integer of 5 to 7 and $m + n = 8$ (see page 2, lines 25 to 32, and Claim 1). Only one out of the ten examples, i.e. Example 3 using the ternary mixture of refrigerants as shown in the triangular diagram of Fig. 3, falls under the scope of present Claim 1.

Moreover, this document discloses that the refrigerants may be mixed with a stabiliser or other additives, such as ethers, amines and LPG (see page 3, lines 32 to 44). Concerning the optional presence of a stabiliser additive, it discloses a list of different classes of

stabilisers, including specific examples thereof, such as phosphite and thiophosphite esters (see page 3, lines 34 to 41).

3.6.2 In order to arrive at a composition as defined in present Claim 1 for the designated contracting states AT to SE, the skilled person would have to consider the particular ternary mixture of hydrofluorocarbons as disclosed in Fig. 3 as a starting point. Moreover, he would have to make a multiple selection in order to arrive at the mandatory ester component of the claimed composition, namely, firstly, the selection of the mandatory presence of an additive, secondly, the selection of a particular category of additives labelled as stabilisers from the specified optional types of additives, and, thirdly, the selection of esters from the numerous specified examples of said category of additives.

3.6.3 Therefore, apart from the intended function of the ester component as lubricant, the particular refrigerant composition as claimed in Claim 1 of the contracting states AT to SE results from a multiple selection within the alternative ternary mixtures of refrigerants and optional additives as disclosed in document (2), so that in accordance with the established jurisprudence of the Boards of Appeal (see under point 3.3 above) document (2) does not destroy the novelty of the subject-matter of Claim 1 for these designated contracting states.

3.7 Concerning documents (16) and (17) the Opposition Division considered that both documents disclosed a ternary mixture of refrigerants falling under the scope of present Claim 1 for the contracting states AT to SE,

and that document (16) also disclosed the combination of such a ternary mixture with lubricants without specifying them, whereas document (17) disclosed such a ternary mixture without specifying that it included a lubricant. Moreover, it considered that it would be clear to the skilled person that compressors of heat transfer devices using refrigerant compositions could not work without the use of a lubricant.

However, in view of the fact that neither document comprises a direct and unambiguous disclosure of the claimed refrigerant composition including mandatorily an ester lubricant, in the Board's judgment, neither destroys the novelty of the subject-matter claimed.

3.8 In this context, the Board emphasises that in assessing novelty any obviousness considerations are to be strictly avoided. Thus, in the circumstances of the present case, it is not sufficient for a finding of lack of novelty of the claimed composition that such a composition **could** have been derived from any of the cited prior art document by a skilled person in the light of possible considerations concerning the suitability of certain stabilisers as lubricating additives and / or with respect to the question whether or not optional lubricant additives, such as ester lubricants, would normally be present in refrigerant compositions as now claimed. In order to be novelty destroying, the claimed composition must be - as indicated above under point 3.3 - directly and unambiguously derivable from the cited prior art document.

3.9 Since the refrigerant composition as claimed in Claim 1 for the contracting states AT to SE forms part of the

subject-matter claimed in each of the other claims of the present request, the subject-matter of all the claims of the present request is novel.

4. The Opposition Division decided that the claimed subject-matter was not patentable on the ground of lack of novelty, but did not consider the question of inventive step.

In these circumstances, and in view of the fact that the function of the Boards of Appeal is primarily to give a judicial review of the decision taken by the first instance, the Board in the exercise of its discretion under Article 111(1) EPC remits the case to the first instance for further prosecution on the basis of the present two sets of claims. This would not preclude the Appellant to further amend these claims as may become necessary.

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 for further prosecution on the basis of the claim request submitted on 3 September 2002 at the oral proceedings before the Board of Appeal.

The Registrar:

The Chairman:

N. Maslin

R. Freimuth