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D E C I S I O N
of 12 March 2002

Case Number: T 0425/98 - 3.3.1

Application Number: 91103711.7

Publication Number: 0447916

IPC: C10M 141/00

Language of the proceedings: EN

Title of invention:
Engine oil composition

Patentee:
Nippon Mitsubishi Oil Corporation

Opponent:
Shell Internationale Research Maatschappij B.V.
Exxon Research and Engineering Company

Headword:
NIPPON MITSUBISHI/Engine oil composition

Relevant legal provisions:
EPC Art. 54(3)(4), 84, 123(2)

Keyword:
"Main request: substantially modified request raising new issues under Article 84 EPC never addressed before the oral proceedings"
"Admissibility (no)"
"Auxiliary request: Novelty (no) - claimed invention emerging unambiguously from the prior disclosure"

Decisions cited:
G 0002/88; G 0010/91; T 0694/92; T 0074/96; T 0596/96;
T 1129/97; T 0457/98; T 0728/98

Catchword:

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Case Number: T 0425/98 - 3.3.1

D E C I S I O N
of the Technical Board of Appeal 3.3.1
of 12 March 2002

Appellant: Exxon Research and Engineering Company
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 20 February 1998
rejecting the opposition filed against European
patent No. 0 447 916 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: A. J. Nuss
Members: P. F. Ranguis
S. C. Perryman

Summary of Facts and Submissions

I. The Appellant (Opponent 2) lodged an appeal against the decision of the Opposition Division rejecting the oppositions filed against the European patent No. 0 447 916 (European patent application No. 91 103 711.7) pursuant to the provisions of Article 102(2) EPC.

II. The oppositions filed by the Opponent 2 (now Appellant) and the Opponent 1 (party to the appeal proceedings as of right) sought revocation of the patent in suit on the grounds that its subject matter did not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (Article 100(b) EPC) and did not involve an inventive step (Article 56 EPC). After the time limit for filing the opposition, Opponent 2 introduced the document

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and submitted that the patent in suit lacked novelty under Article 54(3)(4) EPC in view thereof.

III. The patent was granted for the Contracting States DE, FR and GB. It comprised five claims, independent Claim 1 reading as follows:

"1. An engine oil composition comprising a major amount of lubricating base oil and as essential components

(a) 0.01 to 30% by weight of an overbasic oil-soluble metal salt which is the reaction product of an oil-soluble metal salt with an alkaline-earth metal oxide or hydroxide in the presence of boric acid or boric acid anhydride,

(b) 0.01 to 5% by weight of a molybdenum compound friction modifier, and

(c) 0.01 to 5% by weight of an antioxydant, selected from the group consisting of phenol type, amine type, sulfur type, zinc thiophosphate type and phenothiazine type oxidants calculated on the basis of the total amount of the composition".

IV. The reasons for rejecting the opposition in the decision under appeal were, in particular, that Claim 1 of the patent in suit (cf. point III above) was novel over document (9) citable only under the provisions of Article 54(3) (4) EPC. In its decision the Opposition Division held that document (9) did not disclose the specific combination of the three components (a), (b) and (c) in the cited amounts. This combination resulted from a multiple selection requiring, first, the choice among nine classes of additives, then, the selection of a molybdenum friction modifier out of four different types of friction modifier and also the selection of the range of values defined for the components (b) and (c).

V. In response to the statement of grounds of appeal, the Respondent (Proprietor of the patent) in addition to his main request, which was the dismissal of the appeal, filed a new Claim 1 wherein the expression "which is the reaction product of an oil-soluble metal

salt" was replaced by "which is the reaction product of an oil-soluble metal salicylate".

- VI. In a communication dated 30 October 2001, the Board had informed the parties that novelty would be discussed in view of the disclosure of document (9), the question being to decide whether or not the particular claimed combination resulted from a multiple selection within the above-mentioned disclosure and, if necessary, whether or not the numerical ranges indicated in Claim 1 could confer novelty to said claim. The Board, furthermore, raised doubts about the compliance of Claim 1 of the auxiliary request (cf. point V above) with Article 123(2) EPC.

The attention of the parties was also drawn to Article 11 of the Rules of Procedure of the Boards of Appeal (RPBA) and the parties were informed that the Board considered that Articles 11(1) and (3) RBPA were satisfied, namely that the parties had provided all necessary and relevant written information and documents such that the case would be ready for the decision at the conclusion of the oral proceedings. The parties might address the Board at the oral proceedings on any issue which had been raised in the written proceedings.

- VII. At the oral proceedings which took place before the Board on 12 March 2002, the Respondent withdrew the requests previously filed (cf. point V above) and filed in lieu thereof, as main request a set of five claims, Claim 1 being amended to replace in Claim 1 as granted (cf. point III above) the expression "comprising" by the expression "consisting of", Claims 2 to 5 remaining unchanged. The Respondent also filed as auxiliary

request a set of five claims, Claim 1 reading as follows:

"1. Use of an engine oil composition for gasoline and diesel engines comprising a major amount of lubricating base oil and as essential components

(a) 0.01 to 30% by weight of an overbasic oil-soluble metal salt which is the reaction product of an oil-soluble metal salt with an alkaline-earth metal oxide or hydroxide in the presence of boric acid or boric acid anhydride,

(b) 0.01 to 5% by weight of a molybdenum compound friction modifier, and

(c) 0.01 to 5% by weight of an antioxydant, selected from the group consisting of phenol type, amine type, sulfur type, zinc thiophosphate type and phenothiazine type oxidants calculated on the basis of the total amount of the composition".

VIII. The arguments of the Appellant can be summarized as follows:

The change of the expression "comprising" in Claim 1 as granted by the expression "consisting of" in Claim 1 of the pending main request could not be regarded as a clear limitation and raised doubts about the scope of said claim. Indeed, the expression (consisting of) compared to the previous one (comprising) aimed to exclude the other additives such as ashless dispersant, defoamers or viscosity index improvers and pour point depressants. However, the "lubricating base oil" could comprise, as set out in the description of the patent

in suit, those types of components. It could not be deduced from this expression what was really covered by the amended claim 1.

Regarding claim 1 of each request, document (9) disclosed the simultaneous combination of the components (a), (b) and (c). Although, document (9) did not specify that components (b) and (c) were compulsory, there was, nevertheless, a clear disclosure of molybdenum compound as friction modifier and of an antioxydant selected from phenol type, amine type, sulfur type, zinc thiophosphate type and phenothiazine type antioxydants. Furthermore, the selected ranges of values were not so narrow compared to the ranges of values disclosed in document (9) as that they could be seen as a novel selection in the sense of the established case law of the Boards of Appeal.

IX. The arguments of the Respondent can be summarized as follows:

By the replacement of the term "comprising" by the expression "consisting of", any further additives were excluded from the subject matter of Claim 1 of the main request. That embodiment found support in the application as filed. Said Claim 1 was also clear.

The subject matter of Claim 1 of the auxiliary request was novel over document (9) since the oil compositions were intended for use in lubricating different engines, namely gasoline and diesel engines on the one hand as against alcohol-based fuel engines on the other hand. Furthermore, document (9) did not disclose the components (b) and (c) as essential components but only as a part of optional components. Those components were

essential features in order to achieve the superior effects of the patent. Moreover, the selected ranges of the components (a), (b) and (c) of the claimed invention were different from those indicated in document (9), either for the overbasic oil-soluble metal or for the conventional additives listed up in document (9) in a non-specific manner.

X. Opponent 1 (party as of right) did not file any submissions and informed the Board on 15 February 2002 that he would not attend the oral proceedings.

XI. The Appellant requested that the decision under appeal be set aside and that the European patent be revoked.

The Respondent requested that the decision under appeal be set aside and that the patent be maintained on the basis of the set of claims submitted as main request or auxiliary request respectively at the oral proceedings.

XII. At the end of the oral proceedings the decision of the Board was announced orally.

Reasons for the Decision

1. The appeal is admissible.

Main request

2. *Rule 57a EPC*

Claim 1 of the main request differs from Claim 1 as granted in that the expression "comprising" was replaced by "consisting of". This amendment is designed

to overcome an objection of lack of novelty. Therefore, that amendment can be admitted under Rule 57a EPC.

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

3.1 The amendment stated in point 2 above finds support in the disclosure of the application as filed (cf. page 2, line 23 to page 3, line 7 of the application as filed). The meaning of the word "comprising" is to be interpreted as encompassing all the specifically mentioned features as well optional, additional, unspecified ones, whereas the term "consisting of" only includes those features as specified in the claim. Therefore, "comprising" includes as a limiting case the composition specified by "consisting of". The Board is satisfied, therefore, that the present request is not amended in such a way that it contains subject matter which extends beyond the application as filed.

3.2 Furthermore, this amendment also restricts the scope of protection claimed and so does not contravene the requirements of Article 123(3) EPC.

4. *Article 84 EPC*

4.1 Although Article 84 EPC is not a basis for objection available against the claims as granted under the terms of Article 100 EPC, it may nevertheless constitute a proper ground for revoking a patent if objections to either clarity or support arise out of amendments to the patent as granted (see G 10/91, OJ EPO 1993, 420, point 19 of the Reasons). Furthermore, questions of clarity or support may affect the decision on issues under Article 100 EPC such as novelty (Article 54 EPC), inventive step (Article 56 EPC) or sufficiency of

disclosure (Article 83 EPC) (cf. T 694/92, OJ EPO 1997, 408, point 4 of the reasons).

4.2 The Appellant argued that the expression "consisting of" excluded the presence of any other additive such as polyisobutylenes as viscosity index improvers and pour point depressants (cf. page 4, lines 23 to 24 of the patent in suit) while such component might be present as synthetic oil (cf. page 3, line 4 of the patent in suit). The same remark was made for the silicone oil (cf. page 4, line 23 and page 3, line 8 of the patent in suit). The expression "consisting of" rendered, therefore, Claim 1 unclear as to what was really covered.

4.3 Article 84 EPC stipulates that the claims defining the matter for which protection is sought must be clear. Given that Claim 1 relates to an engine oil composition characterised by several components, for the clarity requirement to be met the groups of components according to Claim 1 must be defined in such a way that the claimed compositions can be unambiguously distinguished from those not falling under the claims (cf. T 1129/97, OJ EPO 2001, 273, point 2.1 of the reasons) in order to comply with two requirements: on the one hand, determining the protection conferred by the patent and, on the other hand, ensuring that the invention is *inter alia* novel (cf. G 2/88, OJ EPO 1990, 93, point 7 of the reasons; T 728/98, point 3.1 of the reasons).

4.4 From the preceding considerations, it appears, *prima facie*, that the feature "consisting of a major amount of lubricating base oil" lacks clarity since it does not unequivocally distinguish between what is actually

claimed and what is not claimed. The Respondent did not submit any arguments to rebut the Appellant's objection. The Board considers, therefore, that the objection of the Appellant raises a fresh and critical issue requiring an unknown degree of re-examination of the case as a whole which is incompatible with the requirements an amended set of claims must meet when introduced at as late a stage as the oral proceedings. It is observed that this new issue is unexpected in the sense that it could not be anticipated before either by the Appellant or the Board, since none of the dependent claims mention such an embodiment. Therefore, no argument can be found in the whole written proceedings. Furthermore, at the oral proceedings, the Respondent submitted no reason for such a late filed claim.

4.5 The parties had been informed more than four months before this hearing that, on the basis of the then identified issues, the Board intended to take a final decision at the end of the oral proceedings (cf. point VI above). Given the present circumstances, the Board finds no reason to deviate from that position and considers that the main request raises new issues under Article 84 EPC which renders it inadmissible at this stage of the proceedings (cf. T 74/96, points 2.2 and 2.4).

4.6 Consequently, in view of the conclusion reached in points 4.4 and 4.5 above, the main request is refused.

Auxiliary request

5. *Procedural issues*

This request although filed at the oral proceedings

does not lead to a substantial change in the subject-matter of the proceedings, such as would have placed an excessive burden of review on the Board or the Appellant. This was not contested by the Appellant. It is, therefore, admitted into the appeal proceedings.

6. *Rule 57a EPC*

Claim 1 of the auxiliary request differs from Claim 1 as granted in that the expression "an engine oil composition" is replaced by the expression "use of an engine oil composition for gasoline and diesel engines". This amendment is designed to overcome an objection of lack of novelty. Therefore, the amendment can be admitted under Rule 57a EPC.

7. *Article 123(2) and (3) EPC*

7.1 This amendment finds support in the disclosure of the application as filed (cf. page 1, lines 6 to 9 and page 10, lines 19 to 22 of the application as filed). The Board is, therefore, satisfied that the present request is not amended in such a way that it contains subject matter which extends beyond the application as filed.

7.2 This amendment amounts to a change of category from a "composition" claim to a "use of a composition for a particular purpose". Such an amendment is not open to objection under Article 123(3) EPC (cf. G 2/88, OJ EPO 1990, 93, Order ii).

8. *Article 84 EPC*

The Board is satisfied that Claim 1 of this request

insofar as the amendment is concerned is clear. That finding was not contested by the Appellant.

9. *Article 54(3) (4) EPC*

9.1 Document (9) is a published European application designating the Contracting States DE, FR and GB filed with a priority date of 14 March 1990, ie two days before the priority date of the patent in suit. It was not contested that the date of priority of the said European patent application may count as the date of filing of this application pursuant to Article 89 EPC. Document (9) is, therefore, prior art under Articles 54(3) and (4) EPC.

9.2 Document (9) discloses an engine oil composition for alcohol-based fuel engines comprising a major amount of mineral oil and/or synthetic oil as a lubricating base oil, and about 0.01 to 10% by weight of an alkaline-earth metal borate on the basis of the total amount of the composition as an essential component (cf. page 2, lines 27 to 30). The alcohol-based fuel is selected from the group consisting mainly of methanol, ethanol, propanol, mixtures thereof, and the mixtures of at least 10% by volume of one of these alcohols with a petroleum-based fuel such as gasoline, kerosene, and gas oil (cf. page 3, lines 34 to 36). The alkaline-earth metal borate is either in pure state (cf. page 2, lines 49 to 50) or is an overbasic alkaline-earth metal borate prepared by a reaction of an oil soluble metal salt with an oxide or hydroxide of an alkaline-earth metal in the presence of boric acid or boric anhydride (cf. page 2, lines 50 to 57).

Conventional lubricating oil additives can be

additionally used to improve further the performance of the composition. Examples of these additives include oiliness improvers such as higher alcohols, higher fatty acids, esters and the like; extreme pressure agents and friction modifier such as tricresyl phosphate, triphenyl phosphate, zinc dithiophosphates, molybdenum disulfides, molybdenum dithiophosphates, molybdenum dithiocarbamates and the like; rust preventives such as petroleum sulfonates, dinonyl naphthalene sulfonates and the like; metal deactivating agents such as benzotriazole and the like; metal-based detergents such as alkaline-earth metal sulfonates, alkaline-earth metal salicylates, alkaline-earth metal phenates, alkaline-earth metal phosphonates and the like; ashless dispersants such as succinimide, succinic esters, benzylamine and the like; defoamers such as silicon oils and the like; viscosity index improvers and pour point depressants such as polymethacrylates, polyisobutylenes and polystyrenes and the like; antioxydants such as zinc dithiophosphates, hindered phenols, aromatic amines and the like; and mixtures thereof. The content of the viscosity index improver is in an amount of about 1 to 30% by weight, the defoamer is in an amount of about 0.0005 to 1% by weight, the metal deactivating agent is in an amount of about 0.005 to 1% by weight, and other additives in an amount of about 0.1 to 15% by weight respectively on the basis of the total amount of the composition (cf. page 3, lines 17 to 32).

9.3 The question is to decide whether or not the subject matter of Claim 1 emerges unambiguously from the disclosure of document (9).

- In comparison with this disclosure, no

distinguishing feature can be found between "an engine oil composition for alcohol-based fuel engines" (document (9)) and "the use of an engine oil composition for gasoline and diesel engines" (claimed invention) since the disclosure of document (9) encompasses the use of an engine oil composition for lubricating an alcohol-based fuel engine wherein said fuel can contain up to 90% of petroleum-based fuel such as gasoline (cf. point 9.2 above). The Respondent, in that respect, provided no clear and immediate evidence of any fundamental difference between those two uses which would have enabled the Board to deviate from this finding.

- Regarding the alkaline-earth metal borate, the disclosure of document (9) offers two individualised alternatives i.e. the alkaline-earth metal borate is either in pure state or is an overbasic alkaline-earth metal borate. The second alternative corresponds altogether to the component (a) of the claimed invention. The proportion of component (a) (0.01 to 30%) covers completely the proportion of the alkaline-earth metal borate of document (9) (0.01 to 10%).

- The Board concurs with the Respondent that the disclosure of document (9) does not disclose the compulsory combination of component (a), (b) and (c). However, in the present case, such a finding cannot actually be considered as a multiple selection conferring novelty. Indeed, when assessing inter alia novelty, a claim should be given its broadest technically sensible meaning (cf. T 596/96, point 3.2 of the reasons). In that

respect, the Board observes that the term "comprising" present in Claim 1 must be interpreted as encompassing all the specifically mentioned features as well optional, additional, unspecified ones (cf. T 457/98, point 2.1.1 of the reasons). This is all the more clear, in the present case, since the description of the patent in suit states that:

"In the present invention, the following conventional lubricating oils additives can be additionally used to improve further the performance of the present invention. Examples of these additives include extreme pressure additives such as tricresyl phosphate, triphenyl phosphate, zinc dithiophosphates,; rust preventives such as petroleum sulfonates, dinonyl naphthalene sulfonates and the like; metal deactivating agents such as benzotriazole and the like; metal-based detergents such as alkaline-earth metal sulfonates, alkaline-earth metal salicylates, alkaline-earth metal phenates, alkaline-earth metal phosphonates and the like; ashless dispersants such as succinimide, succinic esters, benzylamine and the like; defoamers such as silicon oils and the like; viscosity index improvers and pour point depressants such as polymethacrylates, polyisobutylenes and polystyrenes and the like; and mixtures thereof. Generally, the content of the viscosity index improver is in an amount of about 1 to 30% by weight, the defoamer is in an amount of about 0.0005 to 1% by weight, the metal deactivating agent is in an amount of about 0.005 to 1% by weight, and other additives are used in amounts of about 0.1 to 15% by weight respectively on the basis of the total amount of the composition" (cf. page 4, lines 16 to 29).

In comparison, with the disclosure of document (9) indicated in point 9.2 above, the Board can find no distinguishing feature in the list of components encompassed by the claimed subject matter. Nor can the Board find any novelty relevant distinction in the ranges of values since there is in particular:

a large overlap between the ranges of molybdenum friction modifier (0.01 to 5% in the claimed invention vis à vis 0.1 to 15% in document (9))

a large overlap between the ranges of antioxydant (0.01 to 5% in the claimed invention vis à vis 0.1 to 15% in document (9))

and a complete overlap for the other components.

9.4 It results from the above that the disclosure of document (9) discloses unambiguously two alternatives, one involving an alkaline-earth metal borate in pure state, the other involving an overbasic alkaline-earth metal borate (cf. point 9.2 above). Once the skilled reader has turned his attention to the latter, an engine oil composition falling within the scope of Claim 1 emerges from that disclosure without a further selection having to be made. Therefore, novelty cannot be recognised to said Claim 1.

9.5 Since the Board can only decide on a request as a whole, the patent in suit cannot be maintained in the form as submitted in this auxiliary request and this request must also be rejected.

Order

For these reasons it is decided that:

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

The Registrar:

The Chairman:

N. Maslin

A. Nuss