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D E C I S I O N
of 25 October 1994

Case Number: T 0526/92 - 3.3.1

Application Number: 83302734.5

Publication Number: 0094814

IPC: C10M 129/40

Language of the proceedings: EN

Title of invention:
Lubricating oil additives

Patentee:
EXXON RESEARCH AND ENGINEERING COMPANY

Opponent:
BP Chemicals Limited

Headword:
Lubricating oil additive/BP

Relevant legal provisions:
EPC Art. 123(2)

Keyword:
"Amendment extending subject-matter of the application as filed"
"Creation of an originally not disclosed range (no)"

Decisions cited:
G 0001/93, T 0004/80, T 0433/86, T 0343/90 (distinguished)

Catchword:
If values of a parameter are only given in the examples, without the significance of this parameter becoming evident from the original specification, no range must be arbitrarily

formed, which is open ended at one side and has one limit selected from the examples (5.3.1, 5.3.6).

Case Number: T 0526/92 - 3.3.1

D E C I S I O N
of the Technical Board of Appeal 3.3.1
of 25 October 1994

Appellant: BP Chemicals Limited
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Representative: -

Respondent: EXXON RESEARCH AND ENGINEERING COMPANY
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Decision under appeal: **Decision of the Opposition Division of the European Patent Office of 12 March 1992, posted on 10 April 1992 rejecting the opposition filed against European patent No. 0 094 814 pursuant to Article 102(2) EPC.**

Composition of the Board:

Chairman: A. Jahn
Members: P. Krasa
R. E. Teschemacher

Summary of Facts and Submissions

I. The mention of the grant of the European patent No. 0 094 814 in respect of European patent application No. 83 302 734.5, filed on 13 May 1983, was published on 19 April 1989 (cf. Bulletin 89/16) on the basis of sixteen claims, Claim 1 of which read:

"An additive concentrate having a high TBN for incorporation in a lubricating oil composition, which concentrate comprises lubricating oil, an overbased alkaline earth metal hydrocarbyl sulphurized phenate and an organic carboxylic acid characterized in that the concentrate comprises from 10 to 90 wt % of an overbased alkaline earth metal hydrocarbyl sulphurized phenate which has been treated, either during or subsequent to the overbasing process, with from 0.1 to 10 weight % (based on the weight of the additive concentrate) of an unbranched, saturated fatty acid having from 18 to 24 carbon atoms or an anhydride or a salt thereof."

The passage "having a high TBN" in this claim was not included in Claim 1 as originally filed. The respective amendment, the only relevant one in respect to the issue to be decided in this appeal, had been executed by the Applicant, following a corresponding suggestion from the Examining Division, to distinguish the claimed subject-matter from compositions disclosed in document

(1) GB-A-1 440 261,

comprising overbased sulphurised phenates with a TBN of 50 to 100 (page 2, lines 31 and 32, in combination with

lines 33 and 34). This amendment of Claim 1 was accompanied - apart from corresponding amendments of original Claims 8 and 11 - by incorporating into the specification, inter alia, the sentence "The concentrates have a high TBN - that is, a TBN of at least 235." (page 2, line 64 of the patent in suit).

II. In a notice of opposition, which was duly filed by BP Chemicals (Additives) Ltd. (the later Appellant) the revocation of the patent was requested, on the ground that the European Patent extended beyond the content of the application as filed because the reference to high TBN (= total base number) was incorporated, and on the ground that the disclosure of the invention was insufficient.

III. The Opposition Division rejected the opposition by its decision which was orally delivered on 12 March 1992, with written reasons posted 10 April 1992.

The Opposition Division found that the application as originally filed contained no limitation in respect to TBN values and made no reference to TBN, apart from the examples. It held that, although the term "high TBN" was lacking a clear and generally accepted definition, an inspection of the description of the patent in suit would reveal that this means "a TBN of at least 235". According to the Opposition Division, a skilled reader of the patent in suit would be aware that the underlying problem of sedimentation, foaming and high viscosity was particularly important with high TBN overbased phenates and since all the concentrates of the examples had a TBN of around 250, which value could be regarded to be within the values comprised by the

expression "high TBN", it could be inferred, so the Opposition Division concluded, that the application as originally filed was mainly concerned with concentrates of a high TBN.

The Opposition Division also found, that the patent in suit complied with the requirement of sufficiency of the disclosure according to Article 83 EPC.

IV. An appeal was lodged against this decision on 8 June 1992 with the payment of the prescribed fee. The Appellant argued in his statement of Grounds of Appeal, filed 11 August 1992, that the application as filed referred only to "highly preferred overbased phenates", which could not be construed as referring to highly overbased phenates (page 7, lines 13 to 18). The information that the invention was designed to solve technical problems which were particularly acute with high TBN phenates was, therefore, neither explicitly nor implicitly disclosed in the application as filed but was comprised only in a letter from the Respondent (then the Applicant and now Patentee) dated 28 April 1987.

The Appellant, while agreeing with the Opposition Division that the problem to be solved did not reside in preparing overbased concentrates with a specific TBN but rather in the treatment of known phenates to improve their properties, concluded that the amendments incorporated in the course of the examination proceedings led to a technical teaching, i.e. the preparation of high TBN phenates, which was different from that originally disclosed.

The sufficiency of the disclosure was no longer challenged by the Appellant.

V. The Respondent submitted that the amendment had been solely intended to distinguish the claimed subject-matter from that disclosed in document (1). While this admittedly could have been achieved by disclaiming such latter matter, so the Respondent argued, he was entitled also, in view of the Enlarged Board's decision G 1/93, to the actually chosen limitation which did not change the technical teaching as originally disclosed but which merely excluded protection for additive concentrates having a TBN of less than 235. The Respondent conceded that neither such a limitation was comprised in original Claim 1, which extended also to concentrates having a TBN below 235, nor that the original specification did comprise any explicit reference to TBN at all, apart from the examples. He emphasised that the technical teaching as set out in the patent in suit on page 2, lines 5 to 11 and lines 53 to 55 was the discovery that particular properties of overbased lubricating oil additives of the state of the art could be improved (e.g. the viscosity could be reduced) by the addition of selected carboxylic acids and that the respective passages were never changed in the course of the examination proceedings. This technical teaching applied to all overbased additives of the state of the art and preferably to those described in

(2) GB-A-1 470 338 and
(3) GB-A-1 469 289

which both were referred to in the application as filed and, therefore, have to be considered as a source of disclosure.

According to the Respondent, the feature of a "TBN of at least 235" was admittedly of great importance for limiting the scope of protection of the patent in suit but of no relevance to its technical teaching. The Respondent further maintained that there was a basis for a "TBN of at least 235" in the application as originally filed, as it contained many working examples with compositions having a TBN of 235 or higher. The reference in the patent in suit to high basicity (page 2, line 3) or high alkalinity (page 3, lines 9 to 10), which terms go parallel with high TBN, and the fact that no upper limit was mentioned in the patent in suit (or in the underlying application as originally filed) did not require the inclusion into Claim 1 of an upper limit for the TBN. Furthermore, as the skilled person would have known from common general knowledge that problems of e.g. unfavourable high viscosities were more pronounced with overbased additives having a high TBN he would have been aware also that the technical teaching was more linked to such compositions.

VI. The Appellant requested that the decision under appeal be set aside and that the European patent No. 0 094 814 be revoked. The Respondent requested that the appeal be dismissed and that the patent be maintained unamended or, alternatively be maintained on the basis of the one of the four sets of claims submitted on 4 October 1994 as auxiliary requests 1 to 4. The respective Claims 1 of these auxiliary requests differ from the Claim 1 as

granted and as quoted above by replacement of "having a high TBN for" by:

(a) "having a TBN of at least 235" (first alternative);
(b) "having a TBN of not less than 235 (second alternate);
(c) "having a high TBN of at least 235" (third alternative);
(d) "having a high TBN of not less than 235" (fourth alternative).

At the end of the oral proceedings which took place on 25 October 1994, the chairman announced the Board's decision to allow the appeal.

Reasons for the Decision

1. The appeal is admissible.

2. The only issue to be decided in this case is, whether or not the patent in suit complies with the requirements of Article 123(2) EPC, i.e. whether the incorporation of "having a high TBN", e.g. in Claim 1, and defining this expression either as having "a TBN of at least 235" (in the specification [main request] or in the claims [auxiliary requests 1 and 3]) or as having "a TBN of not less than 235" (auxiliary requests 2 and 4) was an allowable amendment under the said Article.

Main Request

3. While the term "high TBN" used in Claim 1 as granted is rather vague as such, it is explicitly defined in the specification of the patent in suit as a "TBN of at least 235" (page 2, line 64) and the Board, therefore, construes "high TBN" as meaning "high TBN of at least 235". The range of TBN values corresponding to this definition has a lower limit of 235 but no upper limit and was not explicitly disclosed in the specification as originally filed. Thus, it has to be investigated whether or not it was implicitly disclosed originally.

4. The Respondent conceded that the original application documents did not comprise any explicit reference at all to TBN, apart from the examples. Whenever "TBN" can be found in the generic specification of the patent in suit (page 2, lines 56 and 65; page 3, lines 50, 51, 53, and 54; page 4, line 12) such references were not present in the application as filed but result from amendments executed in the course of the examination proceedings with approval of the Examining Division. However, it is also out of dispute, that the value of 235, which serves as the lower limit of the claimed TBN range, can be found in example 24 and was originally disclosed.

5. The Respondent's main argument in support of the admissibility of the amendment under consideration was that it practically amounted to a disclaimer by which the subject matter claimed should be distinguished over a particular state of the art as disclosed in document (1).

5.1 According to the established jurisprudence of the Boards of Appeal, subject-matter which is broadly

disclosed in generic terms may be delimited, in case of an anticipation by prior art, in such a way that the latter (i.e. that what is known) is excluded from the protection aimed at by disclaiming it, even in the absence of express support in the description for the excluded subject-matter (T 4/80, OJ EPO 1982, 149; T 170/87, OJ EPO 1989, 441; and T 433/86, not published in the OJ EPO). This precondition is not met in the present case, as TBN-values were not disclosed as a (broad) range, but only as single, punctate values; therefore, it is out of question that only known subject-matter is deleted from an originally disclosed range, rather a new range is defined which originally was not disclosed.

5.2 The Respondent, on the contrary, argued that by disclosing single TBN-values in the examples, which have to be considered as the preferred embodiments of the invention, no disclosure of a generic range is required since thereby all conceivable TBN-values were implicitly disclosed. The Board does not accept this argument. The disclosure of a patent is determined by the technical teaching which a skilled person, having regard to his common general knowledge, would have drawn from it. Common general knowledge has to be proved by that party which relies on it. The Respondent, having the burden of proof, did not substantiate his allegation that the skilled person would have regarded the TBN-values of the examples only as a small section of a broad range.

5.3 As already indicated, the generic part of the original specification as such is silent as to TBN and consequently could not contain any information that TBN

plays any role in the framework of the application in suit.

5.3.1 The lack of any information regarding TBN in that part of the specification, which is not concerned with examples, plainly means that there is also no information, what so ever, to a TBN range, be it open ended or not.

5.3.2 The Respondent argued that the statements in the specification that the "lubricating oil additives ... have high basicity" (page 2, line 3) and that " 'overbased phenates' are high alkalinity ... phenates" (page 3, lines 9 and 10) would point to lubricating oil additives with high TBN as the terms "high basicity" and "high alkalinity" go parallel with the expression "high TBN". The Board accepts, that these terms are parallel in so far as a relative increase of the basicity or alkalinity of an additive means that also its TBN is increased. However, this cannot be construed as a disclosure of additives having high values - whatever this may mean - of TBN.

5.3.3 The lack of generic information on TBN distinguishes the present case from that which was decided by this Board, in a different composition, in the decision T 0343/90. In that case a viscosity range was introduced into a claim, the viscosity range having lower and upper limits corresponding to the lowest and to the highest values respectively given in the examples. This amendment was found to be allowable, because the importance of the viscosity in respect to the invention was disclosed in the description as filed (and the respective values in the examples were deemed

to support the range; T 0343/90, Reasons for the Decision No. 2.2, not published in the OJ EPO). Contrary to that, there is no information at all in the description of the patent in suit as filed regarding the contribution of the TBN to the solution of the technical problem to be solved.

5.3.4 The Respondent further argued, without providing evidence, that the skilled person would have known from common general knowledge that adverse properties of lubricating oil additives, such as high viscosities, were more pronounced with high TBN additives and that this amounted to an implicit disclosure of such compositions in the specification. He concluded that, therefore, the restriction of Claim 1 to additives with a high TBN of at least 235, had not amounted to an addition of new information to the application from which the patent in suit resulted. The Board cannot accept this argument. Even if it had been shown that highly overbased additive compositions showed unfavourable properties to a higher extent than less alkaline ones, this would not, in the absence of further information, distinguishably disclose a range of high TBN with no upper limit. Furthermore, in the present circumstances such an interpretation would be in clear contradiction to the specification indicating that additives of the state of the art should be improved, because such known additives may also have low TBNs (cf. below No. 5.3.5).

5.3.5 Further, the Respondent emphasised that the technical teaching of the patent in suit as originally disclosed consisted in the improvement of particular properties of overbased lubricating oil additives of the state of

the art by the addition of particular (selected) carboxylic acids, which teaching could be applied to all known overbased additives, in particular those preferred ones as described in documents (2) and (3) (both referred to already in the application as filed; page 7, lines 13 to 18) which have TBNs reaching above 235.

According to document (2) the TBN "can vary from 150 to 500, usually 200 to 300, e.g. 240 to 260" (page 3, lines 66 to 68); and according to document (3) the TBN is usually "of about 200 to 250, e.g. about 225" (page 4, lines 15 and 16). Therefore, even if the Board accepted that the teaching of these two documents were incorporated by reference into the patent in suit, this would not support an open ended TBN range, since both documents disclose only additives with TBNs falling within ranges having upper limits of 500 or 250, respectively. Moreover, the present claim does not reflect the lower limit disclosed in these documents but was limited to 235. Thus, the claimed range is the result of an arbitrary selection without having sufficient basis in the specification as filed.

5.3.6 Even if the examples, in which distinct TBN-values are given, are considered in connection with the specification, no particular significance of these values becomes evident. The present patent aims at overcoming the shortcomings of known additive concentrates because of their tendency of sedimentation and foaming (page 2, lines 5 to 89). This is achieved by adding particular carboxylic acids either during the preparation of the additives or to the formed additive concentrates, which addition may also result in a

viscosity reduction (page 2, lines 8 to 11). Accordingly, the foaming tendency, the kinematic viscosity and the sedimentation stability of the claimed concentrates is measured in the examples and is compared with those of known concentrates. The indication of the TBN in the examples serves, as does the specification of the sulphur and of the calcium or the magnesium contents, to characterise the additive concentrates prior to (examples 1 to 7 and 23 to 26) or after (examples 8 to 21) the acid addition in accordance with the patent. Neither can it be concluded therefrom that TBN is of any significance in respect to the solution of the existing technical problem, nor that the individual TBN values disclosed in the examples are representative for a TBN range starting at 235 and without any upper limit.

6. The Board does not accept the Respondent's further argument that the Enlarged Board's decision G 1/93 (OJ EPO, 1994, 541) would help in his case.

6.1 Two situations are set out in No. 16 of the Reasons of this decision (OJ EPO 1994, 553) as governing the admissibility of an amendment under Article 123(2) EPC. In the first situation the amendment "... although limiting the scope of protection conferred by the patent, has to be considered as providing a technical contribution to the subject-matter of the claimed invention ...", which would be contrary to the purpose of Article 123(2) EPC "... to prevent an applicant from getting an unwarranted advantage by obtaining patent protection for something he had not properly disclosed and maybe not even invented at the date of filing of the application ...". In the second situation the

amendment merely amounts to an exclusion of "... protection for part of the subject-matter of the claimed invention as covered by the application as filed ...". In such a situation, which the Respondent submits to be the prevailing one in the present case, the amendment would be allowable as not giving any unwarranted advantage to the applicant.

6.2 Contrary to the Respondent, the Board considers that the addition of "having a high TBN of at least 235" provides a technical contribution to the claimed invention as it not only introduces a technical parameter (TBN) on which no information was available in the original specification - apart from the examples - but, moreover, selects a particular range of TBN which was not originally disclosed, neither explicitly nor implicitly as explained herein above.

6.3 It is also important to note that the Respondent, by not disclosing the particular state of the art of document (1) but rather selecting a TBN of 235 as the lower limit of the TBN range, gained more distance from this state of the art which improved his position at least in relation to the Examining Division, who did not further pursue a lack of inventive step objection raised in their first communication. This is confirmed by the Respondent's submission that problems relating to adverse properties of lubricating oil additives are more pronounced with those having a high TBN (these are, in his terminology, those with a TBN of at least 235), which of course would make it easier to demonstrate beneficial effects of the claimed compositions and, thus, would facilitate the defence of the patent in suit in possible future invalidation

proceedings. The Board considers that such an improvement of the Respondent's position would be an unwarranted advantage (see also G 1/93, No. 9 of the Reasons for the decision; OJ EPO 1994, 541, 549).

7. It follows therefrom that Claim 1 as granted does not comply with the requirements of Article 123(2) EPC.

Auxiliary Requests

8. The respective Claims 1 of all the auxiliary requests contain, while being slightly different in their respective wording, the same new and not originally disclosed feature of an open ended TBN range of from 235 upwards. Therefore, they all are not allowable for violating Article 123(2) EPC for the same reasons as given already in relation to the main request.

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:

E. Görgmaier A. Jahn