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**Datasheet for the decision
of 4 April 2007**

Case Number: T 0483/05 - 3.3.06

Application Number: 96925366.5

Publication Number: 0854903

IPC: C10L 1/30

Language of the proceedings: EN

Title of invention:

Methods for reducing harmful emissions from a diesel engine

Applicant:

Clean Diesel Technologies Inc.

Opponent:

-

Headword:

Diesel emissions/CLEAN DIESEL

Relevant legal provisions:

EPC Art. 84, 123(2)(3), 54

Keyword:

"Decision on the state of the file"
"Allowability of amendments - no"
"Novelty - no"

Decisions cited:

-

Catchword:

-



Case Number: T 0483/05 - 3.3.06

D E C I S I O N
of the Technical Board of Appeal 3.3.06
of 4 April 2007

Appellant: Clean Diesel Technologies Inc.
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Representative: Wibbelmann, Jobst
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 11 November 2004
refusing European application No. 96925366.5
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: P.-P. Bracke
Members: G. Dischinger-Höppler
U. Tronser

Summary of Facts and Submissions

I. This appeal is from the decision of the Examining Division to refuse the European patent application No. 96 925 366.5 (international publication no. WO-A-97/04045) entitled "Methods for reducing harmful emissions from a diesel engine".

The decision under appeal was based on amended sets of claims (Claims I, II, III and IV) according to a main and three auxiliary requests filed during oral proceedings before the Examining Division.

II. In its decision, the Examining Division held that the introduction of the feature "without using a particulate trap" in Claim 1 of the main request constituted an unallowable disclaimer and, therefore, a violation of Article 123(2) EPC. Further, the subject-matter of Claim 1 of the auxiliary requests was held to be anticipated by the disclosure of

D2: WO-A-94/11467.

III. With its statement of grounds of appeal filed under cover of a letter dated 10 March 2005, the Applicant, now Appellant, filed amended sets of claims in a new main (Claims I) and auxiliary request (Claims II).

Claim 1 of the main request reads:

"1. A method for reducing the emissions of hydrocarbons and carbon monoxide from a diesel engine directly out of the engine without using a particulate trap comprising:

- adding a fuel-soluble platinum group metal composition and at least one auxiliary catalytic compound comprising fuel-soluble compounds of cerium to a diesel fuel in effective amounts to lower the emissions of unburned hydrocarbons and carbon monoxide; and
- operating a diesel engine by burning the fuel."

Claim 1 of the auxiliary request differs therefrom in that the term "without using a particulate trap comprising" has been replaced by "consisting of".

- IV. The Appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of the new main request or, alternatively on the basis of the claims of the new auxiliary request, or that the case be remitted to the first instance for further prosecution on the basis of the claims of the new main and auxiliary requests.

In the case that none of these requests can be granted in writing, the Appellant, further, requested that oral proceedings before the Board be scheduled.

- V. The Appellant, in its statement of grounds of appeal provided arguments in support of its opinion that the contested decision was incorrect.

Concerning the wording "without using a particulate trap" was submitted that support was given in the original description for the following reasons:

- Claim 5 as filed recited a method of improving the operation of a diesel engine by lowering the emissions of unburned hydrocarbons and carbon monoxide, wherein a platinum group metal catalyst composition is introduced into the fuel.
- Claim 7 was dependent on Claim 5 and called for the use of a platinum group metal catalyst composition in combination with a cerium compound.
- Since Claim 5 as filed was silent about a diesel trap and the presence of a trap was specifically addressed in Claim 8 which was dependent on Claim 7, it was evident that original Claim 5 embraced both, the presence and absence of a trap.
- Further, it was stated on page 9, lines 22 to 24, of the description that the use of a diesel trap was just a preferred embodiment, the improvements taking place directly out of the engine.
- Moreover, Example 7 related to the combined use of a platinum compound and a cerium compound and showed the effect of reducing the emissions of pollutants directly out of the engine, without using a particulate trap.

Concerning novelty, it was submitted that due to the feature of working without the use of a particulate trap, the claimed subject-matter was novel over the disclosure of D2 where a trap was required and where it was stated that "the fuel additives of the invention

improve the operation of a diesel trap". Reference was made to all claims and page 12, lines 7 to 9 of D2).

VI. In a communication dated 30 November 2006 and annexed to the summons for oral proceedings held on 4 April 2007, the Board drew attention to problems under Articles 84, 123(2) and 54 EPC and gave the following reasons leading to its preliminary and non-binding opinion that the amendments made to the claims were not allowable and that the claimed subject-matter was not novel:

"4. Amendments

4.1 The term "directly out of the engine" seems not to be explicitly contained in the application as filed.

During the Examining Proceedings, the Appellant in its letter dated 22 September 2004 (page 3, lines 1 to 6) indicated that the term was implicitly disclosed since according to "original Claim 5, Example 7 and page 9, lines 22 to 24 ... a diesel particulate trap is just a preferred embodiment; the improvements taking place also in the absence of a diesel particulate trap, thus directly out of the engine".

The Board concludes from this statement that the terms "directly out of the engine" and "without using a particulate trap" are meant to be synonyms. As a consequence, one of the terms appears to be redundant in Claim 1 of the main

request contrary to the conciseness requirement under Article 84 EPC.

- 4.2 The Board notes that it appears from the above statement that the method of Claim 1 of the auxiliary request differs in technical terms from that of Claim 1 of the main request only in that it consists of the steps of adding the additives and operating the engine instead of comprising those steps.
- 4.3 The Board does not, at present, see where in the application as filed the combination of features set out in Claim 1 of either request is disclosed.

In particular, Claims 5 to 7 of the application as filed do not appear to refer to platinum group metal compositions which are fuel-soluble but to those which are water-sensitive or water-soluble (see also page 38, line 14 to page 39, line 9). There appears to be no indication in the application as filed that fuel-soluble compounds might be suitable if no particulate trap was used. The Appellant's reference to page 9, lines 22 to 24, seems unsuitable as a basis since it does not mention the type of emissions to be reduced.

The Appellant's reference to Example 7 in relation to a possible omission of a particulate trap is not understood since Example 7 appears to explicitly mention that a trap is used, although not the same as in Example 3 (page 60, lines 20 to 24).

Moreover, Claims 5 to 7 specify particular amounts of the platinum group metal compound and cerium compound to be used. The term "effective amount to lower the emissions of unburned hydrocarbons and carbon monoxide" appears to be broader and not disclosed in relation to an embodiment not using a particulate trap.

Further, Claims 5 to 7 do not appear to relate to a cerium compound which is fuel-soluble or to the addition of auxiliary catalytic compounds other than one single cerium compound.

The combination of features set out in Claim 1 (both requests) appears, therefore, to amount to an unacceptable singling out of what has not clearly and unambiguously been disclosed in the application as filed, thereby violating the provisions of Article 123(2) EPC.

Finally, Claim 4 appears to introduce subject-matter contrary to the provisions of Article 123(2) EPC since original Claim 9 as a possible basis for it, only refers to original Claim 5 which, however, does not include a cerium compound.

5. Novelty

At present, it appears that the subject-matter of Claim 1 of either request is anticipated by Claim 21 of D2 which does not require a particulate trap, even though no counterpart for

this claim appears to exist in the description of D2. The Board wishes to note that Claim 21 of D2 seems to disclose the addition of the platinum group metal composition together with each and every single compound listed in the group concerning the other catalytic compounds.

The same applies to the subject-matter of Claims 2 and 3 which appear to be anticipated by Claims 22 and 23 of D2.

Attention is drawn to the fact that the term "consisting of" in Claim 1 of the auxiliary request does not appear to exclude the passing of the exhaust from the operation of the engine through the exhaust system as required in Claim 21 of D2."

The Appellant was finally informed that inventive step could not be assessed since it was not possible to distinguish the method of Claim 1 of both requests from that disclosed in Claim 21 of D2 and requested to file any reply within two months of the deemed date of receipt of the communication.

VII. In reply, the Appellant informed the Board by letter dated 17 January 2007 that the request for oral proceedings was withdrawn.

VIII. At the end of the oral proceedings held in the absence of the Appellant, the Board gave its decision.

Reasons for the Decision

1. The Board interprets the Appellant's reply of 17 January 2007 as a request for a decision "according to the state of the file".
2. In the communication dated 30 November 2006, the Board raised doubts as to whether the claims on file met the requirements of Articles 123(2) and 84 EPC and objections under Article 54 EPC by explaining the reasons and why in the Board's non-binding and provisional opinion the subject-matter claimed in both requests was held to be not novel over the disclosure of D2.
3. The Appellant did not reply in substance to these objections or attend the oral proceedings which were scheduled for and held on 4 April 2007. Since there was no attempt by the Appellant to refute or overcome the objections raised in the above communication, the Board has no reasons to depart from its preliminary opinion expressed in said communication.
4. Having regard to the above, the Board concludes - for the reasons set out in the communication (point VI above) - that the amendments made to the claims are not allowable under Articles 84 and 123(2) EPC and that the subject-matter of Claim 1 according to both of the Appellant's requests is not novel over the disclosure of D2 as required by Article 52(1) EPC in combination with Article 54 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

G. Rauh

P.-P. Bracke