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**Datasheet for the decision
of 14 July 2020**

Case Number: T 0042/17 - 3.4.02

Application Number: 11010203.5

Publication Number: 2469259

IPC: G01M15/10, F02B77/08

Language of the proceedings: EN

Title of invention:

Exhaust gas analyzing system and exhaust gas analyzing method

Patent Proprietor:

Horiba, Ltd.

Opponent:

AVL Emission Test Systems GmbH

Headword:

Relevant legal provisions:

EPC Art. 123(2)
RPBA 2020 Art. 13(2)

Keyword:

Amendments - added subject-matter (yes)
Late-filed auxiliary requests - admitted (no)

Decisions cited:

Catchword:



Beschwerdekammern
Boards of Appeal
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Case Number: T 0042/17 - 3.4.02

D E C I S I O N
of Technical Board of Appeal 3.4.02
of 14 July 2020

Appellant: Horiba, Ltd.
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Respondent: AVL Emission Test Systems GmbH
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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 22 November
2016 revoking European patent No. 2469259
pursuant to Article 101(3)(b) EPC.**

Composition of the Board:

Chairwoman: T. Karamanli
Members: H. von Gronau
F. J. Narganes-Quijano

Summary of Facts and Submissions

- I. The appeal of the patent proprietor (appellant) is directed against the decision of the opposition division revoking European patent No. 2469259. The opposition division revoked the patent on the ground that the subject-matter of claim 1 of the then main request, as filed with the letter dated 29 September 2016, extended beyond the content of the application as originally filed, contrary to Article 123(2) EPC, and the invention defined in claim 1 of the then auxiliary request 1 as filed during the oral proceedings before the opposition division was considered not to be disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art and thus the requirement of Article 83 EPC was not fulfilled.

- II. With the statement setting out the grounds of appeal dated 31 March 2017, the appellant requested that the decision under appeal be set aside and that the patent be maintained as amended on the basis of the claims according to the main request filed on 29 September 2016 or, as an auxiliary measure, on the basis of the claims according to auxiliary request 1 filed during the oral proceedings of 3 November 2016, or according to auxiliary request 2 as enclosed with the statement setting out the grounds of appeal.

- III. In its reply dated 4 August 2017, the opponent (respondent) requested that the appeal be dismissed.

- IV. With a letter dated 28 August 2018, the appellant filed new claims according to auxiliary requests 1 to 5 and requested that the patent be maintained on the basis of

the claims of the main request filed on 29 September 2016 or on the basis of the claims of one of auxiliary requests 1 to 5 filed with the letter dated 28 August 2018.

- V. As an auxiliary measure, both parties requested that oral proceedings be held.

- VI. The board issued a summons to oral proceedings dated 29 January 2020. In a communication pursuant to Article 15(1) of the revised version of the Rules of Procedure of the Boards of Appeal (RPBA 2020, OJ EPO 2019, A63), the board gave its provisional opinion that, *inter alia*, the subject-matter of claim 1 of the main request and auxiliary requests 1 and 2 extended beyond the content of the application as filed contrary to Article 123(2) EPC.

- VII. By letter dated 15 June 2020, the appellant filed amended claims according to auxiliary request 2 and 3.

- VIII. On 14 July 2020, oral proceedings were held before the board.

The parties confirmed their final requests as follows.

The appellant (patent proprietor) requested that the decision under appeal be set aside and that the patent be maintained as amended on the basis of the claims according to the main request filed by letter dated 29 September 2016 or, as an auxiliary measure, on the basis of the claims according to auxiliary request 1 filed by letter dated 28 August 2018, or according to one of auxiliary requests 2 or 3 filed by letter dated 15 June 2020.

The respondent (opponent) requested that the appeal be dismissed.

At the end of the oral proceedings the chairwoman announced the board's decision.

IX. Claim 1 according to the main request filed with letter dated 29 September 2016 reads as follows:

"An exhaust gas analyzing system (100),

which comprises, on an upstream side of an analytical instrument (2):

an exhaust gas introduction pipe (3) of which one end is opened to an exhaust gas flow path (30) through which exhaust gas from an engine (E) flows and the other end is connected to the analytical instrument (2), and

a switching mechanism (4) that is configured to selectively switch between a sampling path (L1) that is configured to sample the exhaust gas from the exhaust gas introduction pipe (3) to introduce the sampled exhaust gas into the analytical instrument (2) and an air introduction path (L2) that is configured to introduce air into the analytical instrument (2),

wherein a control device (5) is provided that is configured to control - upon receipt of an engine operation related signal indicating whether or not the engine is in an operating state - the switching mechanism (4),

and wherein the exhaust gas analyzing system (100) is configured such that

(A) when the engine (E) is switched from a stopped state to an operating state, a path to the analytical instrument (2) is switched to the sampling path (L1) by the control device (5) controlling the switching mechanism (4), whereas

(B) when the engine (E) is switched from an operating state to a stopped state, the path is switched to the air introduction path (L2) by the control device (5) controlling the switching mechanism (4),

wherein in case of stopping the measurement with the analytical instrument (2) in accordance with the stop of the engine, a delay time caused by the exhaust gas that flows from a sampling point to the analytical instrument (2) is considered for the measurement by the analytical instrument (2),

wherein the exhaust gas analyzing system (100) is configured to measure the delay time as a delay time at the time of measurement stop, by comparing timing of the switching of the gas flow path to the air introduction path (L2) with a fall timing of the indication of the analytical instrument (2)."

Claim 1 of auxiliary request 1 differs from claim 1 of the main request in that the penultimate paragraph of the claim reads:

"wherein in case of stopping the measurement with the analytical instrument (2) in accordance with the stop of the engine, a delay time caused by the exhaust gas that flows from a sampling point to the analytical instrument (2) is used for calculating the exhaust amount for improving accuracy of the exhaust amount calculation,"

Reasons for the Decision

1. The appeal is admissible.

2. Main request - claim 1 - amendments (Article 123(2) EPC)
 - 2.1 The opposition division decided that the subject-matter of claim 1 of the main request filed by letter dated 29 September 2016 extended beyond the content of the application as filed. It considered four issues of alleged added subject-matter: issues a), b), c), and d) (see Reasons for the decision under appeal, 2.1). With respect to issue b), it considered that the last two features of claim 1 had been taken from paragraphs [0032] and [0033] of the application as originally filed. According to paragraph [0033], there would be merely two possibilities to measure the time delay, namely using a standard gas with known component concentrations or bringing the engine into a steady state. However, the features of claim 1 did not contain either of these possibilities but rather any possible gas and even the exhaust gas of the engine in normal operation. This amendment would according to the opponent represent an intermediate generalisation that would add subject-matter not originally disclosed. The opposition division did not follow the opponent's view but saw an issue in view of Article 83 or 84 EPC because the features of claim 1 kept how the delay time was measured vague and undefined (see Reasons for the decision under appeal, 2.1.1.2).
 - 2.2 The appellant agreed with the opposition division that the amendment did not represent an unallowable intermediate generalisation (see letter dated 28 August 2018, section A.1.2). At the oral proceedings before the board, the appellant argued that in paragraph [0033] of the application as originally filed it was disclosed how the delay time was measured with a standard gas or by bringing the engine into a steady

state with an exhaust gas of constant concentration. The person skilled in the art would have learned from paragraph [0033] that the concentration of the gas components was not essential for determining the delay time and that only the time when the analytical instrument detected the fall of any concentration because of switching the gas flow path to the air introduction path was. From paragraph [0018], the person skilled in the art would have known how to measure different components which would be used to determine the delay time. Therefore, the person skilled in the art would have known from the disclosure of paragraph [0033] that the delay time could be determined with any gas, even with normal exhaust gas. The subject-matter of claim 1 therefore did not include undisclosed subject-matter.

- 2.3 The respondent argued that the person skilled in the art would not have received any pointer from the wording of claim 1 on how the delay time could be determined so that any possible delay time determination fell within the ambit of claim 1. This represented a generalisation in comparison to the original disclosure (see reply dated 4 August 2017, page 4, last paragraph). At the oral proceedings before the board, the respondent argued that for measuring the delay time, claim 1 did not specify any type of gas and that therefore normal exhaust gas during the changing operation of the engine was also covered by the wording of claim 1. But, for determining the delay time, it was only disclosed in paragraph [0033] to use standard gas or gas of constant concentration by bringing the engine into a steady state. Since the claim allowed any gas including normal exhaust gas, it represented an unallowable intermediate generalisation. Paragraph [0018] disclosed how the components of the gas could be

measured but did not represent a disclosure that any gas could be used to determine the delay time.

2.4 The board shares the view of the respondent. How the delay time can be measured is disclosed in paragraph [0033] of the application as originally filed. This paragraph discloses gases that can be used ("standard gas of which component concentrations are known, or the like", or making "an exhaust gas concentration constant" by bringing the engine into a steady state). These gases are supplied to the upstream side opening of the exhaust gas introduction pipe. Claim 1 does not define that the system is configured to supply a gas of constant or known concentration to the upstream side opening of the exhaust gas introduction pipe. According to the claim, the system could be configured to use also normal exhaust gases during the changing operation of the engine for measuring the delay time. However, this possibility is neither explicitly disclosed nor can it be directly and unambiguously derived from the content of the application as originally filed.

2.5 Therefore, the amendment to claim 1 of the main request represents an unallowable intermediate generalisation of the content of the application as originally filed. Consequently, the requirements of Article 123(2) EPC are not met.

3. Auxiliary request 1 - claim 1 - amendments (Article 123(2) EPC)

3.1 At the oral proceedings before the board, the respondent emphasised that the unallowable intermediate generalisation in claim 1 of the main request was also present in claim 1 of auxiliary request 1. The

respondent stated that therefore it did not wish to make any further submissions in this respect.

3.2 At the oral proceedings before the board, the appellant also did not make further comments with respect to the issue of Article 123(2) EPC.

3.3 The board concludes that the amendment to claim 1 of auxiliary request 1 does not meet the requirements of Article 123(2) EPC for the same reasons as those given in point 2 above in respect of claim 1 of the main request.

4. Auxiliary requests 2 and 3 - admittance (Article 13(2) RPBA 2020)

4.1 In the present case, the summons to oral proceedings was notified after 1 January 2020. Thus, in accordance with Article 25(1) and (3) RPBA 2020, Article 13(2) RPBA 2020 applies to any amendment to the appellant's appeal case made after notification of the summons. Auxiliary requests 2 and 3 were filed by letter dated 15 June 2020, i.e. after the notification of the summons to oral proceedings. Therefore, Article 13(2) RPBA 2020 applies with respect to the question of whether these requests should be admitted into the appeal proceedings.

4.2 The respondent requested that auxiliary requests 2 and 3 be not admitted into the appeal proceedings pursuant to Article 13(2) RPBA. According to the respondent's view, there were no exceptional circumstances when the board expressed its provisional opinion. The board's communication contained nothing new in comparison to the first-instance proceedings. Therefore, auxiliary requests 2 and 3 should have been filed at the latest

with the statement of the grounds of appeal. In addition, the amendments to the claims of auxiliary requests 2 and 3 introduced new issues and did not solve the issues of Article 123(2) EPC raised with respect to the main request and auxiliary request 1.

4.3 The appellant argued that the amendments to the claims of auxiliary requests 2 and 3 were admissible because they were a reaction to the provisional opinion of the board. In its communication, the board expressed a preliminary opinion which differed from the finding of the opposition division as far as issue b) was concerned. Therefore, it had even been necessary for the appellant to file the amended claims of auxiliary request 2. Moreover, this request was based on auxiliary request 4 which the appellant had already filed by letter dated 28 August 2018 to overcome the objections raised under issue b) in the decision under appeal. The additional features of claim 1 of the then auxiliary request 4 were now incorporated in claim 1 of the present auxiliary request 2 and the additional features of claim 1 of the then auxiliary request 5 were incorporated in claim 1 of the present auxiliary request 3. Auxiliary requests 2 or 3 therefore solved all issues at question and added no new issues.

4.4 According to Article 13(2) RPBA 2020, any amendment to a party's appeal case made after notification of a summons to oral proceedings should, in principle, not be taken into account unless there were exceptional circumstances, which had been justified with cogent reasons by the party concerned, i.e. in the present case, by the appellant. According to the Explanatory remarks to Article 13(2) RPBA in document CA/3/19, section VI, at the third level of the convergent approach applicable in appeal proceedings, the

appellant had to present compelling reasons which justified clearly why the circumstances leading to the amendments were indeed exceptional in the present case. If the appellant submits that the board has raised an objection for the first time in its communication, it must explain precisely why this objection was new and did not fall under objections previously raised by the opposition division or the respondent. However, the board cannot see any exceptional reason in the fact that the board expressed its provisional opinion on the issues at question. The issues at question were already discussed at the first-instance proceedings and had been referred to by the respondent in its reply to the appellant's grounds of appeal. The appellant had therefore to expect that the board might express a provisional opinion that would be different from the opinion of the opposition division. The appellant did not demonstrate that the board's provisional opinion contained any objection that had never been raised before.

- 4.5 Since there were no exceptional circumstances which had been justified with cogent reasons by the appellant in support of the admission of the amendments to its appeal case, the board exercised its discretion under Article 13(2) RPBA 2020 and decided not to admit auxiliary requests 2 and 3 into the appeal proceedings.
5. The board concludes that none of the appellant's requests is allowable. The appeal is therefore to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairwoman:



M. Kiehl

T. Karamanli

Decision electronically authenticated