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**Datasheet for the decision
of 17 April 2020**

Case Number: T 2112/16 - 3.2.06

Application Number: 08827129.1

Publication Number: 2175109

IPC: F01N3/00, F01N3/24, F01N13/00,
F02D35/00

Language of the proceedings: EN

Title of invention:
EXHAUST EMISSION CONTROL DEVICE

Patent Proprietor:
Hino Motors Ltd.

Opponents:
Eberspächer Exhaust Technology GmbH & Co. KG
Tenneco GmbH
IP Asset LLP

Headword:

Relevant legal provisions:
EPC Art. 116, 54, 123(2)
RPBA Art. 12(4)
RPBA 2020 Art. 13(1)

Keyword:

Oral proceedings - withdrawal of request for oral proceedings
Admissibility of appeal - (yes)
Novelty - main request (no)
Amendments - auxiliary request 1 - added subject-matter (yes)
Late-filed requests - auxiliary requests 2, 3 and 5 to 14 -
procedural economy - auxiliary requests 1A and 4 -
justification for late filing (no) - auxiliary requests 1A and
4 - request clearly allowable (no)

Decisions cited:

T 0634/16

Catchword:



Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 2112/16 - 3.2.06

D E C I S I O N
of Technical Board of Appeal 3.2.06
of 17 April 2020

Appellant:

(Patent Proprietor)

Hino Motors Ltd.
1-1, Hinodai 3-chome
Hino-shi
Tokyo 191-8660 (JP)

Representative:

Köhler, Walter
Louis, Pöhlau, Lohrentz
Patentanwälte
Postfach 30 55
90014 Nürnberg (DE)

Respondent:

(Opponent 1)

Eberspächer Exhaust Technology GmbH & Co. KG
Homburger Strasse 95
66539 Neunkirchen (DE)

Representative:

BRP Renaud & Partner mbB
Rechtsanwälte Patentanwälte
Steuerberater
Königstraße 28
70173 Stuttgart (DE)

Respondent:

(Opponent 2)

Tenneco GmbH
Luitpoldstrasse 83
67480 Edenkoben (DE)

Representative:

Thews, Gustav
STT Sozietät Thews & Thews
Patentanwälte
Augustaanlage 32
68165 Mannheim (DE)

Respondent:
(Opponent 3)

IP Asset LLP
Patent Formalities
Prama House
267 Banbury Road
Oxford
Oxfordshire
OX2 7HT (GB)

Representative:

Boult Wade Tennant LLP
Salisbury Square House
8 Salisbury Square
London EC4Y 8AP (GB)

Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted on 13 July 2016 revoking European patent No. 2175109 pursuant to Article 101(3) (b) EPC.**

Composition of the Board:

Chairman M. Hannam
Members: P. Cipriano
E. Kossonakou

Summary of Facts and Submissions

- I. The appellant (patent proprietor) filed an appeal against the revocation of European Patent No. 2 175 109 by the opposition division.
- II. The appellant requested that the decision of the opposition division be set aside and the patent be maintained as granted or according to one of auxiliary requests 1 to 14. Subsidiarily, it also requested oral proceedings.
- III. The respondents I to III (opponents 1 to 3, respectively) requested that the appeal be dismissed and the patent be revoked. In addition, respondent III requested that the appeal as a whole be considered inadmissible and that costs be awarded, if the Board were to find the appeal as a whole inadmissible. Subsidiarily, respondent III also requested oral proceedings.
- IV. The following document, referred to by the appellant in its grounds of appeal, is relevant to the present decision:

D1 EP 1 788 212 A1
- V. With letter dated 28 August 2017, the appellant filed new auxiliary requests 1A and 4, the latter replacing the previous auxiliary request 4.
- VI. The Board issued a summons to oral proceedings and a subsequent communication containing its provisional opinion. It indicated *inter alia* that the appeal as a

whole seemed to be admissible, but that D1 seemingly disclosed the subject-matter of claim 1 of the main request and that the subject-matter of claim 1 of auxiliary request 1 extended beyond the content of the application as originally filed. In addition, the admittance of auxiliary requests 1A to 14 might require discussion at the oral proceedings, the filing of auxiliary request 1A having had the effect of all lower ranking requests constituting a change of the appellant's complete case.

- VII. With letter dated 5 March 2020 the appellant stated that it would not attend the oral proceedings and requested that a decision be taken on the basis of the arguments provided in the written procedure.
- VIII. With letter dated 13 March 2020 respondent III withdrew its request for an award of costs. Oral proceedings were requested in the event that the Board was minded to reach a decision other than the dismissal of the appeal.
- IX. The oral proceedings were duly cancelled.
- X. Claim 1 of the main request reads as follows:

"1. An exhaust emission control device, characterized in that it comprises a cylindrical body (8) for encasing a catalyst carrier (6), a pipe (9B) in parallel with said cylindrical body (8), a dispersion chamber (9C) for encircling an exhaust inlet end of said cylindrical body (8) to guide engine exhaust (3) having passed through the pipe to the exhaust inlet end of the cylindrical body (8) and a sensor (15) attached to said cylindrical body (8), attachment position of the sensor (15) to the cylindrical body (8) being set

to a part region of a 360° region around an axis of the cylindrical body (x1) when viewed from the exhaust inlet end of the cylindrical body (8), said part region being opposite to the pipe (9B) with respect to a border line (y1) perpendicular to an exhaust-flow center line (e1) connecting axes (x2 and x1) of the pipe (9B) and of the cylindrical body (8) and crossing said axis (x1) of the cylindrical body (8) to extend diametrically of the cylindrical body (8)."

Claim 1 of auxiliary request 1 reads as follows:

"1. An exhaust emission control device, characterized in that it comprises a cylindrical body (8) for encasing a catalyst carrier (6), a pipe (9B) in parallel with said cylindrical body (8), a dispersion chamber (9C) for encircling an exhaust inlet end of said cylindrical body (8) to guide engine exhaust (3) having passed through the pipe (9B) to the exhaust inlet end of the cylindrical body (8), wherein the pipe (9B), the dispersion chamber (9C) and the cylindrical body (8) form a 180° turn in flow direction of the engine exhaust (3), wherein the pipe (9B) and the cylindrical body (8) are arranged side by side, and a sensor (15) attached to said cylindrical body (8), attachment position of the sensor (15) to the cylindrical body (8) being set to a part region of a 360° region around an axis of the cylindrical body (x1) when viewed from the exhaust inlet end of the cylindrical body (8), said part region being opposite to the pipe (9B) with respect to a border line (y1) perpendicular to an exhaust flow center line (e1) connecting axes (x2 and x1) of the pipe (9B) and of the cylindrical body (8) and crossing said axis (x1) of the cylindrical body (8) to extend diametrically of the cylindrical body (8)."

Claim 1 of auxiliary request 1A differs from claim 1 of auxiliary request 1 in that it further defines that:
"an exhaust inlet and an exhaust outlet of the dispersion chamber are coplanar"

Claim 1 of auxiliary request 4 reads as follows:

"1. An exhaust emission control device, characterized in that it comprises a cylindrical body (8) for encasing a catalyst carrier (6), the cylindrical body (8) encasing a selective reduction catalyst, a casing (7) encasing a filter for capture of particulates, the cylindrical body (8) and the casing (7) being arranged side by side, a communication passage (9) connecting an exhaust exit end of the casing (7) to an exhaust inlet end of the cylindrical body (8), a pipe (9B) in parallel with said cylindrical body (8), the pipe (9B) forming part of the communication passage (9), a dispersion chamber (9C) for encircling an exhaust inlet end of said cylindrical body (8) to guide engine exhaust (3) having passed through the pipe (9B) to the exhaust inlet end of the cylindrical body (8), the dispersion chamber (9C) forming part of the communication passage (9), wherein the pipe (9B), the dispersion chamber (9C) and the cylindrical body (8) form a 180° turn in flow direction of the engine exhaust (3), wherein the pipe (9B) and the cylindrical body (8) are arranged side by side, and a sensor (15) attached to said cylindrical body (8), attachment position of the sensor (15) to the cylindrical body (8) being set to a part region of a 360° region around an axis of the cylindrical body (x1) when viewed from the exhaust inlet end of the cylindrical body (8), said part region being opposite to the pipe (9B) with respect to a border line (y1) perpendicular to an

exhaust-flow center line (e1) connecting axes (x2 and x1) of the pipe (9B) and of the cylindrical body (8) and crossing said axis (x1) of the cylindrical body (8) to extend diametrically of the cylindrical body (8)."

XI. The arguments of the appellant may be summarised as follows:

Main request - Article 54 EPC

D1 did not disclose all the features of claim 1.

D1 did not disclose feature 3b ("*a pipe (20a) in parallel with said cylindrical body (50a)*") since the inlet pipe 20a and the body of the purification device 50a would need to be arranged side by side and run at a constant distance one to the other to be considered parallel.

D1 did not disclose the features 4 ("*a dispersion chamber*") and 4b ("*for encircling an exhaust inlet end of said cylindrical body*") since the dispersion chamber had to be a structural body between the pipe and the dispersion chamber and had to extend around the whole diameter (in the sense of its diameter having to be at least as big and overlapping that of the cylindrical body).

The subject-matter of claim 1 of the main request was thus novel.

Auxiliary request 1 - Article 123(2) EPC

Paragraph 12 and Figures 2 to 4 of the published patent application provided a basis for the amendment to claim 1.

Admittance of auxiliary requests 1A and 4

Figure 4 provided a basis for the feature "an exhaust inlet and an exhaust outlet of the dispersion chamber are coplanar" added to claim 1 of auxiliary request 1A.

The features added to claim 1 of auxiliary request 4 were based on paragraph [0024] of the publication of the application.

XII. The arguments of the respondents may be summarised as follows:

The appellant did not present any arguments regarding the admissibility of its appeal as a whole or the admittance of the main request or any of the auxiliary requests 1, 1A and 2 to 15.

Admissibility of the appeal

The appeal as a whole should not be admitted. The grounds of appeal did not contain any arguments as to why the decision was incorrect and was a mere repetition of the arguments made in the first instance.

Admittance of main request and auxiliary request 1

The main request and auxiliary request 1 should not be admitted into the proceedings since the arguments made in support of these were a mere repetition of the

arguments made in the first instance and contained no indication as to why the decision regarding novelty and inventive step of claim 1 of the main request and of auxiliary request 1 was incorrect.

Main request - Article 54 EPC

D1 disclosed all the features of claim 1.

"Parallel" did not mean side by side. The skilled person would understand that "parallel" must refer to the respective axes of the inlet pipe 20a and the body of the purification device 50a. Feature 3b was thus disclosed in D1.

The claim defined a chamber which consisted only of a closed space, the term "chamber" not implying an additional physical structure. The space within the cylindrical body 50a before the catalyst 51 had a larger diameter than the pipe 20a which dispersed the gas and was therefore a dispersion chamber. Feature 4 was thus disclosed in D1.

Figure 2 of D1 disclosed a dispersion chamber with the same diameter as that of the rest of the body of device 50a, i.e. the dispersion chamber overlapped the whole diameter of the cylindrical body in the same way as the dispersion chamber of the patent in Figures 1-4, which disclosed a dispersion chamber wall that overlapped and/or enclosed the outer walls of the pipe 9b and of the cylindrical body 8. Feature 4b was thus disclosed in D1.

Auxiliary request 1 - Article 123(2) EPC

The subject-matter of claim 1 extended beyond the content of the application as originally filed.

Figures 2 to 4 disclosed further features functionally and structurally linked to those added to claim 1 insofar as they all influenced the flow properties. All these features were thus only disclosed in combination.

Admittance of auxiliary requests 1A and 4

Auxiliary requests 1A and 4 were filed as an amendment to the appeal case and should not be admitted under Article 13(1) RPBA 2020 as they did not *prima facie* overcome the outstanding objection under Article 123(2) EPC.

Auxiliary requests 2, 3 and 5 to 14

The auxiliary requests did not converge. Claim 1 of auxiliary request 1A, which was introduced as an amendment to the appellant's case, defined a feature that was not present in any of the independent claims of the lower ranking requests.

Reasons for the Decision

1. *Request for oral proceedings - Article 116 EPC*
- 1.1 Oral proceedings were appointed by the Board at the request of both the appellant and the respondent III. The Board interprets the statement in the appellant's

letter of 5 March 2020 that they did not intend to attend the oral proceedings as being an implicit withdrawal of the request for oral proceedings, in accordance with the established case law of the Boards of Appeal. The appellant notably also chose not to file further arguments or amended requests in its reply to the Board's communication under Article 15(1) RPBA.

1.2 The request for oral proceedings of respondent III was conditional on the Board being minded to reach a decision other than the dismissal of the appeal.

1.3 Thus, since the Board is in a position to take a decision in respect of the appeal on the basis of the facts and submissions presently on file in compliance with the request of respondent III, the oral proceedings were duly cancelled.

2. *Admissibility of the appeal*

2.1 Respondent III requested that the appeal as a whole be considered inadmissible, arguing that the grounds of appeal did not contain any arguments as to why the decision was incorrect and was a mere repetition of the arguments made in the first instance.

2.2 As the Board already stated in points 1.1 and 1.2 of its preliminary opinion, the appeal contains reasoned arguments as to why the decision is incorrect and is not a mere repetition of those made in opposition proceedings. In its grounds of appeal the appellant contests the way the opposition division interpreted the terms "parallel", "encircling" and "dispersion chamber" in its decision and argues that this interpretation is relevant to establish which features are known from the prior art for novelty and inventive

step. This does not constitute a mere repetition of the arguments and enables the Board to understand why the appellant considers the opposition division's decision to be incorrect and to follow the appellant's arguments without having to make investigations of its own.

2.3 The Board also finds that the arguments of the respondents regarding lack of substantiation and lack of justification for auxiliary requests 2 to 15 do not render the appeal as a whole inadmissible and concern specifically the admittance of these auxiliary requests.

2.4 The appeal as a whole is thus admissible.

3. *Admittance of main request and auxiliary request 1*

3.1 In its reply to the grounds of appeal, respondent III submitted that the main request and auxiliary request 1 should not be admitted into the proceedings for essentially the same reasons to those presented in support of its opinion that the appeal as a whole be inadmissible, i.e. that the grounds were a mere repetition of the arguments made in the first instance and contained no arguments as to why the decision regarding novelty and inventive step of claim 1 of the main request and of auxiliary request 1 was incorrect.

As already pointed out above in point 2.2 referring back to points 1.1 and 1.2 of the preliminary opinion, the Board finds that the grounds of appeal are substantiated and accordingly deal *inter alia* with the requests that were put forward during the opposition proceedings and which correspond to the present main request and auxiliary request 1.

3.2 Respondent III did not present any further arguments in this regard in reply to the preliminary opinion of the Board, so that the Board has no reason to deviate from its preliminary opinion and to exclude the main request or auxiliary request 1 from the proceedings under Article 12(4) RPBA 2007.

4. *Main request - Article 54 EPC*

4.1 In its communication pursuant to Article 15(1) RPBA the Board considered that D1 disclosed all the features of claim 1. The following reasoning was given (see also points 3.2 and 3.3 of the communication):

4.2 Contrary to the argument of the appellant, the inlet 20a in Figure 2 of D1 was in parallel with the gas purification device 50a, since the axes of the inlet 20a and of the device 50a were parallel.

4.3 A dispersion chamber encircled the exhaust inlet of the cylindrical body 50a in D1 and that the term "chamber" did not imply, as argued by the appellant, an additional physical structure. The space within the cylindrical body 50a before the catalyst 51 thus had a larger diameter than the pipe 20a and dispersed the gas such that it could be considered a dispersion chamber. The feature "dispersion chamber" was thus disclosed in D1.

4.4 This dispersion chamber appeared to encircle the exhaust inlet of the cylindrical body 50a in D1, since it also overlapped the whole diameter of the cylindrical body in the same way as the dispersion chamber of the patent. As could be seen from Figures 3 and 4 of the patent, the outer wall of the body 9c defining the dispersion chamber coincided to some

extent with the outer surface of the cylindrical body 8 and enclosed it fully.

Since in D1 the dispersion chamber and the cylindrical body 50a also had coinciding outer surfaces, the Board found in its preliminary opinion that the skilled person would consider that the dispersion chamber also encircled the exhaust inlet in D1.

4.5 The Board therefore considered that the features "a dispersion chamber" and "[the dispersion chamber]for encircling an exhaust inlet end of said cylindrical body" also seemed to be disclosed in the embodiment of Figure 1.

4.6 Since no arguments were made by the appellant in reply to the preliminary opinion, the Board sees no reason to alter its preliminary finding in this regard, and thus confirms the same herewith.

4.7 Since D1 discloses all the features of claim 1, the subject-matter of claim 1 is not novel and does not fulfil the requirements of Article 54 EPC. The main request is thus not allowable.

5. *Auxiliary request 1 - Article 123(2) EPC*

5.1 Relative to claim 1 of the main request, claim 1 of auxiliary request 1 includes the following additional feature:

"wherein the pipe (9B), the dispersion chamber (9C) and the cylindrical body (8) form a 180° turn in flow direction of the engine exhaust (3), wherein the pipe (9B) and the cylindrical body (8) are arranged side by side".

5.2 The Board's provisional opinion (see points 4.1 to 4.4) was that the amendment to claim 1 extended its subject-matter beyond the content of the application as originally filed.

5.2.1 Contrary to the argument of the appellant, the Board stated namely that neither paragraph [0012] nor Figures 2 to 4 of the published patent application seemed to provide a basis for this amendment.

Figures 2 to 4 seemed to disclose further features disclosed in combination with those added to claim 1 and which could thus not be extricated from this combined disclosure due to the features' functional and structural link relating to influencing the flow properties. For example, the pipe and the cylindrical body were positioned next to each other in the radial direction and the pipe and the cylindrical body were flush with each other at both sides of the device or the pipe and the cylindrical body were positioned orthogonally to the dispersion chamber.

5.2.2 The appellant had argued further that no new technical effect would be caused by a "moderate" axial offset of the pipe 9B and cylindrical body such that such an offset could be allowable, but the Board did not find this argument convincing (see point 4.3). There seemed to be no direct and unambiguous disclosure of such an offset in the whole content of the application as originally filed.

5.2.3 Finally, the Board pointed out that paragraph [0012] seemed to describe the exhaust "flowing sideways" and "a perpendicular turnabout in the flow direction", not a 180 degrees turn.

5.3 Since no arguments were made refuting the Board's preliminary finding by the appellant, the Board sees no reason to alter it, and thus confirms the same herewith.

5.4 The subject-matter of claim 1 of auxiliary request 1 extends beyond the content of the application as originally filed and therefore does not fulfil the requirement of Article 123(2) EPC. Auxiliary request 1 is thus not allowable.

6. *Auxiliary requests 1A and 4 - admittance*

6.1 Auxiliary requests 1A and 4 were filed with letter of the appellant dated 28 August 2017 after it had filed its grounds of appeal and before the entry into force of the revised Rules of Procedure of the Boards of Appeal of the European Patent Office (hereinafter referred to as RPBA 2020) on 1 January 2020. The summons to oral proceedings were also notified to the parties before that date.

6.2 According to the transitional provisions stipulated in Article 25(1) RPBA 2020, the RPBA 2020 apply to any appeal pending on their date of entry into force (see e.g. T 634/16, Reasons 7 to 14). It follows that Article 13(1) RPBA 2020 applies to the present case.

6.3 The Board had already alerted the appellant in its preliminary opinion (see point 5.2) that the admittance of auxiliary requests 1A and 4 may have to be discussed with regard to the requirements of this provision.

6.4 Article 13(1) RPBA 2020 stipulates that any amendment to the case may be admitted only at the Board's

discretion. This discretion shall be exercised "in view of, *inter alia*, the current state of the proceedings, the suitability of the amendment to resolve the issues which were admissibly raised by another party in the appeal proceedings or which were raised by the Board, ..., and, ..., whether the party has demonstrated that any such amendment, *prima facie*, overcomes the issues raised by another party in the appeal proceedings or by the Board and does not give rise to new objections". The party shall also "provide reasons for submitting the amendment at this stage of the appeal proceedings".

6.5 Regarding this last requirement of Article 13(1) RPBA 2020, it is noted that the appellant did not provide any reason in any of its written submissions, why auxiliary requests 1A and 4 were submitted at this stage of the oral proceedings. Moreover, however, the amendments undertaken in each of the requests under consideration at least do not overcome the raised objections.

6.6 Claim 1 of auxiliary request 1A reads as claim 1 of auxiliary request 1 with the following feature having been added to the claim:

- an exhaust inlet and an exhaust outlet of the dispersion chamber are coplanar.

6.6.1 The appellant argued that this feature had a basis in Figure 4. This argument is not found persuasive by the Board. As stated above under point 5.2.1 in respect of auxiliary request 1, Figures 2 to 4 disclose a plurality of features in combination. The added features of claim 1 could not be extricated from this combination due to a functional and structural link

existing between all the features (all features relate to the flow properties), e.g. the pipe and the cylindrical body were positioned orthogonally to the dispersion chamber. The same still applies to the feature added to claim 1 of the present request.

6.6.2 Claim 1 of auxiliary request 1A therefore *prima facie* does not overcome the objections found to be valid with respect to claim 1 of auxiliary request 1. Its subject-matter thus fails to fulfill the requirement of Article 123(2) EPC.

6.7 Claim 1 of auxiliary request 4 reads as claim 1 of auxiliary request 1 with the following features having been added to the claim:

- the cylindrical body (8) encases a selective reduction catalyst, a casing (7) encases a filter for capture of particulates, the cylindrical body (8) and the casing (7) being arranged side by side, a communication passage (9) connects an exhaust exit end of the casing (7) to an exhaust inlet end of the cylindrical body (8),
- the pipe (9B) forms part of the communication passage(9).

6.7.1 The appellant argued that these additional features were based on paragraph [0024] of the application as published. However, regardless of its basis, the Board finds that these amendments do not relate to the claimed arrangement of the pipe, the dispersion chamber and the cylindrical body, which gave rise to the objection against claim 1 of auxiliary request 1. Thus they *prima facie* do not overcome the objection raised above for claim 1 of auxiliary request 1 either.

6.8 Since *prima facie* the requirement of Article 123(2) EPC is still not fulfilled and the appellant did not provide any reason why these requests were submitted at this late stage of the proceedings, the Board exercised its discretion under Article 13(1) RPBA 2020 not to admit auxiliary requests 1A and 4 into the proceedings.

7. *Auxiliary requests 2, 3 and 5 to 14*

7.1 Auxiliary requests 2, 3 and 5 to 14 were filed with the grounds of appeal. Although the numbering of these requests has not been altered, the sequence of the auxiliary requests has been changed during the course of the appeal proceedings at least due to the introduction of auxiliary request 1A, this involving a material change in focus of the claimed invention and thus resulting in an amendment of the case which the Board and the respondents had to deal with.

7.2 The Board had already alerted the appellant in its preliminary opinion (see point 5.1) that the filing of auxiliary request 1A had the effect of changing its complete case, particularly in respect of all lower ranking requests. Since the appellant has not presented any further arguments regarding this point, the Board sees no reason to change its opinion in this regard.

7.3 The selected sequence of the auxiliary requests leads to an evident broadening and lack of convergency in the requests. The feature "an exhaust inlet and an exhaust outlet of the dispersion chamber are coplanar", which is present in auxiliary request 1A, is not present in claim 1 of any of the lower ranking auxiliary requests 2, 3 and 5 to 14 filed with the grounds of appeal. This has the effect of the Board and parties having to consider subject-matter broader than that included in

the higher ranking auxiliary request 1A. Such a change made after a party has presented its complete case does not meet the requirement for procedural economy as set out in Article 13(1) RPBA 2020.

- 7.4 Accordingly, the Board exercised its discretion under Article 13(1) RPBA 2020 not to admit the auxiliary requests 2, 3 and 5 to 14 into the proceedings.
8. In the absence of any request in the proceedings on the basis of which the patent can be maintained, the impugned decision cannot be set aside and the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



M. H. A. Patin

M. Hannam

Decision electronically authenticated