

Internal distribution code:

- (A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

**Datasheet for the decision
of 28 March 2019**

Case Number: T 0314/15 - 3.2.06

Application Number: 06782467.2

Publication Number: 1947307

IPC: F01N3/20, F01N3/023, F01N3/025,
F01N3/035, F01N3/24, B01D53/94

Language of the proceedings: EN

Title of invention:
EXHAUST PURIFIER

Patent Proprietor:
Nissan Diesel Motor Co., Ltd.

Opponents:
HJS Emission Technology GmbH & Co. KG
Tenneco GmbH
MAN Truck & Bus AG

Headword:

Relevant legal provisions:
EPC Art. 100(a), 56, 123(2)
RPBA Art. 13(1)
EPC R. 99(1)(a), 101(2)

Keyword:

Admissibility of appeal - notice of appeal - name and address
of appellant - after remedy of deficiencies (yes)
Grounds for opposition - inventive step
Inventive step - closest prior art - main request (no) -
auxiliary request V (no)
Amendments - disclosure in Figures - added subject-matter
(yes)
Late-filed auxiliary requests - request clearly allowable (no)
- change of subject-matter (not admitted)

Decisions cited:

G 0002/10, T 0698/10, T 0570/91, T 0169/83, T 1067/97,
T 0714/00

Catchword:

Selection of the closest prior art - see Reasons 8, 8.1 - 8.4



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 0314/15 - 3.2.06

D E C I S I O N
of Technical Board of Appeal 3.2.06
of 28 March 2019

Appellant: Nissan Diesel Motor Co., Ltd.
(Patent Proprietor) 1, Ooaza 1-chome
Ageo-shi
Saitama 362-8523 (JP)

Representative: Grünecker Patent- und Rechtsanwälte
PartG mbB
Leopoldstraße 4
80802 München (DE)

Appellant: MAN Truck & Bus AG
(Opponent 3) Dachauer Strasse 667
80995 München (DE)

Representative: Liebl, Thomas
Neubauer - Liebl - Bierschneider
Patentanwälte
Münchener Straße 49
85051 Ingolstadt (DE)

Party as of right: HJS Emission Technology GmbH & Co. KG
(Opponent 1) Dieselweg 12
58706 Menden (DE)

Representative: Haverkamp, Jens
Gartenstrasse 61
58636 Iserlohn (DE)

Party as of right: Tenneco GmbH
(Opponent 2) Luitpoldstrasse 83
67480 Edenkoben (DE)

Representative: Thews, Karl
STT Sozietät Thews & Thews
Patentanwälte

Augustaanlage 32
68165 Mannheim (DE)

Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
4 December 2014 concerning maintenance of the
European Patent No. 1947307 in amended form.**

Composition of the Board:

Chairman M. Harrison
Members: T. Rosenblatt
 W. Ungler

Summary of Facts and Submissions

- I. The appellant-proprietor and appellant-opponent 3 appealed against the interlocutory decision of the opposition division, posted 4 December 2014, by which it was decided that European patent No. 1 947 307 in an amended form met the requirements of the EPC.

- II. Amongst the three oppositions filed against the granted patent, one was filed by opponent 3, MAN Truck & Bus AG, Dachauer Str. 667, 80995 München. As a correspondence address, a postal address in Nürnberg was indicated.

- III. Following the interlocutory decision, a notice of appeal by facsimile was received at the EPO on 9 February 2015, carrying at the top of its first page the letterhead "MAN Truck & Bus AG", and below the addressee a line containing various references including *inter alia* an indication that the letter was written on that same date in Nürnberg, followed by a paragraph designating the number of the above European patent and its underlying application, the name of the patent proprietor and the name of the opponent as "MAN Truck & Bus AG". In the subsequent paragraphs it is declared, with reference to the impugned interlocutory decision, the European patent and its proprietor, that an appeal was filed. A list of requests and a statement concerning the payment of the appeal fee by debit order submitted in the annex completed the letter which was signed by an employee of MAN Truck & Bus AG together with a reference to an EP authorisation 58 1060.1. The letter's footer contains in a left column an indication of *inter alia* the place of business being München and in a right hand column, a postal address of the company MAN Truck & Bus AG in Nürnberg.

A corresponding statement of grounds of appeal was received at the EPO on 28 March 2015.

- IV. A communication pursuant to Rule 101(2) EPC, dated 16 July 2015, was sent to MAN Truck & Bus AG at its postal address in Nürnberg, stating that the notice of appeal did not contain the address of the appellant and requesting the deficiency be remedied within a period of two months.
- V. By letter received at the EPO on 31 July 2015, the address of appellant-opponent 3 was provided, corresponding to the address indicated by opponent 3 in the notice of opposition. It was requested that all correspondence be sent to the Nürnberg postal address.
- VI. The Board issued a summons to oral proceedings with a subsequent communication dated 15 February 2019, containing its provisional opinion, and which stated *inter alia* that the appeal of appellant-opponent 3 appeared admissible. It was also indicated, with reference to the arguments provided up to that stage by appellant-opponent 3, that novelty of the subject-matter of granted claim 1 in view of D1 would require discussion, but that the subject-matter of the claim appeared to lack an inventive step when starting from D18 as the closest prior art in combination with the teaching of D3 (or D2). D1, D2, D3 and D18 are as follows:

D1 : EP-A-1 262 644,

D2 : GB-A-2 381 218,

D3 : JP-A-2005155404 and its machine translation into English,

D18 : DE-A-101 28 548.

Concerning the auxiliary requests I to XVIII submitted by the appellant-proprietor with its appeal grounds, the Board opined that none of them appeared to be allowable in regard to the requirements of *inter alia* Articles 123(2) and 56 EPC.

- VII. By letter dated 28 February 2019 the appellant-proprietor submitted further comments and auxiliary requests XIX to XXIV.
- VIII. Oral proceedings before the Board were held on 28 March 2019 in the absence of the other parties as of right, i.e. opponents 1 and 2, as announced in their respective letters dated 29 January 2019 and 4 March 2019. During the oral proceedings the appellant-proprietor withdrew auxiliary requests I-IV, VI-XI, XIII-XVI and XVIII-XXIV and submitted *inter alia* auxiliary requests XXV and XXVI, as well as document E1: diagram from <https://de.wikipedia.org/wiki/Abgasnachbehandlung>, dated 27 March 2019.
- IX. The appellant (patent proprietor) requested that the decision under appeal be set aside and the patent be maintained as granted (main request), or that the case be remitted to the department of first instance for further prosecution, or that the patent be maintained in amended form on the basis of one of auxiliary requests V, XII and XVII filed with the grounds of appeal, or on the basis of one of auxiliary requests XXV and XXVI filed during the oral proceedings of 28 March 2019. Furthermore, it requested that the appeal of opponent 3 be rejected as inadmissible.

X. Appellant-opponent 3 and opponent 1 (the latter in writing only) requested that the decision under appeal be set aside and the patent be revoked.

XI. Granted claim 1 (**main request**) has the following wording:

"An exhaust emission purifying apparatus, comprising:
a casing (10) that includes therein two layered passages (15,16);
a reduction catalyst (21) that reductively purifies nitrogen oxide by using a reducing agent;
a nozzle (2) that injects the reducing agent or a precursor thereof to an exhaust upstream side of the reduction catalyst (21); and
a filter (23,24,25) that collects a particulate matter suspended in an exhaust emission,
characterized in that
an exhaust emission inlet (11) and an exhaust emission outlet (12) are formed on the same side surface of the casing (10);
the two layered passages (15,16) are formed by one compartment wall (13) dividing an inside of the casing (10) into two chambers;
the layered passage (15) at the side of the exhaust emission inlet (11) and the layered passage (16) at the side of the exhaust emission outlet (12) are connected only by a folded passage portion (14), allowing an exhaust passage from the exhaust emission inlet (11) to the exhaust emission outlet (12) to be folded in its direction once; and
the reduction catalyst (21) and the filter (23,24,25) are disposed in the layered passages (15,16) different from one another."

In claim 1 of **auxiliary request V**, the following feature was inserted at the end:

"; and the nozzle (2) is disposed on an exhaust upstream side in the folded passage portion (14)."

Compared to granted claim 1, in claim 1 of **auxiliary request XII** the expression "box-shaped" has been introduced before the term "casing (10)" in the preamble of the claim and in its characterising portion, after the expression "...dividing an inside of the casing (10) into two chambers", the feature

", such that one of the two layered passages is adjacent one side of the box-shaped casing and the other one of the two layered passages is adjacent another side of the box-shaped casing, wherein said sides of the casing are opposite sides of the casing and different from the side surface on which said inlet and said outlet are formed;".

Additionally the adverb "only" has been inserted before the word "once".

Compared to granted claim 1, in the characterising portion of claim 1 of **auxiliary request XVII** the feature

"such that the layered passage (15) at the side of the exhaust emission inlet (11) is outwardly delimited by a top surface of said casing and the layered passage (16) at the side of the exhaust emission outlet (12) is outwardly delimited by a bottom surface of said casing"

has been inserted after the expression "...dividing an inside of the casing (10) into two chambers".

Compared to granted claim 1, in the characterising portion of claim 1 of **auxiliary request XXV** the following features were inserted at the end:

", wherein one of the following i) or ii) is fulfilled:

- i) the filter (24) is disposed on an exhaust upstream side of the nozzle (2) and is configured to support thereon an oxidation catalytic substance that oxidizes nitrogen monoxide contained in the exhaust emission to nitrogen dioxide,
- ii) the filter (25) is disposed on an exhaust downstream side of the reduction catalyst (21) and is configured to support thereon a reducing agent oxidation catalytic substance that oxidizes the reducing agent contained in the exhaust emission".

Compared to granted claim 1, in the characterising portion of claim 1 of **auxiliary request XXVI**, only the following of the two previously inserted features was inserted at the end:

"wherein the filter (25) is disposed on an exhaust downstream side of the reduction catalyst (21) and is configured to support thereon a reducing agent oxidation catalytic substance that oxidizes the reducing agent contained in the exhaust emission".

XII. The arguments of the opponents can be summarised as follows.

Admissibility of the appeal of appellant-opponent 3

The opposition and the appeal were filed on behalf of the same legal person. The only doubts concerned the correct address of appellant-opponent 3, as set out in the Board's communication of 16 July 2015 and to which a reply was filed in due time by letter of 30 July 2015, completing the missing information and specifying a different postal address for all correspondence, just as in the preceding opposition proceedings. Moreover, and in line with the case law of the Boards of Appeal, any doubt about the identification of the appellant could be resolved already from a comparison of the letters supplied during the opposition proceedings and the notice of appeal, in particular having regard to the information available from the letterheaded paper on which the notice of appeal was drafted and from the information provided originally with the notice of opposition.

Main request - Articles 100(a) and 56 EPC

According to the case law of the Boards of Appeal, different criteria could be applied to identify the closest prior art, as set out for example in T 698/10. Having regard to the similarity of a number of considerations in D18 and in the patent in suit, it followed that D18 provided an appropriate starting point for the assessment of inventive step. The only features distinguishing the subject-matter of claim 1 over D18 were the reducing agent injection nozzle and the reduction catalyst. These features solved the objective problem of improving the efficiency of purifying exhaust emission. The skilled person knew that selective catalytic reduction (SCR) was an appropriate technology to solve this problem. If further hints were required these could be found for example in D3. From the discussion of the underlying

problem in D3 (see for example paragraphs 3 and 4 thereof) and the similarity of the compact arrangement disclosed there with that of D18, the skilled person was given an incentive to install a reduction catalyst in place of the catalyst of D18, downstream of the particle filter, and to provide the required reducing agent injection nozzle in the folded portion of the apparatus known from D18, immediately downstream from the particle filter, thereby providing appropriate space for mixing of the reducing agent and exhaust gas before entering the reduction catalyst. Beyond this, no further requirement was to be derived from D3 or the other prior art in regard to the required distances or flow geometry in SCR systems. Also the patent, in particular the embodiments illustrated in Figures 2, 3 and 5 showed that no specific attention was attached to the distance between the injection nozzle and the reduction catalyst. The consideration of special operating conditions or flow geometry were not reflected in the patent in suit either. Potentially required modifications of the geometry of the different portions of the flow passage in D18 when mounting the additional features of an SCR system were customary practice of the skilled person and were also hinted at for example in paragraphs 14 or 30 of D18.

Auxiliary request V - Article 56 EPC

D3 already disclosed the additional feature, so that the same arguments as for the main request applied equally.

Auxiliary requests XII and XVII - Article 123(2) EPC

The amendments to claim 1 of auxiliary request XII and XVII had no explicit basis in the application as filed.

The Figures were schematic two-dimensional drawings which did not allow any unambiguous conclusions to be drawn in regard to the casing's shape in three dimensions, let alone concerning the structural interrelationship of its different portions, such as wall sections or sides surfaces.

Auxiliary requests XXV and XXVI - Article 13(1) RPBA

Both requests were late filed and should not be admitted into the proceedings. As far as the features of the first alternative i) defined in claim 1 of auxiliary requests XXV were concerned, these were known from D3, see paragraph 34 in combination with paragraph 22, so that the conclusion of lack of inventive step was not overcome.

In the previously submitted auxiliary requests XXIV and XXV, the feature added from granted claim 6 was only defined as one of two alternatives, so that it was sufficient to address only the other in order to attack the claim. With auxiliary request XXVI the opponent was for the first time presented with a claim focussing on completely different subject-matter which had not played any role so far and on which it could not be prepared to react.

XIII. The arguments of the appellant-proprietor can be summarised as follows:

Inadmissible appeal of appellant-opponent 3

The notice of appeal was not filed by the party in the opposition proceedings since a different address was indicated on the appeal letter. The correction filed under Rule 101(2) EPC did not meet the two requirements

for it being allowed. The deficiency should be a genuine error and its correction showing the true intentions when filing the appeal. Secondly, the indication should be such that the appellant was identifiable at the expiry of the period for filing the appeal. The true intention to file the appeal on behalf of opponent 3 was not proven.

Main request - Remittal

For the first time throughout the entire opposition and opposition-appeal procedure the preliminary opinion of the Board contained a detailed opinion suggesting that the claimed subject-matter of the granted patent could lack an inventive step when taking D18 as the closest prior art. Such an objection had never been discussed in detail before the opposition division. The appellant-proprietor needed a chance to defend its case before two instances.

Main request - Articles 100(a) and 56 EPC

The claimed exhaust purifying apparatus was directed to a catalytic converter using selective catalytic reduction. SCR-catalysts as known for example from D3 required sophisticated flow geometry in order to provide for good mixing of the injected reducing agent with the exhaust gas so as to ensure that the underlying chemical reactions were efficiently performed. In contrast, D18 was directed to a conventional, non-SCR apparatus, comprising a particle filter and a common two-way or three-way catalyst, having a simple compact design, not taking into account the requirements for SCR catalysts. It belonged to common general knowledge that the exhaust flow geometry in common catalytic converters could not be compared

with that of SCR catalysts. A prejudice existed in regard to the impossibility of providing a simple design for SCR catalysts. Consequently a skilled person entrusted with the task of further developing an SCR catalyst would not start from a conventional, non-SCR apparatus such as D18, without relying on an *ex post facto* analysis. The skilled person would instead have started from existing SCR catalyst designs, as stated in T 570/91. According to case law, it was not always the case that the prior art having the most features in common was the starting point for further development. Rather, the closest prior art had to be directed to the same purpose or effect as the invention.

Even when starting from D18 as the closest prior art, the subject-matter of claim 1 was not obvious. The distinguishing features solved the problem of how to improve a conventional exhaust emission purifying apparatus for further reducing harmful components in the exhaust gas, such as CO or NO_x. The skilled person would recognise from common general knowledge and the prior art cited by the opponent, including D3, that the provision of a reducing agent injection nozzle upstream of the reduction catalyst required specifically designed flow geometries of the exhaust passage which could not be realised in a conventional system, let alone in the compact system known from D18 in which the layered passages were separated only by the compartment wall. Moreover, further features, such as a dedicated control system were required, and there was no hint to provide such further features in a conventional system as known from D18. Also, the operating conditions, for which an exhaust emission purifying apparatus according to D18 was designed, differed significantly from those required for SCR systems. The reasoning given by the opposition division in the impugned decision on page

11, 2nd paragraph, was relied upon.

Auxiliary request V - Article 56 EPC

Although the added feature might be known from D3, it could not have been applied to the folded portion in the apparatus of D18, as it was too short.

Auxiliary requests XII and XVII - Article 123(2) EPC

An explicit disclosure was not required for an amendment to comply with the requirement of Article 123(2) EPC. The features added to claim 1 of auxiliary request XII, relating to the box-shaped casing as disclosed in paragraph 14, were immediately apparent for the skilled person from the cross-sections in all Figures in combination with the intended purpose of the invention underlying the patent in suit, as outlined in paragraphs 3 and 4, as well as with their description in paragraphs 13 to 15 of the published application. The features added in the characterising portion of claim 1 of auxiliary request XVII were disclosed in paragraphs 14 and 16 in combination with the Figures.

Auxiliary requests XXV and XXVI - Article 13(1) RPBA

Claim 1 of auxiliary request XXV relied on a combination of only granted claims 1, 4 and 6, and consequently met the requirements of Articles 84 and 123(2) EPC. It should be admitted into the proceedings because it constituted the only possibility for the proprietor to remedy the critical objection under Article 123(2) EPC previously discussed, although the opposition division had allowed corresponding amendments. It could not have come as a surprise for the opponent since the subject-matter had already been

discussed. Since the claimed subject-matter was derived from only granted claims, the request was necessarily convergent. In view of the great number of documents invoked by the opponents previously, it was impossible for the proprietor to prepare for all attacks with an appropriate amended set of claims earlier. Moreover, D3 disclosed neither of the two alternatives. The oxidation catalyst mentioned in paragraph 34 thereof was different to the one defined in alternative i) of the amended claim in that it was adapted to oxidize nitric oxide to nitrogen dioxide, nitric oxide being different from nitrogen monoxide. The requirement of Article 56 EPC was thus also met.

Claim 1 of auxiliary request XXVI was limited to the second alternative defined in claim 1 of the previous auxiliary request, so that the objection under Article 56 EPC was clearly overcome. The remaining subject-matter, corresponding to granted claim 6, had not been subject to any substantiated objection, only very general comments had been filed on the basis of certain prior art by the opponent in its appeal grounds. Due to the short period left after receipt of the Board's preliminary opinion, the proprietor could not have reacted earlier.

Reasons for the Decision

Admissibility of the appeal of appellant-opponent 3

1. Pursuant to Rule 99(1)(a) EPC, the notice of appeal shall contain *inter alia* the name and the address of the appellant as provided in Rule 41, paragraph 2(c).

Rule 101(2) EPC further specifies that in case the Board of Appeal notes that the appeal does not comply with Rule 99(1)(a) EPC, it shall communicate this to the appellant and shall invite him to remedy the deficiencies within a period to be specified. If the deficiencies are not remedied in due time the Board of Appeal shall reject the appeal as inadmissible.

2. The notice of appeal of appellant-opponent 3 did not contain the address, contrary to the requirement of Rule 99(1)(a) EPC. This deficiency has however been remedied according to the procedure prescribed in Rule 101(2) EPC. The response to the Board's notification concerning the missing address of appellant-opponent 3 was received two weeks after the dispatch of the notification, so within the two-month period set by the Board and therefore in due time. The indicated address is indeed the same as the address of opponent 3, so that there is no doubt as to the party status of appellant-opponent 3 in the present appeal proceedings (Article 107 EPC).
3. The Board has no doubt about the "true intention" to file the appeal on behalf of opponent 3. The indications in the notice of appeal leave already little room for speculation in this regard. Besides the

data identifying the impugned decision, the patent in suit, the names of the patent proprietor and that of opponent 3, the business place of the company can also be found in that letter ("*Sitz der Gesellschaft: München*"). The letterhead, with which the notice of opposition was filed is the same as for the notice of appeal. Despite the missing address for the business place in Munich and the indication of an address in Nürnberg, which might at first sight have triggered the assumption that two different legal persons could be involved, the response of appellant-opponent 3 to the Board's notification pursuant to Rule 101(2) EPC removed any such doubt, completing the missing address of the business place and further confirming that the other address in Nürnberg is also, just as in the preceding opposition procedure, to be used for any correspondence in the appeal procedure. Finally, the doubts raised by the appellant-proprietor in regard to the possible existence of a second legal person, with the same name, were not supported by any evidence.

4. The Board is satisfied that all other requirements for the admissibility of the appeal of appellant-opponent 3 have been met. The appellant-proprietor also did not raise any further objections in this regard.

The appeal of appellant-opponent 3 is thus admissible.

5. The appeal of the appellant-proprietor is also admissible, which has not been contested.

Main request - Remittal

6. According to Article 111(1) EPC, the Board may either exercise any power within the competence of the department which was responsible for the present

decision, i.e. the opposition division, or remit the case to it for further prosecution.

- 6.1 The appellant-proprietor's request for remittal is based essentially on the argument that lack of inventive step of the subject-matter of granted claim 1 in view of D18 as the closest prior art in combination with D3 had never been discussed in detail before the Board issued its preliminary opinion.

Whilst it is true that the impugned decision contains a reasoned decision of the combination of D18 and D3 only in regard to the subject-matter of the amended claims considered finally by the opposition division to meet the requirements of the EPC, the corresponding objection against the granted claims was already raised by appellant-opponent 3 in its notice of opposition. It has never been abandoned. The objection was also pursued throughout the entire appeal proceedings. Extensive exchange of arguments between the appellant-proprietor and appellant-opponent 3 on this issue has occurred. Thus the parties have had, and have used, the opportunity to put forward all their arguments in this regard. The appellant proprietor also did not argue that it did not have sufficient possibility to comment on the objection for any reason.

The only remaining motivation for its request for remittal therefore originates from the issue of the Board's preliminary opinion, which was stated in a communication issued more than one month ahead of the date of the oral proceedings, received on 18 February 2019 by the appellant proprietor, and which, the proprietor argued, had left it with a very short period of only ten days to reply to it. The Board notes however that no time limit for a reply was fixed,

either on the summons to the oral proceeding or in the later communication containing its preliminary opinion. The time limit for a response to the Board's communication was obviously internally assigned by the appellant or its representative. This cannot justify a further prolongation of the proceedings, in particular not to the detriment of appellant-opponent 3 who had persistently argued on this objection.

The preliminary opinion of the Board also did not contain any new fact or argument in regard to the inventive step objection. A Board is also not obliged to issue a preliminary opinion before reaching its decision and can decide the case at any time after the filing of the statement of grounds and the respective reply (Articles 12(3), 15(1) and 17(2) RPBA), notwithstanding the requirements of Article 113 and 116 EPC. Each party therefore has to prepare its case sufficiently in advance for the eventuality that the Board may indeed deviate from a conclusion reached by the opposition division and may thus follow the arguments of an adversely affected party. A party should not await a Board's preliminary opinion to only then consider an argument seriously threatening its case.

Concerning the appellant-proprietor's argument that the remittal would give it a chance to defend its case at two instances, the Boards of Appeal have repeatedly held that there is no absolute right for a decision at two instances. This was also not disputed by the parties. The Board cannot see any particular reason for deviating from this principle in the present case.

6.2 Pursuant to Article 11 of the Rules of Procedure of the Boards of Appeal (RPBA) the Board shall remit a case if

fundamental procedural deficiencies are apparent. This has however not been alleged and the Board can also not see that this was the case.

- 6.3 The Board therefore exercised its discretion under Article 111(1) EPC not to remit the case to the opposition division.

Main request - claim 1 as granted - Article 56 EPC

7. For the assessment of inventive step, the Board applies the problem-solution approach, which as a first step requires the selection of an appropriate starting point for the claimed subject-matter, commonly referred to as the "closest prior art" or sometimes as as the "most promising starting point". In the present case this is a crucial issue since the appellant-proprietor disputed that D18 could be considered as the closest prior art for the subject-matter of claim 1.
8. A number of criteria for selecting an appropriate starting point when applying the problem-solution approach for the assessment of inventive step can be derived from the jurisprudence of the Boards of Appeal. For example, by referring to the Case Law of the Boards of Appeal, section I.D.3, decision T 698/10 (not published), cited also by appellant-opponent 3, summarises several such criteria in two main categories, see point 3 of the Reasons:

"(a) As a first criterion, the closest prior art should be related to the claimed invention, in the sense that it should disclose subject-matter conceived for the same purpose or aiming at the same objective, corresponding to a similar use, or relating to the same or a similar technical problem or, at least to the same

or a closely related technical field.

(b) As a second criterion, the closest prior art should disclose subject-matter having the greatest number of relevant technical features in common with the claimed invention, i.e. requiring the minimum of structural and functional modifications."

The Board sees no reason to disagree with these principles and applying them to the present case comes to the conclusion that D18 can indeed be considered as the closest prior art in respect of the subject-matter of claim 1.

- 8.1 The claimed subject-matter is directed to an exhaust emission purifying apparatus. Despite not explicitly mentioning selective catalytic reduction, its preamble comprises corresponding features, such as a reduction catalyst that reductively purifies nitrogen oxide by using a reducing agent and a nozzle that injects the reducing agent (or precursor thereof), which together imply indeed that the claimed apparatus employs SCR-technology. The other features in claim 1 relate to a particle filter, to the general structure of the exhaust passageway within the apparatus's casing and the flow path from its inlet to its outlet as well as to the arrangement of the particle filter, the reduction catalyst and the nozzle therein.

Paragraphs 1 to 3 of the patent's description contain a brief introduction of the invention, a summary of certain related prior art and the related problem underlying the described invention, all within the framework of reducing nitrogen oxides (NO_x) from exhaust emissions using SCR. Paragraph 3 sets out in particular that the different components involved in

such SCR-type exhaust emission purifying apparatus are generally arranged longitudinally in series, implying a large lengthwise size. In anticipation of future tightening of exhaust emission control regulations it is then considered necessary to arrive at a novel layout rendering the apparatus more compact.

8.2 D18 discloses several embodiments of an exhaust purifying apparatus designed with an overall layout corresponding to the folded structure of the apparatus of claim 1. It does not, however, mention SCR-type technology.

As regards the objectives underlying D18, it is first noted that the exhaust purifying apparatus is not dedicated to a particular engine type nor is there any information about which specific pollutants should be removed by the (unspecified) catalytic converter element ("*Reinigungseinsatz 16*", see for example paragraph 28). According to paragraph 39 of D18 the apparatus may be used with either spark-ignition type or compression-ignition (e.g. Diesel) type engines, in case of the latter in particular in situations of retrofitting particle filters to them.

Similarly to the patent in suit, D18 starts from the recognition that tightened exhaust emission control regulations require consideration of available space in a vehicle for mounting the required additional exhaust purifying apparatus during their design (see e.g. paragraph 4). In the light of these considerations, exhaust purifying apparatus are proposed which, due to their compact layout, comprise a U-turn or folded passage portion similar to that in the patent, and which may be conveniently mounted in difficult fitting conditions (see paragraphs 5 to 7).

The Board concludes that the apparatus disclosed in D18 which relates to a more generic exhaust purifying apparatus, therefore belongs to a field of technology closely related to that underlying the invention of the patent in suit and which is anyway known to the person skilled in the art of SCR-technology. Further, it is noted that the apparatus of D18 aims at the same general objective as the patent, namely a compact design in order to satisfy the accommodation in difficult fitting conditions of the exhaust purifying components becoming mandatory due to tightened regulations.

8.3 The apparatus of D18 also has a great number of technical features in common with claim 1 (see point 15 below). Whether it is actually "the greatest" number in common (amongst the documents on file), is here actually irrelevant, not least in view of the fact that the objectives are also very similar. It is further noted that the proprietor anyway did not argue that another prior art apparatus had a greater number of features in common.

8.4 The Board thus concludes that the exhaust purifying apparatus disclosed in D18 can be taken as an appropriate starting point for the assessment of inventive step, i.e. as the closest prior art.

8.5 Concerning the appellant-proprietor's further counter arguments, in as far as they are not already dealt with above:

The Board cannot see that the present facts are analogous to those underlying the decision T 570/91 as alleged by the appellant-proprietor. In that case the

Board held in point 4.4. of the Reasons *inter alia* "[i]f, for instance, for whatever reason it may be, a person skilled in the art prefers and decides to start from a specific compressor piston, he can further develop that piston but at the end of that development the normal result will still be a compressor piston and not an [internal combustion engine] piston.". In the present case the skilled person would indeed realistically start from a more generic exhaust purifying apparatus of D18 (with an unspecified exhaust purifying element 16) and would end up with an apparatus having a purifying element dedicated to purifying particular exhaust gas pollutants, here NOx. Thus, at least in the sense that D18 is involved with purifying of exhaust gases and mentions use in Diesel type engines where NOx are well known to be prevalent, the Board has no doubt that D18 is within the same technical field and would be referred to by a person skilled in the art when considering NOx reduction.

Furthermore, the Board does not accept the appellant-proprietor's argument that the skilled person would have discarded D18 as the closest prior art for its alleged incompatibility with the space or geometrical requirements and the particular design of the flow passages in SCR-technology to allow appropriate mixing and chemical reaction of exhaust gas with the reducing agent or its precursor. The appellant-proprietor also did not submit any evidence in support of such special requirements for SCR-type exhaust purifying apparatus which could have prejudiced consideration of D18 as the closest prior art. D1, D2 and D3, to which the appellant-proprietor referred in this respect, do not contain any such general indication, nor can they be considered to represent the common general knowledge of a skilled person around the year 2000 for generally

known complex geometry or particular space requirements in SCR-specific exhaust purifying apparatus.

Moreover, the patent in suit does not attach any particular attention to such considerations either. This is apparent *inter alia* from the apparatus shown in Figures 2, 3 and 5 of the patent, in which the space for mixing between the nozzle and the reduction catalyst is almost non-existent. The Board concludes that such considerations only involve ordinary adaptations in the design of a particular exhaust purifying apparatus which the skilled person must be able to perform only on the basis of its common general knowledge (i.e. it is well known to the skilled person what is required for SCRs to work, including any distances that might be relevant). However the Board cannot see that these are in any way incompatible with the apparatus known from D18, which even mentions at several places that certain dimensions and cross-sections may be adapted (see e.g. paragraph 14).

Also, and for similar reasons as indicated in the foregoing, no conclusion can be drawn from D18 in regard to the operating conditions (temperature, presence of additional control units, etc.) that would make it in any sense incompatible with the corresponding requirements implied by the conditions in apparatus working with SCR technology. Nor can the Board find any indication in D18 by which the skilled person would have identified the unspecified catalytic converter ("*Reinigungseinsatz 16*") only as either being a 2-way or 3-way catalytic converter.

9. Considering the embodiment shown in Figure 1 of D18 as the closest prior art to the subject-matter of claim 1, it is undisputed that D18 does not disclose the

reduction catalyst and the nozzle as defined in claim 1 of the patent in suit. A detailed feature analysis can therefore be dispensed with for the purposes of this decision.

For the sake of preciseness it is however noted that the last feature of claim 1, "the [reduction] catalyst and the filter are disposed in the layered passages different from one another", is also disclosed in D18, in as far as the arrangement of the particle filter and of the (unspecified) catalyst element in different layered passages is concerned.

10. The technical effect of these features is to specifically purify the exhaust emission from nitrogen oxide (i.e. removing nitrogen oxide).
11. An objective technical problem, which does not point towards the solution in claim 1, may be understood as being adapting the closest prior art apparatus of D18 for purifying the exhaust emissions from specific pollutants. This is a technical problem which the skilled person can reasonably and necessarily be expected to be faced with when implementing the invention disclosed in D18, because the catalyst in the second branch is left unspecified.

As D18 is intended to be used also in Diesel engines, the skilled person must take into account, in this context, the composition of exhaust gases for this type of engine.

12. As acknowledged by both appellants, reduction of nitrogen oxides, being known as one of the main pollutants emitted by Diesel engines, was a well known problem for the skilled person at the filing date of

the patent in suit. It was also acknowledged by both appellants that selective catalytic reduction, implying the use of a reduction agent (or precursor thereof) to be injected by an appropriate nozzle into the exhaust gas upstream of a reduction catalyst, was commonly known as an efficient technique to reduce nitrogen oxide in the emissions. Thus in order to solve the objective problem the skilled person would use their common general knowledge of SCR-type exhaust purifying apparatus and would therefore consider providing the corresponding components in a device of D18. Based on their common general knowledge and faced with the above problem, the skilled person would thus implement the general, unspecified exhaust purifying element 16 to be a reduction catalyst. Further, since the reducing agent must be injected upstream thereof, as is also well known in SCR technology, the skilled person would necessarily mount the corresponding nozzle in the folded passage portion, thereby providing at least some space allowing appropriate mixing with exhaust emission before reaching the reduction catalyst (cf. the reduced space required in the embodiments of Figures 2, 3 and 5 of the patent in suit).

In case of any doubt in respect to the arrangement of the relevant components, the skilled person may also revert to prior art disclosing such systems. Amongst the prior art cited by the opponents which documents the arrangement of these components in SCR-type apparatus, D3 considers (in view of tightened exhaust emission regulations) the necessity of providing compact designs in order to accommodate all the required exhaust emission purifying components in the restricted space available in the vehicle (see e.g. paragraphs 3, 4, 6 and 7 of the (uncontested) English translation of D3).

In Figure 1 of D3, an exhaust emission purifying apparatus is shown implementing SCR-technology in an exhaust passage configuration similar to that in D18. A particle filter 13 is mounted in an upstream exhaust conduit section 11 of the apparatus which is connected to an exhaust inlet 42. Downstream thereof, a U-shaped, i.e. folded passage portion 30/31 directs the exhaust gas to a downstream exhaust conduit section 21/51 in which *inter alia* a reduction catalyst 23 is mounted. Purified exhaust gas leaves the apparatus at the outlet 70. At the upstream side of the U-shaped portion, adjacent the downstream end of the particle filter, a reducing agent injection nozzle is mounted (see also paragraph 23).

Recognising not least the overall geometric similarity of the apparatus of D18 and D3, the skilled person would thus implement the reduction catalyst in the apparatus according to D18 in place of the (unspecified) downstream exhaust purifying element 16 and the nozzle (as suggested in D3 in paragraph 23) in the upstream side of the folded passage portion, and thereby arrive without exercising an inventive step at the subject-matter of claim 1.

13. The appellant-proprietor's arguments relied on the one hand on the fact that the skilled person would not combine the two documents since they belonged to two distinct, unrelated technical fields, which the Board does not accept as already explained in regard to the considerations concerning the selection of the closest prior art.

The appellant-proprietor also relied on the conclusion reached in the impugned decision concerning the

subject-matter of the amended claim. However, the Board is not persuaded by any of the reasons given by the opposition division, at least in so far as they can be understood to apply also to the subject-matter of the granted claim (and not to some other, more limited, yet undefined apparatus), as explained *infra*.

First, the opposition division did not indicate any basis in either of the documents referred to by it, i.e. D2 or D3, for "great lengths in order to ensure suitable mixing and reaction time". Although this point was mentioned specifically in the communication of the Board sent prior to oral proceedings, the appellant-proprietor also failed to indicate any unambiguous support for the alleged necessity of a "great length". The apparent distance in Figure 1 of D3 between the upstream and downstream conduit sections (11, 21/51) is not mentioned at all in D3. It could be due to the schematic representation or it could equally be required in view of assembly considerations. Only paragraph 23 of D3 mentions that the provision of the nozzle close to the exit of the exhaust gas from the particle filter, i.e. on the upstream side of the U-shaped portion, provides a distance for sufficient mixing. However, the Board finds that this does not imply a "great length" *per se*, rather only the commonly known provision of sufficient mixing space, which is by no means incompatible with the space provided in the folded portion 13 of the apparatus of D18. As concerns the opposition division's subsequent statement that "ensuring perfect gas-flow delivery into a semi-circular cross-section with very little room is not a simple task", the claimed apparatus itself does not comprise any feature reflecting this. As mentioned above, and highlighted by the absence of any particular measure in this regard in Figures 2, 3 and 5 of the

patent in suit, considerations of how to provide sufficient mixing can only be considered to be a matter of customary practice.

Moreover, if the skilled person were to have had any doubts as to whether the space for mixing in D18 was sufficient, the information that shapes, lengths and dimensions of cross-sections of its various components can be adapted to different needs is anyway given for example in paragraphs 14 and 29. Any such trivial dimensional adaptations are merely part of normal design practice.

Finally, the fact that an SCR-type exhaust emission purifying apparatus required many further elements, which are nowhere mentioned in D18 and which could not be simply added to it without hindsight is not accepted. The claim does not define these. Moreover, their provision where required, is as such considered to belong to common general knowledge of a skilled person. Nothing is recognisable which would lead to the result that their implementation in an apparatus of D18 would be incompatible with its technical features.

Thus, to the extent that the appellant-proprietor relied on reasoning given by the opposition division, none of this leads the Board to alter its conclusion.

Lastly, it may be added that E1, submitted by the appellant-proprietor during the oral proceedings to demonstrate common general knowledge, does not contain anything which the Board can recognise as altering the reasons upon which the Board's conclusion is based.

14. The Board thus finds that the subject-matter of granted claim 1 lacks an inventive step so that the opposition

ground of Article 100(a) in combination with 56 EPC prejudices maintenance of the patent as granted.

Auxiliary request V

15. The further definition in claim 1 of auxiliary request V of the nozzle's position on an exhaust upstream side in the folded passage portion does not alter the Board's conclusion reached in regard to the subject-matter of granted claim 1. As is already apparent from the foregoing reasoning, this feature is merely the direct consequence of implementing the features disclosed in D3 into the apparatus known from D18 (see last two paragraphs of point 12 above).

In respect of this request, the appellant-proprietor's arguments essentially relied again on the allegedly implied lengths of the folded passage portion, considered insufficient in D18. However, for the same reasons as set out above in point 14, these arguments are not accepted.

Auxiliary request XII

16. The amendments to claim 1 of auxiliary request XII result in subject-matter which contravenes Article 123(2) EPC.
 - 16.1 The basic principle when examining whether the requirement of Article 123(2) EPC is met, is to be found in the jurisprudence of the Enlarged Board of Appeal which was summarised and confirmed in its decision G 2/10 (OJ EPO 2012, 376, Reasons 4.3).

Applied to the present case, it has to be established

whether the amended subject-matter is directly and unambiguously derivable by a skilled person, using common general knowledge, and seen objectively and relative to the date of filing, from the whole of the document (i.e. description, claims and figures) of the application as filed (n.b. reference is made here and in the following to the published application).

The Board accepts the appellant-proprietor's argument that an explicit disclosure is not necessarily required for a feature to be derivable. It is moreover established jurisprudence of the boards of appeal that features disclosed in the Figures may form the basis for an amendment of the claims, provided such features are clearly shown in the drawings originally filed and are clearly, unmistakably and fully derivable from the drawings in terms of structure and function by a person skilled in the art and so "relatable by him" to the content of the description as a whole as to be manifestly part of the invention, see for example T 169/83, OJ EPO 1985, 193. As with any other amendment, for example, when based on the written description of preferred embodiments, the addition of features taken in isolation from other features disclosed only in combination therewith, i.e. in a specific context, may be justified only in the absence of any clearly recognizable functional or structural relationship among the features of the specific combination, see e.g. T 1067/97, and if the extracted feature is thus not inextricably linked with those features, see e.g. T 714/00.

16.2 The added features in the characterising portion define the box-shaped casing's opposite sides adjacent the respective layered passages, which "opposite sides" shall be different from the "side surface" on which the

inlet and outlet are formed. By the juxtaposition of the "opposite sides of the casing" and the "side surface", it is implied that the expression "opposite sides" also refers to corresponding opposite side surfaces of the casing.

The box-shaped casing's opposite sides adjacent the respective layered passages, as opposed to the side surface on which the inlet and outlet are formed, are not derivable from the drawings in terms of their structure and function so as to be manifestly part of the invention. They are moreover functionally and structurally inextricably linked to many other features disclosed in combination therewith, which other features have however been omitted from claim 1.

Figures 1 to 5 disclose five embodiments of an exhaust emission purifying apparatus together with some components operating in combination with it, such as an engine or a urea feed system etc. The five embodiments of the apparatus concern layout variations of the nozzle and of the different filter and catalyst inlays 20-25 within the two layered passages 15 and 16. The apparatus itself is illustrated by a two-dimensional schematic cross-sectional view. A generally rectangular shaped contour, provided with reference number 10, illustrates in all Figures the casing. The compartment wall 13 of the claimed apparatus is illustrated by a far thicker line, drawn connected to the one line representing apparently the side surface of the casing defined in granted claim 1 on which the inlet 11 and outlet 12 are formed. The thicker line of the compartment wall extending from this side surface ends short of another line which could reasonably be understood to represent another side surface (in the claim's language) of the casing. A space between the

free end of the thick-lined compartment wall and that second side surface provides an exhaust gas passage, indicated by a line A, from the upstream layered passage 15 to the downstream layered passage 16. This other side surface essentially delimits the folded passage portion, as highlighted by reference number 14 pointing to it. The rectangular shape of the casing is completed by two other sides ("opposite sides" according to the amended claim). The respective filter and catalyst inlays 20-25 are all illustrated as freely "floating" within the casing, i.e. without any detail of their mounting in the respective chambers, for example whether they are surrounded by some other material for thermal or sound isolation which would then necessarily delimit the exhaust passages. From these overall, purely schematic drawings, the skilled person cannot unambiguously derive that the structure and function of the casing's opposite sides (or side surfaces), in particular the layered passages being adjacent to the respective sides, are manifestly part of the invention. Nor would the skilled person have derived these features directly and unambiguously in terms of their structure and function from paragraphs 14 and 15. The only side or side surface of the casing explicitly mentioned there is the one already defined in the granted claim. In contrast to the added opposite sides, its function is explicitly described, namely to form both inlet and outlet thereon. No function is mentioned for the opposite sides. Neither the intended purpose of the invention to provide a compact design nor the references to the inside of the casing and to its division in two chambers by means of the compartment wall suggest that the casing's opposite side (surfaces) could be of any relevance.

Moreover, all five embodiments disclose a number of

further features of the casing which have simply been omitted when amending claim 1. For example, if the skilled person would have attributed any relevance at all to the opposite sides of the casing - which the Board anyway does not accept - it is not apparent why he would not have considered its fourth side being equally relevant. The fourth side is, to stay within the terminology chosen by the appellant-proprietor for the suggested amendment, adjacent the folded passage portion, which folded passage portion is already defined as one of the features of the granted claims. This fourth side of the casing is structurally and functionally linked to the two opposite sides of the casing and could not be omitted when introducing the crucial feature in claim 1.

- 16.3 The Board thus finds that the subject-matter of amended claim 1 of auxiliary request XII extends beyond the content of the application as filed, contrary to Article 123(2) EPC.

Auxiliary request XVII

17. The Board finds no reason to conclude differently in regard to the allowability under Article 123(2) EPC as a result of the amendments carried out in claim 1 of auxiliary request XVII. For reasons corresponding to those given above in regard to the definition of the opposite sides of a box-shaped casing in auxiliary request XII, the definition of an outward delimitation of the layered passages by a respective top and bottom surface of the casing must also fail.

The passage at the end of paragraph 16 referred to by the appellant-proprietor in addition to those relied upon during the discussion of auxiliary request XII

does not provide support, let alone any disclosure from which the amendment can be derived. It relates to possible different mounting orientations of the apparatus and in no way contains any, even implicit, information concerning the delimitation of the layered passages by any surfaces of the casing.

The subject-matter of amended claim 1 of auxiliary request XVII thus extends beyond the content of the application as filed, contrary to Article 123(2) EPC.

Auxiliary requests XXV

18. Auxiliary request XXV was filed during the oral proceedings before the Board, thus after the time limit for filing the response to the appeal grounds of appellant-opponent 3 (Article 12(1) and (2) RPBA) and therefore constitutes an amendment to the appellant-proprietor's case.

19. According to Article 13(1) RPBA, any amendment to a party's case may be admitted and considered at the Board's discretion. The discretion shall be exercised in view of inter alia the complexity of the new subject-matter submitted, the current state of the proceedings and the need for procedural economy.

In order to be in line with the requirement of procedural economy, amendments should be *prima facie* allowable in the sense that they at least overcome the objections raised against previous requests without giving rise to any new ones.

20. Amended claim 1 of auxiliary request XXV relies on a combination of granted claims 1, 4 and 6, wherein the features of granted claims 4 and 6 are defined as

alternatives i) and ii). Albeit such a combination of features may indeed overcome the previous objection under Article 123(2) EPC, seemingly without giving rise to any further objections under Articles 123(2) and 84 EPC, it does not appear to overcome the objection of lack of inventive step under Article 56 EPC against granted claim 1 (see points 7 to 14 above) so that the amendments are nevertheless not *prima facie* allowable in the above sense.

According to the first alternative i), the particulate matter collecting filter shall be disposed on an exhaust upstream side of the nozzle and shall be configured to support thereon an oxidation catalytic substance that oxidizes nitrogen monoxide contained in the exhaust emission to nitrogen dioxide.

The apparatus known from D3 comprises a particle filter 13 which is, as in D18, arranged upstream of the nozzle. Filter 13 comprises an oxidation catalyst wash coat for oxidizing "nitric oxide" to nitrogen oxide, see paragraph 34 of its English translation. As far as the first alternative of amended claim 1 is concerned, its subject-matter would thus *prima facie* therefore not involve an inventive step when starting from D18 as the closest prior art in combination with D3.

The appellant-proprietor contested that the disclosure in D3 of nitric oxide unambiguously meant nitrogen monoxide, implying that the wash coat used in D3 had a different composition than the one implied for the oxidation catalytic substance by the first alternative of amended claim 1. However, and as pointed out by appellant-opponent 3, paragraph 22 of D3, relating by reference to the claims, more generally to the oxidation catalyst function implemented on the particle

filter, resolves any potential ambiguity in that it equates the expression nitric oxide with NO i.e. nitrogen monoxide.

The Board therefore exercised its discretion according to Article 13(1) RPBA not to admit auxiliary request XXV into the proceedings.

Auxiliary request XXVI

21. Auxiliary request XXVI was also filed during the oral proceedings so that its admittance into the proceedings again is equally subject to the Board's discretion under Article 13(1) RPBA.

21.1 Claim 1 of this request is based on a combination of granted claims 1 and 6, omitting thus the first alternative previously considered to *prima facie* lack inventive step.

Despite seemingly removing the basis of the objection which led to the non-admittance of auxiliary request XXV, the Board nevertheless decided to exercise its discretion according to Article 13(1) RPBA not to admit auxiliary request XXVI into the proceedings for the following reasons.

21.2 Following a high number of auxiliary requests previously submitted in the appeal procedure, it was only at a very late stage in the oral proceedings that appellant-opponent 3 and the Board were presented with subject-matter comprising only the features of granted claims 1 and 6, which would have moved the subject-matter of the appeal submissions in an entirely new direction compared to what had to be considered before, and which in this form had never even been hinted at as

being an important aspect or something which would form the basis for a limitation. Nor was there any substantiation of this particular aspect in terms of inventive step.

The vast majority of auxiliary requests appellant-opponent 3 and the Board had to consider in preparation for the oral proceedings, though withdrawn to a large extent during the oral proceedings, concentrated essentially on the structure of the layered passages in the casing. Besides the fact that discussion of objections raised against these previous auxiliary requests under Articles 84 and 123(2) EPC would have preceded discussion of (novelty and) inventive step, as far as the examination of inventive step would have been concerned, it appears from the written submissions of the parties that it essentially could have been based on D18 and D3.

Claim 1 of auxiliary request XXVI, in contrast, would have focused the proceedings for the first time on additional functions of the particulate matter collecting filter. Its arrangement downstream of the reduction catalyst had not played any role in the previous attempts to amend the granted claims in order to overcome the original novelty and inventive step objections.

A discussion of inventive step would thus have required consideration of entirely new issues for the first time in the appeal proceedings, including the consideration of obviousness of the claimed combination of features based on granted claim 6, which would have involved the consultation of additional prior art. Neither the Board nor appellant-opponent 3 could have been expected to prepare for such a change of case, as this had never

even been hinted at as being an important aspect of the case.

That appellant-opponent 3 had originally raised objections against granted claim 6 based on certain prior art in its notice of opposition is therefore irrelevant.

The perceived short time left for the appellant-proprietor to prepare a response to the Board's preliminary opinion, due to the internal time limit assigned evidently by the appellant or its representative on receipt of the Board's communication (see also point 6.1 above), cannot justify the admittance of this request either. Moreover, the appellant-proprietor submitted several auxiliary requests in writing and was also given the opportunity to file further amendments during the oral proceedings.

- 21.3 Taking into consideration all facts underlying the submission of auxiliary request XXVI, the Board exercised its discretion according to Article 13(1) RPBA not to admit auxiliary request XXVI into the proceedings.
22. In the absence of any set of claims complying with the requirements of the EPC, the patent has to be revoked (Article 101(3)(b) EPC).

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:



A. Pinna

M. Harrison

Decision electronically authenticated