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**Datasheet for the decision
of 2 August 2019**

Case Number: T 0807/16 - 3.3.05

Application Number: 11193509.4

Publication Number: 2465602

IPC: B01F3/04, B01F5/04, B01F5/06,
F01N3/20, B01F5/00

Language of the proceedings: EN

Title of invention:
Method and device for exhaust gas cleaning

Patent Proprietor:
Proventia Oy

Opponents:
1. MAN Truck & Bus SE
2. Deutz AG

Headword:
Exhaust gas cleaning/Proventia

Relevant legal provisions:
EPC Art. 123(2), 100(a), 56

Keyword:

Decisions cited:

Catchword:



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Case Number: T 0807/16 - 3.3.05

D E C I S I O N
of Technical Board of Appeal 3.3.05
of 2 August 2019

Appellant: MAN Truck & Bus SE
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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 8 February 2016
rejecting the opposition filed against European
patent No. 2465602 pursuant to Article 101(2)
EPC.**

Composition of the Board:

Chairman E. Bendl
Members: S. Besselmann
 O. Loizou

Summary of Facts and Submissions

- I. The present appeal lies from the decision of the opposition division, based on two oppositions, to reject the oppositions against European patent No. EP 2 465 602. The patent in suit concerns a method and device for exhaust gas cleaning.
- II. Opponent I (appellant) appealed this decision. It referred, *inter alia*, to the following document:
- D5 DE 40 12 411 A1 (WEBASTO AG FAHRZEUGTECHNIK [DE])
(24 October 1991)
- III. With its reply, dated 20 June 2019, to the board's preliminary opinion, the patent proprietor (respondent) submitted, *inter alia*, a third auxiliary request. During the oral proceedings the respondent amended this third auxiliary request and maintained it as its sole final request. It differs from the previous third auxiliary request only in that the erroneous back reference "or 2" has been deleted from dependent claim 2.
- IV. The only independent claim 1 of this sole final request reads:
- "A method for cleaning exhaust gas, in which method urea solution, urea/water solution or ammonia (110) is fed into an exhaust gas flow flowing in an exhaust gas passage (10), wherein*
- the exhaust gas flow is divided into a centre flow (20) flowing in the centre of the cross-section of the exhaust gas passage and an edge flow (22) and*
 - the urea solution, urea/water solution or ammonia is fed into said centre flow,*

characterised in that said edge flow rotates and advances around the centre flow."

Claim 2 relates to a preferred embodiment of the method of claim 1.

- V. The appellant requested that the third auxiliary request of 20 June 2019 be rejected as inadmissible and raised objections under Articles 123(2) and 56 EPC, but had no objection as to the amendment carried out in the course of the oral proceedings (see item III above).
- VI. The appellant's arguments as far as relevant for the present decision may be summarised as follows.

The third auxiliary request dated 20 June 2019 should not be admitted into the appeal proceedings. It was late filed and the description had not been adapted. It was not clearly allowable and raised a new issue under Article 123(2) EPC.

The requirements of Article 123(2) EPC were not met because the term "reactive substance" had been deleted.

The subject-matter of claim 1 lacked inventive step in view of D5 because the type of the reactive substance was irrelevant for the technical problem addressed, namely the distribution of a reactive substance in the exhaust gas stream, and the prevention of precipitates on the walls of the exhaust pipe.

- VII. The respondent's arguments as far as relevant for the present decision may be summarised as follows.

The filing of the third auxiliary request of 20 June 2019 was a reaction to the course of the proceedings. In this request, all device claims were deleted, which constituted a simple amendment that did not raise new issues. Claim 1 was the same as in some of the former requests, and corresponded to claim 2 of the patent as granted.

D5 did not relate to the same purpose as the patent in suit and was not a suitable starting point for assessing inventive step, so that it could not render the claimed method obvious.

VIII. Opponent II (party as of right) did not submit any comments or requests as to the substance of the appeal.

IX. The appellant (opponent I) requested that the decision under appeal be set aside and the patent be revoked.

The respondent (patent proprietor) requested that the decision under appeal be set aside and the patent be maintained on the basis of the sole request, filed as 3rd auxiliary request during oral proceedings.

Reasons for the Decision

1. Admission of the claim request

1.1 The filing of the third auxiliary request of 20 June 2019 was a reaction to the course of the proceedings and the preliminary opinion of the board. At the same time, the respondent withdrew several then pending auxiliary requests, thereby actively contributing to procedural economy.

- 1.2 All device claims were deleted and claim 1 was limited to the method of claim 2 as granted. These amendments were straightforward, addressed the objections raised, and neither posed any difficulties in dealing with them nor raised new issues.
- 1.3 As set out in detail below, the board does not agree with the appellant that the amendments are *prima facie* objectionable under Article 123(2) EPC.
- 1.4 The board also sees no reason to hold the claims inadmissible because no adapted description pages have been filed, since in the present case the respondent would be given the possibility to provide an adapted description before the department of first instance, if necessary.
- 1.5 The final set of claims submitted during the oral proceedings corresponds to the then pending third auxiliary request filed on 20 June 2019; the only difference, namely the deletion of the obviously erroneous back reference, leaves the scope of the claims unaffected and is irrelevant for the present considerations. Additionally, when introducing the amended third auxiliary request in the oral proceedings, the respondent withdrew all other requests.
- 1.6 The appellant and opponent II did not raise any objections to this amendment carried out in the third auxiliary request dated 20 June 2019 to result in the third auxiliary request forming the basis of the present decision.

- 1.7 In view of the reasoning above, the latter request was therefore admitted into the proceedings.
2. Added subject-matter
- 2.1 Claim 1 formally differs from granted claim 2 in that the expression "reactive substance" has been deleted. The compliance of this amendment with Article 123(2) EPC may therefore be examined in the present opposition appeal proceedings.
- 2.2 According to the appellant, the deletion of the feature "reactive substance" in claim 1 results in subject-matter which extends beyond the scope of the patent application as originally filed.
- 2.3 In claim 1, the feature "reactive substance" has been replaced by the expression "urea solution, urea/water solution or ammonia". This amendment is based on claim 2 of the original patent application.

In the present context, the reference to "urea solution, urea/water solution or ammonia" in original claim 2 can only be understood in the sense that it further specifies the "reactive substance", see also the lower half of page 7 and the upper half of page 14 as originally filed, corresponding to paragraphs [0029] and [0045] of the patent in suit.

The generic expression "reactive substance" has thus been replaced by specific reactive substances, and has consequently become superfluous. In the present case, its deletion does not affect the scope of the claim. There is, for example, no difference between urea as reactive substance and urea in general.

- 2.4 The amendment therefore complies with the requirements of Article 123(2) EPC.
3. Inventive step
- 3.1 The patent at issue concerns a method for cleaning exhaust gas (paragraph [0001] of the patent).
- 3.2 D5 is the only document relied upon by the appellant in support of its objection of lack of inventive step of the final set of claims.
- 3.3 D5 describes a burner for regenerating a particle filter in an exhaust gas passage (column 1, lines 3-6). The burner is operated using exhaust gas (column 4, lines 48-54) and comprises a nozzle (4) for injecting fuel into an exhaust gas stream, see Figure 1 and column 4, lines 65-67.
- 3.4 There is no mention of feeding urea solution, urea/water solution or ammonia in D5.
- 3.5 The problem underlying the present invention is to provide a method for cleaning exhaust gas which involves feeding a reactive substance into the exhaust gas stream without causing precipitation on the walls of the exhaust gas passage (paragraphs [0003], [0008] of the patent).
- 3.6 As the solution to this problem, the respondent proposes the method according to claim 1. The opponents did not dispute that this problem was solved by the proposed solution.

3.7 While the burner of D5 is used in the context of a method for purifying exhaust gas, the teaching of D5 focuses on the provision of the burner as such. D5 does not deal in a general manner with the problem of distributing a reactive substance in an exhaust gas stream.

Specifically, D5 addresses the technical problem of constructing the burner such that it allows uniform heating of the entrance face of a downstream particle filter, enabling efficient regeneration of the particle filter, see column 2, lines 9-13. The construction or operation of the burner is an entirely different purpose than the provision of a method for cleaning exhaust gas, addressed in the patent in suit.

3.8 D5 was the only document cited by the appellant in view of lack of inventive step against the set of claims at issue. However, the feeding of urea solution, urea/water solution or ammonia, all known to be SCR (selective catalytic reduction) reagents, would have been incompatible with the purpose of D5, namely the fuelling of the burner.

3.9 Starting from D5, the skilled person would therefore not have arrived in an obvious manner at the subject-matter of claim 1 or claim 2, respectively.

3.10 The claimed method therefore involves an inventive step (Article 100(a) EPC in conjunction with 56 EPC).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance with the order to maintain the patent in amended form on the basis of the claims of the request filed as 3rd auxiliary request during oral proceedings and a description to be adapted.

The Registrar:

The Chairman:



C. Vodz

E. Bendl

Decision electronically authenticated