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D E C I S I O N
of 18 October 2001

Case Number: T 0587/96 - 3.3.7

Application Number: 91100402.6

Publication Number: 0439046

IPC: B32B 3/12

Language of the proceedings: EN

Title of invention:
Pad including heat sink and thermal insulation area and laminate having shapability

Patentee:
ATD CORPORATION

Opponent:
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(02) AAW Produktions AG
(03) WANIT-Universal GmbH & Co. KG
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(04) VAW Aluminium AG
(05) ASGLAWO GmbH Stoffe zum Dämmen und Verstärken
(06) Rex Patent Graf von Rex GmbH & Co. KG
(07) Rieter Automotive (International) AG
(08) H. Wilhelm Meckenstock GmbH

Headword:
-

Relevant legal provisions:
EPC Art. 54, 84, 123(2)

Keyword:
"Novelty - main request (no)";
"Clarity - auxiliary requests (no) - definition of the dimensions of a first entity by an unspecified second entity"
"Amendments - auxiliary requests - added subject-matter (yes)"

Decisions cited:
T 0455/92

Catchword:
-

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Case Number: T 0587/96 - 3.3.7

D E C I S I O N
of the Technical Board of Appeal 3.3.7
of 18 October 2001

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Decision under appeal: **Decision of the Opposition Division of the**

European Patent Office posted 15 April 1996 revoking European patent No. 0 439 046 pursuant to Article 102(1) EPC.

Composition of the Board:

Chairman: R. E. Teschemacher
Members: B. J. M Struif
B. L. ter Laan

Summary of Facts and Submissions

I. The mention of the grant of European patent No. 0 439 046 with respect to European patent application No. 91 100 402.6 was published on 22 September 1993. This patent contained claims 1 to 26, including two independent claims.

II. Eight notices of opposition were filed on the grounds of lack of novelty and lack of inventive step, insufficient disclosure and extension of protection under Article 100(a), (b) and (c) EPC. The oppositions were supported *inter alia* by the following documents:

R7: US-A-2 212 481

R58: ASTM C 740-82 "Standard Practice for Evacuated Reflective Insulation in Cyrogenic Service".

III. By a decision of the opposition division issued in writing on 15 April 1996 the patent was revoked. The decision was based on a set of claims 1 to 24 as main request, independent claims 1 and 19 reading as follows:

"1. A pad including thermal insulation and heat sink areas, comprising:

a plurality of layers (2) of metal foil forming a stack (3) wherein said layers (2) are arranged one above another in a vertical direction, said stack (3) including at least one heat sink area (4) and at least one thermal insulating area (5) adjacent to said heat sink area (4), said layers being closer together in said vertical direction (A) at said heat sink area (4)

than at said insulating area (5), at least one of said layers including a plurality of embossments (6) therein separating said one layer (2) from an adjacent one of said layers (2) in said insulating area (5) so as to provide gaps there between, wherein one of said layers (2) in said insulating area (5) is not metallurgically bonded to another one of said layers, and wherein said heat sink area (4) comprises a compressed portion of the stack".

19. "A method of making a heat insulating pad having insulating and heat sink areas, comprising:

a step of assembling a plurality of layers (2) of metal foil in a stack wherein said layers are arranged one above another in a vertical direction, at least two of said layers being separated from each other by a plurality of embossments on at least one of said layers; and

a step of compressing said stack such that heat sink and insulating areas are formed therein with said layers being closer together in said vertical direction at said heat sink area than at said insulating area, said embossments in said insulating area separating said layers so as to provide a gap there between."

Dependent claims 2 to 18 corresponded to claims 4 to 20 as granted and concerned preferred embodiments of the pad of claim 1. Dependent claims 20 to 24 referred to preferred embodiments of the method of claim 19; they corresponded to claims 22 to 26 as granted.

The decision was based on the following grounds:

(a) Claim 1 of the main request was considered to meet the requirements of Article 123(2) and (3) EPC and the invention was found to be sufficiently disclosed in accordance with Article 83 EPC.

(b) Claims 1 and 19 were regarded as lacking novelty over R58. R7 was considered to be novelty-destroying for claim 1 but not for claim 19.

(c) The auxiliary request filed during the oral proceedings before the opposition division was considered to be not clearly allowable and was not admitted into the proceedings.

IV. On 24 June 1996, a notice of appeal against the above decision was filed, the prescribed fee being paid on the same day. With the statement of the grounds of appeal filed on 26 August 1996, the appellant (patentee) submitted a set of claims 1 to 25 as the sole request.

V. In a letter dated 18 September 2001 the appellant

(a) returned to the main request underlying the decision of the first instance,

(b) filed 11 new sets of claims, numbered 1.1 to 1.3, 2.1 to 2.4, 3.1 to 3.4, as auxiliary requests,

(c) filed an unspecified set of claims "comprising any combinations of the claims of auxiliary requests 2.1 to 2.4 with the claims of auxiliary requests 3.1 to 3.4" as auxiliary request 4,

(d) maintained the set of claims filed with the

statement of the grounds of appeal as auxiliary request 5 and

(e) filed further unspecified claims "based on the product claims of the main request or the product claims of the above-mentioned auxiliary requests 1 to 5" as auxiliary request 6.

VI. Oral proceedings were held on 18 October 2001 in the absence of respondents/opponents 03, 04, 05 and 07 (Rule 71(2) EPC), who had announced in writing that they would not attend. During the oral proceedings further amendments were made. The following sets of claims were filed as final requests and were discussed accordingly:

i. *Main request*:

Claims 1 to 24 underlying the decision under appeal.

ii. *Modified auxiliary request 1.1*:

Claim 1 reads:

"1. **A pad for shielding an area in the vicinity of a heat source, wherein the pad is larger than the heat source and includes** thermal insulation and heat sink areas, comprising:

a plurality of layers (2) of metal foil forming a stack (3) wherein said layers (2) are arranged one above another in a vertical direction, said stack (3) including at least one heat sink area (4) and at least one thermal insulating area (5) adjacent to said heat sink area (4), said layers being closer together in

said vertical direction (A) at said heat sink area (4) than at said insulating area (5), at least one of said layers including a plurality of embossments (6) therein separating said one layer (2) from an adjacent one of said layers (2) in said insulating area (5) so as to provide gaps there between, wherein one of said layers (2) in said insulating area (5) is not metallurgically bonded to another one of said layers, and wherein said heat sink area (4) comprises a compressed portion of the stack **so that heat which penetrates the pad is conducted to a desired location for dissipation**".

(The differences with claim 1 of the main request are indicated in bold by the Board).

Claims 2 to 24 are identical to those of the main request.

iii. *Auxiliary requests 1.2, 1.3, 2.1 to 2.4* (24 claims each) *and 3.1 to 3.4* (23 claims each; claim 4 of the main request being deleted):

Claim 1 of each of these auxiliary requests contains the above indicated first amendment of claim 1 of modified auxiliary request 1.1.

iv. *Two sets of "use claims*":

(a) Claim 1 of the first set of use claims corresponds to claim 1 of auxiliary request 1.1 with the difference that, at the beginning, the word "A" is replaced by the term "Use of a". Dependent claims 2 to 18 correspond to claims 2 to 18 of the main request, however also amended into "use

claims".

(b) In the second set of use claims the word "comprising" before the term "a plurality of layers (2)" in claim 1 of the first use claim is replaced by the word "consisting of".

v. *Modified auxiliary request 5*:

Claim 1 reads:

"A pad including thermal insulation and heat sink areas, comprising:

a plurality of layers (2) of metal foil forming a stack (3) wherein said layers (2) are arranged one above another in a vertical direction, said stack (3) including at least one heat sink area (4) and at least one thermal insulating area (5) adjacent to said heat sink area (4), at least one of said layers including a plurality of embossments (6) therein separating said one layer (2) from an adjacent one of said layers (2) in said insulating area (5) so as to provide gaps there between wherein at least one of said layers (2) in said insulating area (5) is in point contact with another one of said layers and is not metallurgically bonded to another one of said layers; wherein said heat sink area (4) comprises a compressed portion of the stack whereby each layer (2) is in flat contact with an adjacent layer in the heat sink area and the heat sink area (4) is located to dissipate heat from the pad".

Claims 2 to 18 correspond to claims 2 to 18 of the main request.

VII. The appellant argued in writing and at the oral proceedings in substance as follows:

i. Regarding the novelty of the main request, the thermal radiation shields described in R58 were used for superinsulations in cryogenic service wherein heat transfers by solid conduction, such as an additional heat leak, should be avoided. The decision under appeal had misinterpreted the term "additional heat leak" in R58 to equate with a "heat sink". The heat sink as claimed comprised a substantial vertical compression of the metal foils to increase the heat conductivity thereof substantially and to conduct heat which penetrated the pad to a desired location, such as along the outer periphery of the pad. The term "heat sink" implied the connection of the pad to the outside, e.g. a structure of a vehicle having high heat capacity, so as to dissipate heat from the pad to said structure or to the surrounding air. It served to control the heat flow. A heat leak, however, was unintentional, it was not connected to the outside and its thermoconductivity was only slightly raised and should be as low as possible. Thus, the function of a heat sink was clearly distinguished from that of a heat leak.

Furthermore, in R58 the exemplified radiation shields either comprised metallized plastic films or metal foils separated by separator materials but no dimpled or wrinkled metal foils alone so that the claimed subject matter was novel.

For the same reasons independent process claim 19 was novel. Also, the specific process steps were

not described in R58.

ii. The basis for the modifications in auxiliary request 1.1 could be found in the description as originally filed.

As to clarity, the person skilled in the art, reading the amended features of auxiliary request 1.1, knew which area should be shielded against the radiation of a heat source within a particular environment. By measuring the heat flux in said particular environment it could be determined whether the heat shielding by the pad was effective. Thus, the individual user had no difficulty in choosing the size of the pad for a given heat source in order to fulfill the definition of claim 1. The second amended feature was also clear since the skilled person knew which part of the pad was suitable to conduct heat for dissipation when the pad was used within a specific environment.

The amended features provided a further distinction over the cited prior art.

iii. Regarding disclosure and clarity of the modifications in auxiliary requests 1.2, 1.3, 2.1 to 2.4 and 3.1 to 3.4, the same arguments were valid as for modified auxiliary request 1.1.

iv. As to the admission into the proceedings of the late filed use claims, these claims did not involve a substantial change of the subject matter compared to auxiliary request 1.1 and they caused no further delay of the proceedings. The

respondents could not be surprised by the change of category and should be able to cope with this situation in the oral proceedings.

Regarding extension of protection, the change of category from product claims to use claims was allowable, as confirmed by case law.

As to novelty, the use claims provided a clear restriction so that R58 was even less relevant and could not destroy novelty.

v. The amendments in modified auxiliary request 5 could be derived from the application as originally filed. In particular, the disclosure of the features "in point contact", "in flat contact" and "to dissipate heat from the pad" was indicated.

Regarding extension of protection with respect to the feature omitted from granted claim 1 "said layers being closer together in said vertical direction (A) at said heat sink area than at said insulation area (5)", this feature had become redundant by the further specifications in the claim.

VIII. The respondents' arguments given in writing and at the oral proceedings can be summarized as follows:

i. As to the novelty of the main request, R58 disclosed the same measures (compressed area) as claimed, which must inevitably lead to the same technical effect. That the compression of the pad by a cinch band did in fact result in a better

conductivity between the foils was illustrated by the use of the term "heat leak". For novelty it was not decisive whether that heat leak was described as undesired. Also, the pad described in R58 could consist only of metal foils having embossments, which were formed by dimpling or crinkling to provide an insulation area. Even if the pad of R58 comprised metal foils and spacer material, claim 1 of the patent in suit was not distinguished therefrom, because the wording of claim 1 did not exclude such an arrangement.

Process claim 19 was not novel either as the process steps were disclosed as well in R58.

ii. As to the basis for modified auxiliary request 1.1, the first amended feature was not derivable from the application as filed.

Regarding clarity, the first amended feature defined the size of the claimed pad (first entity) by reference to a second entity (heat source) which was not part of the claimed entity. The size of the pad was thus dependent on the dimensions of an unspecified, non-claimed heat source, an unspecified distance therefrom (in the vicinity of) and its unclear relation to the heat source (larger than). The last amended feature of claim 1 was not clear either, as the term "to a desired location" was not related to any specific part of the pad.

Furthermore, the first amended feature only related to an intended purpose, which was not suitable providing for a further distinction over

the cited prior art.

iii. The same arguments were valid regarding the basis for the amendments and the clarity of amended auxiliary requests 1.2, 1.3, 2.1 to 2.4 and 3.1 to 3.4.

iv. The objections raised with respect to the basis for the amendments and the clarity of the first amended feature of auxiliary request 1.1 also applied to the use claims. Since those claims were therefore not clearly allowable, they should not be admitted into the proceedings.

Furthermore, the change of category did not provide a patentable distinction over R58.

v. As to modified auxiliary request 5, objections were raised regarding the basis for the amendments, extension of protection and clarity.

IX. The appellant (patentee) requested that the decision under appeal be set aside and that the patent be maintained on the basis of claims 1 to 24 as submitted during the oral proceedings before the opposition division, alternatively on the basis of modified auxiliary request 1.1 as submitted during the oral proceedings before the Board, or on the basis of one of the further auxiliary requests filed with letter dated 18 September 2001, modified auxiliary request 5 being amended during the oral proceedings before the Board, or on the basis of the two further auxiliary requests filed during the oral proceedings before the Board (use claims).

X. The respondents (opponents) requested that the appeal be dismissed.

Reasons for the Decision

1. The appeal is admissible

Main request

Novelty

2. For novelty, the question to be decided is whether all claimed features can directly and unambiguously be derived from a single cited prior art document.

2.1 R58 discloses a multi layer insulation comprising many layers of radiation shields in the form of metal foils which are separated from each other by a minimum number and size of low conductance contact, by dimpling and crinkling the metal foils or by using a separate spacer material (points 1.1, 5.1.1 and 5.2.3.1). By such an arrangement of layers, gaps between adjacent layers are provided so that an insulation area is formed. The plurality of layers of metal foils give flexibility for easy folding without stiffness and can have the form of, for example, blankets sheared to the required size and shape (points 7.2.2. and 5.2.3.1.).

Since the pad according to the patent in suit also contains a plurality of layers of metal foils making the pad flexible (column 6, lines 44 to 46), the multilayer insulation of R58 can be regarded as a "pad" within the meaning of the patent in suit.

2.2 The different layers in R58 are each placed over the entire surface to be insulated and are positioned perpendicular to the flow of the heat (points 5.2.4.1, 1.1), so that they are arranged one above the other in a vertical direction with respect to the heat source, thereby forming a stack, as now claimed.

Because the multilayer insulation of R58 consists of separate layers of material, a method of securing these layers in place must be used, to prevent slipping or shifting during fabrication or use (point 5.3.1). In one such method a cinch band is used which is applied around the object after it is insulated, thereby applying compression to a small portion of the insulated surface area. By such a construction, the layers are brought closer together and so cause a higher heat flux in that area, as illustrated in Figure 2 of R58, thus forming a heat leak (point 5.3.3). The area adjacent to the compressed area of R58 is unaffected by any compression and can therefore be regarded as an insulation area.

In the patent in suit the heat sink area is defined as conducting a greater amount of heat between opposite surfaces of the pad than does the thermal insulating area (column 2, lines 35 to 37). The compression of the metal foils under the cinch band in R58 results in an increased heat flux in the form of a heat leak whilst in claim 1 of the main request the compression in the heat sink area leads to an increased heat transfer. Consequently, the technical effect in both cases is an increased heat flux or heat transfer which originates from the same technical feature, namely a compressed area. A different designation of the same effect does not provide a technical distinction over the cited

prior art and can therefore not be a novel feature. That the compression in R58 is only slight or even undesired is not relevant in this respect. What counts is that the compressed area in R58 fulfils the definition of a heat sink given in the patent in suit.

2.3 The function of the heat sink described in the patent in suit cannot provide a further distinction either.

According to the patent in suit, the heat sink can be used for dissipating heat at a desired location (column 1, lines 5 to 7, column 6, lines 14 to 17). In particular, heat which penetrates the pad can be conducted to a desired location such as along the outer periphery of the pad (column 6, lines 21 to 23). In the latter case, the heat sink area carries heat away from the center zone of the pad (column 6, lines 29 to 31). In order to dissipate heat from the pad, means for carrying away the heat from the pad are exemplified by circulating air (column 3, lines 46 to 53).

The above description is only related to an intended use of the pad which cannot provide a restriction to the pad itself, as claimed, and hence cannot be used to restrict the claimed subject-matter by way of interpretation. Even if, for the sake of argument, such an intended use for dissipating heat at a desired location were interpreted to limit claim 1, it would not provide any further distinction over R58, since this dissipating function would also be met if the multilayer insulation of R58 were used in a corresponding environment providing heat dissipating means.

Furthermore, the dissipating function of the pad as

described above requires means having a different temperature from that of the pad itself for carrying away heat from the pad. However, the claimed subject-matter does not include any such means. Consequently, the claimed pad does not provide any distinction in this respect.

2.4 As regards the presence of spacer material between the layers in the insulating material described in R58, the following can be said:

According to the general disclosure of R58, the shield separation can be achieved by dimpled or crinkled metal foils **or** by using a separate spacer material (point 5.1.1) (emphasis added). In this connection the separator material of R58 is described as an alternative option for shield separation (point 7.4.1 first sentence). Consequently, contrary to the Appellant's argument, the disclosure of R58 is not restricted to the presence of spacer material.

Moreover, in claim 1 the definition "A pad ...comprising a plurality of layers (2)..." is an open formulation which does not restrict the pad to embodiments only consisting of layers of metal foils. This open definition is furthermore confirmed by the specification of the patent in suit which makes reference to scrims (11) of heat resistant material such as polyester which are placed between two of the layers adjacent to each other in the insulating area (claim 24 as granted, Figure 2, column 4, lines 7 to 11 and column 9, lines 33 to 39). Such scrims thus can be considered as spacer material. Consequently, claim 1 by itself as well as when read in the light of the patent specification, explicitly includes embodiments wherein

metal foils are used together with suitable spacer materials. Therefore, even if the disclosure of R58 were limited to the presence of spacer materials, claim 1 did not contain a distinguishing feature in this respect.

2.5 In view of the above, the subject-matter of claim 1 of the main request is not novel.

2.6 Since the whole request falls with claim 1, it is not necessary to deal with the other claims. However, it may be added that, since all process features of claim 19 which are different from features of claim 1 are also known from R58 (assembling step: see points 5.2.2.1 and 5.2.3.1; compressing step: see points 5.3.3 and 5.3.4), that claim, too, lacks novelty.

2.7 For the above reasons the main request does not comply with the requirements of Article 54 EPC.

Modified auxiliary request 1.1

Article 123(2) EPC

3. Compared with the main request, against which no objection pursuant to Article 123(2) EPC had been raised, two modifications have been introduced:

(i) "for shielding an area in the vicinity of a heat source, wherein the pad is larger than the heat source" and

(ii) "heat which penetrates the pad is conducted to a desired location for dissipation".

For the basis of the amendments the appellant relied upon page 15, lines 6 to 14 of the application as originally filed (column 6, lines 17 to 23 of the patent in suit). However, this passage relates to an embodiment reading as follows: "The pad is particularly useful for providing "hot spot" insulation wherein the pad which is larger than a heat source can be used to shield an area in the vicinity of the heat source by radiating heat back towards the heat source and conducting heat which penetrates the pad to a desired location such as along the outer periphery of the pad". A comparison between the amended features and the passage as orginally disclosed reveals that two elements of the original disclosure have been omitted from the specific context.

3.1 The first omitted element relates to a particular use of the pad for providing "hot spot" insulation when the pad is used to shield a heat source. Therefore, the requirements of size and distance now present in claim 1, had originally been disclosed only in connection with the use as hot spot insulation. Since the relevant passage describes the only embodiment involving a relationship between the size of the pad and the heat source and the distance between them, and the patent in suit does not contain any further information about hot spot insulation, it is not apparent that the feature of the use as hot spot insulation would be redundant, as argued by the Appellant, and that therefore it could be omitted.

3.2 The second omitted element concerns the function of the

pad "to radiate heat back towards the heat source", which function is influenced considerably by the nature of the surface of the layers (page 16, lines 15 to 30 and 20, line 24 to page 21, line 13 of the application as filed). Consequently, the omitted feature defines a function of the pad which, in addition to its function to conduct heat penetrating the pad to a desired location, is necessary to effectively shield a heat source. Thus, by omitting the radiation function of the pad from the disclosed context, the amendment changes the content of the claim in a way which could not be derived from the application as originally filed. Since the original description does not contain any further information from which it could be concluded that the radiation function would be redundant in this respect, the possibility to omit this feature could not be derived from it.

3.3 Therefore, singling out the amended features from their context presents the skilled person with technical information which is not directly and unambiguously derivable from the original disclosure. Thus, claim 1 of auxiliary request 1.1 contravenes the requirements of Article 123(2) EPC.

Clarity

4. The first modification relates to a relative distance (in the vicinity of) of the area to be shielded and the relative size of the pad (larger than) in relation to a heat source. Thus, the amended feature defines the relative size of the claimed physical first entity (the pad) by its relationship to an unspecified second entity (the heat source). The size of the second entity is not defined; nor is it standardized or known *per se*

and its dimensions are not clear since the patent specification, too, does not provide any indication in that respect. Hence, the term "heat source" covers any dimensionally indefinite natural or artificial heat source such as the sun, hot air, water, a lamp, etc. The indefinite dimension of the heat source is even made more ambiguous by the vague and relative terms "in the vicinity of" and "larger than ..." which are related thereto.

In case T 455/92 (cited in Case Law of the Boards of Appeal of the European Patent Office, 3rd edition 1998, II.B.1.2.2(b)(bb)), in which the size of a first entity (a covering sheet) had also been defined by reference to a second entity (a compressed agricultural round bale), the dimension of the second entity was known and hence the size of the first entity was definable. However, in the present case the heat source and its vague relation to the pad are not sufficiently specified so as to clearly define the size of the pad.

For the above reasons the claimed subject-matter does not comply with the requirements of Article 84 EPC.

5. In view of the above, auxiliary request 1.1 cannot be allowed, so that the question of novelty need not be decided.

Auxiliary requests 1.2. 1.3, 2.1 to 2.4, 3.1 to 3.4 and two sets of use claims

6. Claim 1 of all of the above indicated requests contains the first modification of auxiliary request 1.1, so that the reasons given for not complying with Articles 123(2) and 84 EPC also apply to these requests

and they cannot be allowed.

Modified auxiliary request 5

Article 123(2) EPC

7. Claim 1 of this request, compared to claim 1 as granted, now contains *inter alia* the following features:

- "at least one of said layers (2) in said insulating area (5) is in point contact with another one of said layers ..." and

- "each layer (2) is in flat contact with an adjacent layer in the heat sink area ...".

7.1 According to page 19, lines 19 to 29 of the application as filed, at least two adjacent layers having embossments are in point contact with one another when they are offset with respect to each other, so that at least some of the embossments are not aligned in the vertical direction. In line with that, Figures 2 and 5 show a point contact between adjacent layers in the insulation area which are offset with respect to each other so that at least some of the embossments are not aligned in the vertical direction. The latter feature is however not mentioned in claim 1, which is hence not restricted to the point contact of adjacent layers in offset position. Therefore, there is no basis in the original application for the subject-matter now being claimed.

7.2 Regarding the second amendment, the appellant had not disputed that the application as originally filed does

not use the wording "flat contact". Nevertheless, he argued that this feature could be derived at least implicitly from the application as filed.

Figures 2 and 5 refer, in accordance with claim 1, to a heat sink area (4) wherein the layers are closer together than in the thermal insulation area (5) (page 17, lines 2 to 6). The layers in the heat sink area are however shown to have a distance between them. This information is in line with page 17, lines 17 to 22, according to which the layers 2 in the heat sink area can be "not in direct contact" with each other. Consequently, a "flat contact" can not be derived from Figures 2 and 5.

The term "flattened" in the original description (page 18, lines 25 to 27) is only used in the context of a specific combination wherein "the embossments which are flattened will metallurgically and mechanically bond to the adjacent layer 2". None of these latter features have been incorporated into claim 1.

For the reasons indicated above, the amended features result in claimed subject-matter that could not be derived from the application as originally filed, so that the request cannot be allowed (Article 123(2) EPC).

Auxiliary request 4

8. Since this request refers to any combinations of the claims of auxiliary requests 2.1 to 2.4 with the claims of auxiliary requests 3.1 to 3.4 and no such combinations are presented that formulate a claim or a

set of claims, it is not possible to evaluate whether the requirements of the EPC are met. Thus, this unspecified request cannot be further considered.

Auxiliary request 6

9. This request refers to unspecified claims based on the product claims of the main request or the product claims of the above mentioned auxiliary requests 1 to 5. As in all specified sets of claims the product claims fail for not complying with Articles 54, 123(2) and/or 84 EPC for the same reasons as specified under points 2., 3., 4., 5. and 6., auxiliary request 6 cannot be allowed either.

10. It follows from the above that none of the requests meets the requirements of the EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

C. Eickhoff R. Teschemacher