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Datasheet for the decision of 16 January 2007

Case Number: T 1112/04 - 3.2.07

Application Number: 94309303.9

Publication Number: 0661212

IPC: B65B 51/26

Language of the proceedings: EN

Title of invention:
Packaging machine and method of operation

Patentee:
ISHIDA CO., Ltd.

Opponent:
Rovema Verpackungsmaschinen GmbH

Headword:
-

Relevant legal provisions:
EPC Art. 56, 123(2)
RPBA Art. 10a(1)(c), 10a(2), 10b(1), 10b(3)

Keyword:
"Auxiliary request filed during oral proceedings - not admitted"
"Request that the respondent should not be allowed to argue - not accepted completely"
"Request that the respondent should not be allowed to refer to an opposition ground - accepted for ground not mentioned in response to appeal"
"Inventive step - no"

Decisions cited:
-

Catchword:
-

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Case Number: T 1112/04 **-** 3.2.07

D E C I S I O N
of the Technical Board of Appeal 3.2.07
of 16 January 2007

Appellant: (Patent Proprietor)
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Decision under appeal:
Decision of the Opposition Division of the European Patent Office posted 21 July 2004 revoking European patent No. 0661212 pursuant to Article 102(1) EPC.

Composition of the Board:

Chairman: H. Meinders
Members: P. O'Reilly
C. Holtz
H. Hahn
E. Lachacinski

Summary of Facts and Submissions

I. Opposition was filed against European patent No. 0 661 212 as a whole based on Article 100(a) EPC (lack of novelty and lack of inventive step).

The opposition division decided to revoke the patent. The opposition division held that the subject-matter of independent claim 1 of the patent as granted did not involve an inventive step and that the subject-matter of independent claim 10 of the patent as granted was not novel.

II. The appellant (proprietor) filed an appeal against the decision.

Oral proceedings were held before the Board on 16 January 2007.

III. The appellant requested that the decision under appeal be set aside and the patent be maintained as granted (main request). Alternatively, the appellant requested that the patent should be maintained in amended form in accordance with one of the following requests: the first auxiliary request filed with the submission dated 15 December 2006, the second auxiliary request filed during oral proceedings on 16 January 2007, the third auxiliary request filed (as second auxiliary request) with the submission dated 15 December 2006, or the fourth auxiliary request filed (as third auxiliary request) with the submission dated 15 December 2006. The fifth and sixth auxiliary requests filed (as fourth and fifth auxiliary requests) with the submission dated

15 December 2006 were withdrawn during the oral proceedings before the Board.

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

IV. The independent claims of the patent as granted (main request) read as follows:

"1. A method of operating a packaging machine of a form-fill-seal type having a pair of sealing means (12, 14) for compressing film sheets (W) together therebetween at a seal position to seal said film sheets together and to thereby form a bag, and detecting the existence of objects inserted between said film sheets at said seal position, said method comprising the steps of:
selecting a physical variable which varies with the separation between said pair of sealing means (12, 14);
setting a standard range in said physical variable, said standard range including a standard value of the physical variable;
operating said packaging machine to form a filled package by forming a bag with said film sheets, introducing objects into said bag, and moving said pair of sealing means towards each other to seal said bag;
obtaining a measured value of said physical variable at said seal position; and
determining whether said measured value is within said standard range, characterised in that the method further comprises moving said pair of sealing means towards each other to experimentally determine said standard value by sealing empty bags, so that said standard value corresponds to the separation between said pair of

sealing means when the film sheets are sealed together without any objects inserted between said film sheets."

"10. A packaging machine of a form-fill-seal type comprising:
a film supporting means (97) for supporting a roll of film (W) of a bag-making material;
a former (98) for forming said film into a tubular shape;
film guiding means (105) for guiding said film from said film supporting means to said former and said tubularly formed film in a longitudinal direction;
a longitudinal sealer (102) for sealing side edges of said tubularly formed film together in said longitudinal direction;
a transverse sealer (10) having a pair of sealing means (12, 14) for compressing and sealing sheets of tubularly formed film together therebetween transversely to said longitudinal direction and thereby forming a bag containing objects therein;
a measuring means (22) for measuring a specified physical variable which varies with the separation between said pair of sealing means (12, 14); and
a control means for determining whether a measured value obtained by said measuring means is within a predetermined range which contains said standard value, characterised in that said control means serves also to experimentally determine a standard value of said physical variable from one or more measured values of said selected variable obtained by said measuring means (22), said standard value corresponding to said separation when said film sheets are sealed together by said sealing means (12, 14) without any objects inserted therebetween."

The independent claims of the first auxiliary request differ from those of the main request in that the term "objects" has been replaced by "**crumbs**".

The independent claims of the second auxiliary request contain the following extra features (depicted in bold) added at the ends of the respective claims when compared to the corresponding claims of the main request:

"1. …between said film sheets, **wherein said pair of sealing means (12, 14) is moved away from or towards each other by converting rotary motion of a motor (18) into a linear motion, the motor being adapted to change the direction of its rotary motion as a bag is being sealed when the load torque on the motor exceeds a specified value, said physical variable being the angle of rotation of the motor**."

"**7**. …any objects inserted therebetween, **wherein said transverse sealer (10) includes a motor (18) and motion-communicating means (20) for converting rotary motion of said motor into a linear relative motion of said sealing means and thereby moving said pair of sealing means (12, 14) towards or away from each other, and said measuring means including a rotary encoder (22), the motor being adapted to change the direction of its rotary motion as a bag is being sealed when the load torque on the motor exceeds a specified value, said physical variable being the angle of rotation of the motor**."

The independent claims of the third auxiliary request contain the following extra features (depicted in bold) added at the ends of the respective claims when compared to the corresponding claims of the main request:

"1. …between said film sheets, **wherein said pair of sealing means (12, 14) is moved away from or towards each other by converting rotary motion of a motor (18) into a linear motion, said physical variable being the torque of said motor**."

"**7**. …any objects inserted therebetween, **wherein said transverse sealer (10) includes a motor (18) and motion-communicating means (20) for converting rotary motion of said motor into a linear relative motion of said sealing means and thereby moving said pair of sealing means (12, 14) towards or away from each other, said physical variable being torque of said motor and said measuring means including a rotary encoder (22)**."

The independent claims of the fourth auxiliary request differ from those of the third auxiliary request in that the term "objects" has been replaced by "**crumbs**".

V. The documents cited in the present decision are the following:

M3: US-A-4 768 327
M4: DE-A-39 07 208
M8: US-A-4 546 596

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

(i) The respondent did not file any detailed arguments in its response to the appeal grounds. The respondent should not therefore be allowed to file any further arguments directed against the

requests filed with the appeal grounds. If such arguments are filed or presented orally then the oral proceedings should be postponed. Since the respondent has not filed an appeal it is only a party as of right and forfeits that right if it is not exercised. In particular, the respondent should not be allowed to make reference in its oral arguments to the prior use that was alleged in the opposition proceedings. It is, however, accepted that the respondent is entitled to reply to the arguments brought forward by the appellant during the oral proceedings.

(ii) The subject-matter of claims 1 and 10 of the main request involves an inventive step. M3 is the nearest prior art document. The method of claim 1 is distinguished over the disclosure of M3 by the steps of establishing a standard range and determining the standard value experimentally. In M3 the separation of the jaws is only compared to a particular value and the standard value is not established experimentally. The problem to be solved is to distinguish between a good seal and the presence of an object in the seal having a similar size to the width of the film sheets. M3 is not concerned with this problem since it is only concerned with the problem of safety which would involve much larger objects, e.g. a finger. M3 does not need to solve the problem of crumbs, which is mentioned in the patent, since it avoids this problem by stripping objects out of the sealing region before effecting the sealing. M8 is also only concerned with the safety problem. M8 only makes a comparison between one cycle and the

next cycle to update the closed position of the sealing jaws and does not suggest establishing a standard value experimentally using empty bags.

(iii) The amendments to the independent claims of the first auxiliary request are based on column 4, line 58, of the patent description and hence conform to Article 123(2) EPC.

The subject-matter of claims 1 and 10 of the request involves an inventive step. In both M3 and M8 the objects that are being detected are much larger than crumbs so that these documents do not help the skilled person solve the problem of detecting crumbs.

(iv) The new second auxiliary request was filed during the oral proceedings because problems were seen arising out of the discussions of the main and first auxiliary requests. The amendments, compared to the previous second auxiliary request, are just to clarify the subject-matter of the claims. A basis for the amendments may be found in dependent claims 7 and 13 and in the description of the patent in column 4, lines 2 to 6 and 45 to 47.

(v) The amendment to claim 1 of the third auxiliary request is a combination of claims 1 and 7 as granted so that Article 123(2) EPC is complied with.

The subject-matter of claim 1 of this request involves an inventive step. The selection of the torque as the physical variable has the advantage

that this variable changes rapidly near the point where the sealing jaws are close to the film sheets so that it is easier to detect crumbs in the sealing area. This is shown by figure 3 of the patent in suit which shows a change in the slope of the graph at this point. The slope of the graph is related to the separation of the sealing jaws. The selection of this physical variable therefore solves the problem of increasing the sensitivity near the point where the sealing means are fully closed.

(vi) The amendments to the independent claims of the fourth auxiliary request are based on column 4, line 58, of the patent description and hence conform to Article 123(2) EPC.

The subject-matter of claims 1 and 7 of the fourth auxiliary request involves an inventive step for the same reasons as explained with respect to claim 1 of the first auxiliary request.

VII. The arguments of the respondent may be summarised as follows:

(i) It is not intended during the oral proceedings to refer to the prior use that was asserted during the opposition proceedings.

(ii) The subject-matter of claim 1 of the main request lacks an inventive step. The respondent does not agree with the appellant that the feature of the standard range is not disclosed in M3. M3 includes a transducer which translates an analogue position

value into a digital signal. Any single digital signal will have a range of respective analogue values linked to it since this is the way that such a device must work. This is based on the fact that the analogue signal is a continuous variable whereas the digital signal is a signal which of necessity changes stepwise. The problem to be solved by the only distinguishing feature, i.e. the determination of the standard value by experiment, is how to determine the standard value which is necessary in any method of operating a packaging machine. The witness heard during the opposition proceedings is a person skilled in the art and he indicated in his testimony that the film sheets were initially run through the machine empty so as to establish the parameters. This argument is not based on the prior use but only on the statement of a skilled person.

Moreover, in M8 it is suggested to update on the basis of a new measurement the value for the closed position which is stored in a memory. It is furthermore clear to the skilled person that a standard value for the separation of the jaws in their closed positions can either be determined theoretically or experimentally and there is no inventive step involved in choosing either of these options.

(iii) The subject-matter of claim 1 of the first auxiliary request lacks an inventive step. Whether a crumb or a larger object is detected is just a question of the resolution of the transducer and this is chosen according to the circumstances.

(iv) The second auxiliary request should not be admitted into the proceedings. The request is late filed. The change from "torque" to "angle of rotation" is a major change in direction for which the respondent has not been able to prepare a response. There are also problems with added subject-matter and clarity resulting from the amendments.

(v) The subject-matter of claim 1 of the third auxiliary request lacks an inventive step. The torque of the motor has nothing to do with the amount of resulting rotation and hence is unsuitable to act as a physical variable representative of the separation of the sealing means. In M4, see column 7, lines 57 to 63, a measurement of the torque is foreseen, albeit indirectly via the power uptake so that the skilled person would be aware of this physical variable.

(vi) The subject-matter of claim 1 of the fourth auxiliary request lacks an inventive step for the same reasons as explained with respect to claim 1 of the first auxiliary request.

Reasons for the Decision

1. *Right of the respondent to present arguments*

1.1 The respondent in its response to the appeal grounds merely made a general reference to its notice of

opposition, the minutes of the oral proceedings before the opposition division, and the grounds of the decision of the opposition division. The response did not indicate which parts of these documents were relevant as an answer to the specific matters raised by the appellant with respect to the decision under appeal. In accordance with Article 10a(2) of the Rules of Procedure of the Boards of Appeal this response therefore constitutes the complete case of the respondent and in accordance with Article 10b(1) of the Rules of Procedure of the Boards of Appeal any amendment of the case requires the agreement of the Board to admit the amendment into the proceedings.

Since the respondent did not present any specific arguments regarding the grounds of appeal the Board considers that there is no relevant substantive content in the response to the appeal.

1.2 Regarding the question whether the respondent should be allowed to argue in oral proceedings the Board has the following opinion.

1.2.1 The appellant argued that it had paid an appeal fee whereas the respondent had paid no such fee and was only a party as of right which had forfeited its right to present arguments by not replying in substance to the appeal.

With this argument the appellant overlooks the fact that the respondent was unable to file an appeal and pay the appeal fee since the patent had been revoked by the opposition division. The rights of the parties in subsequent appeal proceedings must be seen to be equal.

The payment of an appeal fee has no influence on the rights of the parties where a patent has been revoked. In particular, there is no basis in the Convention for a party as of right being considered to have forfeited its right of presenting arguments in oral proceedings.

1.2.2 The appellant requested in writing that that the respondent should not be allowed to file any further arguments with regard to any requests presented with the appeal grounds and that if any arguments were filed or presented in the oral proceedings that the oral proceedings should be postponed to allow their consideration.

In the oral proceedings the appellant recognised that the presentation of arguments by the respondent in response to the arguments of the appellant presented during the oral proceedings had to be allowed since this was not a response to the appeal grounds.

The Board, in its annex to the summons to oral proceedings, gave its provisional opinion on certain matters. The Board considers that the respondent should also be able to comment upon this opinion since in accordance with Article 10a(1)(c) of the Rules of Procedure of the Boards of Appeal that opinion forms part of the appeal proceedings.

The oral proceedings continued on this basis.

1.3 During the oral proceedings the respondent referred to a part of the witness testimony which had been made in connection with a prior use alleged during the opposition proceedings. The reference was made by the

respondent as evidence for the knowledge of the skilled person.

However, the knowledge of the skilled person was addressed by the appellant in its appeal grounds so that it had been open to the respondent to have referred to this testimony in its response to the appeal grounds. The Board considers that this argument goes beyond the factual framework of the appeal proceedings and could require counter-evidence from the appellant to refute it. The Board therefore exercised its discretion not to consider the witness statement in the appeal proceedings and consequently disregarded arguments based thereon.

Main request

2. *Inventive step*

2.1 The closest prior art is represented by M3 which, in the opinion of the Board, discloses all the features of the method of claim 1 except the following:

(a): setting a standard range in the physical variable, which includes a standard value of the physical variable,

(b): determining whether the measured value is within the standard range, and

(c): experimentally determining the standard value by sealing empty bags, so that the standard value corresponds to the separation between the pair of sealing means when the film sheets are sealed together without any objects inserted between the film sheets.

2.2 The appellant agrees with the above assessment of the disclosure of M3. However, the respondent considers that also features (a) and (b) are disclosed in M3.

2.2.1 In M3 a determination is made as to whether the separation of the sealing means corresponds to a particular value, i.e. the fully closed value (cf. column 6, lines 55 and 56). The argument of the respondent is that the transducer 74 disclosed in M3, which is used to determine the position of the sealing jaws, supplies a digital signal to a controller 72 so that it must act as an analogue to digital converter. The respondent considered that such a converter inherently always converts a range of analogue values into a particular digital value so that the features (a) and (b) are implicitly disclosed in M3.

2.2.2 The Board cannot agree with the argument of the respondent in this respect. M3 gives no technical details regarding the transducer and in particular gives neither the number of digital levels which are available to be sent to the controller nor the analogue measurement accuracy of the transducer. There is thus no reason to believe that a single digital value corresponds to analogue measurement values which vary from each other by an amount more than the measurement accuracy of the instrument and hence constitute a true range of differing measurement values. The Board thus concludes that features (a) and (b) are not disclosed in M3.

2.3 According to the appellant the objective problem to be solved by the distinguishing features of claim 1 is to discriminate between a good seal and a malfunctioning

seal due to an object of a similar size to the film sheet size being trapped in the seal and thus preventing a proper seal. There are two reasons why this problem is not necessarily solved by the distinguishing features of claim 1.

Firstly, the claim only refers to objects without indicating the size of the objects so that such small objects are not necessarily detected.

Secondly, although the standard range includes the experimental value for the seal thickness it is not stated where this value is positioned in the range. It may be placed at the lower end of the range, i.e. values of thickness from the standard value up to a certain value are considered acceptable. This means that values less than the normal thickness are not acceptable, which would detect damaged film sheets. This possibility of detecting damaged sheets was expressly mentioned in the appeal grounds (cf. page 2, third full paragraph). A further effect in this case is that small objects trapped between the film sheets would not be detected since they may lie in the acceptable range.

2.3.1 The appellant argued that the claim specifies that a purpose of the method is to detect the existence of objects inserted between the film sheets so that it may be considered that this statement implies that the standard value cannot be at the lower end of the range and must allow the detection of at least small increases of film sheet thicknesses beyond the normal variation. This view cannot be accepted since even if the standard value is at the lower end of the range larger objects would be detected.

2.3.2 Even if the claim is interpreted as detecting the presence of small objects in the seal, e.g. in the light of the description as suggested by the appellant, the Board is of the opinion that the distinguishing features of the claim would still be obvious to the person skilled in the art. In M3 it is stated in column 7, lines 39 to 41, that: "…the displacement between the sealing jaws is accurately known at all times…". In M3 it is further stated in column 6, lines 55 to 58, that: "If the controller senses that the sealing jaws have not fully closed but have stopped movement, the controller can instruct the motor to stop and reverse direction to open the jaws".

In order to carry out this function the controller must have stored in its memory a value for the displacement between the jaws which corresponds to "fully closed". It is clear to the skilled person that a comparison between two displacement values can only be carried out in practice when the value of one is compared with a range of values for the other since the likelihood that they will coincide exactly is small. This range could be formed by a threshold value. Without such a range the controller would often detect non-closing of the sealing jaws when in fact it is just a normal variation in the jaw separation. The skilled person would therefore set a range of values for the film thickness, taking account of the normal variations, as a definition of "fully closed". The provision of features (a) and (b) in the method known from M3 is therefore obvious to the person skilled in the art.

2.4 In order to carry out the comparison of the actual jaw displacement with the range of displacements which corresponds to "fully closed" it is necessary to know the jaw separation corresponding to "fully closed". M3 does not indicate how the fully closed position is determined. Since the sealing method disclosed therein may be used on various products (cf. column 4, lines 3 to 12) it will be necessary to vary the separation corresponding thereto, dependent upon film sheet thickness used for the product. This is particularly the case since it is intended to identify objects caught in the seals, the identification of which will depend upon the departure of the detected jaw separation from the expected jaw separation for fully closed. The expected jaw separation may be either inputted as a parameter or determined experimentally. It is clear for the skilled person that an experimental determination is possible since the jaw displacements are known accurately and are constantly monitored. Moreover, it is common with such kind of machines to start off with a "dry run" checking that the machine is functioning correctly. It would be clear for the skilled person that during such a "dry run" the setting for the "fully closed" jaw may also be established. Therefore the provision of feature (c) would also be obvious for the person skilled in the art.

2.5 The same opinion regarding inventive step applies to the subject-matter of claim 10 of the request.

2.6 Therefore, the subject-matter of claims 1 and 10 of the main request does not involve an inventive step in the sense of Article 56 EPC.

First auxiliary request

3. *Article 123(2) EPC*

This request limits the independent claims to the objects being crumbs. A basis for the amendment can be found in column 4, line 58 of the description of the patent (for which there is a counterpart in the application as filed; where in the present decision reference is made to the description of the patent there is a respective counterpart in the application as filed). The requirements of Article 123(2) EPC are therefore met.

4. *Inventive step*

4.1 The appellant has argued that the reference to crumbs inherently implies a size similar to the thickness of the film sheets being sealed, excluding objects such as fingers which involve a safety aspect as referred to in M3. However, as already explained with respect to the main request the skilled person would in any case select a range of values for the separation of the sealing means which corresponds to the variations to be expected in correctly sealing sheet films and would hence exclude anything else, including objects of the size of crumbs.

4.2 The same opinion regarding inventive step applies to the subject-matter of claim 10 of this request.

4.3 Therefore, the subject-matter of claims 1 and 10 of the first auxiliary request does not involve an inventive step in the sense of Article 56 EPC.

Second auxiliary request

5. *Admissibility of the request*

5.1 This request was filed during the oral proceedings before the Board. The amendments to the independent claims of the patent as granted are presented in the form of a combination of a dependent claim with its respective independent claim as well as an amendment to the respective dependent claim. However, the amendments to the respective dependent claims are such as to remove an important feature from each of them and to replace it with a different feature derived from the description. The amendments must therefore be seen as amendments based, at least in part, on the description.

5.2 The respondent could not have expected the filing of such amendments during the oral proceedings and hence could not reasonably have been expected to be prepared to present arguments, even if time for their preparation had been allowed for it during the oral proceedings. Since the amendments involve features taken from the description the respondent could reasonably have considered that a further search would be necessary in order to prepare adequately its response. The carrying out of such a search would have involved an adjournment of the oral proceedings contrary to Article 10b(3) of the Rules of Procedure of the Boards of Appeal.

5.3 With regard to the content of the amendments they are based on a first passage in the description in column 4, lines 2 to 6 of the patent, whereby the Board notes that the particular passage refers to a so-called turnbuckle motor and to the compression produced thereby without

these features also having been incorporated in the amended independent claims. According to the appellant the amendments are further based on column 4, lines 45 to 47 of the patent, which refers to rotation of the servo motor. However, there is a clear statement in column 7, lines 7 to 11 of the patent, that the physical variable according to the first embodiment, i.e. the embodiment described in column 4, is the torque on the servo motor. The proposed amendments are contrary to this clear statement.

It is not necessary for the Board to reach a final conclusion regarding compliance of the amendments with Article 123(2) EPC in order to determine the admissibility of the request at the stage of the proceedings when the request was filed. It is merely sufficient that the amendment does not *prima facie* comply with the article, which in the present case the Board considers to be the case.

5.4 In view of the above considerations regarding the timing of the filing of the request and the content of the amendments contained therein, the Board decided to exercise its discretion pursuant to Article 10b(1) Rules of Procedure of the Boards of Appeal not to admit this request into the proceedings.

Third auxiliary request

6. *Article 123(2) EPC*

6.1 The independent claims 1 and 7 of this request comprise respectively combinations of claims 1 and 7 and claims 10 and 13 as granted. These claims were also

contained in the application as filed. The respondent raised no objections based on Article 123(2) EPC to the amendments and the Board also considers that this article is complied with.

7. *Inventive step*

7.1 According to the claims of this request the sealing means are moved by a motor and the physical variable which varies according to the separation of the sealing means is the motor torque. In the method disclosed in M3 the sealing means are moved by a motor 70 so that this feature cannot distinguish the subject-matter of claim 1 of this request over that method. M3, however, does not disclose using the motor torque to monitor the separation of the sealing means.

7.2 In the view of the appellant this distinguishing feature solves the problem of determining the separation of the sealing means more precisely when the sealing means are close to the film sheets. The basis for this view of the appellant is figure 3 of the patent in suit which depicts a graph showing the angle of motor rotation against its torque.

7.2.1 The graph does indeed show that the torque changes more rapidly as the rotation approaches its finish, i.e. when the sealing means are closed. Figure 3 is based on the apparatus according to figure 2 (cf. column 3, lines 11 to 14 of the patent). This apparatus uses a motor of the so-called turnbuckle kind (cf. column 4, lines 2 to 6 of the patent). The graph is thus not representative of the torque/rotation relationship of motors in general but only of the relationship for the so-called turnbuckle

kind of motor. Since claim 1 is not limited to this type of motor the problem proposed by the appellant is not solved by the distinguishing features of the claim.

7.2.2 Since the problem proposed by the appellant **is not** solved by the distinguishing features of the claim it is necessary to identify a problem which **is** solved by these features. No other effect or advantage resulting from the use of the torque as the physical variable has been suggested by the appellant so that the problem to be solved must be considered to be to find an alternative physical variable which varies with the separation of the sealing means to those variables disclosed in M3.

7.3 M3 suggests using an angle resolver, optical shaft encoding device or rotary potentiometer as using suitable physical variables (cf. column 5, lines 37 to 40). There has been no suggestion on the part of the appellant that the torque of the motor was not known as a physical variable representative of the amount of rotation and hence potentially of the separation. The use of the torque must therefore be seen as a known equivalent to the variables suggested in M3. Since the selection of this equivalent results in no advantage, surprising or not, its selection must be seen as falling within the ambit of the ordinary skilled person.

7.4 The same opinion regarding inventive step applies to the subject-matter of independent claim 7 of this request.

7.5 Therefore, the subject-matter of claims 1 and 7 of the third auxiliary request does not involve an inventive step in the sense of Article 56 EPC.

Fourth auxiliary request

8. *Article 123(2) EPC and inventive step*

8.1 Claim 1 of this request contains the same extra features compared to claim 1 of the third auxiliary request as claim 1 of the first auxiliary request compared to claim 1 of the main request. The same considerations therefore apply as expressed with respect to claim 1 of the first auxiliary request.

8.2 The same opinion regarding inventive step applies to the subject-matter of independent claim 7 of this request.

8.3 Therefore, the subject-matter of claims 1 and 7 of the fourth auxiliary request does not involve an inventive step in the sense of Article 56 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

G. Nachtigall H. Meinders