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Datasheet for the decision of 14 April 2021

Case Number: T 0932/17 - 3.5.02

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Title of invention:
Wind turbine generator

Patent Proprietor:
GE Renewable Technologies Wind B.V.

Opponent:
Siemens Aktiengesellschaft

Relevant legal provisions:
EPC Art. 100(a), 54, 56

Keyword:
Main request - Novelty and inventive step (yes)

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Case Number: T 0932/17 - 3.5.02

D E C I S I O N
of Technical Board of Appeal 3.5.02
of 14 April 2021

Appellant: (Patent Proprietor)	GE Renewable Technologies Wind B.V. Bergschot 69/2 4817 PA Breda (NL)
Representative:	de Rooij, Mathieu Julien Bardehle Pagenberg S.L. Avenida Diagonal 420, 1° 1ª 08037 Barcelona (ES)
Appellant: (Opponent)	Siemens Aktiengesellschaft Werner-von-Siemens-Straße 1 80333 München (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 10 February 2017 concerning maintenance of the European Patent No. 2549100 in amended form.**

Composition of the Board:

Chairwoman	J. Hoppe
Members:	C.D. Vassoille
	G. Flyng

Summary of Facts and Submissions

I. The patent proprietor and the opponent have filed appeals against the interlocutory decision of the opposition division concerning European patent no. 2 549 100.

II. In the decision under appeal, the opposition division came to the conclusion that the maintenance of the patent as granted (main request) was prejudiced by the ground for opposition under Article 100(a) in connection with Article 54 EPC in the light of D2 and D3 (see references below). The then first auxiliary request, the claims of which were submitted in electronic form on 24 August 2015, was considered to fulfil the requirements of the EPC.

III. The following documents are relevant for the present decision:

D2: EP 2 333 933 A1
D3: EP 2 333 934 A1
D4: US 6,903,485 B2

IV. The parties were summoned to oral proceedings. In a communication under Article 15(1) RPBA 2020 annexed to the summons, the board set out their preliminary observations on the appeal, concluding *inter alia* that the subject-matter of claims 1 and 8 of the patent proprietor's main request appeared to be new in view of documents D2 and D3.

After having received the board's communication, the opponent submitted further objections with letter dated 24 September 2020.

V. Oral proceedings were held on 14 April 2021 by videoconference with the consent of the parties.

The appellant (patent proprietor) requested that the decision under appeal be set aside and that the patent be maintained as granted (main request),
or as an auxiliary measure, that the patent be maintained in amended form based on auxiliary request 1 filed with the letter of 18 March 2019,
or based on auxiliary request 2, filed with the grounds of appeal on 20 June 2017, i.e. to dismiss the opponent's appeal,
or based on one of auxiliary requests 3 or 4, each filed with the grounds of appeal on 20 June 2017.

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

VI. Claim 1 of the patent as granted (proprietor's main request) reads as follows:

"Wind turbine generator comprising a rotor, a stator and an air gap (104) between a gap-delimiting region (100) of the stator and a gap-delimiting region (101, 102) of the rotor; wherein the rotor and/or the stator are deformable under operational loads;
characterized in that the rotor and/or the stator are configured in such a way that the air gap (104) resulting from the presence of operational loads is more uniform than the air gap (104) in the absence of operational loads."

Claims 2 to 7 are dependent on claim 1.

VII. Independent method claim 8 of the main request reads as follows:

"Method for optimizing an air gap (104) between a gap-delimiting region (100) of a stator and a gap-delimiting region (101, 102) of a rotor of a wind turbine generator, said rotor and/or said stator being deformable under a set of operational loads and said optimization consisting in that the air gap (1001) resulting from the presence of the set of operational loads is more uniform than the air gap (104) in the absence of the set of operational loads; the method comprising:

repeating until an ending condition is satisfied:

simulating operation of the rotor and the stator under the set of operational loads, said simulation being based on a test rotor representing the rotor, a test stator representing the stator and a test air gap (104) between said test rotor and test stator;

verifying if the test air gap (104) satisfies an air gap model (1001);

in case of positive result:

causing satisfaction of the ending condition;

in case of negative result:

calculating a test correction of the test rotor and/or the test stator for adapting the test air gap (104) to satisfy the air gap model (1001);

applying said test correction to the test rotor and/or test stator for its consideration in the next simulation;

verifying if one or more test corrections have been produced;

in case of positive result:

applying the test corrections to the rotor and/or the stator."

Claims 9 to 16 are dependent on claim 8.

VIII. The arguments of the patent proprietor as far as they are relevant for the present decision are as follows:

The subject-matter of claim 1 was new in view of document D2 as it did not disclose the characterising portion of claim 1 of the patent. Paragraph [0030] of D2, referring to a decreased effectiveness of the generator resulting from a non-uniform air gap, had to be read in connection with the subsequent paragraph [0031], which disclosed the main objective of D2, namely to compensate the effect of a non-uniform air gap and not to compensate the non-uniform air gap itself: "It is therefore the object of the invention to provide an arrangement to compensate the effect of a non-uniform air gap ..." (emphasis added). It was also clear that the compensation was effected in the presence of operational loads. In the presence of operational loads, document D2 thus accepted the non-uniformity of the air gap, as stated in paragraph [0052], because this allowed for a reduction of the risk that the rotor arrangement hit the stator. The negative effects of the non-uniform air gap were then compensated by changing the flux density of the magnets in dependency of the cross section of the (non-uniform) air gap (see e.g. D2 in paragraphs [0037], [0038] and claim 1). In the presence of operational loads, the magnetic flux was thus constant along the air gap, while the air gap itself, i.e. the distance between the rotor and the stator, was non-uniform. If the air gap was more uniform in the presence of operational loads, the magnetic flux resulting from the magnets with

different strengths or sizes would be non-constant, which would go against the objective of D2.

The figures of document D2 did not illustrate the generator in the absence, but in the presence of operational loads. This was supported by the fact that the teaching of D2 aimed at compensating a non-uniformity by using magnets of different sizes and strengths. Even if, however, figure 2 of D2 were to be considered as disclosing the generator in the absence of operational loads, no unambiguous teaching could be derived from this figure that the non-uniform air gap would be more uniform in the presence of operational loads than in their absence.

Paragraphs [0074] and [0075] of D2 could not be considered to explicitly or implicitly disclose that the resulting air gap was more uniform in the presence of operational loads. Different forces acted on different parts of the generator and in different directions. Thus, in the presence of operational loads, the different forces developed different effects. In particular, gravity forces were different on the top and bottom of the generator, which would require a corresponding compensation by means of a suitable configuration of the non-uniformity of the air gap. This was however not disclosed in the respective paragraph. The same applied to aerodynamic (bending) loads, which would typically have the opposite effect on the top and on the bottom. Mass-inertia forces would lead to a widening of the air gap on the right hand side of figures 1 and 2 and would thus lead to more non-uniformity. D2 in paragraph [0075] did not contain any teaching as to how these forces were balanced out such that they would result in a more uniform air gap in the operational state of the generator.

The opponent's new objection as regards inventive step of the subject-matter of claim 1 in view of D2 in combination with the common general knowledge of the skilled person should not be admitted into the proceedings as being late filed. Moreover, the objective of D2 was to provide a non-uniform air gap and to compensate the effect of this non-uniform air gap. The distinguishing feature did not form part of the common general knowledge of the skilled person. There was also no hint in D2 towards the claimed solution as D2 accepted a non-uniform gap and merely aimed at compensating the negative effects thereof. The skilled person, in order to further improve the efficiency of the rotor, would select a known solution for example from paragraph [0005] of the patent under appeal, i.e. the use of stiff generator parts to avoid deformations, or alternatively, a two bearing solution as disclosed in paragraphs [0012] to [0015] of D2. Without knowing the invention, the skilled person would not implement a rotor and/or a stator configured in such a way that the air gap resulting from the presence of operational loads is more uniform than the air gap in the absence of operational loads, in the generator of D2, in order to solve the problem posed. Using the solution according to the distinguishing feature would rather deteriorate the effectiveness of the rotor of D2, because the effect of the non-uniform air gap in D2 was already compensated by using different magnets.

As regards inventive step of the subject-matter of claim 1 in view of D2 in combination with D4, the skilled person would not combine these two documents. The two documents had only in common that they referred to an electrical machine. However, their sizes and rotational speeds were significantly different,

resulting in different magnitudes of forces to be taken into account. Furthermore, D4 was concerned with a very specific structural claw-pole configuration comprising magnets 94 at the tips of the pole pieces as could be seen from figure 6. It was also referred to column 4, lines 66 to column 5, line 5, stating that prior art alternators had permanent magnets, which would cause deflection of the tips of the pole fingers, which was to be compensated by the non-uniform air gap. The skilled person when starting from D2 and being confronted with the objective technical problem, would not consult D4 because of this different and very specific configuration.

IX. The arguments of the opponent as far as they are relevant for the present decision are as follows:

The subject-matter of claims 1 and 8 was not new in view of document D2 and D3. The feature in dispute, i.e. that the rotor and/or the stator are configured in such a way that the air gap resulting from the presence of operational loads is more uniform than the air gap in the absence of operational loads, was implicitly disclosed in document D2. It was clear from D2 in paragraph [0030], relating to the problems of the prior art, that any non-uniformity of the air gap reduced the effectiveness of a generator and that document D2 would therefore aim at reducing the non-uniformity of the air gap rather than just accepting it. The skilled person would not look for a generator design having a poor effectiveness. Furthermore, the overall collision risk between the rotor and the stator was minimized when there was a uniform air gap present during operation of the generator, which the skilled person would therefore have tried to attain.

The overall disclosure of D2 referred to a non-uniform air gap of a generator out of operation. This could be seen from paragraph [0053], where it was disclosed that negative effects of the non-uniform air gap were reduced or even eliminated when the generator comes into operation as specified in the preceding paragraph [0052]. Paragraphs [0041] to [0044] of D2 might be concerned with two different configurations which aimed at making the magnetic flux within the non-uniform air gap uniform when the generator was, as illustrated in all figures, out of operation. There was no disclosure in these paragraphs that the air gap should be non-uniform in the operational state of the generator. Furthermore, despite the magnetic flux variation, the skilled person would further try to improve the effectiveness of the generator by making the air gap more uniform. Referring to paragraphs [0087] and [0088] of D2, the magnetic force was non-linear and thus, complete compensation of the effect of the non-uniform air gap was not achieved in D2 by the magnetic flux variation.

Figure 2 of D2 illustrated the generator without the presence of operational loads, and a non-uniform air gap was present, since the air gap width W1 was smaller than the air gap width W2. It was not possible to illustrate the generator in an operational state, because the operational loads would act on the structure of the generator in many different ways. In paragraph [0074] it was disclosed that the "second width W2 had to assure that a contact between respective components of the stator arrangement 108 and the rotor arrangement 114 is prevented if the rotor is in operation". From this passage it was obvious that it was essential to design the non-uniform air gap such that it would be more uniform in the presence of

operational loads, because only in this case would a collision between rotor and stator be prevented. It was further clear from figure 2 that when taking into account in particular that the magnetic forces between the permanent magnets 118 of the rotor arrangement 114 and the stator arrangement were attractive forces, in operation the "magnetic operational load" would result in a bending moment which would reduce the second width W2. As a consequence, it had to be ensured that this width was large enough in order to prevent a collision between rotor and stator. Thus, in particular the operational load "magnetic forces" caused a bending of the right free end of the rotor arrangement 114 illustrated in figure 2, which reduced the width W2 of the air gap. In this context, it had to be taken into account that electromagnetic forces acting during operation of the generator had a much stronger structural effect on the generator than other forces.

Furthermore, paragraph [0075] of D2 clearly described that operational loads were compensated and absorbed by the non-uniform air gap. This was an unambiguous indication that during operation the air gap became more uniform, since absorption was only possible, if the air gap was more uniform in the presence of these operational loads. While it was not explicitly disclosed in D2, how exactly the operational loads structurally effected the generator, it was clear in particular from paragraph [0030] of D2 that the objective was to achieve a more uniform air gap in the operational state of the generator, and thus paragraph [0075] could only be understood in this sense.

Similar arguments applied in view of document D3, and the subject-matter of claim 1 of the main request was therefore also not new in view of D3.

The subject-matter of claims 1 and 8 was rendered obvious by document D2 in combination with the common general knowledge of the skilled person. This objection was not late-filed as the question of inventive step of the main request had not been addressed in the decision under appeal. From document D2, in particular paragraph [0030], it was clear that an improved performance could be achieved by providing a more uniform air gap in the presence of operational loads. The skilled person would immediately understand that a compensation of the negative effects of the non-uniform air gap by means of the magnets striven for in document D2, was not perfect and required further measures in order to improve the effectiveness of the generator. It was further evident from paragraph [0052] of D2 that the risk of collisions was to be reduced and the skilled person would understand that this would be achieved by providing a more uniform air gap in the presence of operational loads. From paragraph [0075] of D2, the skilled person understood that by providing a suitable non-uniformity of the air gap in the non-operational state of the generator, a more uniform air gap in an operational state of the generator would result, to thereby compensate for structural effects due to operational loads. The skilled person further would not consider a known solution like a two-bearing arrangement as disclosed in D2, or the use of stiff parts as disclosed in the patent under appeal, because the skilled person would be aware of the drawbacks of these solutions.

The subject-matter of claims 1 and 8 was further rendered obvious by a combination of documents D2 and D4. When searching for a solution to the objective technical problem of how to modify the generator of D2 such as to improve its performance, the skilled person

would not only consider documents in the field of wind turbine generators but would also consider other types of electrical machines such as the alternator disclosed in document D4. Documents D2 and D4 might refer to different applications of generators, but the same problems in terms of uniformity of the air gap arose in the electrical machine of D4. Document D4 disclosed the provision of a more uniform gap in the presence of operational loads according to the distinguishing feature of claim 1 (see for example column 4, lines 49 to 56 and lines 41 to 49 in connection with figure 3, column 5, lines 3 to 8 in connection with figure 7). The skilled person would clearly apply the solution provided by D4 to the generator of D2 in order to solve the problem posed, which would inevitably result in a more uniform air gap in the presence of operational loads. It was further to be noted that claim 1 did not in any way define the geometry of the wind turbine generator.

Concerning the specifics of method claim 8, the prior art documents D5, D6 and D7 disclosed typical ways for optimising electrical generator types with the help of simulation tools.

Reasons for the Decision

1. The appeals are admissible.

2. Main request - Novelty (Articles 100(a) and 54 EPC)

The subject-matter of claim 1 is considered to be novel over document D2. Since document D3 is similar to D2 and was not considered by the opponent to go beyond the disclosure of D2, the following assessment also applies to this document.

2.1 Distinguishing feature

2.1.1 It is not in dispute between the parties that document D2 discloses the preamble of claim 1, i.e. a wind turbine generator comprising a rotor, a stator and an air gap between a gap-delimiting region of the stator and a gap-delimiting region of the rotor, wherein the rotor and/or the stator are deformable under operational loads.

2.1.2 The patent proprietor has however contested that the characterising portion of claim 1 can be directly and unambiguously derived from document D2, i.e. that

> *the rotor and/or the stator are configured in such a way that the air gap resulting from the presence of operational loads is more uniform than the air gap in the absence of operational loads.*

2.1.3 The board shares the proprietor's view that it cannot be derived directly and unambiguously from D2, in particular not from paragraph [0030] in connection with paragraphs [0074] and [0075] of this document, that the

rotor and/or the stator are configured in such a way that the air gap resulting from the presence of operational loads is more uniform than the air gap in the absence of operational loads.

2.1.4 The board does not agree with the opponent that the person skilled in the art would understand the overall objective of document D2 to be that of providing a more uniform air gap in the presence of operational loads.

Rather, as has been convincingly argued by the patent proprietor, paragraph [0030] of D2, which is concerned with a reduced effectiveness of the generator owing to a non-uniform air gap, must be read in conjunction with the subsequent paragraph [0031], explicitly stating that the objective of the invention of D2 is to provide an arrangement to compensate the effect of a non-uniform air gap. This understanding, i.e. that D2 does not aim at reducing the non-uniformity of the air gap in the operational state of the generator as such, but instead to reduce the negative effect of the non-uniform air gap, is confirmed by further passages of D2, in particular paragraph [0038], [0088] and claim 1.

The solution to this objective is clearly described in D2 to be a change of the magnetic flux density of magnets depending on the air gap width (see for example paragraphs [0041] to [0044] and [0087] to [0088]).

2.1.5 As regards the non-uniform air gap, paragraph [0052] of D2 explicitly states that the air gap tends to vary in an operational state of the generator and that applied forces are taken into account by the non-uniform air gap. However, the following paragraph [0053] must be read in conjunction with the preceding paragraph, which states that the effectiveness of the electrical machine

is increased as the negative effects of the non-uniform air gap are reduced or even eliminated. The board is convinced that the patent proprietor is right to conclude that on a reasonable reading of these interrelated paragraphs, the person skilled in the art would understand that a non-uniform air gap in an operational state of the generator is generally accepted and that merely the resulting negative effects of the non-uniformity are compensated by varying magnetic flux densities of corresponding magnets. In any case, there is no direct and unambiguous disclosure present in D2 as regards the provision of a more uniform air gap in an operational state of the generator than in a non-operational state.

2.1.6 Nothing else can be derived from the disclosure of paragraph [0075] of D2, which states that the non-uniform air gap allows compensation and absorption of gravity forces, aerodynamic loads, mass-inertia, magnetic forces and vibrations.

It was submitted by the opponent that the effects of these operational loads were such that it was not possible to illustrate the generator in the operational state in a single figure, and thus, figure 2 as well as the further figures of D2 could only illustrate the generator in a non-operational state. Furthermore, according to the opponent, in view of paragraph [0075], the skilled person would understand that the "absorption" of the operational loads mentioned in this paragraph would forcibly result in a more uniform air gap in the operational state of the generator, because absorption of these operational loads would otherwise not be possible. The board was not convinced for the following reasons.

2.1.7 First, the board notes that it does not consider the question of whether figure 2 illustrates the generator in an operational or in a non-operational state to be decisive for the question of whether document D2 directly and unambiguously discloses the characterising feature of claim 1. This is because even if figure 2 was to be considered to illustrate the generator in a non-operational state, document D2 in any case does not directly and unambiguously disclose that the rotor and/or stator of the wind turbine generator are configured in such a way that the air gap resulting from the presence of operational loads is more uniform than the air gap in the absence of operational loads.

The opponent has acknowledged that the specific structural effects of these operational loads mentioned in paragraph [0075] on the generator are not explicitly disclosed in D2, but argues that the dominance of the electromagnetic force during operation of the rotor would necessarily result in a more uniform air gap.

The board does not agree with the opponent on the latter point. Moreover, the board does not share the view of the opposition division as set out at the end of point 13.4 of the appealed decision stating: "Under this operational load the air gap of document D2 thus necessarily becomes smaller overall, and particularly even smaller on the wider side opposite the bearing. Accordingly, the air gap gets more uniform under the load than without load". Rather, the board finds the proprietor's argument convincing that the different operational loads (for example: gravity forces, aerodynamic loads and mass-inertia) act in different directions and on different parts of the generator, which was in principle not contested by the opponent, and that document D2 neither explicitly nor implicitly

discloses how the multiple operational loads mentioned in paragraph [0075] compare to each other and how they balance out during operation of the generator. As pointed out by the proprietor, mass-inertia forces could for example lead to a widening of the air gap at its wider side (W2 in figure 2 of D2) and therefore lead to an even more non-uniform air gap. The opposition division's view that the air gap necessarily becomes smaller on the wider side of the air gap is therefore not correct. Furthermore, from paragraph [0075] the skilled person does not receive any information that the compensation or absorption of the operational loads mentioned in this paragraph, in any way result in a more uniform air gap in the presence of these operational loads than in their absence. Consequently, it cannot be derived directly and unambiguously from document D2 that the presence of the operational loads mentioned in paragraph [0075] will result in a more uniform air gap than in the absence of operational loads.

2.1.8 The board has therefore come to the conclusion that document D2, and similarly D3, does not disclose the characterising feature of claim 1, i.e. that the rotor and/or the stator are configured in such a way that the air gap resulting from the presence of operational loads is more uniform than the air gap in the absence of operational loads.

2.2 *Conclusion on novelty*

Thus, the ground for opposition under Article 100(a) in connection with Article 54 EPC does not prejudice the maintenance of the patent as granted.

3. Main request - Inventive step (Articles 100(a) and 56 EPC)

The subject-matter of claim 1 is considered to involve an inventive step in view of document D2 in combination with the common general knowledge of the skilled person or with document D4.

3.1 Closest prior art

It is not in dispute between the parties that document D2 is the closest prior art document. Since document D3 is similar to D2 and was not considered by the opponent to go beyond the disclosure of D2, the following assessment also applies to this document.

3.2 Distinguishing feature

As set out under point 2.1, D2 does not disclose that:

> "the rotor and/or the stator are configured in such a way that the air gap resulting from the presence of operational loads is more uniform than the air gap in the absence of operational loads".

3.3 Objective technical problem

In view of the closest prior art document D2 and the distinguishing feature, the parties substantially agree that the objective technical problem was that of how to modify the generator of D2 such as to improve its performance.

3.4 Obviousness in view of the common general knowledge

3.4.1 The subject-matter of claim 1 is considered not to be rendered obvious by a combination of document D2 with the common general knowledge. In view of this finding, the question of admittance of this objection, which the opponent had submitted for the first time with letter dated 24 September 2020, i.e. after having received the board's communication under Article 15(1) RPBA 2020, did not need to be addressed.

3.4.2 As established under point 2.1 above, D2 is not concerned with the objective of how to provide a more uniform air gap in the presence of operational loads but with the compensation of the negative effects of a non-uniform air gap. The board therefore agrees with the patent proprietor that D2 provides no explicit indication of a further improvement in efficiency of the generator by aiming for a more uniform air gap in the presence of operational loads.

To the contrary, the board is convinced that in view of the objective of document D2, which is to compensate for the negative effects of a non-uniform air gap by using different magnets, configuring the rotor and/or the stator in such a way that the air gap resulting from the presence of operational loads is more uniform than the air gap in the absence of operational loads, is not foreseen by the invention of document D2.

Notwithstanding the board's foregoing remark and the further question, if the skilled person would have considered other (known) solutions to the objective technical problem, the board in any case does not see, in accordance with what was argued by the patent proprietor, that an (intentional) configuration of the

rotor and/or the stator in such a way that the air gap resulting from the presence of operational loads is more uniform than the air gap in the absence of operational loads, forms part of the common general knowledge of the skilled person, and the opponent did not provide any convincing argument in this respect.

In any case, the disclosure in paragraph [0075] is not sufficient to consider a corresponding teaching to be present in D2, which would have led to the conclusion that the characterising feature of claim 1 is implicitly disclosed in D2. See also the board's remarks under point 2.1 above.

3.4.3 The board has therefore come to the conclusion that the subject-matter of claim 1 is not rendered obvious by a combination of document D2 with the common general knowledge of the skilled person. The same applies to the independent method claim 8.

3.5 Obviousness in view of document D4

3.5.1 The subject-matter of claim 1 is considered to be not rendered obvious by a combination of documents D2 and D4.

3.5.2 The board is convinced that the skilled person, as was argued by the patent proprietor, would not consider document D4 when starting from document D2 and being confronted with the objective technical problem of how to further improve the efficiency of the generator. The board particularly agrees with the patent proprietor that document D4 refers to an electrical machine of a significantly different purpose and configuration to that of D2, which would deter the skilled person from taking it into account when searching for a solution to

the objective technical problem. The opponent did not provide any convincing argument in this respect. The board particularly does not agree with the opponent that the skilled person looking for a solution in the particular field of a "direct drive" generator used in a wind turbine (see D4, paragraph [0002]) and for the problems resulting from operational loads as regards the deformation of generator parts and resulting non-uniformity of the air gap between the rotor and a stator, would take into consideration document D4 concerned with a claw-pole alternator of a significantly different scale, purpose and rotational speed that imply different loads in the operational situation.

Moreover, the board agrees with the patent proprietor that document D4 concerns a specific type of alternator having permanent magnets, which will cause an added deflection of the tips of the pole fingers due to the added centrifugal forces. The invention according to D4 accommodates the deflection by means of a non-uniform air gap, which allows the use of permanent magnets (see figure 6 and column 4, line 66 to column 5, line 7). The specific configuration of the alternator in D4 therefore could not readily be applied to the wind turbine generator of D2, which has a different rotor construction.

3.5.3 The board has therefore come to the conclusion that the subject-matter of claim 1 is not rendered obvious by a combination of document D2 with document D4. The same applies to the independent method claim 8.

3.6 The further documents D5, D6 and D7 were referred to in the opponent's reply to the appeal of 11 October 2017 merely with respect to the simulation features of claim

8. Since the subject-matter of claim 8 is considered to involve an inventive step already for the reasons set out above, documents D5, D6 and D7 are not relevant for the question of whether the subject-matter of claim 8 involves an inventive step.

3.7 *Conclusion on inventive step*

The ground for opposition under Article 100(a) in connection with Article 56 EPC therefore does not prejudice the maintenance of the patent as granted.

4. Conclusion

Given that the grounds for opposition under Article 100(a) EPC in combination with Articles 54 and 56 EPC do not prejudice the maintenance of the patent as granted, and further considering that no further objections were presented by the opponent, the board had to accede to the proprietor's main request.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is maintained as granted.

The Registrar: The Chairwoman:

U. Bultmann J. Hoppe

Decision electronically authenticated