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Datasheet for the decision of 31 March 2025

Case Number: T 0369/24 - 3.4.02

Application Number: 18702079.7

Publication Number: 3593100

IPC: G01G19/18, F03D13/35

Language of the proceedings: EN

Title of invention:
WEIGHING DEVICE FOR A WIND TURBINE ROTOR BLADE

Patent Proprietor:
Siemens Gamesa Renewable Energy A/S

Opponent:
LM Wind Power A/S

Headword:

Relevant legal provisions:
EPC Art. 56
RPBA 2020 Art. 13(2)

Keyword:
Inventive step - (no)
Amendment after summons - exceptional circumstances (no) - taken into account (no)

Decisions cited:

Catchword:

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Case Number: T 0369/24 - 3.4.02

D E C I S I O N
of Technical Board of Appeal 3.4.02
of 31 March 2025

Appellant: (Opponent)	LM Wind Power A/S Jupitervej 6 6000 Kolding (DK)
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Representative:	SGRE-Association Siemens Energy Global GmbH & Co. KG SE I IM P Intellectual Property Siemenspromenade 9 91058 Erlangen (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 3 January 2024 concerning maintenance of the European Patent No. 3593100 in amended form.**

Composition of the Board:

Chairman	R. Bekkering
Members:	C. Kallinger
	M. Blasi

Summary of Facts and Submissions

I. The opposition division concluded that, taking into consideration the amendments made by the patent proprietor in accordance with auxiliary request 1 during opposition proceedings, the patent, and the invention to which it related met the requirements of the EPC.

II. The opponent lodged an appeal against the opposition division's decision and requested that it be set aside and that the patent be revoked in its entirety.

III. The patent proprietor lodged an appeal against the opposition division's decision and requested that it be set aside and that the patent be maintained as granted, implying that the opposition be rejected. As a precautionary measure, the patent proprietor defended the version considered allowable by the opposition division (auxiliary request 1) and submitted sets of claims of auxiliary requests 2 to 5.

IV. In a submission replying to the opponent's appeal, the patent proprietor maintained its initial request and requested that, alternatively, the patent be maintained in amended form as considered allowable by the opposition division (auxiliary request 1), or further alternatively, based on the claims of auxiliary requests 2 to 5 filed with its statement of grounds of appeal submission.

V. In a submission replying to the patent proprietor's appeal, the opponent maintained its initial request and requested in addition not to admit the parts of the

patent proprietor's appeal case which were not based on arguments from the opposition proceedings.

VI. Oral proceedings were appointed as requested. In a communication pursuant to Article 15(1) RPBA the board informed the parties of its preliminary opinion on certain aspects of the case.

VII. In response to the board's communication the patent proprietor filed further arguments.

VIII. Oral proceedings took place on 31 March 2025, during which the patent proprietor filed claims according to auxiliary request 1a and withdrew its appeal, thereby remaining in the appeal proceedings as the respondent to the opponent's appeal.

IX. The parties' final requests are as follows.

The appellant (opponent) requested that the opposition division's decision be set aside and that the patent be revoked in its entirety.

The respondent (patent proprietor) requested
- that the appeal be dismissed, implying that the patent be maintained as amended in the version considered allowable by the opposition division (auxiliary request 1),
- or alternatively, that the decision of the opposition division be set aside, and the patent be maintained as amended on the basis of the set of claims as filed during the oral proceedings before the board on 31 March 2025 (auxiliary request 1a),
- or further alternatively, that the patent be maintained as amended on the basis of one of the

sets of claims as filed with its statement of grounds of appeal (auxiliary requests 2 to 5).

X. This decision refers to the following documents:

D4 KR20160062653 A
D4a Machine translation of the claims of D4
D4b Machine translation of the description of D4
D5 US 3,561,554

Reasons for the Decision

1. Auxiliary request 1 - Inventive step

1.1 This request is the amended form of the patent as considered allowable by the opposition division, comprising the claims filed as auxiliary request 1 during the opposition procedure in electronic form on 29 September 2023.

The features of claim 1 of this request will be referred to as follows:

1.1 *Weighing device for determining a property of a rotor blade (20) of a wind turbine (40), such as the weight, the mass or the torque of the rotor blade, the weighing device comprising*
1.2 *- a first seat (11) for receiving the rotor blade (20) at a first radial position (r1) of the rotor blade (20),*
1.3 *- a second seat (111) for receiving the rotor blade (20) at a second radial position (r2) of the rotor blade (20),*

1.4 *- a first weight cell (12) for quantifying a first weight (311) which is acting on the first weight cell (12),*

1.5 *- a second weight cell (121) for quantifying a second weight (312) which is acting on the second weight cell (121), and*

1.6 *- a first counterweight (13) which is configured to alleviate the first weight (311),*
wherein

1.7 *- the first counterweight (13) is lifted up from the ground (32) when the rotor blade (20) is received by the first seat (11) of the weighing device;*

1.8 *wherein the weight (31) of the rotor blade (20) is determined by adding the measured first weight (311) and the measured second weight (312),and*

1.9 *- the rotor blade (20) comprises a leading edge section (24) and a trailing edge section (23), and*

1.10 *- the rotor blade (20) is placed such into the first seat (11) of the weighing device that the leading edge section (24) of the rotor blade (20) is facing the first seat (11) of the weighing device.*

1.2 Closest prior art - Document D4

1.2.1 The opposition division and the opponent considered document D4 to represent the closest prior art.

1.2.2 The patent proprietor argued that the object of document D4 (see document D4b, paragraph [0008]) was to provide an apparatus for measuring the centre of gravity of a blade for a wind power generator in a state in which the blade is more stably supported, and

which can increase the measurement accuracy. Thus, document D4 did not refer to weighing devices for rotor blades for determining the rotor blade weight and did not attempt to improve the accuracy of rotor blade weight determination.

In addition, document D4 disclosed (see document D4b, paragraphs [0008], [0010] and [0020]) to improve measurement accuracy by stably supporting the blade and by laying the leading edge horizontally. However, there was no hint for the skilled person for improving the measurement results using a counterweight.

It was therefore questionable whether document D4 was a suitable starting point for the skilled person at all, or whether it would be considered by the skilled person to solve the objective technical problem.

1.2.3 The board is not convinced by the patent proprietor's arguments for the following reasons.

Although document D4 aims at determining the torque of a rotor blade, it uses weighing devices for this purpose and has numerous features in common with the device of claim 1.

The objective technical problem is determined based on the difference(s) between the claimed subject-matter and the closest prior art. Therefore, it is not necessary for the closest prior art to contain a hint toward the solution of the problem.

The board therefore agrees with the opposition division and the opponent that document D4 represent the closest prior art for the problem solution approach.

1.3 Differences

1.3.1 The opposition division held that document D4 disclosed features 1.1 to 1.5 and 1.8 to 1.10 (see decision, section 2.4.1) but failed to disclose features 1.6 and 1.7 (see decision, section 2.4.4).

1.3.2 The opponent agreed to this assessment.

1.3.3 The patent proprietor did not contest the disclosure of features 1.1 to 1.5 and 1.9 in document D4.

However, the patent proprietor argued that, in addition to features 1.6 and 1.7, document D4 did not disclose features 1.8 and 1.10 either.

Feature 1.8

Document D4 was specifically about determining the centre of gravity of a rotor blade and the equation given in paragraph [0029] of D4 determined the centre of gravity, but not the weight of the rotor blade, which was irrelevant for the technical teaching of D4. Therefore, feature 1.8, relating to the determination of the weight of the rotor blade, was not disclosed by document D4.

Feature 1.10

The claimed placement of the rotor blade was only temporarily present during the initial seating of the rotor blade as disclosed in document D4 (see paragraph [0060] of D4b) whereas the centre of gravity of the blade was calculated in a state, in which the leading edge of the blade was laid horizontally (see paragraph [0061] first sentence and paragraph [0062] last sentence). Therefore, in measuring operation of the device of document D4, feature 1.10 was not fulfilled.

1.3.4 It was undisputed that document D4 discloses features 1.1 to 1.5 and 1.9 but fails to disclose at least feature 1.6 and 1.7.

With respect to features 1.8 and 1.10, the board is not convinced by the patent proprietor's arguments for the following reasons.

Feature 1.8

The board agrees with the opposition division that document D4 discloses (see equation in paragraph [0029]) that the centre of gravity is calculated using the given equation where m_1 is the weight of the root section and m_2 is the weight of the tip section (see D4b, paragraph [0030].) When evaluating the denominator of the equation, the weights m_1 and m_2 are added. This sum is the total weight of the rotor blade and is, even if not explicitly referred to as the overall goal of document D4, in any case determined in the device of document D4. Therefore, document D4 discloses feature 1.8.

Feature 1.10

The board agrees with the opposition division that the rotor blade does not form part of the claimed weighing device. Therefore, the claimed placement of the rotor blade in the weighing device does not restrict the weighing device itself.

In addition, document D4 discloses (see Figure 11) that the rotor blade can be placed into the weighing device such that the leading edge section of the rotor blade is facing the seat of the weighing device. The board therefore agrees that the weighing device of D4 is

suitable for receiving the rotor blade in the manner specified by feature 1.10.

In conclusion, the board agrees with the opposition division and the opponent that the weighing device of claim 1 differs from the weighing device known from document D4 in features 1.6 and 1.7, i.e. in that a first counterweight, which is configured to alleviate the first weight, is lifted up from the ground when the rotor blade is received by the first seat of the weighing device.

1.4 Objective technical problem to be solved

1.4.1 The opposition division held (see decision, point s 2.4.5 and 2.4.6) that the use of the counterweight had the effect that the weighting device operated in a limited range so that the weight measurement was more accurate.

Based on this effect, the objective technical problem was to improve the accuracy of the weight measurement.

1.4.2 The opponent (see statement of grounds of appeal dated 3 May 2024, page 8, last paragraph) and the patent proprietor (see reply dated 30 July 2024, page 3, point 7) agreed to this assessment.

1.4.3 The board agrees to the objective technical problem as formulated by the opposition division.

1.5 The skilled person

The opponent argued that the skilled person was an expert in weighing apparatuses (see statement of grounds of appeal dated 3 May 2024, page 11, third paragraph).

The patent proprietor did not challenge this, and the board agrees with this definition of the skilled person.

1.6 Combination of document D4 with document D5

1.6.1 The opposition division concluded that the subject-matter of the independent claim 1 involved an inventive step when document D4 as closest prior art was combined with document D5.

It held (see decision, point 2.4.8) that, even though document D5 related to weighing systems in general, the general principle of using a counterweight to improve the accuracy of the weighing measurement was only described and illustrated in relation to a weigh hopper, which was fundamentally different from the weighing devices used in D4. Therefore, the skilled person would have had no reason to contemplate D5.

In addition, the complexity of the scale mechanism described in document D5 would have discouraged the skilled person from transposing the scale mechanism of document D5 to the apparatus of document D4 as this was not straightforward and would require many steps which were not obvious.

Even applying the general teaching of document D5 (using counterbalancing means for improving the

accuracy of the weighing measurement) to D4 was not obvious without further instructions in the form of drawings or descriptions of further embodiments which were closer to the structure of the apparatus disclosed in D4.

1.6.2 The opponent argued that documents D4 and D5 were both in the same field of weighing apparatuses and that document D5 (see column 1, line 36 to column 2, line 32) provided a clear teaching that providing a counterweight *"[reduces] the force input to the load cell, whereby the effective weight indicating operating range of the load cell is reduced to only a fraction of the scale capacity to thus provide for a more accurate weight indication."* This was the exact same technical effect as disclosed in paragraphs [0014] and [0019] of the patent.

The skilled person would not have ignored such a clear teaching to the solution of the problem and would have implemented the features of D5 which provide this effect.

In addition, the skilled person would also have been able to transpose the solution provided by document D5 to document D4 since this was a matter of correctly dimensioning the solution to have the functions taught by document D5.

Lastly, the skilled person received the required instructions as document D5 (see column 2, lines 25 to 32) taught that load cell accuracy could be improved by implementing a *"lever system of a scale in counterbalancing relation to the load being measured for reducing the force input to the load cell"*. Based on this teaching, the skilled person would have been

prompted to implement such lever system for at least one load cell of document D4.

Given that the skilled person was an expert in the field, a consultation of the schematic drawing shown in Figure 1 of D5 showed the general principle and how to connect the various elements of document D5's solution to a load of document D4. No further instructions were necessary.

Therefore the subject-matter of claim 1 lacked an inventive step in view of a combination of documents D4 and document D5.

1.6.3 The patent proprietor argued that document D5 disclosed a weigh hopper, i.e. a device that was specifically adapted to bulk material. Therefore, the disclosed weighing device was from a different field of technology and the skilled person would not have considered document D5 when trying to solve the problem.

Furthermore, the time between the filing date of document D5 and the filing date of the patent in suit was no less than almost 50 years. Accordingly, the problem solved by the patent in suit had existed for almost five decades. With reference to decisions T 273/92 and T 330/92 and the age of document D5, the patent proprietor argued that, even if document D5 were to teach the general concept of a counterbalancing means for improving the accuracy of the weight measurement, this concept had nevertheless remained unconsidered for almost 50 years and had not been applied to a weighing device for rotor blades. This could be viewed as an indication of the presence of an inventive step.

In addition, document D5 did not teach the solution as claimed, i.e. that a more accurate measurement result was achieved by means of a counterweight that was lifted up from the ground. In contrast to the lifting-up of the counterweight, document D5 taught a *"drop weight or multirange weight mechanism"* for "*applying range or drop weights to the lever system of the scale in counterbalancing relation to the load to reduce the magnitude of the force transmitted to the load cell by predetermined amounts*" (see column 1, lines 42 to 46). This drop weight system was clearly different from lifting of the counterweight as defined in feature 1.7.

The patent proprietor argued further that, even when combining the teachings of documents D4 and D5, it was not apparent that and how the skilled person could have easily integrated the complex structure described in document D5 into the narrow and flat space provided for the load cells in document D4. The drop weight mechanism of document D5 had a quite complex structure (see Figures 4 and 5) that was far too complicated to weigh rotor blades. The skilled person would have had to implement the entire lever and drop weight mechanism shown in Figure 1 of document D5, including the control circuit, into the device of document D4, because all elements were required for a more accurate weight indication. Therefore, the skilled person would have been discouraged by the complexity of the scale mechanism known from document D5.

Furthermore, in document D4 the weight measurement used eight load cells. Therefore, applying the teaching of a counterweight to one of the load cells of document D4 resulted in the weight of the rotor blade being determined from the sum of the weight data of seven

conventional load cells and one alleviated weight (due to the counterbalancing means). However, feature 1.8 of claim 1 required that the weight of the rotor blade was determined by adding the measured first weight and the measured second weight which was also reflected by the fact that exactly two weight cells were claimed in features 1.4 and 1.5. As the skilled person had no reason to reduce the number of load cells in document D4 and to realise a weighing system with only two weight cells but with a lever system in counterbalancing relation to a load being measured for at least one load cell, even a theoretical combination of documents D4 and D5 lead to a different weighing system than that of claim 1.

1.6.4 The board is not convinced by the patent proprietor's arguments for the following reasons.

Document D5 relates to weighing systems in general (see document D5, title) and aims at improving accuracy and sensitivity of weighing devices (see column 1, lines 27 to 37). As a solution to this problem, document D5 (see column 1, lines 37 to 49) discloses to *"[limit] the range of the input force to the load cell by counterbalancing at least a part of the load being measured when the load cell output signal exceeds a predetermined magnitude"* and explains that *"[As] a result, the range of the forces transmitted to the load cell can be reduced to a fractional proportion of the total range or capacity of the scale."*

In view of the explicit mentioning of the problem to be solved in document D5 and the advantages of the applied solution, the board is of the opinion that the age of this document would not have discouraged the skilled person from applying the solution proposed therein to

the weighing device of document D4 to solve the objective technical problem and that the skilled person, when seeking to improve the accuracy of the weighing device of document D4, would have considered document D5 and applied the general teaching of document D5.

Based on the above cited disclosure of document D5, the board also agrees with the opponent and the opposition division that the general teaching of document D5 is *"using a counterbalancing means for improving the accuracy of the weighing measurement"* (see decision, point 2.4.8, third paragraph).

The board, however, does not agree that the skilled person would have been discouraged by the alleged complexity of the scale mechanism described in document D5 and need for *"further instructions in the form of drawings or descriptions of further embodiments which are closer to the structure of apparatus disclosed in D4"* (see decision, point 2.4.8, third paragraph).

Document D5 (see column 2, lines 21 to 24) explicitly addresses the objective technical problem of improving the accuracy of the weight measurement and teaches (see column 2, lines 25 to 32) as a solution *"to provide a load cell weight measuring system with a mechanism that is operable to position weights in the lever system of a scale in counterbalancing relation to the load being measured for reducing the force input to the load cell, whereby the effective weight indicating operating range of the load cell is reduced to only a fraction of the scale capacity to thus provide for a more accurate weight indication"*. The skilled person would have used this general teaching of using a counterweight to reduce the force input to the load cell and would not

have been discouraged by the differences in the load support structures that are disclosed in the detailed embodiments of document D5.

The board agrees with the opponent that the skilled person, an expert in weighing devices, has *"the capability to perform routine work and experimentation"* and can be *"expected to seek out solutions and make choices to try to solve design problems that crop up"* (see T 1030/06, reasons 20). Therefore, the skilled person would have been able to transpose the general solution suggested in document D5 to the weighing device known from document D4.

The board notes in this respect that claim 1 specifies for the weighing device two weigh cells, each with a seat for receiving the object to be weighed, where the weight on one weight cell is alleviated by a counterweight. The claimed weighing device is therefore not restricted to any further constructional details but merely to the claimed use of a counterweight for one of the weight cells.

As document D5 teaches (see column 2, lines 21 to 32) that load cell accuracy can be improved by implementing a mechanism that is operable in counterbalancing relation to a load to being measured, the skilled person would have been prompted to implement such a counterbalancing mechanism for at least one of the load cells of D4.

The board is of the opinion that feature 1.7 does not restrict the claimed device by a method step in which a counterweight first rests on the ground and is then lifted up from the ground (in the sense of a process step), but covers a condition which the apparatus must

be able to meet, i.e. that the counterweight, when in use, is in a condition where it is lifted up from the ground (in the sense of a state). In any counterbalancing mechanism, i.e. also in the one disclosed in document D5, a counterweight necessarily must meet the condition that the counterweight is in a state where it is lifted up from the ground when the weighing is performed.

Therefore, features 1.6 and 1.7 are disclosed in document D5.

In conclusion, by applying the teachings of document D5, i.e. the use of a counterweight that is lifted up from the ground when the object to be measured is received by the weighing device, to the weighing device as disclosed in document D4, the skilled person would have arrived at the subject-matter of claim 1. Hence, the claimed subject-matter does not involve an inventive step within the meaning of Article 56 EPC.

2. Auxiliary request 1a - Admission

The patent proprietor filed the set of claims of auxiliary request 1a for the first time during the oral proceedings before the board.

2.1 The patent proprietor argued that exceptional circumstances were present justifying the filing of auxiliary request 1a because of the claim interpretation which had been given only at the oral proceedings before the board and which came as a surprise.

In the communication under Article 15(1) RPBA no reasoning had been provided as regards how feature 1.7 could have been arrived at, and it could not have been foreseen that such an interpretation of feature 1.7 could be adopted in light of feature 1.6.

Moreover, it would not have made any difference whether auxiliary request 1a was filed in written proceedings or at the oral proceedings.

2.2 The opponent argued that no exceptional circumstances were present as inventive step in view of documents D4 and D5 and in particular the disclosure of features 1.6 and 1.7 in document D5 had been discussed in the proceedings leading to the decision under appeal and in its written submissions filed on appeal. The board's preliminary opinion concerning this objection (see board's communication under Article 15(1) RPBA, point 2.5.3) did not include any new issues. Therefore, the patent proprietor should have filed auxiliary request 1a at the latest with its reply to the opponent's appeal.

In addition, the fact that the patent proprietor had started the oral proceedings with the suggestion that feature 1.7 be discussed separately was difficult to reconcile with the submission that the board's finding during the oral proceedings came as a surprise to the patent proprietor.

Moreover, even if there had been exceptional circumstances, it made a significant difference whether or not a claim request was filed in writing or during the oral proceedings. Filing it only at the oral proceedings deprived the opponent of the ability to properly prepare for its submissions.

Finally, on a prima facie basis, there were objections under Article 123(2) EPC because of an unallowable intermediate generalisation and under Article 84 EPC for lack of clarity.

2.3 The board is not convinced by the patent proprietor's argument and agrees with the opponent for the following reasons.

Inventive step in view of documents D4 and D5 had been discussed in the proceedings leading to the decision under appeal (see notice of opposition, in section 1.2.2 and decision, point 2.4) and in the opponent's statement of grounds of appeal (see statement of grounds of appeal, point 2).

The board also agrees that in its communication under Article 15(1) RPBA and during the course of the oral proceedings before the board the arguments at issue stayed within the framework of the arguments, and evidence, submitted in a timely fashion in the written proceedings.

Therefore, no exceptional circumstances are present and the board decided not to take auxiliary request 1a into account under Article 13(2) RPBA.

3. Auxiliary requests 2 to 5 - Admission

The claims according to auxiliary requests 2 to 5 were filed for the first time during the opposition proceedings with a letter dated 29 September 2023.

As the decision under appeal was that auxiliary request 1 met the requirements of the EPC, auxiliary requests 2 to 5 were not dealt with in substance.

These requests were admissibly raised and maintained in the proceedings leading to the decision under appeal and are therefore not to be regarded as an amendment to the patent proprietor's case (Article 12(4) RPBA).

4. Auxiliary request 2

4.1 In comparison to claim 1 of auxiliary request 1, claim 1 of auxiliary request 2 has been amended by adding the feature that

"... wherein the mass of the first counterweight (13) is chosen such that the product of the mass of the first counterweight (13) and the gravitational acceleration is smaller than an expected value for the first weight (311) acting on the first weight cell (12)."

4.2 The patent proprietor argued that the added feature was not known from D4 and ensured that the weighing device operated only in a limited range, so that the weight measurement was more accurate.

Document D5 disclosed (see column 5, lines 60 to 65) that the drop weight mechanism was actuated to add one or more range weights to a lever so as to at least in part counterbalance the weight of the load delivered to the weigh hopper, i.e. in document D5, the counterweight was selected to counterbalance the entire weight of the weigh hopper. In addition, according

document D5 (see column 4, lines 44 and 45), the dead load applied to the lever was also counterbalanced.

In contrast to this, the first counterweight according to claim 1 was specifically selected in such a way that the product of the mass of the first counterweight and the gravitational acceleration was smaller than an expected value for the first weight acting on the first weight cell. Thus, according to claim 1, it was not the entire weight of the rotor blade that was counterbalanced, but only a certain fraction that was applied on the first load cell. This depended, for example, on the distance of the first and second load cells from the root portion of the rotor blade.

Moreover, according to claim 1, only the first weight acting on the first weight cell was counterbalanced and not parts of the weighing device itself.

Thus, D5 described a different principle than claim 1 regarding counterbalancing and therefore could not lead the skilled person to the subject-matter of claim 1.

4.3 The opponent argued that the added feature merely excised non-working embodiments from the scope of the claim: an embodiment which does not fulfil the added feature would involve a counterweight having a weight which was larger than the expected weight and the measured first weight would be zero which yielded no information about the actual weight at the first seat. Furthermore, document D5 (see column 5, lines 50 to 75) taught that weights were added to at least in part counterbalance the load.

Therefore, the subject-matter of claim 1 of auxiliary request 2 lacked an inventive step in view of documents D4 and D5.

4.4 The board is not convinced by the patent proprietor's arguments and agrees with the opponent for the following reasons.

As set out above (see point 1.6.4), the skilled person would have improved the load cell accuracy of the weighing device of document D4 by using counterbalancing as suggested by document 5.

The board agrees with the opponent that the added feature merely excises non-working embodiments from the claimed scope as a weighing device which used a counterweight larger than the expected weight would not work.

In addition, document D5 discloses (see column 5, lines 63 to 66) to add one or more counterweights which *"at least in part counterbalance the weight of the load".*

Therefore, document D5 also discloses the feature added to claim 1.

The board is therefore of the opinion, for the same reasons as set out above for auxiliary request 1, that the subject-matter of claim 1 of auxiliary request 2 does not involve an inventive step within the meaning of Article 56 EPC.

5. Auxiliary request 3

In comparison to the auxiliary request 1, claims 11 to 13 have been deleted.

Claim 1 of auxiliary request 3 is identical to claim 1 of auxiliary request 1.

For the same reasons as set out above for auxiliary request 1, the subject-matter of claim 1 of auxiliary request 3 does therefore not involve an inventive step.

6. Auxiliary request 4

In comparison to auxiliary request 1, claim 1 of auxiliary request 4 has been amended as follows:

"1. Weighing device for determining the weight (31) ~~a property~~ of a rotor blade (20) of a wind turbine (40)~~, such as the weight, the mass or the torque of the rotor blade,~~ the weighing device comprising ..."

In comparison to auxiliary request 1, claim 1 of auxiliary request 4 has been restricted to the determination of weight.

The board agrees with the opponent that documents D4 (see paragraph 1) and document D5 (see title and abstract) both disclose the determination of weight.

Therefore, the same inventive step considerations as set out above for auxiliary request 1 apply.

The board is therefore of the opinion, for the same reasons as set out above for auxiliary request 1, that

the subject-matter of claim 1 of auxiliary request 4 does not involve an inventive step within the meaning of Article 56 EPC.

7. Auxiliary request 5

In comparison to auxiliary request 4, claim 1 of auxiliary request 5 has been amended as follows:

"1. Weighing device for determining the weight (31) of a rotor blade (20) of a wind turbine (40), the weighing device placed on the ground (32) and comprising..."

7.1 The patent proprietor argued that the additional feature of claim 1 was not known from D4 and that this feature ensured that the weighing device operated only in a limited range, so that the weight measurement was more accurate and the weighing device could be set up and operated at different locations, in particular without additional aids such as a crane, so that the weighing device could be used particularly flexibly.

In addition, also document D5 did not show whether any part of the weighing apparatus from D5 was placed on the ground at all and the counterweight in document D5 (see Figures 1 and 4) was designed in such a way that it could not come into contact with the ground for technical reasons. Therefore, document D5 did not suggest the combination of the features of claim 1 that the weighing device is placed on the ground (added to feature 1.1) and that the first counterweight is lifted up from the ground when the rotor blade is received by the first seat of the weighing device (feature 1.7).

Therefore, the subject matter of claim 1 fulfilled the requirements of Article 56 EPC.

7.2 The opponent argued that it was evident that any weighing device would require direct or indirect contact with the ground due to the law of gravity and Newton's laws of motion. Therefore, contact with the ground was an inherent feature of any weighing device.

In addition, document D5 (see Figure 1) disclosed that lever 32 was pivoted about a horizontal axis via a fulcrum assembly 36 resting on a fixed surface. Although document D5 did not explicitly disclose that the fulcrum assembly 36 was placed on the ground, the skilled person would inevitably have arrived at placing the fulcrum assembly in contact with the ground when applying the teaching of D5. There would be no technically feasible solutions which involved the weighing device of D5 not having contact with the ground and thus being placed on the ground.

Therefore, claim 1 of auxiliary request 5 lacked an inventive step in view of documents D4 and D5.

7.3 The board is not convinced by the patent proprietor's arguments and agrees with the opponent for the following reasons.

With respect to the interpretation of the added feature, the board notes that claim 1 now requires that "*the weighing device placed on the ground (32)*" , i.e. that the overall device rest on the ground. In particular, the amendment does not restrict the claimed device such that the counterweight rests on the ground when not in use. The patent proprietor's arguments with

respect to the placement of counterweight are therefore not convincing.

The board agrees that any weighing device requires direct or indirect contact with the ground due to the law of gravity and Newton's laws of motion and that, therefore, contact with the ground is an inherent feature of any weighing device, thus also of the weighing devices disclosed in documents D4 or D5.

In addition, document D5 discloses (see Figure 1) that lever 32 and fulcrum assembly 36 rest on a surface as indicated by the diagonally striped area below . Although D5 does not explicitly disclose that this area represents the ground, the skilled person would inevitably have arrived at placing the overall weighing device in direct or indirect contact with the ground.

Furthermore, also document D4 (see Figure 1 and paragraph [0034] of document D4b) discloses that the weighing device is placed on the ground. This was even brought forward by the patent proprietor (see reply dated 30 July 2024, page 8, last paragraph: *"entire device stands on the floor"*).

The added feature is therefore, apart from being inherent to any weighing device, also known from in documents D4 and D5.

For the same reasons as set out above for auxiliary request 1, the subject-matter of claim 1 of auxiliary request 5 does therefore not involve an inventive step within the meaning of Article 56 EPC.

8. Conclusion

Taking into consideration the amendments made by the patent proprietor of the European patent, the patent, and the invention to which it relates do not meet the requirement of Article 56 EPC (Article 101(3)(b) EPC).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairman:

L. Gabor R. Bekkering

Decision electronically authenticated