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**Datasheet for the decision
of 24 August 2023**

Case Number: T 0327/22 - 3.2.07

Application Number: 10184217.7

Publication Number: 2311605

IPC: B24B31/00, F16H55/06, B23F19/00

Language of the proceedings: EN

Title of invention:
Planetary gear system

Patent Proprietors:
REM Technologies, Inc.
Osro GmbH

Opponents:
Flender GmbH
Eickhoff Antriebstechnik GmbH

Headword:

Relevant legal provisions:
EPC Art. 113(1), 107, 100(c), 76(1), 123(2), 100(b)
RPBA 2020 Art. 12(8), 12(5), 12(3), 12(6), 15(3)

Keyword:

Decision in written proceedings
Sufficiency of disclosure - (yes)
Amendments - added subject-matter (no)
Reimbursement of appeal fee - (no)

Decisions cited:

G 0009/92, G 0004/93, T 1041/21

Catchword:



Beschwerdekammern

Boards of Appeal

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Case Number: T 0327/22 - 3.2.07

D E C I S I O N
of Technical Board of Appeal 3.2.07
of 24 August 2023

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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
10 December 2021 concerning maintenance of the
European Patent No. 2311605 in amended form.**

Composition of the Board:

Chairman A. Pieracci
Members: V. Bevilacqua
 R. Cramer

Summary of Facts and Submissions

- I. Appeals were filed by the patent proprietors and by opponent 2 against the decision of the opposition division to maintain European patent No. 2 311 605 in amended form according to the then first auxiliary request, which the patent proprietors now pursue as first auxiliary request in appeal proceedings.
- II. In the appealed decision, the opposition division found that the the ground for opposition according to Article 100(c) EPC held against the patent as granted (main request both in opposition and in appeal proceedings).
- III. With letter of 6 June 2023 opponent 2 withdrew their appeal.
- IV. In preparation for oral proceedings the Board communicated its preliminary assessment of the case to the parties in a communication pursuant to Article 15(1) RPBA 2020 of 29 June 2023.
- V. Opponent 2 (now respondent) stated in a letter dated 26 July 2023 that they had no interest in oral proceedings being held. Opponent 1 (respondent) withdrew their request for oral proceedings with letter of 3 August 2023.

With letter of 27 July 2023 the patent proprietors clarified that their request for oral proceedings, filed with the statement of grounds of appeal, is auxiliary only to the request of maintaining the patent as granted.

VI. The final requests of the parties are therefore as follows:

The patent proprietors (appellants) request

- that the decision under appeal be set aside and
- that the patent be maintained as granted, and that the appeal fee be reimbursed.

Opponent 1 requests

- that the appeal of the patent proprietors be dismissed, or alternatively
- that the case be remitted to the opposition division in a different composition.

Opponent 2 has not formulated what requests they maintain after the withdrawal of their appeal.

VII. Claim 1 according to the main request (as granted) reads as follows:

"A large planetary gear system comprising a hollow wheel gear, two or more planet gears, and a sun gear forming the input stage of a wind turbine power generator, of which only the sun gear and the planet gears have gear teeth with contact surfaces having a surface roughness value of less than 0.25 micron (Ra) prior to run-in or installation and wherein the hollow wheel gear is through hardened."

VIII. The following documents are mentioned in the present decision.

Documents mentioned in the appealed decision:

D1: EP 1 350 601 A1,

D3: WO 2004/022273 A2,

- D4: EP 1 167 825 A2,
- D5: EP 1243815 A2,
- D6: "Recommended Practices for Design and Specification of Gearboxes for Wind Turbine Generator Systems", AGMA/AWEA,
- D7: SROKA et al., "Superfinishing Gears-The state of the art", Gear Technology, (20021100), pages 30-32,
- D8: ARVIN et al., The Effect of Chemically Accelerated Vibratory Finishing on Gear Metrology, (20021000), pages 1-16,
- D9: WO 2004/108356- **parent application.**

Document mentioned in the statement setting out the grounds of appeal of opponent 2:

A1: Superfinishing-extract from Wikipedia

- IX. The arguments of the parties are dealt with in detail in the reasons for the decision.

Reasons for the Decision

- 1. Decision in written proceedings

The present decision is taken in written proceedings without holding oral proceedings.

Opponent 1 withdrew their request for oral proceedings. Opponent 2 stated they had no interest in oral proceedings being held, which is interpreted by the Board as a withdrawal of their request for oral proceedings.

The request for oral proceedings of the patent proprietors is, according to the letter of

27 July 2023, auxiliary only to the request of maintaining the patent as granted.

The appellants, as again clearly explained in the letter of 27 July 2023, do not request oral proceedings in the event that the Board decides not to allow their request for reimbursement of the appeal fee.

Thus, since the appellants' main request is followed by the Board, the auxiliary request to hold oral proceedings has become redundant.

Since the parties have been informed of the Board's preliminary assessment of the case, the principle of the right to be heard according to Article 113(1) EPC has been observed since that provision only affords the opportunity to be heard and the party's submissions have been fully taken into account (see Case Law of the Boards of Appeal (CLB), 10th edition 2020, III.B.2.7.3).

In view of the fact that the case is ready for decision on the basis of the parties' written submissions the Board issues this decision in written proceedings in accordance with Article 12(8) RPBA.

2. *Procedural position of opponent 1*
Request for remittal

2.1 Opponent 1 requested the dismissal of the appeal of the patent proprietors.

Opponent 1 however also implicitly requested in its letter dated 11 August 2022 to set aside the appealed decision and to remit the case to the opposition division in a different composition.

This second request of the opponent 1 is based on the allegation that the opposition division incurred a substantial procedural violation, and on the objections that the invention claimed in the patent as maintained (first auxiliary request) is not sufficiently disclosed (section 2.3) and that figures 6 and 7 thereof should not have been corrected under Rule 139 EPC (section 2.1), and that for this reason Articles 123(2) and 123(3) EPC are not complied with.

2.2 Opponent 1 did not file an appeal against the decision of the opposition division maintaining the patent in suit in amended form according to the first auxiliary request.

Opponent 1 is therefore, for the purpose of applying the principle of prohibition of *reformatio in peius* set out in the decisions of the Enlarged Board of Appeal G 9/92 and G 4/93, a party to the appeal proceedings as of right (Article 107 EPC, second sentence).

Under the doctrine of prohibition of *reformatio in peius*, opponent 1 is therefore primarily restricted to reacting to the patent proprietors' appeal and prevented from requesting setting aside the appealed decision maintaining the patent according to the first auxiliary request, against which it deliberately decided not to file an appeal.

The implicit request to set aside the appealed decision and to remit the case to the opposition division in a different composition clearly falls foul of the doctrine of prohibition of *reformatio in peius*.

Based on the above the Board does not admit this request, together with the arguments submitted in

support thereof, into the proceedings.

3. *Extension of subject-matter - Article 100(c) EPC - main request*

3.1 The appealed decision (section 5.1) against the main request is based on the following three objections.

3.1.1 The opposition division found that there was no basis in the parent application (D9) for a non-superfinished surface having a surface roughness value Ra of 0.25 microns or less and concluded that for this reason the ground for opposition under Article 100(c) EPC held against claim 1 of the patent as granted, because granted claim 1 extended to surface roughness values of less than 0.25 micron which were not achieved by superfinishing and which were therefore not recognizable through "the typical cross-hatched pattern on the gear surface".

3.1.2 The opposition division also found that there was no basis in the parent application (D9, page 5, lines 23 to 26) and in the application as filed (column 5 lines 1 to 6) for superfinished hollow wheel gears having a surface roughness Ra of more than 0.25 micron as embodied by claim 1 as granted.

The requirements of Articles 76(1) EPC and 123(2) EPC were not met because these passages only disclosed superfinished planets and sun gears mated to a non-superfinished hollow wheel gear, whereas the features of being "superfinished" and "non-superfinished" are not present in claim 1 as granted..

3.1.3 Figures 6 and 7 of the patent in suit (filed during examination to replace originally filed figures 6 and 7

in order to overcome formal deficiencies) contain transcription errors introducing subject-matter extending beyond the content of both the parent application and the application as originally filed (Articles 76(1) and 123(2) EPC).

- 3.2 The patent proprietors, in the statement setting out the grounds of appeal, contest all the above findings (see points 5 to 20 in relation to "superfinished", 21 to 23 in relation to "non-superfinished" and 24 to 26 in relation to figures 6 and 7).
- 3.2.1 Opponent 1 reacted to the statement setting out the grounds of appeal of the patent proprietors raising an objection of added subject-matter against figures 6 and 7 of the first auxiliary request (reference is made in point 2.1 of the reply to the patent proprietor's statement setting out the grounds of appeal to the "geänderte Fig. 6 und 7"). This objection, being not directed against the main request, falls foul of the doctrine of *reformatio in peius* and is considered as not being admissible (see point 2.2 above). In this letter opponent 1 also failed to address the arguments of the patent proprietors in favour of the main request. The above understanding of the reply of opponent 1, communicated to the parties with the communication pursuant to Article 15(1) RPBA 2020 remained uncontested.
- 3.3 Opponent 2, in its reply to the appeal of the patent proprietor, also failed, like opponent 1, both to contest the main request and to take position on the arguments of the patent proprietors in favour thereof.

The arguments filed with the statement setting out the grounds of appeal of opponent 2 address the interpretation of "superfinished" (statement of grounds, section I), but specifically target claim 1 of the first auxiliary request, explaining why the positive conclusions of the appealed decision on added subject-matter, on the basis of which the patent in suit was maintained in this amended version, were not correct.

The above understanding of the submissions of opponent 2, communicated to the parties with the communication pursuant to Article 15(1) RPBA 2020 also remained uncontested.

3.4 In the absence of any counter-argument of the opponents the Board decides that the patent proprietors convincingly explained that, for the following reasons, the conclusions under section 5.1 of the appealed decision on the basis of which the ground for opposition according to Article 100(c) EPC was held against the main request are not correct.

3.4.1 The opposition division's conclusions on unallowable extension based on the assumption that "superfinished" inevitably implies a "typical cross-hatched pattern" appear to be based on an excessively restrictive interpretation of this feature.

In this respect the Board concurs with the patent proprietors and with opponent 2 (see the third and the fifth paragraphs on page 2 of the statement of grounds of appeal of opponent 2 and the paragraph bridging pages 2 and 3) that the feature "superfinished" does not inevitably imply a "typical cross-hatched pattern". As argued by the patent proprietors and opponent 2 this feature is very broad and merely implies, in the

eyes of a skilled person, that a surface has been smoothed to achieve a particularly low Ra value.

The Board then also concurs with the patent proprietors that the originally filed documents do not support the even more restrictive interpretation of "superfinished" followed by opponent 2, according to which superfinishing should, in the context of the originally filed documents, be understood as equivalent to "chemically accelerated finishing" (CAF).

The interpretation of opponent 2 is not followed in particular because, as noted by the patent proprietors, CAF is mentioned as an example in the description of the patent in suit, and is explicitly introduced in the originally filed dependent claims (claim 2 of D9, see also claim 5 of the application) as an embodiment of superfinishing (statement of grounds of appeal of the patent proprietors, point 14).

Therefore the Board concurs with the patent proprietors who argue that "superfinished" also does not impose any limitation on tools or processes to be used for smoothing a given surface or on the Ra value achieved.

Based on the above (broad) interpretation the Board decides that, as in granted claim 1 an extremely low Ra value of less than 0.25 microns is already imposed for the sun gear and the planet gears, specifying that these smoothed wheels are superfinished is not further limiting the subject-matter of the claim, and that therefore the opposition division's finding that granted claim 1 extends beyond the content of the parent application because of the absence of the feature "superfinished" is not correct.

- 3.4.2 As the Ra value of the hollow gear is above 0,25, and "superfinished" is not linked to any particular maximum Ra value, the Board also concurs with the patent proprietors that it was not necessary to specify that the hollow wheel, having Ra above 0,25, is "non superfinished".

Based on the above the Board concludes that the opposition division's finding that granted claim 1 extends beyond the content of the originally filed application and of the parent application because of the absence of the feature "non-superfinished" is also not correct.

- 3.4.3 The opposition division established that the transcription errors in figures 6 and 7 of the granted patent add subject-matter both with respect to the parent application and to the originally filed application (reference is made, in the appealed decision, to Articles 76(1) and 123(2) EPC).

In relation to the above objection the Board notes that there can be no contravention of Article 123(2) EPC because there is no difference at all between figures 6 and 7 of the application as originally filed and figures 6 and 7 of the granted patent.

In relation to the issue of an alleged contravention of Article 123(3), the Board notes that it is not apparent how this could be possible in the case of the main request, corresponding to the patent as granted, and that none of the opponents provided a substantiation therefor (see in particular point 2 of the reply of opponent 2 to the patent proprietors' statement setting out the grounds of appeal).

3.4.4 In relation to the compliance with the requirements of Article 76(1) EPC the Board notes the following.

There are two differences between figures 6 and 7 of the parent application and figures 6 and 7 of the granted patent (Article 76(1) EPC):

1 - the presence, in both figures of the granted patent, of an unknown roughness parameter R_o replacing the well known parameter R_a in D9;

2 - numerical differences in the values of parameters R_p (2,18 instead of 2,16) and R_{Ku} (3,583 instead of 3,588) between figure 6 of D9 and figure 6 of the granted patent.

Concerning the numerical differences between figure 6 of the parent application and figure 6 of the granted patent, the Board notes that neither the opposition division in the appealed decision, nor the opponents in their respective replies to the statement of grounds of appeal of the patent proprietors explained how such differences change the technical teaching of the patent in suit with respect to the parent application.

In addition the Board notes that figure 6 does not even disclose the invention, but has a mere exemplary value, relating to "typical surface roughness" prior to superfinishing.

Based on the above the Board concurs with the patent proprietors' argument that the amendments in Figure 6 during prosecution do not introduce any new information on the basis of which the skilled person would learn something different than in the parent application.

Concerning the other difference (Ro instead of Ra), the Board concurs again with the patent proprietors who criticize the appealed decision stating that the opposition division has "failed to make a case as to how such changes in the figures actually add subject matter" (statement of grounds, point 25).

The Board also concurs with the patent proprietors that a skilled person would immediately understand that there is an error of transcription in figures 6 and 7, but also that what was originally meant was "Ra".

This is because "Ro" does not correspond to any known roughness parameter, while "Ra" is a well known parameter (the first parameter defined in ISO 4278), also mentioned in the description of these figures (see column 13, lines 5 to 12 of the patent as granted).

Based on the above, and in the absence of any counter-arguments of the opponents on the issue of parameter Ro, the Board decides that it is not apparent how this transcription error could add subject-matter with respect to the parent application.

3.5 In point 2.1 of its reply opponent 1 refers to the parameter between "Rmr 0,25" and "Rz" and argues that it was not possible to correct this parameter under Rule 139 EPC.

The Board notes that there is no parameter positioned between "Rmr 0,25" and "Rz" in any of the figures 6 and 7 of the patent as granted, of the application as filed or of the parent application.

Based on the above it is not apparent to the Board if and how the above objection is directed against the main request. Since opponent 1 has not reacted to the above point raised by the Board in its communication

pursuant to Article 15(1) RPBA, this objection does not need to be further addressed.

4. Sufficiency of disclosure - main request

4.1 Opponent 1 raised an objection of lack of sufficiency of disclosure against the first auxiliary request (point 2.3 of the reply to the statement setting out the grounds of appeal of the patent proprietors) arguing that the amendments made thereto would prevent the skilled person from reducing the invention into practice. Clearly this objection, being based on the amendments, does not hold against the main request.

4.2 Opponent 2 reacted to the statement setting out the grounds of appeal of the patent proprietors raising an objection of lack of sufficiency of disclosure against the patent as granted (see point 1), arguing, on the basis of formulas extracted from document D14, that there are doubts that abrasion and micropitting would be avoided when the hollow gear has an unspecified roughness lying above 0,25 microns, as claimed. This is because, according to the author of D14, the optimal hydrodynamic lubrication regime between the planets and the hollow wheel is not reliably achieved if the hollow gear is not smooth enough.

4.3 The Board is not convinced by the argumentation of opponent 2, and notes that abrasion and micropitting are not mentioned in claim 1 of the main request.

The above argument of opponent 2 is not followed by the Board because it is established case law (CLB, *supra*, II.C.3.2) that an objection of insufficient disclosure cannot legitimately be based on an argument that the

patent does not enable a skilled person to achieve technical effects which are not defined in the claim.

5. Patentability objections of opponent 1 against the main request

5.1 Opponent 1 (see point 2.4) reacted to the statement setting out the grounds of appeal of the patent proprietors stating that claim 1 of the main request lacks novelty over D2 and inventive step over the following combinations:

D3 or D6 with the knowledge of a skilled person,
D6 with any of D4, D3, D1, D5, D7 and D8.

To substantiate the above objections opponent 1 refers to submissions filed before the opposition division, and in particular to point F of the notice of opposition (dealing with novelty of the main request) and point E of the letter dated 6 April 2020 (dealing with inventive step of the main request).

5.2 Article 12(3) RPBA 2020 requires that all facts and objections upon which the opponent 1 wishes to rely should be specified expressly in its reply to the statement setting out the grounds of appeal of the patent proprietors.

According to Board of Appeal case law a reference to submissions filed during opposition does not satisfy the above substantiation requirement (CLB, *supra*, V.A. 2.6.5; T 1041/21, Reasons Nr. 5).

The Board does therefore decide not to admit these objections under Article 12(5) RPBA 2020.

6. No patentability objections of opponent 2 against the main request

The Board notes the following.

Opponent 2 did not raise any novelty objection at all, and also failed to attack inventive step of the main request.

The inventive step objection filed with the statement setting out the grounds of appeal of opponent 2 specifically targets claim 1 of the first auxiliary request (see the last paragraph of page 4), and the reply to the statement setting out the grounds of appeal of the patent proprietors does not mention inventive step at all.

The Board sees no reason why it should examine novelty and inventive step of the main request of its own motion.

7. Allegation of procedural violation and patent proprietors' request for reimbursement of the appeal fee.

7.1 The patent proprietors requested the refund of the appeal fee in the case that the appealed decision on the main request with respect to Article 100(c) EPC is set aside (reply to the statement setting out the grounds of appeal of opponent 2, page 2, first paragraph).

The allegation of procedural violation, as submitted with the statement setting out their grounds of appeal, was based on the assumption that the opposition division division clearly had based its decision on a Wikipedia article (document A1) which was however not made available to the parties during opposition, contrary to the requirements of Article 113(1) EPC.

In their letter dated 27 July 2023 the patent proprietors further elaborated that whether Wikipedia or any other source was the origin of the opposition division's interpretation of superfinished is irrelevant to a finding of a procedural violation, because the facts of the present case clearly show that the appealed decision was taken on the basis of grounds or evidence on which the parties concerned have had no opportunity to present their comments.

Had the grounds or evidence at the basis of the erroneous presumption of the opposition division been discussed during the debate, both the patent proprietors and opponent 2 would have disagreed on the interpretation of "superfinished" and corrected it.

7.2 The Board disagrees.

The assumption that the opposition division based its decision upon A1 is based on a corresponding statement of opponent 2 (statement of grounds, page 2, second paragraph: "Diese besondere kennzeichnende Eigenschaft von Superfinishing hat die Einspruchsabteilung offensichtlich im Internet bei Wikipedia gefunden").

As also noted by the patent proprietors, in the absence of any discussion of the matter in the written file or minutes, there is no basis for concluding that the opposition division has based its interpretation on a source unknown to the parties (see also the second last paragraph of the patent proprietors' letter dated 27 July 2023).

It is therefore not apparent to the Board on which basis it should be established that the incorrect assumption of the opposition division that there should

be a "typical cross hatched pattern", instead of being simply a technically wrong interpretation of the feature "superfinished" and therefore an error of judgement, amounts to a procedural violation.

As it is not apparent that a procedural violation occurred, the Board decides not to reimburse the appeal fee.

Order

For these reasons it is decided that:

- 1. The appealed decision is set aside.**
- 2. The patent is maintained as granted.**
- 3. The request of the patent proprietors for reimbursement of the appeal fee is refused.**

The Registrar:

The Chairman:



G. Nachtigall

A. Pieracci

Decision electronically authenticated