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Datasheet for the decision of 2 December 2014

Case Number: T 0304/13 - 3.2.08

Application Number: 03775877.8

Publication Number: 1688630

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Language of the proceedings: EN

Title of invention:
BUSH BEARING

Patent Proprietor:
OILES CORPORATION

Opponents:
Federal-Mogul Wiesbaden GmbH
KS Gleitlager GmbH

Headword:

Relevant legal provisions:
EPC Art. 56
EPC R. 103(1)(a)
RPBA Art. 12(4)

Keyword:
Inventive step - after amendment
Late-filed submissions (admitted in part)
Reimbursement of appeal fee - (no)

Decisions cited:

Catchword:

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Chambres de recours

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 0304/13 - 3.2.08

D E C I S I O N
of Technical Board of Appeal 3.2.08
of 2 December 2014

Appellant: (Patent Proprietor)	OILES CORPORATION 30-5, Hamamatsu-cho 1-chome Minato-ku Tokyo 105-8584 (JP)
Representative:	Price, Nigel John King J A Kemp 14 South Square Gray's Inn London WC1R 5JJ (GB)
Respondent: (Opponent 1)	Federal-Mogul Wiesbaden GmbH Stielstrasse 11 65201 Wiesbaden (DE)
Representative:	Achler, Matthias Mehler Achler Patentanwälte Bahnhofstr. 67 65185 Wiesbaden (DE)
Respondent: (Opponent 2)	KS Gleitlager GmbH Am Bahnhof 14 68789 St. Leon-Rot (DE)
Representative:	DREISS Patentanwälte PartG mbB Patentanwälte Gerokstrasse 1 70188 Stuttgart (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 11 December 2012 concerning maintenance of the European Patent No. 1688630 in amended form.**

Composition of the Board:

Chairman	T. Kriner
Members:	M. Alvazzi Delfrate
	D. T. Keeling

Summary of Facts and Submissions

I. By its decision posted on 11 December 2012 the opposition division found that European patent No.1 688 630, in amended form according to auxiliary request 3 then on file, and the invention to which it related met the requirements of the EPC.

II. The appellant (patent proprietor) lodged an appeal against that decision in the prescribed form and within the prescribed time limit.

III. Oral proceedings before the Board of Appeal were held on 2 December 2014.

IV. The appellant requested that the decision under appeal be set aside and that the patent be maintained in an amended form according to the claims of the main request or one of the first to third auxiliary requests, all filed with letter dated 11 April 2013. It also requested a refund of the appeal fee on the basis that a substantial procedural violation occurred in the opposition proceedings.

The respondents (opponents 1 and 2) requested that the appeal be dismissed.

V. Claim 1 of the **main request** reads as follows.

"A bush bearing which is a cylindrical bush bearing whose inner peripheral surface is a sliding surface, wherein an outer peripheral surface of the bush bearing has a cylindrical surface and a tapered surface interposed between the cylindrical surface and at least one annular axial end face of the bush bearing and formed by press forming, and if the wall thickness at

the cylindrical surface of the bush bearing is assumed to be t, a difference δ(= r1 - r2) between a radius r1 at the cylindrical surface of the bush bearing and a radius r2 at an outer peripheral edge of the one annular end face is in a range of not less than 0.1t and not more than 0.3t wherein the bush bearing is constituted by a wrapped bush bearing in which a plate having the sliding surface on one surface is convoluted into a cylindrical shape such that the sliding surface is positioned on an inner peripheral side;
characterised in that
the plate is constituted by a multilayered plate which includes a back plate coated with copper, a porous sintered metal layer adhered integrally to a copper coating layer on one surface of the back plate, and a sliding layer including a synthetic resin with which the porous sintered metal layer is impregnated, and which has self-lubricity and wear resistance, a portion of said layer which includes said synthetic resin being formed on one surface of the porous sintered metal layer, and the wrapped bush bearing is formed by convoluting the multilayered plate into the cylindrical shape such that the sliding layer is positioned on the inner peripheral side;
wherein the tapered surface is constituted by an exposed surface of the copper coating layer."

VI. The following documents played a role for the present decision:

E1: convolute of documents relating to the alleged prior use of a Glycodur® bearing;
E1-1: "Erzeugnis Spezifikation" A2C20000519ABD b;
E1-2: delivery note number 80092003;
E4 : catalogue "Glycodur ® -Gleitlager", "Produktinformation";

E5 : catalogue "Glycodur ® -Gleitlager", "Glycodur-Dry bearings";
E6 : catalogue "Glycodur ® -Gleitlager";
D1 : DIN ISO 3547-1, pages 1-9, 1999, and DIN ISO 3547-4, pages 2-6, 1999;
D5: "Polymere Gleitlager", A.V. Cicinadze, Berlin 1990, pages 38, 39;
D6: data sheet "KS 830.01", "WERKSTOFF-DATENBLATT" 7 April 2000;
D7: drawing no. 80 243 010; and
D8: drawing no. 80 242 010.

VII. The arguments of the appellant can be summarised as follows:

Objection of lack of novelty in view of E5

The objection of lack of novelty in view of E5 was submitted for the first time in appeal without good reason. Moreover, it was not prima facie relevant. Hence, this objection should be disregarded.

Objection of lack of novelty in view of the alleged public prior use substantiated by D6 to D8

The public prior use substantiated by D6 to D8 was not admitted into the proceedings by the opposition division, which correctly exercised its discretionary power. Therefore, it should be disregarded.

Introduction into the proceedings of E1-1, E1-2 and D5

Documents E1-1 and E1-2 were late-filed during the opposition proceedings. The appellant had objected to their introduction into the proceedings and no formal decision to admit them into the proceedings was taken

by the opposition division. Hence, it was in the Board's discretion to admit them or not into the proceedings. Since they were not relevant to the case, they should not be admitted.

Moreover, also D5 was late-filed and not relevant. For these reasons it should not be admitted into the proceedings either.

Inventive step starting from the alleged prior use substantiated by E1, E1-1 and E1-2

The bearing which was allegedly made public by the delivery to which the documents E1, E1-1 and E1-2 referred did not exhibit all the features of claim 1. In particular, in the allegedly delivered bearing the exposed surface of the taper was a layer of tin. Hence, contrary to the claimed bearing it was not provided with the feature according to which the tapered surface is constituted by an exposed surface of the copper coating layer. Due to the provision of this feature the claimed bearing could be easily produced while exhibiting good performance, because the copper surface was less prone to the production of burrs during press fitting.

Since the prior art did not suggest to achieve this object in accordance with claim 1, the inventive step of its subject-matter starting from the alleged prior use was to be acknowledged.

Inventive step starting from E5

The alleged lack of inventive step starting from E5 was substantiated for the first time at the oral

proceedings. In view of this lateness this line of argument should be disregarded.

In any event, the Glycodur ® bearing disclosed in E5 was farther removed from the claimed 1 than the bearing to which the alleged public prior use referred. As a matter of fact E5 did not disclose a Glycodur ® bearing with the dimensions according to claim 1, since its reference to the norm D1 merely concerned the tolerances of the bearing. The choice of the claimed dimensions also contributed to an improved performance and was not rendered obvious by the prior art. Therefore, the subject-matter of claim 1 involved an inventive step also starting from E5.

Inventive step starting from D1

The structure of the bearing disclosed in the norm D1 with the material P1 was different from the claimed one, because the known bearing did not comprise an exposed copper layer on the taper and a copper layer to which the sintered bronze was adhered.

Both features contributed to improving the performance of the bearing and were not rendered obvious by the prior art. In particular D5 disclosed a back plate coated with copper but did not render it obvious to modify the structure foreseen by the norm D1 in this sense. Therefore, the subject-matter of claim 1 of the main request involved an inventive step also starting from D1.

Request to reimburse the appeal fee

To support the request to reimburse the appeal fee the appellant referred to the written submissions, where it

argued that the grounds for rejecting the first auxiliary request were not discussed at the oral proceedings, which constituted a substantial procedural violation.

VIII. The arguments of the respondent can be summarised as follows:

Lack of novelty in view of E5

It was true that the objection of lack of novelty in view of E5 was submitted for the first time in appeal, although E5 was known from the beginning of the opposition proceedings. However, the relevance of this document for the question of novelty had become apparent only after the amendments carried out during the opposition proceedings. Given that E5 disclosed prima facie all the features of the claimed bearing, this objection should be admitted into the proceedings.

Lack of novelty in view of the alleged public prior use substantiated by D6 to D8

The public prior use substantiated by D6 to D8 was submitted late for causes internal to the respondent/ opponent 2. However, the opposition division, which decided not to admit it into the proceedings, incorrectly exercised its discretionary power, because this prior use was prima facie highly relevant. Therefore, it should be admitted into the appeal proceedings.

Introduction into the proceedings of E1-1, E1-2 and D5

Documents E1-1 and E1-2 and D5 were admitted into the proceedings by the opposition division. Therefore, there was no reason to disregard them.

Inventive step starting from the alleged prior use substantiated by E1, E1-1 and E1-2

As evidenced by the testimony of Mr Nigrin and the documentary evidence of E1, E1-1 and E1-2 the bearing shown in the drawings of E1 was made available to the public before the priority date of the patent in suit. The material of the bushes was Glycodur ® F or Glyco ® -92 whose structure was shown in E5 or E6. The fact that one copper layer was not explicitly indicated in E4 did not mean that this layer was absent but merely that this detail was not shown in the drawings of E4. Therefore, the sole distinguishing feature of the bearing of claim 1 of the main request was that its tapered surface consisted in an exposed surface of the copper coating layer, whereas in the bearing delivered to Joh. Vaillant GmbH the copper layer was covered by a layer of tin.

Starting from this known bearing the object to be achieved by the claimed invention was merely to provide an alternative bearing easy to produce. When the corrosion resistance requirements were less stringent it was obvious to achieve this object by dispensing with the tin layer, the sole effect of which was to provide corrosion resistance.

As a matter of fact this measure was even hinted at by the photograph on page 29 of E5, that showed some bearings whose tapered surface was constituted by an exposed surface of copper.

Therefore, starting from the publicly delivered bearing the subject-matter of claim 1 did not involve an inventive step.

Inventive step starting from E5

The subject-matter of claim 1 was also obvious when starting from the Glycodur ® F bearing disclosed in E5.

This line of attack was substantiated for the first time at the oral proceedings because E5 was first of all considered to be novelty-destroying. Hence, this line of argument should not be disregarded.

By its reference to D1 on page 27 E5 disclosed a bearing with dimensions according to claim 1. Hence, also in this case the sole distinguishing feature was the exposed copper surface of the taper, that, as already explained, could not justify an inventive step.

Inventive step starting from D1

The norm D1 related to plain bearings - wrapped bushes. According to table 2 of Teil 4 of D1 it was possible to use different materials for the bearing, for instance material P1. In this case the plate included a multilayered plate, a porous sintered metal layer and synthetic resin with self-lubricity and wear resistance formed on one surface of the porous sintered metal layer, wherein the wrapped bush bearing was formed by convoluting the multilayered plate into the cylindrical shape such that the sliding layer was positioned on the inner peripheral side. Dimensions in accordance with claim 1 were also disclosed in D1.

D5 was part of the common general knowledge of the person skilled in the art and disclosed on page 39 the production of back plates for bearings consisting of steel coated with a layer of copper or brass.

Hence, it was obvious to coat both surfaces of the back plate of the bearing of D1 with copper, thus arriving at a bearing in accordance with claim 1. Therefore, the subject-matter of claim 1 of the main request did not involve an inventive step starting from D1 either.

Reasons for the Decision

1. The appeal is admissible.

2. Main Request - Novelty

Two objections of lack of novelty were raised in the appeal proceedings: one in respect of E5 and the other in respect of the alleged prior use substantiated by D6 to D8.

2.1 Objection of lack of novelty in view of E5

The objection of lack of novelty in view of E5 was raised for the first time in the reply of the respondent/opponent 1 to the statement of grounds of appeal. However, since E5 was already submitted during the opposition proceedings, this objection represents a fact which could have been presented in the opposition proceedings. Accordingly, it lies in the power of the Board to admit it or not into the proceedings (Article 114(2) EPC and Article 12(4) RPBA).

The Board cannot see any justification for the delay in submitting this objection since the evidence on which it is based, i.e. E5, was already cited in the notice of opposition and present claim 1 is a combination granted claims.

The respondent submitted that E5 discloses prima facie all the features of claim 1. However, this submission is contradicted by the fact that the respondents themselves did not realise the alleged relevance of E5 at any time during the opposition proceedings. Indeed, E5 does not disclose several features of the claimed bush bearing (see below under inventive step), so that its prima facie relevance for the issue of novelty must be denied.

Under these circumstances, the Board decided not to admit the objection of lack of novelty in view of E5 into the proceedings.

2.2 Objection of lack of novelty in view of the alleged prior use substantiated by D6 to D8.

The alleged prior use based on D6 to D8 was not admitted into the proceedings by the opposition division (see pages 7 to 9 of the decision under appeal). Hence, also in this case it lies within the discretionary power of the Board to admit it or not in the appeal proceedings (Article 12(4) RPBA).

The opposition division did not admit D6 to D8 on the grounds that they were not relevant. Hence, it has exercised its discretion according to the correct criteria.

The Board sees no reason for departing from the assessment of the opposition division, especially since respondent/opponent 2 itself appears to acknowledge that D6 to D8 do not explicitly disclose all the features of claim 1. With respect to the production of the chamfers without cutting and the galvanic coating of the steel back plate the hearing of a witness was suggested. However, neither the identity of the witness nor the circumstances under which he had become aware of these features have been submitted.

Under these circumstances, the Board decided to disregard the alleged public prior use based on D6 to D8.

3. Main request - Inventive step

The inventive step of the main request is questioned in view of three lines of argument: one starting from the alleged prior use E1, one starting from E5, and the other starting from D1. The appellant objected to the introduction into the proceedings of the line of argument starting from E5 and some of the evidence upon which the objections rely, namely E1-1, E1-2 and D5.

3.1 Introduction into the proceedings of E1-1, E1-2 and D5 and of the objection of lack of inventive step starting from E5

3.1.1 Documents E1-1 and E1-2 were late-filed during the opposition proceedings and their introduction into the proceedings was objected to by the appellant (see decision under appeal pages 2 and 4). In the appellant's view no decision was taken to admit them into the proceedings so that their admission would be subject to the Board's discretion.

It is true that neither the decision under appeal nor the minutes of the oral proceedings explicitly state that E1-1 and E1-2 were admitted into the proceedings. However, in the section on page 5 of the appealed decision relating to the evaluation of evidence the content of these documents is assessed to establish whether the alleged public prior use to which they refer was proven or not. Accordingly, there can be no doubt that, although the decision under appeal does not explicitly state it, the opposition division decided, in the exercise of its discretionary power, to admit these documents into the proceedings.

Since E1-1 and E1-2 both constitute supplementary evidence concerning an alleged public prior use which was submitted by the respondent/opponent 1 in its notice of opposition the Board sees no reason to overturn this decision, despite the fact that the decision under appeal contains no reasons in this respect. Hence, documents E1-1 and E1-2 are part of the proceedings and the Board has no discretionary power to disregard them.

3.1.2 The same applies to document D5, which was also introduced into the proceedings by a discretionary decision of the opposition division (see page 7 of the decision under appeal).

3.1.3 As to the objection of lack of inventive step starting from E5 the Board points out that this document was already referred to in the context of the inventive step discussion, although not as the closest prior art, in the written procedure. Moreover this line of argument is similar to that starting from the alleged prior use and as a consequence can be considered by the

parties and the Board without delaying the proceedings. Hence, this objection has been admitted into the proceedings.

3.2 Inventive step starting from the alleged prior use substantiated by E1, E1-1 and E1-2

3.2.1 The witness Mr Nigrin was heard during the oral proceedings before the Board of Appeal. His testimony supported the public availability of the bearing shown in drawings 1 and 2 of E1. His credibility was not questioned by the parties. Nor does the Board see any reason to doubt it since Mr Nigrin was candid in his testimony and, while honestly acknowledging whenever he did not recollect some details, demonstrated a thorough knowledge of the development of said bearing, in which he actively participated (see for instance drawing 1, history of the modifications). Moreover, the testimony of Mr Nigrin is corroborated by the evidence E1, E1-1 and E1-2.

3.2.2 In view of this testimony and the documentary evidence provided, the Board is satisfied that 19200 bushes with the reference number 215998 F were delivered to the company Joh. Vaillant GmbH prior to the priority date of the patent in suit (see E1-2). Given the number of parts delivered there is no reason to assume that this delivery was covered by a confidentiality agreement. The parts delivered are shown in drawings 1 and 2 of E1, which depict the revision F of the part number 215998.

It is undisputed that the bush bearing shown in these drawings is a cylindrical bush bearing whose inner peripheral surface is a sliding surface, wherein an outer peripheral surface of the bush bearing has a

cylindrical surface and a tapered surface interposed between the cylindrical surface and at least one annular axial end face of the bush bearing (see drawing 2 of E1). As indicated in drawing 2 of E1 the chamfer is rolled, i.e. produced by a press-forming process in the sense of the patent in suit (see claim 12 as granted). The nominal values of the wall thickness is 1.477, the angle of the taper is 20° and its length is 0.7, resulting in a value of δ in the range stipulated by claim 1. Moreover, the bush bearing is constituted by a wrapped bush bearing in which a plate having the sliding surface on one surface is convoluted into a cylindrical shape such that the sliding surface is positioned on an inner peripheral side (see drawings 1 or 2 of E1, "Stossfuge").

The material of the bushes is Glycodur ® F or Glyco ®-92 (see drawing 2 of E1), which are two names for the same material (see also E5, table on page 7). The structure of Glycodur ® F is described in E4 (pages 4,5), E5 (pages 4, 5) or E6 (pages 4, 5). This structure comprises a copper-plated steel base, to which a porous tin bronze layer is sintered on one side. The pores of the sintered layer are filled with PTFE and additives and a top layer of the same material forms the sliding layer. Although the drawings of E4 explicitly indicate the copper layer only on one side of the steel base (the side to which the porous bronze is sintered), it is clear from E5 and E6 that both sides are coated with copper. This arrangement is also consistent with the use of the term "verkupferten Stahlrücken" in E4. This further copper layer not covered by the sintered bronze is plated with a layer of tin (Zinnschicht, see drawings of E4, E5 and E6 and drawings 1 and 2 of E1). Hence, the plate is constituted by a multilayered plate which includes a back plate coated with copper, a

porous sintered metal layer adhered integrally to a copper coating layer on one surface of the back plate, and a sliding layer including a synthetic resin with which the porous sintered metal layer is impregnated, and which has self-lubricity and wear resistance, a portion of said layer which includes said synthetic resin being formed on one surface of the porous sintered metal layer, and the wrapped bush bearing is formed by convoluting the multilayered plate into the cylindrical shape such that the sliding layer is positioned on the inner peripheral side.

3.2.3 Starting from this known bearing the object to be achieved by the claimed invention can be seen in the provision of a bearing which can be easily produced while exhibiting good performance.

3.2.4 This object is achieved by the bearing of claim 1 of the main request whose tapered surface is constituted by an exposed surface of the copper coating layer, whereas in the bearing delivered to Joh. Vaillant GmbH the copper layer is covered by a layer of tin.

Since the adhesion of copper is better than that of tin, the exposed surface of copper according to the patent is less prone to the production of burrs during press fitting. This problem in the prior art bearings was also confirmed by Mr Nigrin in his testimony. Since the occurrence of dust at the time of press fitting impairs the roundness of the bearing (see patent in suit, paragraph [0006]), its reduction contributes to the performance of the bearing.

Therefore, the object achieved by the claimed invention cannot be considered to be simply the provision of a bearing which is easy to produce when the requirement

on corrosion resistance are less stringent, as argued by the respondents.

3.2.5 The prior art does not provide any indication to achieve the object underlying the invention in accordance with claim 1. In particular, the photograph showing the special parts on page 29 of E5 does not provide any hint in this direction. Even assuming that, as submitted by the respondents, this picture shows some bearings whose tapered surface is constituted by an exposed surface of copper, there is no indication as to the possible advantages of this kind of surface.

3.2.6 Hence, the person skilled in the art had no reason to dispense with the tin coating of the delivered bearings without the benefit of hindsight knowledge of the claimed invention.

Accordingly, the subject-matter of claim 1 of the main request was not obvious starting from the bearing rendered public in the prior use to which E1 refers.

3.3 Inventive step starting from E5

3.3.1 E5 alone is a less promising starting point than that prior use, since the bearings disclosed in this document are farther removed from the claimed one than the bearing known from the prior use discussed above.

Contrary to what was submitted by the respondents, E5 does not disclose a Glycodur ® bearing with all the dimensions according to claim 1. In particular, its passage on page 27 which refers to the norm D1 clearly refers to the tolerances while being completely silent on the radii and thickness of the bearing. Hence, it cannot disclose that the bearing satisfies the

condition concerning the radii and thickness stipulated by claim 1.

3.3.2 The object to be achieved starting from the Glycodur ® bearing disclosed in E5 can thus be seen in the provision of a bearing which can be easily produced while exhibiting improved performance.

This object is achieved by the bearing of claim 1 of the main request whose tapered surface is constituted by an exposed surface of the copper coating layer, and exhibits radii and thicknesses in accordance with claim 1 (see paragraphs [0006] and [0008] of the patent in suit).

3.3.3 In addition to the non-obvious feature concerning the exposed copper surface (see above) the presence of an inventive step is also supported by the selection of the dimensions of the radii and thickness in accordance with claim 1, since nothing in the prior art suggests to achieve this object by this selection. Therefore, the subject-matter of claim 1 also involves an inventive step starting from E5.

3.4 Inventive step starting from D1

3.4.1 The norm D1 relates to plain bearings - wrapped bushes, wherein part 1 of the norm relates to the dimensions and part 4 to the materials (see for instance page 3 of Teil 1 Vorwort). Accordingly, part 1 and part 4 are to be considered together.

D1 discloses a cylindrical bush bearing whose inner peripheral surface is a sliding surface, wherein an outer peripheral surface of the bush bearing has a cylindrical surface and a tapered surface interposed

between the cylindrical surface and at least one annular axial end face of the bush bearing (see Teil 1, Figure 1 on page 4). According to table 2 on page 6 the tapered surface can be formed without cutting ("spanlos"), which is to be regarded as "press-forming" in the sense of the patent in suit (see claim 12 as granted).

The difference δ(= r1 - r2) between a radius r1 at the cylindrical surface of the bush bearing and a radius r2 at an outer peripheral edge of the one annular end face can be calculated from the tangent of the angle shown in Figure 1 of D1 (20°) and the value of C_O^a given in table 2. For a value of 0.5 (table 2) this difference is 0.182, which, given that the corresponding t (s3) is 0.75, falls within the range foreseen by claim 1 of not less than 0.1t and not more than 0.3t. Furthermore, the bush bearing is constituted by a wrapped bush bearing in which a plate having the sliding surface on one surface is convoluted into a cylindrical shape such that the sliding surface is positioned on an inner peripheral side (see D, title).

Different materials may be used according to D1 (see table 2, of Teil 4). If the material of choice is P1, the plate includes a multilayered plate, a porous sintered metal layer and synthetic resin with self-lubricity and wear resistance being formed on one surface of the porous sintered metal layer, wherein the wrapped bush bearing is formed by convoluting the multilayered plate into the cylindrical shape such that the sliding layer is positioned on the inner peripheral side.

However, D1 does not disclose that the back plate is coated with copper.

3.4.2 Starting from this bearing the object achieved by the claimed invention can be seen in the provision of a bearing which exhibits improved performance.

This object is achieved by the bearing of claim 1 of the main request, whose tapered surface is constituted by an exposed surface of the copper coating layer, and whose back plate is coated with copper so that the porous sintered metal layer is adhered integrally to a copper coating layer.

As already mentioned above, the exposed copper layer of the tapered surface reduces the occurrence of dust at the time of press fitting, which dust impairs the roundness of the bearing (see patent in suit, paragraph [0006]). As to the copper layer on the surface underneath the porous sintered layer, it enhances the adhesion of the sintered layer, thus providing good sliding properties.

3.4.3 The prior art does not hint to achieve this object in accordance with claim 1. It is true that D5 discloses on page 39 that the production of back plates for bearings consisting of steel coated with a layer of copper or brass was part of the common general knowledge of the person skilled in the art. However, it does not disclose any advantage or effect of this structure, so that the person skilled in the art is not taught to achieve the object above by adopting the structure of the back plate of D5 for producing the bearing of D1.

E5 and E6 do not lead in this direction either since they do not teach that a taper with an exposed copper surface can contribute to achieving the object above.

Therefore, the subject-matter of claim 1 of the main request involves an inventive step also starting from D1.

4. Reimbursement of the appeal fee

According Rule 103(1)(a) EPC the appeal fee shall be reimbursed in full where the Board of Appeal deems an appeal to be allowable, if such reimbursement is equitable by reason of a substantial procedural violation.

The opposition division considered in its reasoning the radii of the bearings, whether they were linked to a technical effect and found that the features added by auxiliary request 1 were based on common general knowledge (see pages 12 and 13 of the decision under appeal). These points were also discussed at the oral proceedings (see point 4.1 to 4.4 of the minutes). Hence, contrary to the appellant's view, the Board is satisfied that the crucial points of the reasoning of the opposition division were discussed at the oral proceedings and considered in the decision under appeal.

Moreover, the appellant requested in the statement of grounds the maintenance of the patent on the basis of the main request, so that there is no causal link between the alleged procedural violation concerning the discussion of the auxiliary request 1 and the filing of the appeal. Accordingly, even if this procedural violation were to be established, it would not be equitable to refund the appeal fee on this basis.

Therefore, the Board does not see any reason to reimburse the appeal fee.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the Opposition Division with the order to maintain the patent on the basis of the following documents:
   - Claims 1 to 19 of the Main Request filed with letter of 11 April 2013;
   - Description, columns 1 to 4 filed with letter of 11 April 2013 and columns 5 to 7 as granted;
   - Figures 1 to 6 as granted.

3. The request for a refund of the appeal fee is refused.

The Registrar: The Chairman:

V. Commare T. Kriner

Decision electronically authenticated