Datasheet for the decision
of 9 December 2008

Case Number: T 0114/07 - 3.2.06
Application Number: 99968645.4
Publication Number: 1112132
IPC: B23B 27/04
Language of the proceedings: EN

Title of invention:
Cutting insert for grooving operations

Patentee:
Sandvik Intellectual Property AB

Opponents:
CERATIZIT Austria Gesellschaft m.b.H.
Iscar Ltd

Headword:
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Relevant legal provisions:
RPBA Art. 13(1)

Relevant legal provisions (EPC 1973):
EPC Art. 55(c)

Keyword:
"Admissibility of opposition - (yes)"
"Late-filed request - not admissible"

Decisions cited:
T 0222/85, T 0002/89, T 0134/88, T 0382/05

Catchword:
-
DECISION
of the Technical Board of Appeal 3.2.06
of 9 December 2008

Appellant: Sandvik Intellectual Property AB
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Decision under appeal: Decision of the Opposition Division of the European Patent Office posted 30 November 2006 revoking European patent No. 1112132 pursuant to Article 102(1) EPC.

Composition of the Board:
Chairman: P. Alting Van Geusau
Members: G. Pricolo
K. Garnett
Summary of Facts and Submissions

I. The appeal is from the decision of the Opposition Division posted on 30 November 2006 revoking European patent No. 1 112 132, granted in respect of European patent application No. 99 968 645.4.

II. Claim 1 as granted reads as follows:

"1. A cutting insert primarily for the operation of turning grooves in a metallic workpiece comprising: a shank portion and a forward cutting head, the shank portion including an upper surface (1), a bottom surface (2) and two mutually plane parallel side surfaces (5, 6) each extending between the upper and bottom surfaces, an intersection between the upper surface and a front flank surface forming a main cutting edge (8a), the intersection between the upper surface and each side flank surface defining a side edge (8b) having a clearance angle suited to its purpose, the forward end surface of the insert includes a first upper flank surface (18) connecting to the cutting edge, which via a transition surface (19) transforms to a lower surface (20) which is recessed somewhat axially inwards towards the insert body whereby said axially inwards recessed surface (20) has a width, which is equal to or smaller than the entire width of the cutting head, whereby:
   a) the transition surface (19) is concave
   b) the underneath surface (2) comprises a central concave surface portion (2a) which on both sides is confined by inclined bottom support surfaces (2b, 2c),
   the cutting insert further characterized in that
c) said transition surface (19) in its lower part extends into said recessed surface (20) aimed to act as axial stop surface which is oriented essentially perpendicularly to the plane which includes the bottom supporting surface (2) of the insert."

III. The Opposition Division held that both oppositions were admissible, that the subject-matter of the European patent did not extend beyond the content of the application as filed (Article 100(c) EPC) and that the European patent disclosed the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (Article 100(b) EPC). However, the subject-matter of claim 1 of the patent as granted, and of claim 1 according to the patent proprietor's first auxiliary request, was not novel over the public prior use of a cutting insert by Plansee TIZIT GmbH in respect of which the following evidence was filed:

D1 : affidavit of Mr. Rudolf Stricker dated 24 November 2004, including annexes:
Annex 1: Drawing No. 63811668-0 of Plansee TIZIT dated 14.11.1991;
Annex 2: Catalogue "TIZIT Maxilock MSS", by Plansee TIZIT GmbH Austria, dated October 1992;
Annex 3: Order of Plansee TIZIT No. 23006828;

and also over the prior art disclosed by:

E1 : Catalogue "TIZIT Maxilock MSS", by Plansee TIZIT GmbH Austria, dated June 1995;

and:
Claim 1 according to the second auxiliary request was considered to lack an inventive step over the disclosure of any of the said pieces of prior art.

IV. The appellant (patent proprietor) filed an appeal on 24 January 2007. Payment of the appeal fee was recorded on the same day. With the statement setting out the grounds of appeal, received at the EPO on 4 April 2007, the appellant requested that the decision under appeal be set aside and the patent be maintained as granted or on the basis of one of first to third auxiliary requests. The first and third auxiliary requests corresponded to the first and second auxiliary requests considered by the opposition division, respectively.

V. In an annex to the summons for oral proceedings pursuant to Article 15(1) of the Rules of Procedure of the Boards of Appeal, the Board expressed the preliminary opinion that, contrary to the appellant's view, the opposition of opponent I appeared to be admissible. Concerning the issue of inadmissible extension raised by respondent II (opponent II), the Board stated that it had in particular to be discussed whether it was allowable to isolate feature b), recited in claim 1 as granted, from the set of features of the embodiment disclosed in the application as filed from which feature b) was taken. As regards novelty, the Board stated that the opposition division’s interpretation of the term "essentially perpendicular" in claim 1 as granted such as to include angles slightly different from 90° appeared to be correct.
VI. With letter dated 30 October 2008 the appellant filed amended documents forming the basis for fourth and fifth auxiliary requests for maintenance of the patent in amended form.

VII. Oral proceedings, at the end of which the decision of this Board was announced, took place on 9 December 2008.

During the oral proceedings the appellant filed a new fourth auxiliary request and withdrew all its previous requests. It requested that the decision under appeal be set aside and the European patent be maintained on the basis of the fourth auxiliary request filed during the oral proceedings.

The respondents (opponents I and II) requested that the appeal be dismissed.

VIII. Claim 1 according to the sole request of the appellant reads as follows (for ease of comprehension, the Board has indicated additions compared to claim 1 as granted in underlined and deletions by striking out):

"1. A cutting insert primarily for the operation of turning grooves in a metallic workpiece comprising: a shank portion and a forward cutting head, the shank portion including an upper surface (1), a bottom surface (2) and two mutually plane parallel side surfaces (5, 6) each extending between the upper and bottom surfaces, an intersection between the upper surface and a front flank surface forming a main cutting edge (8a), the intersection between the upper surface and each side flank surface defining a side edge (8b) having a clearance angle suited to its
purpose, the forward end surface of the insert includes a first upper flank surface (18) connecting to the cutting edge, which via a transition surface (19) transforms to a lower surface (20) which is recessed somewhat axially inwards towards the insert body whereby said axially inwards recessed surface (20) has a width, which is equal to or smaller than the entire width of the cutting head, whereby:

a) the transition surface (19) is concave
b) the underneath surface (2) comprises a central concave surface portion (2a) which on both sides is confined by inclined bottom support surfaces (2b, 2c), the cutting insert further characterized in that

c) said transition surface (19) in its lower part extends into being separated by a sectional line between the concave transition surface and the lower surface, the sectional line having straight horizontal contour said recessed surface (20) aimed to act as axial stop surface which is oriented essentially perpendicularly to the plane which includes the bottom supporting surface (2) of the insert, the angular difference between the surfaces (18) and (19) lies in the range 35°-45°, the V-shaped recesses on the underside of the insert which are formed by the surfaces (2a, 2b, 2c) extend throughout the length of the insert so that the lower delimiting edge of the lower forward surface (20) is given a U-shaped contour, the upper surface having a concave trail (1a), which extends into oblique surfaces (1b, 1a), and the bottom support surfaces (2b, 2c) on each side of the central concave surface portion (2a) are correspondingly inclined."
IX. The arguments of the appellant in support of its request can be summarized as follows:

The opposition of opponent I was inadmissible because it did not indicate the facts, evidence and arguments in support of the grounds of opposition. Specifically, in the notice of opposition it was stated that the subject-matter of claim 1 of the patent in suit lacked novelty over an alleged prior use. However, the notice of opposition was primarily concerned with the last feature of claim 1. There was no argumentation concerning the remaining features. Therefore, having regard to the complexity of the claimed subject-matter, consisting of several interrelated features, the notice of opposition did not enable the patent proprietor and the opposition division to examine the alleged ground for revocation without recourse to independent inquiries. Moreover, the case of prior use was not supported by proper evidence because the opponent did not demonstrate that the drawing (annex 1) and the catalogue (annex 2) filed to corroborate its allegations were available to the public before the priority date of the patent in suit. In its affidavit (D1), Mr. Stricker merely stated that the catalogue was distributed to customers as from November 1992, but failed to identify any specific date of delivery or any customer's identity.

The new fourth auxiliary request was filed in response to the opinion expressed by the Board during the oral proceedings, according to which claim 1 as granted contained subject-matter extending beyond the content of the application as filed. Claim 1 was amended to clearly reflect the features of the embodiment of a
cutting insert disclosed in the application as filed. The term "essentially" was deleted to make it clear that the stop surface was exactly perpendicular to the bottom supporting surface of the insert, thereby further distancing the subject-matter of claim 1 from the prior art. The original version of the patent application, which was filed in Swedish, did not contain the term "essentially".

X. The arguments of the respondents can be summarized as follows:

The notice of opposition dealt in detail with the feature defined in the characterizing portion of claim 1 because the remaining features, defined in the preamble, were well-known to a skilled person. Indeed they were common to most cutting inserts for turning grooves. Accordingly, the skilled person did not need detailed explanations to realize that the prior-used insert comprised the features of the preamble of claim 1. Moreover, the notice of opposition referred to the affidavit D1, in which many features of claim 1 were explicitly addressed. As regards the availability to the public of the drawing and catalogue (annexes 1 and 2), evidence was submitted in the form of the affidavit D1.

Since it was filed during the oral proceedings and contained a number of formal defects, the appellant's fourth auxiliary request (now the sole request) should not be admitted into the proceedings. In particular, the amendments made to claim 1 were not allowable under Article 123(2) EPC. Claim 1 defined that the upper surface was provided with a concave trail extending
into oblique surfaces but the application as filed more specifically defined that the concave trail was a longitudinally concave V-shaped keyway extending essentially throughout the whole length of the insert's upper surface. Claim 1 recited that the underneath surface comprised a central concave portion but this was not the central concave groove as disclosed in the application as filed. Claim 2 of the application as filed mentioned a sectional line between the concave transition surface and the lower surface but did not require the transition surface to be "separated" by a sectional line as current claim 1.

By reciting that the transition surface extended into the recessed surface, claim 1 as granted required that these surfaces overlapped, whereby a lower part of the transition surface was partially surrounded by the recessed surface. This was no longer a requirement of current claim 1 since the expression "extends into" had been deleted. This amendment was therefore contrary to the requirement of Article 123(3) EPC.

If, as submitted by the appellant, the expression "essentially perpendicularly" meant "exactly perpendicularly", then the deletion of the term "essentially" did not result in any limitation of claim 1 and thus was contrary to the requirement of Rule 80 EPC.

Reasons for the Decision

1. The appeal is admissible.
2. **Admissibility of the opposition of opponent I**

2.1 In accordance with the established case law of the Boards of Appeal, the requirement of Rule 55(c) EPC 1973 (now Rule 76 EPC), according to which the notice of opposition shall contain an indication of the facts and evidence presented in support of these grounds, is met if in the notice of opposition there is sufficient indication of the relevant facts, evidence and arguments for the reasoning and merits of the opponent's case in relation to the grounds of opposition to be properly understood by the opposition division and the patentee (see e.g. T 222/85, OJ 1988, 128), without further investigation (see e.g. T 2/89, OJ 1991, 51).

2.2 As regards the sufficient indication of arguments, an opposition may be regarded as inadmissible if it only relates to the assessment of one individual feature of the claim whereby the patent proprietor and the opposition division are not enabled to pass conclusive judgment on the asserted ground of lack of novelty without making enquiries of their own (see e.g. T 134/88). However this is not the case here.

It is true that in the notice of opposition of opponent I only the feature concerning the recessed surface aimed to act as axial stop (last feature of claim 1) is discussed in detail. In particular, it is pointed out that in the allegedly prior-used cutting insert the recessed surface was at an angle of 100° with respect to the plane of the bottom supporting surface of the insert; since the expression "essentially perpendicular" had to be interpreted
broadly, it also covered the case in which the angle differed somewhat from 90°, e.g. 100°.

The initial portion of claim 1 reciting "a shank portion and a forward cutting head, the shank portion including an upper surface (1), a bottom surface (2) and two mutually plane parallel side surfaces (5, 6) each extending between the upper and bottom surfaces, an intersection between the upper surface and a front flank surface forming a main cutting edge (8a), the intersection between the upper surface and each side flank surface defining a side edge (8b) having a clearance angle suited to its purpose" merely defines, using conventional terms having a well-known meaning in the art (such as flank surface, main cutting edge, clearance angle), the basic geometry of a cutting insert of generally parallelepipedic shape for turning grooves. The insert according to the alleged prior use clearly has this basic geometry, as can be inferred from annexes 1 and 2, and therefore a detailed explanation is not necessary for the skilled person to recognise that these features are present in the cutting insert according to the alleged prior use. Detailed explanations are also not necessary to identify "a first upper flank surface" in the forward end surface of the insert, connected to the cutting edge, as a flank surface is a conventional term for cutting inserts.

Claim 1 as granted then recites that the first upper flank surface transforms "via a transition surface (19) to a lower surface (20) which is recessed somewhat axially inwards towards the insert body". The corresponding lower surface of the allegedly prior-used
insert having been identified by the opponent, as explained above, there can be no doubt that the corresponding transition surface of the allegedly prior used insert is the surface between the upper flank surface and the recessed surface. This feature moreover, is dealt with in the affidavit D1, to which the notice of opposition explicitly refers for further details (see page 2 of the notice: "Weitere Details zur eindeutigen offenkundigen Vorbenutzung... gehen aus der Eidesstattlichen Erklärung des Herrn Rudolf Stricker selbst hervor"). There (see the last paragraph of the first page) it is also mentioned that the transition surface is concave and in its lower part extends into the recessed surface. The feature that the recessed surface has a width which is equal to or smaller than the entire width of the cutting head is a matter of course. Finally, claim 1 recites that "the underneath surface (2) comprises a central concave surface portion (2a) which on both sides is confined by inclined bottom support surfaces (2b, 2c)". This definition relates to the conventional keyway of cutting inserts for turning grooves, which serves for positioning the insert in the tool holder, and which is clearly visible in the drawing of annexes 1 and 2.

From the above it follows that it is clear for a skilled person from the notice of opposition and the documents filed therewith what are the relevant features of the allegedly prior-used cutting insert corresponding to the features recited in the claim such that a comparison between the prior-used object and the claimed subject-matter is immediately possible without further investigations.
2.3 The appellant further submitted that the evidence filed was not sufficient. In the communication annexed to the summons for oral proceedings, the Board expressed the preliminary opinion that the declaration of Mr Stricker itself constituted evidence in support of the alleged prior use of the object by sale and by means of the publication of the catalogue (annex 2) in 1992, and that whether this evidence was sufficient was irrelevant for the admissibility of the opposition. It was only relevant to the assessment of the allowability of the opposition in terms of substantive law. During the oral proceedings the appellant did not comment on this view and simply relied on its argument that only a single feature of the claim was dealt with in the notice of opposition. The Board therefore does not see any reason to deviate from its provisional opinion.

2.4 For these reasons the Board comes to the conclusion that the opposition of opponent I is admissible.

3. Admissibility of the appellant's request

3.1 In considering the admissibility of the appellant's single request filed during the oral proceedings before the Board, the Board must apply the provisions of the Rules of Procedure of the Boards of Appeal ("RPBA"). Article 13(1) RPBA makes clear that the Board has a discretion to admit late-filed requests and that, in exercising that discretion, it must consider a range of factors including inter alia the need for procedural economy. In other words, late requests shall not be admitted if their admission would delay the proceedings. Such delay may, for example, be due to amendments which
are not clearly allowable (see e.g. T 382/05, point 1.3 of the reasons).

3.2 Feature b) of claim 1 recites that the underneath surface comprises a central concave surface portion (2a) which on both sides is confined by inclined bottom support surfaces (2b, 2c). This feature is undisputedly taken from the description of the embodiment disclosed in the application as filed. According to the latter, however, the underneath surface comprises a central concave groove 2a confined by said bottom support surfaces 2b, 2c (see page 2, line 23 and Fig. 4 of the application as filed). A concave surface portion not necessarily being a groove, claim 1 appears to be more general than, and thus its subject-matter appears to extend beyond, the content of the application as filed.

Moreover, claim 1 has been amended to recite that the transition surface in its lower part is separated by a sectional line between the concave transition surface and the lower surface, the sectional line having a straight horizontal contour. This feature appears to lack clarity (Article 84 EPC) because it is not clear how the transition surface can be separated by a sectional line between itself and the lower surface. Moreover, the application as filed mentions a "sectional line" (see page 4, lines 9, 10 and claim 2) but does not disclose a "separation" between the concave transition surface and the lower surface. Thus this feature is questionable under Article 123(2) EPC. Assuming that the intended meaning is that in accordance with the text of claim 2 of the application as filed, according to which there is a straight horizontal sectional line between the concave
transition surface and the lower surface, the amendment made raises an issue under Article 123(3) EPC, because as submitted by the respondents in such case the concave transition surface no longer extends into the lower (recessed) surface as required by claim 1 as granted.

Furthermore, claim 1 has been amended by including the feature taken from the description that the upper surface has a concave trail which extends into oblique surfaces and the bottom support surfaces on each side of the central concave surface portion are correspondingly inclined. Although this wording is literally found in the description of the embodiment disclosed in the application as filed (see page 2, lines 22 to 24), the description also mentions that the concave trail is a V-shaped keyway (see page 2, line 21) and the figures show that the concave trail occupies essentially the whole upper surface of the insert (excluding the cutting heads 16). The claim is silent about the V-shape and also about the placement and length of the concave trail: according to claim 1 the concave trail might be e.g. a central recess in the upper surface, for which there is no basis in the application as filed. Thus, also the introduction of the latter feature appears to constitute an undue generalisation of the subject-matter disclosed in the application as filed, contrary to Article 123(2) EPC.

3.3 In view of the above negative conclusions regarding the criteria of allowability, and considering that the appellant's request was filed at a very late stage of the appeal proceedings, namely in the course of the debate during the oral proceedings after the Board
expressed a negative opinion on the main request (maintenance of the patent as granted) previously on file, the Board decided not to admit into the proceedings the claims submitted as fourth auxiliary request.

4. The appellant having withdrawn all other requests, there is no basis for further substantive discussion.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

V. Commare P. Alting van Geusau