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Datasheet for the decision of 10 December 2019

Case Number: T 0036/17 - 3.2.08

Application Number: 11177659.7

Publication Number: 2559509

IPC: B23C5/20, B23C5/22

Language of the proceedings: EN

Title of invention:

Indexable, double-sided cutting insert and cutting tool including such an insert

Patent Proprietor:

Seco Tools AB

Opponent:

Iscar Ltd.

Headword:

Relevant legal provisions:

EPC Art. 100(b), 111(1)

Keyword:

Grounds for opposition - insufficiency of disclosure (no)
Appeal decision - remittal to the department of first instance (yes)

Decisions cited:

T 1926/06

Catchword:



Beschwerdekammern Boards of Appeal Chambres de recours

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Case Number: T 0036/17 - 3.2.08

D E C I S I O N
of Technical Board of Appeal 3.2.08
of 10 December 2019

Appellant: Seco Tools AB

(Patent Proprietor)

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Representative: Vossius & Partner

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Decision under appeal: Decision of the Opposition Division of the

European Patent Office posted on 4 November 2016 revoking European patent No. 2559509 pursuant to

Article 101(3)(b) EPC.

Composition of the Board:

Chairman M. Alvazzi Delfrate

Members: M. Foulger

Y. Podbielski

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Summary of Facts and Submissions

- I. With the decision posted on 4 November 2016, the opposition division revoked the European patent No. 2 559 509. They found that the patent did not describe the invention in a manner sufficiently clear and complete for it to be carried out by the skilled person.
- II. The patent proprietor filed an appeal against this decision.
- III. Oral proceedings took place before the Board on 10 December 2019.
- IV. The appellant (patent proprietor) requests that the decision under appeal be set aside and the patent be maintained as granted or, as an auxiliary measure, that the patent be maintained on the basis of one of the following auxiliary requests:
 - auxiliary request 1 and 2 filed with letter dated 23 September 2019
 - auxiliary request 3 filed as auxiliary request 0 with letter dated 9 March 2017
 - auxiliary request 4 and 5 filed with letter dated 23 September 2019.

The appellant also requests that the case be remitted to the opposition division should any of the requests be found to comply with the requirements of Article 83 EPC.

V. The respondent requests that the appeal be dismissed.

The respondent also requests that auxiliary request 3, which was filed as auxiliary request 0 with letter

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dated 9 March 2017, not be admitted into the proceedings, and that the case be remitted to the opposition division should any of the appellant's requests be found to comply with the requirements of Article 83 EPC.

- VI. Claims 1 3 as granted (main request) read:
 - "1. (1.1) A cutting insert (21), comprising: a first surface (23) including a first rake surface (25);
 - a second surface (27) including a second rake surface (29), a central axis (C) of the insert extending between the first and second surfaces;
 - (1.2) four side surfaces (33, 35, 37, 39) extending between the first surface (23) and the second surface (27);
 - (1.3) four cutting edges (43a, 43b, 47a, 47b), each cutting edge having a first cutting edge component (431a, 431b, 471a, 471b) and a second cutting edge component (432a, 432b, 472a, 472b) and being associated with a respective one of the first and second surfaces (25 and 27) and with two respective ones of the side surfaces (33, 35, 37, 39)
 - (1.4) wherein the first rake surface (25) is identical to the second rake surface (29) and characterized in that
 - (1.5) the first rake surface (25) and the second rake surface (29) are oriented at a 90° angle to each other about the central axis (C) of the insert (21).
 - 2. The cutting insert (21) as set forth in claim 1, characterized in that each cutting edge comprises a first surface component (331a, 392b, 371a, 352b) associated with the first cutting edge component (431a, 431b, 471a, 471b) of the cutting edge and forming an

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acute angle (F1) with a plane (P) perpendicular to the central axis (C), and a second surface component (392a, 331 b, 352a, 371b) associated with the second cutting edge component (432a, 432b, 472a, 472b) of the cutting edge and forming an obtuse angle (A 1) with the plane (P).

3. The cutting insert (21) as set forth in claim 2, characterized in that an angle between the first and second cutting edge components (431a, 431b, 471a, 471b, and 432a, 432b, 472a, 472b) of each of the four cutting edges (43a, 43b, 47a, 47b) is 90° or less."

Feature numbering in bold added to claim 1 by the Board.

VII. The appellant essentially argued that:

Claim 1 taught that the insert had two surfaces, each including a rake surface (feature 1.1). These surfaces were connected by four side surfaces (feature 1.2). Four cutting edges were each associated with the first or second surfaces and one of the side surfaces (feature 1.3). The first and second rake surfaces were identical (feature 1.4) and were oriented at 90° to each other about the cental axis of the insert (feature 1.5).

The orientation of the rake surfaces to each other was illustrated in Figs. 1A and 1C of the patent. Moreover, the orientation of the rake surfaces was further explained in paragraphs [0009] and [0010].

Claims 2 and 3

These claims defined further aspects of the invention

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of claim 1.

Claim 2 defined the surface component as being associated with the edge component. Thus, the person skilled in the art would understand that the edge is not meant to be a surface but merely associated with a surface; the cutting edge being where two surfaces intersect. The person skilled in the art would also be able to decide whether an acute or an obtuse angle was meant as this followed from the form of the insert as illustrated in the figures of the patent.

With regard to claim 3, it was not necessary that the insert of this claim be exactly as illustrated in the figures, which were merely schematic, because the person skilled in the art could easily alter the angles shown in accordance with the use to which the insert was to be put.

Hence, the patent disclosed the invention in a manner sufficiently clear and complete for it to be carried out by the person skilled in the art.

VIII. The respondent essentially argued that:

In claim 1, feature 1.5 was insufficiently disclosed. In particular, how two surfaces could be oriented at a 90° angle to each other was obscure. The description, paragraphs [0009] and [0010], was obscure because the statement that the insert was flipped around an axis did not specify which axis since flipping about the C axis did not flip the insert. The definition of a physical object could not depend on the position of the observer but rather must be defined in a manner independent from the observer. The person skilled in the art was left with no definite teaching as to how to

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carry out the invention. The insert shown in the drawings was not in accordance with claim 1.

Thus, claim 1 was at odds with the specification and it was moreover not clear whether the drawings or the description should prevail. Decision T 1926/06 dealt with just such a case and found that the contradictions within the specification meant that the invention was not sufficiently disclosed.

Dependent claims 2 and 3 lacked essential information because the intersection of a plane with a line resulted in two angles - one acute, the other obtuse. It was not clear which of these was meant. Moreover, the cutting edge was a line and not a surface - to define an edge by means of a surface led to the teaching of the claim not being able to be carried out by the person skilled in the art. Furthermore, claim 3 was in contradiction to the figures which clearly showed an angle of more than 90°.

Thus, the invention as defined in these claims was not disclosed in a manner that enabled the person skilled in the art to carry it out.

Reasons for the Decision

- 1. Main request Article 100(b) EPC
- 1.1 Claim 1

Claim 1 teaches in feature 1.1 that the insert should have a first surface including a first rake surface and a second surface including a second rake surface; the central axis extends between these surface. Feature 1.2

states that the surfaces are connected by four side surfaces. This is illustrated in Figs. 1A - 1D.

Furthermore, according to feature 1.4, the first and second rake surfaces are identical. The person skilled in the art would readily understand that this only makes sense when viewed from the top and bottom respectively, i.e. as shown in Figs 1A and 1C. This means that in col. 3, 1. 1 - 5 of the patent "flipped 180° must be in the sense of turning over (cf. in English - flipping a coin, flipping a pancake). The final feature 1.5 of the claim requires that the first and second rake surfaces are oriented at a 90° angle to each other about the central axis. A rotation of the insert about the central axis is not required by the claim. In the embodiments shown in the figures of the patent the two surfaces are at right angles to each other, i.e. oriented at a 90° angle to each other about the central axis as required by claim 1. This follows from Figs. 1A and 1C although it must be noted that these figures represent the cutting insert viewed from opposite directions. Thus, the first and second rake surfaces are shown as being located in the same corner of the insert to form, when regarded from above, an L shape. This is also confirmed by the side view in Fig. 1B in which both surfaces are visible.

This is, moreover, consistent with paragraph [0009] of the patent. Fig. 1A is a view on one surface of the insert and Fig. 1C is a view on the opposite side of the insert. In Fig. 1C the rake surface 29 appears (see patent, col. 3, 1. 7) to have been rotated 90° with respect to rake surface 25 in Fig. 1A because of the change in viewing angle, i.e. the viewer has effectively turned the insert over (i.e. flipped it through 180°, cf. col. 3, 1. 2). The surface is however

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still oriented at 90° to the other surface. Hence, there is neither any contradiction between claim 1 and the description nor within the description itself.

T 1926/06 cited by the respondent deals with a case where due to contradictions in the description the Board found that the invention was not sufficiently disclosed. This does not however apply in this case because, as shown above, the description, figures and claims are not in contradiction to each other.

The invention as defined by claim 1 is thus disclosed in a manner sufficiently clear and complete for the skilled person to carry it out.

1.2 Dependent claims 2 and 3

The dependent claims define further aspects of the invention set out in independent claim 1.

Claim 2 states that each cutting edge comprises a first surface component associated with the first cutting edge component. It is correct, as argued by the respondent, that an edge is a line and as such has no surface. But the claim merely states that the surface component is associated with the edge component. In fact, the cutting edge is defined by the line where two surfaces intersect. It is correct that there are two angles defined by the intersection of two planes but the claim does specify which angle (i.e. acute or obtuse) is the obtuse one and which angle is the acute one.

In claim 3 it is stated that the angle between the first and second components of each of the four cutting edges is 90° or less. The Board considers that solely

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with the information contained in this claim the person skilled in the art could carry out the invention according to this claim, even if the teaching deviated from that of the figures of the patent because they can realise different angles of a cutting insert without difficulty. It must also be borne in mind that the drawings are schematic and thus only provide a general teaching which the person skilled in the art would adapt according to the circumstances.

Hence, the invention is disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

2. Remittal

Both parties request remittal of the case to the opposition division in the event that the Board finds that the invention is disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art. The Board therefore considers it appropriate, given the above conclusions, to remit the case to the opposition division for further prosecution (Article 111(1) EPC).

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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 for further prosecution.

The Registrar:

The Chairman:



C. Moser M. Alvazzi Delfrate

Decision electronically authenticated