**Internal distribution code:**

(A) [ - ] Publication in OJ
(B) [ - ] To Chairmen and Members
(C) [ - ] To Chairmen
(D) [ X ] No distribution

## Datasheet for the decision of 14 December 2021

**Case Number:** T 2997/18 - 3.2.01

**Application Number:** 08702699.3

**Publication Number:** 2111319

**IPC:** B23B51/00, B23B51/02

**Language of the proceedings:** EN

**Title of invention:**
TOOL WITH RELEASABLY MOUNTED SELF-CLAMPING CUTTING HEAD

**Patent Proprietor:**
Iscar Ltd.

**Opponent:**
KENNAMETAL INC.

**Headword:**

**Relevant legal provisions:**
EPC Art. 52(1), 54, 56, 83, 113(2)

**Keyword:**
Novelty - main request (no) - auxiliary request (yes)
Inventive step - auxiliary request (yes)
Sufficiency of disclosure - (yes)
Basis of decision - text submitted or agreed by patent proprietor (yes)

**Decisions cited:**

**Catchword:**

Europäisches Patentamt
European Patent Office
Office européen des brevets

**Beschwerdekammern**

**Boards of Appeal**

**Chambres de recours**

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

**Case Number: T 2997/18 - 3.2.01**

# D E C I S I O N
## of Technical Board of Appeal 3.2.01
## of 14 December 2021

| | |
|---|---|
| **Appellant:**<br>(Patent Proprietor) | Iscar Ltd.<br>P.O. Box 11<br>24959 Tefen (IL) |
| **Representative:** | Vossius & Partner<br>Patentanwälte Rechtsanwälte mbB<br>Siebertstrasse 3<br>81675 München (DE) |
| **Appellant:**<br>(Opponent) | KENNAMETAL INC.<br>1600 Technology Way<br>Latrobe, PA 15650-0231 (US) |
| **Representative:** | Prinz & Partner mbB<br>Patent- und Rechtsanwälte<br>Rundfunkplatz 2<br>80335 München (DE) |
| **Decision under appeal:** | **Interlocutory decision of the Opposition Division of the European Patent Office posted on 23 November 2018 concerning maintenance of the European Patent No. 2111319 in amended form.** |

**Composition of the Board:**

| | |
|---|---|
| **Chairman** | G. Pricolo |
| **Members:** | V. Vinci |
| | A. Jimenez |

## Summary of Facts and Submissions

I. The appeals filed by the appellants (patent proprietor and opponents) are directed against the interlocutory decision of the opposition division to maintain the European patent No. 2 111 319 in amended form.

In its decision the opposition division held that the ground for opposition under Article 100(a) EPC in combination with Article 54 EPC was prejudicial to the maintenance of the patent as granted, that the subject-matter of claim 15 of the auxiliary request 1 lacked inventive step in the meaning of Articles 52(1) and 56 EPC, that the auxiliary requests 2 and 3 filed at the oral proceedings did not meet the requirements of Article 84 EPC, and decided to maintain the patent in amended form according to the auxiliary request 4. In particular, the opposition division found that the subject-matter of independent claims 1, 8 and 9 of the auxiliary request 4 was novel in the meaning of Article 54 EPC and involved an inventive step in the meaning of Article 56 EPC in view of the following prior art:

D1 : US2004/0208716 A 1
D2 : US2006/0072976 A 1

With the communication according to Article 15(1) RPBA dated 22 October 2020 the Board informed the parties of its preliminary assessment of the case.

Oral proceedings pursuant to Article 116 EPC were held before the Board on 14 December 2021 by videoconference with the consent of the parties.

II. The opponent (appellant) requested that the decision under appeal be set aside and the patent be revoked.

The appellant (patent proprietor) requested that the decision under appeal be set aside and the patent be maintained as granted (main request) or, alternatively, that the patent be maintained on the basis of the auxiliary request 1 together with the amended description filed during the oral proceedings (corrected version) or, on the basis of the auxiliary requests 2 to 4 underlying the decision under appeal or, further auxiliary, on the basis of the auxiliary requests 2A to 13 filed with the reply to the statement of grounds of appeal. Furthermore, should the Board find that the auxiliary request 2 was not allowable, the patent proprietor requested remittal of the case to the opposition division for further prosecution.

III. Claim 1 as granted reads as follows (labelling introduced by the Board):

*A metal cutting head having*

1.1 *"a cutting head longitudinal axis (L) defining forward and rearward directions, the metal cutting head (100, 401, 421, 451) comprising:*

1.2 *a cap portion (118, 410, 430, 460, 618) comprising a plurality of head segments (140, 640) separated by at least first and second head flutes (138, 638),*

1.3 *each head segment (140, 640) comprising a rearwardly facing head base surface (124,6 24) formed at a reward end of the cap portion (118, 410, 430, 460, 618); and*

1.4 *a fixation portion (120, 412, 620) joined to the cap portion (118, 410, 430, 460, 618) and extending in a rearward direction of the cutting head (100, 401, 421, 451)*

1.5 *the fixation portion (120, 412, 620) comprising a mounting stem ( 106, 404, 424, 454, 606) connected to the cap portion(118, 410, 430, 460, 618);*

1.6 *a bulge (108, 402, 422, 452) formed on the mounting stem (106, 404, 424, 454, 606), the bulge (108, 402, 422, 452) comprising a plurality of circumferentially spaced apart protrusions, the protrusions defining a maximum dimension (W3) of the fixation portion (120, 412, 620) in a direction perpendicular to the cutting head longitudinal axis (L); and*

1.7 *a plurality of spaced apart head fixation surfaces (128, 406, 426, 456) formed along the fixation portion (120, 412, 620),*

*characterised by*

1.8 *each head fixation surface (128, 406, 426, 456) being parallel to the cutting head longitudinal axis (L)."*

Claim 1 according to the auxiliary request 1 corresponds to claim 1 as granted and comprises the additional feature labelled 1.9 by the Board that:

1.9 "*each head fixation surface (128, 406, 426,456) being located between a corresponding protrusion (110, 408, 428, 458) and the cap portion (118, 410, 430, 460, 618)."*

Claim 8 according to the auxiliary request 1 reads as follows (labelling introduced by the Board):

*A metal cutting head (100, 421, 451, 481) having*

8.1 *a cutting head longitudinal axis (L) defining forward and rearward directions, the metal cutting head (100, 421, 451, 481) comprising:*

8.2 *a cap portion (118, 430, 460, 618) comprising a plurality of head segments (140, 640) separated by at least first and second head flutes (138, 638),*

8.3 *each head segment (140, 640) comprising a rearwardly facing head base surface (124, 624) formed at a rearward end of the cap portion (118, 430, 460, 618);*

8.4 *and a fixation portion (120, 499, 620) joined to the cap portion (118, 430, 460, 618) and extending in a rearward direction of the cutting head (100, 421, 451, 481)*

8.5 *the fixation portion (120, 499, 620) comprising a mounting stem (106, 424, 454, 484, 606) connected to the cap portion (118, 430, 460, 618);*

8.6 *a bulge (108, 422, 452, 482) formed on the mounting stem (106, 424, 454, 484, 606), the bulge (108, 422, 452, 482) comprising a plurality of circumferentially spaced apart protrusions, the protrusions defining a maximum dimension (W3) of the fixation portion (120, 499, 620) in a direction perpendicular to the cutting head longitudinal axis (L); and*

8.7 *a plurality of spaced apart head fixation surfaces*

*(128, 426, 456, 486) formed along the fixation portion (120, 499, 620),*

*characterised by*

8.8 *each head fixation surface (128, 426, 456, 486) being parallel to the cutting head longitudinal axis (L),*

8.9 *the bulge (108, 422, 452, 482) being formed on a lower end of the mounting stem (106, 424, 454, 484, 606)."*

Claim 9 according to the auxiliary request 1 reads as follows (labelling introduced by the Board):

*"A metal cutting tool comprising:*

9.1 *a metal cutting head (100, 401, 421, 451, 481) releasably mounted on a forward end of a tool shank (200, 700), the metal cutting head (100, 401, 421, 451, 481) and the tool shank (200, 700) having a common axis of rotation and a common direction of rotation, wherein:*

9.2 *the metal cutting head (100, 401, 421, 451, 481) comprises a cutting head longitudinal axis (L) which is coincident with the common axis of rotation;*

9.3 *a cap portion (118,410,430,460, 618) comprising a plurality of head segments (140A, 140B) separated by at least first and second head flutes (138, 638), each head segment (140A, 140B) comprising a rearwardly facing head base surface (124,624) formed at a rearward end of the cap portion (118, 410, 430, 460, 618); and a fixation portion (120, 412, 499, 620) joined to the cap*

*portion (118, 410, 430,460, 618) and extending in a rearward direction of the cutting head (100, 401, 421, 451, 481), the fixation portion (120, 412,499, 620) comprising:*

*a mounting stem (106, 404, 424, 454,484, 606) connected to the cap portion (118,410, 430, 460, 618);*
*a bulge (108, 402, 422, 452, 482) formed on the mounting stem (106, 404, 424, 454, 484, 606), the bulge (108, 402, 422, 452, 482) comprising a plurality of circumferentially spaced apart protrusions, the protrusions defining a maximum dimension (W3) of the fixation portion (120, 412, 499, 620) in a direction perpendicular to the cutting head longitudinal axis (L); and*

*a plurality of spaced apart head fixation surfaces (128, 406, 426, 456, 486) formed along the fixation portion (120, 412, 499, 620), each head fixation surface (128, 406, 426, 456, 486) being parallel to the cutting head longitudinal axis (L);*

9.4 *and the tool shank (200, 700) comprises:*

*a shank longitudinal axis (S) which is coincident with the common axis of rotation;*

9.5 *a plurality of shank coupling portions (256, 756, 856), equal in number to the plurality of head segments, formed at the forward end of the tool shank (200, 700), and a shank pocket recess (264, 764) formed between the shank coupling portions (256, 756, 856),*

9.6 *each shank coupling portion (256, 756, 856) including:*

*a forwardly facing shank support surface (262, 762); and an inner surface comprising a plurality of shank fixation surfaces (288, 290),*

9.7 *each shank fixation surface (288, 290) being parallel to the shank longitudinal axis (S); wherein:*

9.8 *the rearwardly facing head base surface (124, 624) of each head segment (140A, 140B) is supported by the forwardly facing shank support surface (262, 762) of a corresponding shank coupling portion (256, 756, 856);*

9.9 *each head fixation surface (128, 406, 426, 456, 486) abuts an opposing shank fixation surface (288, 290) over an abutment region; and*

9.10 *the entire bulge (108, 402, 422, 452, 482) is spaced apart from walls of the shank pocket recess (264, 764)."*

Claim 15 according to the auxiliary request 1 reads as follows (labelling introduced by the Board):

*"A method for assembling a metal cutting tool comprising*

15.1 *a cutting head (100, 101, 421, 451, 481) having a cap portion (118, 410, 430, 460, 618) and a fixation portion provided with a bulge (108,402, 422, 452, 482) and a tool shank (200, 700) having a pair of shank coupling portions (256, 756, 856) defining a shank pocket recess (264,764) therebetween, the method comprising:*

15.2 *axially aligning the cutting head (100, 401, 421, 451, 481) and the tool shank (200, 700) so that cutting*

*head segments (140, 640) and shank flutes (260, 760) are arranged in opposing pairs;*

15.3 *urging the cutting head (100, 401, 421, 451, 481) and the tool shank (200, 700) towards each other so that the shank pocket (264, 764) receives the fixation portion; and*

15.4 *rotating the cutting head (100, 401, 421, 451, 481) relative to the tool shank (200, 700) until:*

15.4.1 *a plurality of head fixation surfaces (128, 810) are parallel to a longitudinal axis (L) of the cutting head (100, 401, 421, 451, 481) abut a corresponding number of shank fixation surfaces (288, 290, 888) which are parallel to a longitudinal axis (S) the shank (200, 700) such that the entire bulge (108, 402, 422, 452, 482) is spaced apart from walls of shank pocket recess (264, 764); and*

*15.4.2 a head torque transmission wall (152) abuts a shank torque transmission wall (282)."*

## Reasons for the Decision

**MAIN REQUEST: PATENT AS GRANTED**

**Lack of Novelty: Article 52(1) and 54 EPC**

Claim 1

1. The subject-matter of claim 1 as granted lacks novelty over document D1 in the meaning of Articles 52(1) and 54 EPC as correctly assessed by the opposition division

in the decision under appeal.

1.1 The appellant (patent proprietor) contested the assessment of the opposition division that considered the cylindrical segment (22) of the metal cutting head shown in figures 1 and 2 of this prior art document as providing the functionality of a *"head fixation surface"* arranged *"parallel to the cutting head longitudinal axis (L)"* in the meaning of features 1.7 and 1.8 of claim 1 as granted which are the only ones under discussion. It was essentially argued that the fixation of the fixing stud (9) of the metal cutting head onto the shaft (1) of the cutting tool of D1 was achieved only by means of the cooperating surfaces (16) and (19) acting as a screw that axially pressed the opposed surfaces (6) and (7) together, rather than by the cylindrical segment (22) which, contrary to the view of the opposition division, had a mere centering functionality. It was thus concluded that the cylindrical segment (22) did not contribute in any way to the fixation of the fixing stud (9) of the known cutting head onto the shaft. In support of this interpretation of document D1 reference was made in particular to paragraphs [0011] to [0013], [0015], [0033] to [0035] and [0040]. In this respect, the appellant (patent proprietor) stressed that the disclosure of D1 did not provide any basis for the allegedly hindsight interpretation of the opposition division that the cylindrical surface (22) played a role in the fixation of the metal cutting head onto the shaft. The appellant (patent proprietor) further argued that the explicitly disclosed centering functionality mandatorily required the provision of some clearance between the fixing stud (9) and the corresponding receiving recess (10) of the shaft of the known cutting tool whereby, contrary to the view of the opposition

division and of the appellant (opponent), no effective taking up of radial forces and hence no radial fixing could by achieved by the cylindrical segment (22). Furthermore, the appellant (patent proprietor) pointed out that document D1 did not wordily disclose that the cylindrical segment (22) was arranged parallel to the cutting head longitudinal axis (8) as required by feature 1.8 of claim 1, and that this information could not be directly and unambiguously derived from the figures only as instead alleged by the opposition division and by the appellant (opponent).

1.2 The arguments provided by the appellant (patent proprietor) are not convincing for the following reasons:

1.3 The Board concurs with the appellant (patent proprietor) that in the case of the metal cutting head of D1 the fixation forces are mainly (but not exclusively) provided by the cooperating surfaces (16) and (19) acting as a screw which axially presses together the cooperating surfaces (6) and (7), whereby the friction forces arising therebetween contribute to the required radial fixation. However, the Board observes that the wording of claim 1 does not require that fixation of the metal cutting head on the shank is achieved by the claimed fixation surfaces (22) <u>only</u>. Furthermore, although the Board concurs with the appellant (patent proprietor) that the cylindrical segment (22) must be dimensioned in such a way to keep a certain clearance from the recess (10) of the shank in order to be introduced and centered therein, the person skilled in the art understands that this clearance must be minimized in order to guarantee a reliable centering of the fixing stud (9) in the recess (10) of the shank. In view of the above and as also

confirmed by paragraph [0036] of D1 to which the appellant (opponent) made reference, the cylindrical segment (22), due to the lever effect arising during the cutting operation, comes inevitably at least partially into contact with the the opposed area (23) of the receiving recess (10), thereby contributing to the radial fixation of the stud (9) in the shank. The Board thus concurs with the opposition division that the cylindrical segment (22) functionally embodies a fixation surface in the meaning of feature 1.7 of claim 1 as granted.

1.4 Furthermore, the Board shares the view of the opposition division and of the appellant (opponent) that the person skilled in the art realizes that the the cylindrical segment (22) of the fixing stud (9) must be mandatorily arranged parallel to the metal cutting head longitudinal axis (8) in order to properly fulfil the required and disclosed (see for example paragraphs [0013] and [0035]) centering functionality. This assumption is confirmed by the representation in figures 2 and 6 of D1. The appellant (patent proprietor) alleged the possibility to have an oblique orientation of the cylindrical segment (22) with respect to the longitudinal axis of the metal cutting head with the reason that such an arrangement was not explicitly excluded in Dl. However, such an interpretation, besides the fact that is not supported by any passage of Dl, would not make any technical sense in view of the explicitly disclosed centering functionality of the cylindrical segment (22) of the fixing stud (9).

1.5 In conclusion, the Board confirms the view of the opposition division that the only disputed features 1.7 and 1.8 are directly and unambiguously derivable from

document D1 in combination with the remaining features of claim 1 as granted which are not disputed, whereby the subject-matter of this claim lacks novelty in the meaning of Articles 52(1) and 54 EPC. The main request is thus not allowable.

**AUXILIARY REQUEST 1**

**Novelty: Articles 52(1) and 54 EPC**

2. The subject-matter of independent claims 1, 8, 9 and 15 is novel in the meaning of Article 52(1) and 54 EPC.

2.1 The sole novelty attack submitted by the appellant (opponent) is based on document D1.

Claim 1

2.2 Claim 1 of the the auxiliary request 1 contains over claim 1 as granted the additional feature 1.9 that:

"*each head fixation surface being located between a corresponding protrusion and the cap portion.*"

2.3 The appellant (opponent) reiterated the argument presented in front of the opposition division that the first longitudinal segment (15) of the fixing stud (9) in figures 1 and 2 had also a centering and fixing functionality as the cylindrical segment (22) and therefore could also be considered as a fixation surface in the meaning of feature 1.7 of claim 1 arranged as required by feature 1.9 introduced in claim 1. In support of this allegation it was argued that figures 1 and 8 clearly showed that the segment (15) was represented in contact with the corresponding inside walls (14) of the receiving recess (10) of the

tool shaft (see figure 4), this circumstance unambiguously indicating that the segment (15) of the fixing stud (9), in operation, also absorbed radial forces and thus achieved radial fixation of the fixing stud (9) into the shank recess (10). The appellant (opponent) put also forward that, as in the case of the cylindrical segment (22), the centering functionality allegedly associated to the segment (15) presupposed a parallel orientation according to feature 1.8 of claim 1 as stake. It was thus concluded that claim 1 of the auxiliary request 1 also lacked novelty over D1.

2.4 The arguments provided by the appellant (opponent) are not convincing for the following reasons:

The Board agrees with the appellant (patent proprietor) that, while the cylindrical segment (22) is explicitly described in D1 as providing a centering functionality, no centering functionality associated to the first longitudinal segment (15) of the fixing stud (9) is described. The Board also concurs with the appellant (patent proprietor) that the fact alleged by the appellant (opponent) that figures 1 and 8 do not show any clearance between the segment (15) and the inside walls (14) on the shank recess (10) does not directly and unambiguously imply that these segments are in (permanent) contact and absorb, in operation, radial forces as instead is the case of the cylindrical segment (22). The person skilled in the art would thus conclude that the radial fixation at the level of the segment (15) of the fixing stud (9) is entirely obtained by the fiction forces created between the surfaces (6) and (7) when they are pressed together by the axial force produced by the screw-like cooperating surfaces (16) and (19). Further, the Board shares the view of the appellant (patent proprietor) that a person

skilled in the art would exclude that the segment (15) also acts as a centering/fixing surface because this would result in an undesirable overdetermination of the radial position of the fixing stud (9) in the recess (10). Therefore, the person skilled in the art realizes that the only fixation surface in the meaning of features 1.7 and 1.8 of claim 1 read in combination is the cylindrical segment (22) which however is not arranged according to feature 1.9, whereby the subject-matter of claim 1 of the auxiliary request 1 is novel over D1.

Claim 8

2.5 The sole novelty attack raised by the appellant (opponent) against the subject-matter of independent claim 8 of the auxiliary request 1 is based on the embodiment in figure 6 of D1 interpreted under the assumption that the first longitudinal segment (15) of the fixing stud (9) represented a fixation surface in the meaning of features 1.7 and 1.8 and 8.7 and 8.8 of claims 1 and 8 respectively. As the Board considers this assumption not correct for the reasons given under point 2.4 above, the arguments of the appellant (opponent) are void, whereby document D1 is not prejudicial to novelty of the subject-matter of independent claim 8 of the auxiliary request 1.

Claims 9 and 15

2.6 Novelty of the subject-matter of claims 9 and 15 of the auxiliary request 1 has never been contested by the appellant (opponent). The Board has thus no reasons for not confirming the conclusions presented in the contested decision in this respect.

**Inventive Step: Articles 52(1) and 56 EPC**

3. The subject-matter of independent claims 1, 8, 9 and 15 of the auxiliary request 1 involves and inventive step in the meaning of Article 52(1) and 56 EPC.

3.1 The inventive step attacks brought by the appellant (opponent) are based on document D1 in combination with common general knowledge and/or document D2.

Claim 1

3.2 The appellant (opponent) put forward that the subject-matter of claim 1 of the auxiliary request 1 was rendered obvious by the disclosure of document D1 in view of common general knowledge. It was argued that the person skilled in the art, starting from D1 and aiming to achieve a more stable radial fixation of the known metal cutting head onto the tool shaft, would obviously consider to dimension the inner walls (14) of the shaft receiving recess and the first longitudinal segment (15) of the fixing stud (9) in such a way to provide contact therebetween, thereby achieving a fixation surface in the meaning of feature 1.7 of claim 1, said fixation surface, similar to the cylindrical segment (22), being also able to to take up radial forces and thus to provide radial fixation of the cutting head fixing stud (9) onto the shaft (1). In the appellant (opponent)'s view, the representations in figures 1 and 6, where the inner walls (14) of the receiving recess (10) and the segment (15) are shown in contact, would give an obvious hint to the person skilled in the art to adopt such a dimensioning. It was further pointed out that by embodying the segment (15) as fixation surface also feature 1.9 of claim 1 would be fulfilled. The appellant (opponent) also put forward

that the segment (15) was clearly shown in figures 2, 6 and 7 as being parallel to the cutting head longitudinal axis (8) thus according to feature 1.8 of claim 1 as also confirmed by paragraph [0036], second sentence, referring to the *"longitudinal segment (15)"*, where the term *"longitudinal"* implied an orientation parallel to the longitudinal axis of the metal cutting head.

3.3 The arguments provided by the appellant (opponent) are not convincing for the following reasons:

The Board agrees with the assessment of the opposition division and with the view of the appellant (patent proprietor) that, starting from Dl, there is no obvious hint for the person skilled in the art to move (or add) the centering and fixation functionality of the cylindrical segment (22) located at the lower end of the fixing stud (9) to the position of the segment (15) in figure 2, i.e above the bulge. As clearly disclosed in Dl, see for example paragraph [0013], last sentence, it is the cylindrical surface (22) that contributes to the mounting and centering and thus to the fixation in radial direction of the fixing stud (9) in the receiving recess (10) of the shaft. Unlike the opponent, the Board cannot see why the person skilled in the art should be motivated to significantly modify the geometry and the functional concept of the cutting head of Dl by providing a contact between the inner walls (14) and the segment (15), thereby adding an additional (and redundant) centering and radial fixation of the fixing stud (9) or replacing the one already provided by the cylindrical surface (22). In conclusion the Board shares the view of the opposition division and of the appellant (patent proprietor), who referred in this respect to paragraphs [0013], and

[0034] to [0036], that there is nothing in document D1 which may motivate the person skilled in the art to deviate from the constructional concept disclosed therein. Therefore, regardless of the question whether the segment (15) is oriented parallel to the cutting head longitudinal axis as required by feature 1.8, the subject-matter of claim 1 is not rendered obvious by document D1 in view of common general knowledge.

Claims 8 and 9

3.4 At the oral proceedings, the appellant (opponent) did not wish to submit any further arguments regarding the alleged lack of inventive step of independent claims 8 and 9 of the auxiliary request 1, which correspond to claims 8 and 9 of the auxiliary request 4 allowed by the opposition division, and merely referred to their written submission. The Board has thus no reason to deviate from the conclusions provided in the communication according to Article 15(1) RPBA which are hereby confirmed and read as follows:

3.5 The sole inventive step attack raised against claim 8 and the first inventive step attack raised against claim 9 submitted by the appellant (opponent) are based on the assumption that the first longitudinal segment (15) of the fixing stud (9) of the metal cutting head of Dl are equated with the functionality of a fixation surface. However, as in the Board's view this assumption is not correct (see point 2.3 and 3.3 above), the reasoning of the appellant (opponent) is void.

3.6 According to the second line of inventive step attack raised against claim 9 the appellant (opponent) correctly identified in the cylindrical segment (22) of

Dl as representing the *"head fixation surfaces"* defined in claim 9. However, the Board concurs with the appellant (patent proprietor) that there is no direct and unambiguous disclosure in Dl of *"a plurality of shank fixation surfaces, each shank fixation surface being parallel to the shank longitudinal axis"*, wherein *"each head fixation surface abuts an opposit shank fixation surface"* (see features 9.7 and 9. 9 of claim 9). For these reasons, taking also into account that it is indisputed that feature 9.10 is not disclosed in Dl either (see also interpretation given by the Board under following point 3.10), the Board concurs with the appellant (patent proprietor) that it would not be obvious to modify the whole geometry of the cutting tool of Dl in the connection region between the fixing stud (9) and the receiving recess (10) of th shaft (1) by introducing the features 9.7, 9.9 and 9.10 in order to arrive to the subject-matter of claim 9.

Claim 15

3.7 The Board does not share the view of the opposition division in the decision under appeal that the subject-matter of claim 15 of the auxiliary request 1 does not involve an inventive step in the meaning of Articles 52(1) and 56 EPC in view of the combination of documents D1 and D2.

3.8 An important point of discussion is the limitation actually imposed by feature 15.4.1 of claim 15 at stake.

3.9 Firstly, the Board has no doubt that the person skilled in the art would understand the first part of feature 15.4.1 of claim 15 reading:

*"until a plurality of head fixation surfaces are parallel to a longitudinal axis (L) of the cutting head abut a corresponding number of shank fixation surfaces"*

as meaning

*"until a plurality of head fixation surfaces which are parallel to a longitudinal axis (L) of the cutting head abut a corresponding number of shank fixation surfaces".*

In fact no other consistent construction can be envisaged, whereby the omission of the pronoun *"which"* in the first line of feature 15.4.1 amounts to a mere clerical mistake which does not prevent the person skilled in the art from deriving the correct interpretation of the original sentence as presented above.

3.10 Furthermore, the opposition division interpreted the second part of feature 15.4.1 of claim 15 reading:

*"such that the entire bulge is spaced apart from walls of shank pocket recess"*

as meaning that the bulge is not mandatorily entirely spaced apart from all walls of shank pocket recess, thereby not excluding that a contact between the bulge and the inner walls of the shank recess may take place at least at certain points. Based on this interpretation, the opposition division followed the arguments of the appellant (opponent) and stated that, as an arrangement according to feature 15.4.1 was disclosed in document D2 (see for example embodiment in figure 3) for the same purpose as in the contested patent, namely to reduce stress concentration in the

cooperating parts of the shank and of the cutting head, it would be obvious for the person skilled in the art to modify the bulge of D1 according to the teaching of document D2, figure 3, thereby arriving without inventive step at the subject-matter of claim 15 of the auxiliary request 1.

3.11 However, the Board, contrary to the view of the opposition division and of the appellant (opponent), is convinced that the person skilled in the art would focus on the wording *"such that the entire bulge is spaced apart ....."* and therefrom unambiguously derive that what is really meant is that:

the bulge and the shank recess, at least according to the embodiment covered by claims 9 and 15, are dimensioned and shaped in such a way that no contact at all takes place along the entire periphery of the bulge. This interpretation also applies to the identical wording of feature 9.10 of claim 9.

3.12 As the geometry defined by feature 15.4.1 in the interpretation given above by the Board is not known from document D2, what is not contested, a combination of D1 with this prior art document would not directly and obviously result in the subject-matter of claim 15 of the auxiliary request 1. Furthermore, the Board sees no reason as to why the person skilled in the art should modify "motu proprio" the bulge and the shank recess of the cutting tool of of D1 in such away that there is no contact at any point.

3.13 For the reasons given above, the Board reverses the assessment of the opposition division in the decision under appeal and concludes that the subject-matter of claim 15 of the auxiliary request 1 involves an

inventive step in view of the combination of D1 with D2.

3.14 As no further inventive step attacks have been submitted, the subject-matter of the independent claims 1, 8, 9 and 15 of the auxiliary request 1 meets the requirements of Articles 52(1) and 56 EPC.

**Article 83 EPC**

4. The objection of the appellant is based on the observation that figure 15 of the contested patent shows an embodiment according to which the entire bulge is in contact with the walls of the recess of the shank, while claim 9 (and claim 15 as well) states that the entire bulge is spaced apart from walls of the shank pocket recess. The appellant (opponent) argued that it cannot be seen how the person skilled in the art carrying out the invention would be able to realize the bulge in such a way that it is entirely spaced from the walls of the shank pocket recess, according to claims 9 (and 15) while at the same time, in accordance with the embodiment of Figure 15, it is also in intimate contact with the walls of the shank recess.

4.1 However, the amended description submitted during the appeal oral proceedings specifies in column 4, lines 27-29, that the embodiment of figure 15 is *"in accordance with claim 8"* which does not contain the disputed limitation of claim 9 (and 15), whereby no inconsistency justifying the objection of the appellant (opponent) longer arises. In fact, in the Board's view and contrary to the appellant (opponent)'s interpretation, the amendment in the description of the embodiment of figure 15 renders clear that this

embodiment is covered by independent claim 8 only.

4.2 The auxiliary request 1 thus meets the requirements of Article 83 EPC.

5. In conclusion and contrary to the assessment of the opposition division in the contested decision, the patent according to the auxiliary request 1 meets the requirements of the EPC.

**Objection under Article 113(2) EPC**

6. The appellant (opponent) objected that the interpretation taken by the Board of feature 15.4.1 of claim 15 (and hence of feature 9.10 of claim 9) is in contrast with the interpretation endorsed by the appellant (patent proprietor) during the whole opposition and appeal proceedings. This would lead to a situation where the Board would decide upon the contested patent in a text wich has not been agreed by the patent proprietor, contrary to the provision of Article 113(2) EPC.

6.1 The Board does not agree:

Article 113(2) EPC stipulates that *"The European Patent Office shall examine, and decide upon, the European patent application or the European patent only in the text submitted to it, or agreed, by the applicant or the proprietor of the patent."* In the present case the text of the claims of the auxiliary request 1 and in particular of claims 9 and 15 has been submitted by the patent proprietor. The interpretation of these claims adopted by the Board in order to come to its conclusions, even if eventually differing from the one originally provided by the appellant (patent

proprietor), does not play any role when assessing compliance with Article 113(2) EPC.

## 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 as amended in the following version:

   Claims 1-15 according to auxiliary request 1 filed on 25 July 2018

   Description: columns 1-4 as filed during the oral proceedings (corrected version) ; columns 5-15 of the patent specification

   Drawings of the patent specification.

The Registrar: The Chairman:

A. Voyé G. Pricolo

Decision electronically authenticated