Decision of 19 July 2005

Case Number: T 0491/03 - 3.2.06
Application Number: 95930766.1
Publication Number: 0777545
IPC: B23 CE/10
Language of the proceedings: EN
Title of invention: Shaft tool with detachable top
Patentee: Sandvik Aktiebolag
Opponents: (I) ISCAR LTD (II) Ceratizit Austria GmbH
Headword: -
Relevant legal provisions: EPC Art. 54(1), 123(2), (3)
Keyword: "Admissibility of new request filed during oral proceedings - yes"
"Novelty - yes"
"Remittal to the first instance - yes"
Decisions cited: T 0095/83, T 0153/85, T 0063/86, T 0746/91, T 0152/95
Catchword: -
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DE C I S I O N
of the Technical Board of Appeal 3.2.06
of 19 July 2005

Appellant: Sandvik Aktiebolag
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Representative: Lohnert, Wolfgang, Dr.
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Decision under appeal: Decision of the Opposition Division of the European Patent Office posted 26 February 2003 revoking European patent No. 0777545 pursuant to Article 102(1) EPC.

Composition of the Board:

Chairman: P. Alting van Geusau
Members: G. Kadner
K. Garnett
Summary of Facts and Submissions

I. The mention of grant of European patent No. 0 777 545 in respect of international patent application No. PCT/SE95/00967 claiming a SE-priority from 29 August 1994 and filed on 28 August 1995 was published on 21 February 2001.

II. Two notices of opposition were filed against this patent with requests for revocation based on the grounds of Article 100(a) and (b) EPC.

By decision posted on 26 February 2003 the Opposition Division revoked the European patent.

The Opposition Division was of the opinion that the subject-matter of amended claim 1 filed during the oral proceedings did not involve an inventive step when compared with the combination of teachings disclosed by:


E6: FR-A-26 02 162

III. Notice of appeal was lodged against this decision by the Appellant (Patentee) on 26 April 2003 together with payment of the appeal fee.

Together with the statement of grounds of appeal filed on 24 June 2003 the Appellant submitted a statement by Prof. H.-D. Kunze and literature L1 to L10 in order to prove that, contrary to the Opposition Division's
opinion, cerments were not considered to be a subgroup of cemented carbide.

IV. In a communication pursuant to Article 11(1) of the Rules of Procedure of the Boards of Appeal dated 22 April 2005 sent together with the summons to oral proceedings the Board indicated that the distinction between cemented carbides and cerments made by the Appellant was not convincing. The Opposition Division's conclusion of lack of inventive step would appear to be justified. Similar considerations applied when combining the teachings of E1 with that of:


V. Oral proceedings were held on 19 July 2005. Documents E1, E6 and E8 were discussed again. After the Board had announced its opinion that the end mill according to claim 1 of the request corresponding with that underlying the decision under appeal was made obvious by the teachings of E1 and E8 the Appellant filed a new claim 1 having the wording:

"End mill for metal cutting machining comprising an operative cutting portion (1) and a shaft portion (2), wherein the cutting portion (1) is made as an integral cemented carbide body of one single injection moulded piece comprising a cutting edge-provided part (3) for engagement with a workpiece and a threaded part (4) which is threaded into a hole (8) with a corresponding threaded part in the shaft portion (2), wherein the threaded part and the corresponding threaded part of the hole in the shaft portion comprises co-operating radial (11, 12, 13, 14) abutment surfaces,
respectively, disposed at both axial ends of each of said threaded part and said corresponding threaded part, and one pair of co-operating axial abutment surfaces (15, 16) for stabilization of the fixation of the cutting portion in the shaft portion, wherein on one hand a ring-shaped shoulder (15) which is located in a radial plane, between the part (3) of the cutting potion which part is provided with cutting edges, and the thread part (4), and on the other hand a ring-shaped end surface (16) that cooperates with the former, said surface (16) being on the shaft portion (2) function as axial abutment surfaces."

The Appellant requested that the decision under appeal be set aside and that the European patent No. 0 777 545 be maintained as amended on the basis of that claim 1.

The Respondents (Opponents) requested that the appeal be dismissed and that the patent be revoked.

VI. In support of its requests the Appellant essentially relied upon the following submissions:

The skilled person would not be led in an obvious manner to the claimed solution by the prior art. The use of the term "cemented carbide" in claim 1 would make it clear that the claimed solution was different from one which used a "cermet", because the cited literature showed that in this specific field of technology cermets were not considered a sub-group of cemented carbides. Therefore solutions known for cermet cutting tools were not necessarily suitable for cemented carbides also.
When regarding the embodiment shown in E1, no axial surface for axial abutment was clearly defined, and there was only one radial abutment surface. The cutting portion was not made as an integral cemented carbide body. The use of cemented carbide tools allowed higher feed, and therefore the connection with the tool holder required higher stability than that of tools made from cermets.

E6 disclosed only a conical abutment between the cutting portion and the shaft portion. Such conical surfaces did not define a clear stop-position to control accurately the axial position of the tool in relation to its holder. In respect of the axial abutment surfaces the Opposition Division's decision was incorrect and misleading because E6 did not show an axial abutting surface at all. Moreover, the radial surface 12 was held within the bore 4 with a clearance and thus it was not well guided.

Therefore, not only was a combination of E1 with E6 not obvious because the means shown in E6 would not be suitable to be applied in the construction of E1, such combination also would not lead to the claimed invention.

The subject-matter of E8 related to a gun drill and not an end mill as claimed. A gun drill was different from a mill as regards movement, in type of cutting and in the material used to make it. A thread like that shown in Figure 7 of E8 could not be made by injection moulding. Moreover, the connection disclosed in E8 required two axial surfaces abutting at the same time. Due to these differences the skilled person would not
consider combining of E1 with E8, and even if he did, that combination would not lead to the claimed subject-matter of claim 1.

Since the Appellant was misled by the errors in the reasoning of the decision under appeal, and so were the Opponents, filing a new request should be allowed after the correct interpretation had been discussed during the oral proceedings.

VII. The arguments of the Respondents are summarised as follows:

The alleged distinction between cermets and cemented carbides was not justified because the latter expression clearly included cermets.

Starting from E1 the only problem to be solved was a higher stability of the connection between the cutting portion and the shaft portion. E6 indicated two radial cylindrical surfaces, 11b and 12, of the cutting portion which would cooperate with the cylindrical portions, 3b and 4, of the bore of the tool holder with a narrow fitting tolerance. In addition to this an axial stop was provided by the conical surfaces 2 and 9 which, due to their shape, inevitably resulted in an axial force component. The skilled person would therefore be led to combine the teachings of E1 and E6 resulting in the solution according to claim 1.

The combination of E1 with E8 would also lead to the subject-matter of claim 1. Both E1 and E8 related to cutting tools consisting of a cutting portion and a shaft portion which required exact alignment between
these parts. In order to achieve a rigid joint the skilled person would use the type of connection shown in E8. The application of these two pairs of radial guiding surfaces and a pair of axial stop faces in the cutting tool of E1 would thus lead to an end mill according to claim 1.

The filing of a new request comprising features which were taken from the description was an abuse of proceedings and should not be admitted at this late stage of the proceedings.

**Reasons for the Decision**

1. The appeal is admissible.

2. **Admissibility of new request**

2.1 The Board concurs with the Appellant's opinion that the reasons given by the Opposition Division in respect of there being two axial abutting surfaces instead of two radial abutting surfaces was the basis of confusion by the parties, which is apparent from the written arguments brought forward by both the Appellant and Respondent (Opponent 01). Therefore it can be accepted that the parties focused on the combination of E1 with E6 relied upon by the Opposition Division, and did not deal with the combination of E1 with E8 to the same extent until the oral proceedings took place.

Since the Board concluded that the subject-matter of claim 1 underlying the decision under appeal was made obvious by the combination of E1 with E8, a new
situation arose during the course of the oral proceedings. According to the case law of the Boards of Appeal the introduction of new requests in that late stage of the proceedings should only be allowed if there are valid reasons why the request could not have been filed earlier. The change in the situation following from the earlier misinterpretation of the subject-matter of claim 1, and also subsequent shift of arguments with more emphasis on a document (E8) cited by the Board justifies the admittance of the new request, as does the fact that the amendment only concerns a limitation of the subject-matter claimed earlier to specify more clearly what was relied upon during the oral proceedings (see T 95/83, OJ 1992, 646; T 153/85).

2.2 The amendments made to claim 1 are literally taken from the patent specification (column 3, lines 9 to 16), and are related to the specific embodiment shown in Figure 1. Since they also restrict the scope of protection of claim 1, they are also admissible under Article 123(2) and (3) EPC.

3. Novelty

Novelty of the subject-matter of claim 1 of the then main request in opposition was not in dispute and was correctly assessed by the Opposition Division in the decision under appeal. That valid claim has been further restricted and hence novelty, as far as the available prior art is concerned, is not in doubt (Article 54(1) EPC).
4. **Remittal to the first instance**

Since claim 1 was amended by features taken from the description which have not been searched either in examination or in opposition proceedings, the case has to be remitted to the Opposition Division. This is also necessary in order to give the parties the opportunity to prosecute their rights at two levels of jurisdiction (see also T 63/86, OJ 1988, 224; T 746/91; T 152/95).

**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 continuation of the proceedings.

The Registrar:          The Chairman:

M. Patin               P. Alting van Geusau