

**Internal distribution code:**

- (A) [ ] Publication in OJ  
(B) [ ] To Chairmen and Members  
(C) [X] To Chairmen

**D E C I S I O N**  
**of 19 January 2000**

**Case Number:** T 0183/98 - 3.2.3  
**Application Number:** 91610045.6  
**Publication Number:** 0458727  
**IPC:** B24B 41/047, B24B 7/12, B24B 7/28

**Language of the proceedings:** EN

**Title of invention:**

Method and machining apparatus for use especially in the sanding of items of wood in a sanding machine

**Patentee:**

HH PATENT A/S

**Opponent:**

QuickWood ApS

**Headword:**

-

**Relevant legal provisions:**

EPC Art. 56

**Keyword:**

"Inventive step - obvious combination of known features"

**Decisions cited:**

-

**Catchword:**

-



Europäisches  
Patentamt

European  
Patent Office

Office européen  
des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

Case Number: T 0183/98 - 3.2.3

**D E C I S I O N**  
**of the Technical Board of Appeal 3.2.3**  
**of 19 January 2000**

**Appellant:** QuickWood ApS  
(Opponent) Bakkegaardsvej 35  
DK-3060 Espergaerde (DK)

**Representative:** Arendt, Helmut, Dipl.-Ing.  
Patentanwalt  
Bergiusstrasse 2c  
D-30655 Hannover (DE)

**Respondent:** HH PATENT A/S  
(Proprietor of the patent) Grodevej 14  
DK-6823 Ansager (DK)

**Representative:** Larsen, Hans Ole  
Larsen & Birkeholm A/S  
Banegaardspladsen 1  
PO Box 362  
DK-1570 Copenhagen V (DK)

**Decision under appeal:** Interlocutory decision of the Opposition Division  
of the European Patent Office dated 5 November  
1997, posted on 18 December 1997, concerning  
maintenance of European patent No. 0 458 727 in  
amended form.

**Composition of the Board:**

**Chairman:** C. T. Wilson  
**Members:** F. Brösamle  
J. P. Seitz

## Summary of Facts and Submissions

I. With its decision of 5 November 1997, posted on 18 December 1997, the opposition division upheld the European patent No. 0 458 727 in amended form on the basis of claim 1, and claims 2 to 9, submitted on 5 November 1997 and 1 October 1997 respectively.

II. Claim 1 thereof reads as follows:

"1. Method of sanding, especially the sanding of items of wood in a sanding machine (1), where the items (3) are conveyed on a plane (2) such as a vacuum plane at the same time that the sanding tools (26, 28, 29) sweep the surface of the items (3), said sanding tools (26, 28, 29) comprising a number of sanding rollers (29), each secured to a spindle (28), and where the spindles (28) are mounted radially outwards from a drive (26), and in such a manner that the individual sanding rollers (29) rotate around the spindle (28) axes and are also turned around an axis (9) of rotation which extends at right-angles to the spindle (28) axes and to the surface of the plane (2), characterised in that the sanding rollers (29) are further moved in a reciprocating manner parallel with the plane (2) in a direction transversely to the direction in which the items (3) are conveyed, and that the length of the reciprocating movement is so great that the sanding rollers (29) are moved over the extent of the plane (2) in the direction of the reciprocal movement."

III. Against the above decision of the opposition division the opponent - appellant in the following - filed an appeal on 14 February 1998 paying the fee on the same

day and filing the statement of grounds of appeal on 24 April 1998.

- IV. The appellant requested that the impugned decision be set aside and that the European patent No. 0 458 727 be revoked.
  
- V. The proprietor - respondent in the following - requested that the appeal be dismissed.
  
- VI. In the oral proceedings before the board which were held on 19 January 2000 following a communication of the Board according to Article 11(2) RPBA, the parties essentially argued as follows whereby the following numbering of the documents is adhered to

(D1) IT-A-789 444

(D2) DE-C-1 157 503

(D6) DK-B-156 703

(D10) US-A-4 615 146 and

(D11) Brochure "Linea Rham":

(a) appellant

- from Figure 2 of (D2) and from (D1) it can be seen that the grinding wheels/brushes are moved beyond the plane of the conveyor for the articles to be sanded;

this is also the case with the apparatus

according to (D10) which comprises sanding tools which rotate around their axis "16" and also around the common axis "28" outside the plane of the articles to be ground;

- (D11) is based on six rotatable sanding tools arranged in three rows which tools are reciprocated parallel to the plane of the conveyor for the articles to be ground; respondent's sketch with respect to (D11) does not show an amplitude necessary for a good sanding result and is misleading;
- combining the above prior art leads to the result that the subject-matter of claim 1 is not based on an inventive step;

(b) respondent:

- the nearest prior art to be considered is (D6); since the sanding tools are stationary the sanding result is poor especially in the corner regions of items to be sanded;
- based on the information derivable from (D11) a sketch was produced to demonstrate that even a reciprocating movement of the sanding rollers only leads to a limited surface quality with respect to the sanded item since the sanding rollers remain within the extent of the plane of the conveyor for the items to be sanded;
- contrary to the prior art claim 1 solves the problem of how a uniformly good quality can be

achieved over all areas of an item to be sanded in that the sanding rollers completely leave the plane of the conveyor for the items to be sanded;

- neither (D1) nor (D2) can lead a skilled person to the method of claim 1;
- under these circumstances the appeal should be dismissed.

### **Reasons for the Decision**

1. The appeal is admissible.
2. *Amendments*
  - 2.1 From original claim 2 the feature that the length of the reciprocating movement is so great that the sanding rollers are moved outwardly over the extent of the plane in the direction of the reciprocal movement has been incorporated into claim 1 underlying the impugned decision and being upheld in the appeal proceedings.
  - 2.2 The feature under discussion is therefore originally disclosed so that the requirements of Article 123(2) EPC are met.
  - 2.3 Since the feature under discussion narrows the extent of protection of the method according to claim 1 the requirements of Article 123(3) EPC are also met.

3. *Novelty*

The issue of novelty needs no detailed arguments since the impugned decision comes to the result that the subject-matter of claims 1 and 3 is novel and this statement was not contested by the appellant, and the board shares these findings.

4. *Inventive step*

4.1 Nearest prior art is (D6) which document discloses a method of sanding according to the preamble of claim 1. The sanding tools "11", see Figures 1 and 2 of (D6), are arranged partly in the area over the item to be sanded and partly outside this item which arrangement of the sanding tools leads to non-uniform surfaces of the sanded items especially in their outer regions, see EP-B1-0 458 727, page 2, lines 9 to 35, in which (D6) is dealt with in detail.

4.2 According to EP-B1-0 458 727, see page 2, lines 10/11, the object of the invention is to overcome the disadvantages and drawbacks of the known methods of sanding items.

4.3 This object is solved by the features laid down in claim 1 (method claim) and claim 3 (apparatus claim), namely by reciprocating the sanding rollers parallel with the plane of the conveyor in a direction transversely to the direction in which the items are conveyed whereby the length of the reciprocating movement is so great that the sanding rollers are moved beyond the extent of the plane in the direction of the reciprocal movement.

4.4 As stated by the board's Chairman in the oral proceedings the board interprets claim 1 such that the sanding rollers **completely** leave the extent of the plane of the conveyor and reenter this plane thereafter, see also EP-B1-0 458 727, page 3, lines 30 to 32, where the technical effect of the claimed reciprocal movement of the sanding rollers is explained with respect to the quality of the outer areas of the items.

The assessment of whether or not the claimed solution of the above object of the invention is based on an inventive step leads to the following result:

4.5 What is not known from (D6) with respect to claim 1 is reciprocating the sanding rollers "29" transversely to the direction of the conveyor such that the rollers are completely outside the plane of the conveyor.

4.6 From (D1) and its page 1, lines 16 to 19, and Figures, it is, however, known to reciprocate the sanding rollers transversely to the conveyor to improve the sanding result. This feature is also known from (D11).

4.7 From (D1) and (D11) it is not unambiguously derivable how far the sanding rollers are reciprocated whether to a position outside the plane of the conveyor or not, see respondent's sketch submitted during the oral proceedings, which is based **on the assumption** that in (D11) the sanding rollers **do not completely** leave the plane of the conveyor. Considering that a clear teaching in this respect is not derivable from (D1) or (D11) this sketch is based on speculation rather than on facts.



- 4.8 Irrespective of what is stated explicitly in (D1) or (D11) it has to be observed that the crucial issue is what **a skilled person** can derive from (D1) or (D11). The board is convinced that from either document a skilled person could and would derive the information that a convincing surface quality of the sanded item can only be obtained in the case of sanding rollers being completely moved beyond the plane of the conveyor since a simple test of the amplitude of the sanding rollers and the quality especially in the critical corner areas of an item to be sanded will lead a skilled person by the principle of "trial and error" to the point, that the sanding rollers must be reciprocated such that they **completley** leave the plane of the conveyor.
- 4.9 It is the board's conviction that (D1) and (D11) enable a skilled person to appreciate the advantages of a transeverse movement of the sanding rollers with respect to the conveyor so that the length of the reciprocating movement of the sanding rollers is only a **further** step to increase the known advantageous effect of a cyclical transverse movement of the sanding rollers.
- 4.10 By the application of routine tests the skilled person is confronted with a one-way street situation to directly achieve the method of sanding according to claim 1 without the exercise of an inventive activity.
- 4.11 Summarising, claim 1 does not define patentable subject-matter within the meaning of Articles 56 and 100(a) EPC so that this claim is not valid.

- 4.12 A consideration of the further prior art (D2) and (D10) also results in the above findings with respect to the issue of inventive step, see also communication of the board pursuant to Article 11(2) RPBA, especially remark 6, in which it was set out that also from (D2) and (D10) it was known to make use of movements *inter alia* in a transverse direction with respect to the conveyor for the items.
- 4.13 From (D10), see in particular Figure 1 and column 2, lines 53 to 61, it is known to cyclically bring the sanding rollers in positions completely outside the item to be sanded; what counts in this respect is not the plane of the conveyor itself, but rather the size of the item, see EP-B1-0 458 727, page 3, lines 30 to 32, which is based on the item and not on the plane of the conveyor so that it is absolutely clear what is important and what not.
- 4.14 Since respondent's request to dismiss the appeal has to be dealt with as a whole it is not necessary to deal with the independent apparatus claim (claim 3) under the above circumstances i.e. non-valid claim 1.
- 4.15 It should, however, be added that in the present case claims 1 and 3 are so closely related - see their characterising clauses - that it is obvious that claim 3 is also non-valid for the detailed reasons given above with respect to claim 1.

## **Order**

**For these reasons it is decided that:**

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar:

The Chairman:

N. Maslin

C. T. Wilson