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**Datasheet for the decision  
of 7 May 2019**

**Case Number:** T 2006/18 - 3.2.07

**Application Number:** 11179053.1

**Publication Number:** 2562307

**IPC:** D21D1/30

**Language of the proceedings:** EN

**Title of invention:**

Spare parts for disc refiners for the production of paper

**Applicant:**

Officine Airaghi Srl

**Headword:**

**Relevant legal provisions:**

EPC Art. 123(2), 113(1)

EPC R. 115(2)

RPBA Art. 15(3)

**Keyword:**

Amendments - added subject-matter (yes)

Oral proceedings - held in absence of appellant

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**  
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Case Number: T 2006/18 - 3.2.07

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.07**  
**of 7 May 2019**

**Appellant:** Officine Airaghi Srl  
(Applicant) Via Garofoli 239  
37057 San Giovanni Lupatoto (IT)

**Representative:** Sandri, Sandro  
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**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 16 February  
2018 refusing European patent application No.  
11179053.1 pursuant to Article 97(2) EPC.**

**Composition of the Board:**

**Chairman** I. Beckedorf  
**Members:** V. Bevilacqua  
K. Poalas

## **Summary of Facts and Submissions**

- I. The applicant (appellant) lodged an appeal within the prescribed time period and in the prescribed form against the decision of the examining division to refuse European patent application No. 11 179 053.1.
- II. According to the impugned decision claim 1 of the then main request contravenes the requirements of Article 123(2) EPC.
- III. With the statement setting out the grounds of appeal the appellant requested  
  
that the decision under appeal be set aside and that a patent be granted on the basis of the claims of the main request or, as an auxiliary measure, on the basis of one of the first and second auxiliary requests, all attached to said statement.
- IV. In support of the appeal, the appellant prepared and filed the following drawings sheets  
  
Annex 1: a first drawing sheet showing a stator and a rotor of a prior art disc refiner;  
Annex 2: a second drawing sheet showing a stator and a rotor of a disc refiner according to the invention;  
Annex 3: a third drawing sheet showing a plurality of side cross sections of a blade surface or pattern of a spare part according to the present invention.

The appellant filed further the following document as evidence of the general knowledge of a skilled person

Annex 4: Papermaking Part 1 - Stock Preparation and Wet End, 2nd Edition, Book editor: Hann Paulapuro, D.Sc. (Tech), Professor, Helsinki University of Technology, - "Refining of chemical pulp", Chapter 4, by Jorma Lumiainen.

- V. The appellant essentially submitted that the skilled person would have never considered the feature "**all the blades having the same height and all the grooves having the same depth**" as added subject-matter, because any stator/rotor for a disc refiner for low consistency stock inherently comprised it (see page 2, lines 5-8 of the original description and annexes 1 to 4). The appellant's arguments form part of the reasons for the decision as discussed below.
- VI. In its communication pursuant to Article 15(1) RPBA, annexed to the summons for oral proceedings, the Board gave a provisionally negative opinion concerning the allowability of the main request and of the first and second auxiliary requests, based on a lack of compliance with the requirements of Article 123(2) EPC.
- VII. With letter dated 10 April 2019, the appellant informed the Board that they would not be attending the oral proceedings set for 7 May 2019. The appellant made no observations on the content of the Board's communication.
- VIII. Oral proceedings before the Board took place as scheduled on 7 May 2019 in the absence of the duly

summoned the appellant according to Rule 115(2) EPC and Article 15(3) RPBA.

IX. Independent **claim 1 of the main request**, reads as follows (the features at the basis of the appealed decision are highlighted by the Board):

"A pair of spare parts for a disc refiner for refining a low consistency paper pulp, i.e. a paper pulp with a dry fibre residue between 2% and 6%, said disc refiner being provided with either two, or four or a plurality of refining discs, said pair being constituted by a stator and/or rotor, where both the stator and the rotor comprise a disc-shaped metallic element with a refining blade surface having alternating bars or blades and grooves, **all the blades having the same height and all the grooves having the same depth**, where the rotor is designed to be driven and rotated around its own axis of rotation which passes through the centre of the disc shaped element so that the rotor bars or blades perform a rotary movement in front of the stator bars or blades with a suitable gap in between, said gap having a constant height over the whole surface of the opposed discs, characterised in that the respective profiles of the opposed blade surfaces or pattern of said stator and rotor are as seen in a side cross section, with a preset inclination angle greater than 0° in respect of a plane perpendicular to the rotor axis of rotation thereby increasing the cutting edge length of said disc refiner, and thus the refining quality, in respect of the cutting edge length generated by a disc refiner having a stator and a rotor having the same given diameter and opposed blade surfaces set at 0° in respect of a plane perpendicular to the rotor axis of rotation."

Independent **claim 1 of the first auxiliary request**, reads as follows (the features at the basis of the appealed decision are highlighted by the Board):

"A disc refiner for refining a low consistency paper pulp, i.e. a paper pulp with a dry fibre residue between 2% and 6%, said disc refiner being provided with respective pairs of either two, or four or a plurality of refining discs, each pair being constituted by a stator and a rotor, where both the stator and the rotor comprise a disc-shaped metallic element with a refining blade surface having alternating bars or blades and grooves, **all the blades having the same height and all the grooves having the same depth**, where the rotor is designed to be driven and rotated around its own axis of rotation which passes through the centre of the disc shaped element so that the rotor bars or blades perform a rotary movement in front of the stator bars or blades with a suitable gap in between, said gap having a constant height over the whole surface of the opposed discs, characterised in that the respective profiles of the opposed blade surfaces or pattern of said stator and rotor are inclined, as seen in a side cross section, with a pre-set inclination angle greater than 0° in respect of a plane perpendicular to the rotor axis of rotation, thereby increasing the cutting edge length of said disc refiner, and thus the refining quality, in respect of the cutting edge length generated by a disc refiner having a stator and a rotor having the same given diameter and opposed blade surfaces set at 0° in respect of a plane perpendicular to the rotor axis of rotation."

Independent **claim 1 of the second auxiliary request**, reads as follows (the features at the basis of the appealed decision are highlighted by the Board):

"A method for increasing the refining quality of a disc refiner for refining a low consistency paper pulp, i.e. a paper pulp with a dry fibre residue between 2% and 6%, said disc refiner being provided with respective pairs of either two, or four or a plurality of refining discs, each pair being constituted by a stator and a rotor, where both the stator and the rotor comprise a disc-shaped metallic element having a given diameter and a refining blade surface having alternating bars or blades and grooves, **all the blades having the same height and all the grooves having the same depth**, where the rotor is designed to be driven and rotated around its own axis of rotation which passes through the centre of the disc-shaped element so that the rotor bars or blades perform a rotary movement in front of the stator bars or blades with a suitable gap in between, said gap having a constant height over the whole surface of the opposed discs, characterised by providing an inclination as seen in a side cross section, of the respective profiles of the opposed blade surfaces or pattern of said stator and rotor the inclination angle being greater than 0° in respect of a plane perpendicular to the rotor axis of rotation, thereby increasing the cutting edge length of said disc refiner, and thus the refining quality, in respect of the cutting edge length generated by a disc refiner having a stator and a rotor having the same given diameter and opposed blade surfaces set at 0° in respect of a plane perpendicular to the rotor axis of rotation."



## Reasons for the Decision

1. Although the appellant did not attend the oral proceedings, the principle of the right to be heard pursuant to Article 113(1) EPC is observed since that Article only affords the opportunity to be heard and, by absenting itself from the oral proceedings, a party gives up that opportunity (see Case Law of the Boards of Appeal, 8th edition 2016, sections III.B.2.7.3 and IV.E.4.2.6.d) with further references to the jurisprudence). In accordance with Article 15(3) RPBA, the appellant's written submissions have been taken into account by the Board and are discussed in the following reasons.

2. *Allowability of the main request*

2.1 In sections 1.1 to 1.4 of its above-mentioned communication the Board stated why it considered the main request not allowable in view of the non-fulfilment of the requirements of Article 123(2) as follows:

"1.1 Lack of basis in the description

1.1.1 *According to the passage on page 2, lines 5-8. of the original description the stator and the rotor in a low consistency disc refiner both comprise substantially discoid metallic elements which each have a blade retaining surface with an alternation of blades (bars) and grooves, all of which have the same height (bars) and depth (grooves).*

1.1.2     *The appellant argues that this passage contains a generic disclosure of the invention, and concludes that it was implicit for the skilled person that all the subsequently described embodiments of the invention comprised these features, even if these were not mentioned specifically.*

1.1.3     *The Board disagrees.*

*This passage is taken from a part of the original description which clearly relates to low consistency refiners according to the prior art. In fact the description of refiners according to the invention starts from page 10 of the original description. As a consequence of that the Board is of the preliminary opinion that it was not implicit for the skilled person that the blades and grooves according to the invention, described starting from page 10, inevitably comprised these features.*

1.2     *Lack of basis in the drawings*

1.2.1     *The appellant refers to figures 2a-4, and argues that they disclose the contested feature.*

1.2.2     *The Board disagrees. These figures are schematic illustrations without measurements and without scale. The imprecision of such an illustration makes it impossible to conclude that all the blades have the same height and all the grooves have the same depth.*

1.3     *Lack of basis in the knowledge of a skilled person*

1.3.1 The appellant argues that the skilled person knows that this feature inherently belongs to any stator/rotor for a disc refiner for low consistency stock.

1.3.2 The Board disagrees again, and notes that documents D1 (see figure 1 and claim 1) and D2 (see also figure 1 and claim 1) provide evidence of the contrary, namely that there are discs which are suitable for a refiner for low consistency stock and which do not comprise this feature.

#### 1.4 Lack of Basis in E1-E4

1.4.1 The appellant then argues that Annexes 1-4 provide evidence that in disc refiners for low consistency stock all the blades have the same height and all the grooves have the same depth.

1.4.2 The Board disagrees again.

Annexes 1-3 are drawings prepared by the appellant in support of its argumentation, and as such the Board is of the preliminary opinion that they should not be considered as being a piece of evidence, but rather be classified as further arguments.

Annex 4 is a piece of evidence. Point 4.8.2 of this document, to which the appellant refers, contains a table with an indication of the order of magnitude ("typical dimensions", see the last lines at page 16 of this document) of the blades and of the grooves, according to which the depth of the grooves can be either 5 mm (for hardwood fillings) or 7 mm (for softwood fillings).

*This indication cannot be considered, at least in the preliminary opinion of the Board, as a clear teaching that for **all discs** of a disc refiner for low consistency paper pulp **all the blades** have the same height and **all the grooves** have the same depth.*

*Figures 1 and 2 of annex 4 do not show any measurements or scale or give any other indication according to which they can be considered as being exact engineering drawings reproducing the blades and the grooves to scale.*

*These figures are therefore no more than a schematic illustration, and the skilled person would not derive from them that all the blades have the same height and all the grooves have the same depth."*

- 2.2 The above-mentioned preliminary finding, as summarised in point 1.5 of said communication, has not been commented on nor has it been contested by the appellant during the appeal proceedings, see points VII. and VIII. above.
- 2.3 Under these circumstances, the Board - having once again taken into consideration all the relevant aspects concerning said issues - sees no reason to deviate from its above-mentioned finding.
- 2.4 As a consequence, the Board considers that the feature **"all the blades having the same height and all the grooves having the same depth"**, present in the subject-matter of claim 1 of the main request extends beyond the content of the application as filed and therefore contravenes the requirements of Article 123(2) EPC.

For the above reason, the main request does not fulfil the requirements of Article 123(2) EPC and cannot be allowed.

3. *Allowability of the first and second auxiliary requests*

The first and second auxiliary request likewise do not fulfil the requirements of Article 123(2), and can therefore also not be allowed, because the feature "**all the blades having the same height and all the grooves having the same depth**" is also present in the subject-matter of their respective claim 1.

**Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:



G. Nachtigall

I. Beckedorf

Decision electronically authenticated