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**Datasheet for the decision
of 1 August 2014**

Case Number: T 1103/10 - 3.2.05

Application Number: 97911355.2

Publication Number: 0937177

IPC: D21F 7/08

Language of the proceedings: EN

Title of invention:
Papermachine clothing

Patent Proprietor:
Voith Patent GmbH

Opponent:
Albany International Corp.

Headword:
-

Relevant legal provisions:

Keyword:

Decisions cited:

Catchword:
-



**Beschwerdekammern
Boards of Appeal
Chambres de recours**

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Case Number: T 1103/10 - 3.2.05

**D E C I S I O N
of Technical Board of Appeal 3.2.05
of 1 August 2014**

Appellant:
(Patent Proprietor)

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Respondent:
(Opponent)

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Representative:

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Decision under appeal:

**Decision of the opposition division of the
European Patent Office posted on 19 March 2010
revoking European patent No. 0937177 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chairman M. Poock
Members: H. Schram
M. J. Vogel

Summary of Facts and Submissions

- I. The appellant (patent proprietor) lodged on 17 May 2010 an appeal against the decision of the opposition division, posted on 19 March 2010, by which European patent No. 0 937 177 was revoked on the grounds that the subject-matter of claim 1 as granted did not involve an inventive step, Article 56 EPC 1973. The statement of grounds was filed on 20 July 2010.

Claim 1 as granted reads as follows:

"Papermachine clothing (10) comprising a base cloth (11; 21) and a batt fibre layer (13; 22, 23), said base cloth (11; 21) comprising, at least in part, thermoplastics material in mesh form (12; 21), characterized in that said batt fibre layer (13; 23) contains a non woven array of yarns (15; 24) extending in the intended machine direction of the papermachine clothing (10)."

- II. The appellant requested that the decision under appeal be set aside and that the patent be maintained as granted (main request) or in amended form on the basis of any of the sets of claims filed on 1 July 2014 as auxiliary requests 1 to 3.

The respondent (opponent) requested that the appeal be dismissed.

- III. In a communication dated 15 May 2014 annexed to the summons to oral proceedings, the board expressed its provisional opinion (points 5.2 and 6.1) that the subject-matter of claim 1 of the main request appeared to be new with respect to document D1 and that the yarn assemblies, and/or the plurality of parallel yarns

known from document D1 did not qualify as a "base cloth" in the sense of claim 1.

IV. In reply to the summons, the respondent informed the board on 18 June 2014 that it will not be attending the oral proceedings. Subsequently, the scheduled oral proceedings were cancelled by the board.

V. The documents referred to in the appeal proceedings included the following:

D1 US 4,781,967;

D2 EP-A 0 307 183;

D3 US 4,427,734;

D4 GB-A 2 202 873;

D5 GB-A 2 235 705;

D6 WO/92 17643;

D11 US 4,541,895.

VI. The arguments of the appellant can be summarized as follows:

The patent was revoked on the ground that the subject-matter of claim 1 of the patent in suit did not involve an inventive step over a combination of documents D1 and D3. Document D1 related to an endless, unwoven papermaking press felt having a very specific arrangement and possessing improved compaction resistance (column 2, line 14ff). The person skilled in the art would not look for different solutions for the

problem of compaction in the art, as for example in document D3. The construction of the wet press felt known from document D3 required, unlike document D1, a base fabric of interwoven textile yarns in the press felt and moreover, did not have unwoven yarn assemblies as the press felt of document D1 had. The only common constituents between the two press felts were the batt layers. The person skilled in the art had no motivation to pick an arbitrary feature from the wet press felt known from document D3 and incorporate it the papermaking press felt of document D1. It followed that the subject-matter of claim 1 of the patent in suit was not obvious to the person skilled in the art and hence involved an inventive step.

VII. The arguments of the respondent can be summarized as follows:

The opposition division held that document D1 did not disclose the feature of claim 1 as granted that the base cloth comprised, at least in part, a thermoplastic material that is in mesh form. However, said feature was implicitly disclosed in document D1, which described the inclusion of non-woven thermoplastic materials, such as those described in document D11, in a base layer. The opposition division held that document D1 did not deprive claim 1 of novelty, on the ground that the content of document D11 was "not to be regarded as incorporated by reference". However, this was not the point made by the respondent during the opposition proceedings. The question was whether the skilled person, reading document D1, would have understood a "thermoplastic material in mesh form" to be disclosed therein. This document advocated the use of non-woven materials of natural or synthetic fibres, such as thermoplastic polyolefin fibres, in modular

yarn assemblies (column 3, lines 22 to 24). Document D11 was merely to be read alongside document D1 as providing evidence to demonstrate that the non-woven thermoplastic material disclosed in document D1 could be described as a thermoplastic mesh. Thus, the skilled person would have construed document D1 as disclosing the use of a thermoplastic material in mesh form as a component of the base cloth of a papermachine clothing.

Even if claim 1 as granted were considered to be formally novel over the disclosure of document D1, its subject-matter lacked an inventive step over a combination of document D1 and the disclosure of any one of documents D2, D3, D4, D5 or D6. For example, document D3 indicated that the incorporation of a thermoplastic material in mesh form was advantageous in addressing compaction (column 3, lines 5 to 10). A person skilled in the art would regard it as obvious to include the thermoplastic material in mesh form known from document D3 into the papermachine clothing of document D1 to solve the problem of compaction.

Reasons for the Decision

1. The appeal is admissible.

MAIN REQUEST

2. *Ground for opposition under Article 100 a) EPC 1973 in combination with Articles 54 and 56 EPC 1973*
 - 2.1 An invention is considered to be new if it does not form part of the state of the art, Article 54(1) EPC 1973. According to established case law a claimed invention forms part of the state of the art, if its

subject-matter is clearly and directly derivable from said art for the person skilled in the art.

Document D1 discloses (column 3, line 66, to column 5, line 31, and figure 1) a papermaking press felt comprising modular yarn assemblies 12, 18, 24, each yarn assembly containing an array of parallel yarns 14, 20, 26 and a fibrous batt layer 30, 32, 34 (cf column 2, lines 5 and 6), and batt layers 35, 36, 37 at the top end of the felt, and a batt layer 38 at the lowermost end of the felt.

Since the yarns 14 of yarn assembly may be disposed in the machine direction (column 4, lines 28 and 29), it follows that document D1 discloses a papermachine clothing (press felt 10) comprising a batt fibre layer as defined in the characterizing part of claim 1 as granted.

The term "base cloth" in the expression "said base cloth comprising, at least in part, thermoplastics material in mesh form" in claim 1 must be construed in the light of the patent specification read as a whole of a material layer consisting of at least one layer of thermoplastics material in mesh form 12 and preferably a layer of woven fabric 11, cf from paragraph [0008] of the patent in suit.

The yarn assemblies, and/or the plurality of parallel yarns known from document D1 do not qualify as a "base cloth" in the sense of claim 1, since they do not comprise a layer of thermoplastics material in mesh form. Moreover, said yarn assemblies, and/or the plurality of parallel yarns do not qualify as a cloth, since they are nonwoven. The press felt known from document D1 is preferably formed of unwoven materials

(column 1, lines 5 to 8, and column 2, lines 45 to 50). Whilst the inclusion of a layer that is formed of a woven material is not excluded (column 7, lines 54 to 58, and claim 17), such a woven layer (shown in figure 4 as intermediate yarn assemble 94) should be sandwiched between two yarn assemblies 84, 86 and two batt layers 102, 14 with a view to reduce the possible risk of marking due to the knuckles of the woven layer (column 7, lines 58 to 68).

The argument of the respondent that document D1 taught that various yarn structures can be utilized in the yarn assemblies, which may consist of any textile fiber, natural or synthetic, including but not limited to polyester, polyamide and polyolefin (column 3, lines 22 to 24), and that the skilled person would have construed this document as disclosing the use of a thermoplastic material in mesh form, cannot be followed for the following reasons:

Layers of thermoplastics material in mesh form for use in papermachine clothing are well-known in the art, see eg document D2 (column 2, lines 59 to 61, and sole figure), document D3 (column 1, lines 45 to 64, and the sole figure showing mesh fabric 22), document D4 (page 1, lines 2 to 5, page 6, lines 15 to 24, figures 6 to 11, and title "Apertured parallel filament reinforced plastics sheet"), document D5 (a divisional application of UK patent application No. 8807416, which was published as document D4), and document D6 (page 1, last paragraph, page 2, line 20, to page 3, line 7, and figures 1 to 3). The documents D2, D4, D5 and D6 are cited in paragraphs [0004], [0005] and [0008] of the patent in suit.

However, the arrays of parallel yarns 14, 20, 26 disclosed in document D1 do not, irrespective of the material the yarns consists of, constitute a material in mesh form.

The subject-matter of claim 1 of the main request is therefore new with respect to document D1, Article 54 EPC 1973.

- 2.2 The subject-matter of claim 1 of the main request differs from the press felt known from document D1 in that it comprises a "base cloth (11; 21) comprising, at least in part, thermoplastics material in mesh form (12; 21)".

The use of a mesh membrane improves the resistance of compaction of the papermachine clothing, cf column 2, lines 6 to 9, of the patent in suit. This beneficial effect and other advantages of incorporating a thermoplastics material in mesh form in a papermachine clothing are known in the art per se. For example, according to document D2, *"The orientation of a synthetic mesh layer between the woven fabric base and the batt material and between adjacent layers of batt material increases the void volume of the wet press felt, increases the resistance of the felt to compaction and creates a higher resistance to load"*, cf column 2, lines 19 to 24. The press felt construction known from document D3, wherein a mesh fabric is interposed between adjacent batt layers, is said to resist compaction in comparison to a similar fabric without an intervening mesh fabric, cf column 3, lines 5 to 10. Another advantage of using a mesh layer in papermachine clothing is the absence of knuckles, which results in a reduced tendency of marking, that is

normally present in a woven base cloth, cf document D6, page 1, lines 10 to 15.

The respondent has submitted that a person skilled in the art would regard it as obvious to include the thermoplastic material in mesh form known from any of the documents D2 to D6 into the papermachine clothing of document D1 with a view to solve the problem of compaction.

However, the problem of compaction has already been solved by the papermaking press felt known from document D1 by using yarn material that is incompressible, cf column 2, lines 14 to 21, column 3, lines 57 to 63, column 5, lines 56 to 61, and column 8, lines 4 to 12. The non-compressibility of the yarn material of the papermaking press felt known from document D1 enables the felt to be passed through the press nip rollers without the yarns compacting, thereby preserving the voids as defined by the yarn assemblies, cf the passage in column 2 referred to above.

The board comes thus to the conclusion that the person skilled in the art, starting from the papermaking press felt known from document D1, had no incentive to include a "base cloth comprising, at least in part, thermoplastics material in mesh form" with a view to improve the resistance of compaction of said press felt.

The subject-matter of claim 1 of the main request therefore involves an inventive step, Article 56 EPC 1973.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is maintained as granted.

The Registrar:

The Chairman:



D. Meyfarth

M. Poock

Decision electronically authenticated