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Datasheet for the decision of 5 May 2009

Case Number: T 0076/08 - 3.2.06

Application Number: 00942308.8

Publication Number: 1208260

IPC: D06F 35/00

Language of the proceedings: EN

Title of invention:
Method for washing laundry and laundry washing machine implementing such a method

Patentee:
Indesit Company S.p.A.

Opponent:
AEG Hausgeräte GmbH

Headword:
-

Relevant legal provisions:
-

Relevant legal provisions (EPC 1973):
EPC Art. 56, 54

Keyword:
"Novelty - yes"
"Inventive step - yes"

Decisions cited:
-

Catchword:
-

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Case Number: T 0076/08 - 3.2.06

D E C I S I O N
of the Technical Board of Appeal 3.2.06
of 5 May 2009

Appellant: (Opponent)
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Decision under appeal:
Decision of the Examining Division of the European Patent Office posted on 30 November 2007 refusing European application No. 00942308.8 pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: P. Alting Van Geusau
Members: G. de Crignis
W. Sekretaruk
G. Kadner
R. Menapace

Summary of Facts and Submissions

I. European Patent No. 1 208 260, granted on application No. 00 942 308.8, was maintained in amended form by decision of the opposition division posted on 30 November 2007 which included claims 1 to 21 as granted, whereas granted claims 22 and 23 were deleted.

Claim 1 reads as follows:
"Method for washing laundry items, in particular items made of fabrics being subject to dimensional variations, such as for instance items which undergo slackening and/or felting, in a household washing machine comprising a washing tank and a basket for containing the laundry, rotatable within said tank, the method providing for at least a washing stage (LB) and a plurality of rinsing stages (RS1, RS2, RS3, RS4), each one of said rinsing stages (RS1, RS2, RS3, RS4) being preceded by a loading (CR) into said tank of a rinsing liquid and being followed by a drain (SR) of the rinsing liquid from said tank, each of said rinsing stages (RS1, RS2, RS3, RS4) further providing for at least a rotation period of said basket at a first angular speed being equal to, or greater than, the lowest speed which allows to maintain the laundry items adherent to the basket walls so that, during said period and while the basket is rotating, said items come temporarily and at least partially into contact with the rinsing liquid and/or foam,
characterized in that during the time interval (CI1, CI2, CI3) between the end of one of said rinsing stages (RS1, RS2, RS3) and the beginning of the following rinsing stage (RS2, RS3, RS4) the basket is kept constantly in movement without reversing its rotation

sense, the angular speed of the basket during said time interval (CI1, CI2, CI3) being such to always maintain the laundry items adherent to the basket sides."

II. The opposition division held that the patent in suit disclosed the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (Article 100(b) EPC 1973), in particular that it was known by the skilled person that each operational step of loading or draining liquids required physically a finite time interval. It further held that the subject-matter of claim 1 was novel (Article 54 EPC) over the disclosure in

E1 EP-B-0 404 047 and

E5 DE-A-41 15 776.

Furthermore, the subject-matter of claim 1 was considered to involve an inventive step (Article 56 EPC) with regard to the disclosures of either E1 or E5 when taken alone or with regard to the combination of the teachings of E1 with E5 or E1 with

E4 "Waschmaschine AEG Öko-Lavamat 86800".

III. The appellant (opponent) filed a notice of appeal against this decision on 10 January 2008, and paid the appeal fee on the same day. On 27 March 2008 the statement of grounds of appeal was filed. The objections concerning lack of novelty (Article 54 EPC) with regard to E1 and E5 were maintained, as well as the contention that the subject-matter of claim 1 does not involve an inventive step (Article 56 EPC) on the basis of the disclosure of E1 alone and also when starting from the teaching of E5 and taking into account the disclosure of E1.

IV. In a communication dated 23 October 2008 accompanying the summons to oral proceedings the board expressed its preliminary view that the subject-matter of claim 1 of the main request appeared to be novel over the disclosure of either E1 or E5 (Article 54 EPC 1973).

V. Oral proceedings were held on 5 May 2009.

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

The respondent (patent proprietor) requested that the appeal be dismissed, alternatively that the decision be set aside and the patent be maintained on the basis of one of the auxiliary requests 1 to 5 filed with letter of 31 March 2009.

VI. In support of its requests the appellant argued essentially as follows:

E1 was referred to in the patent in suit as representative prior art. It disclosed all the features of the preamble. With regard to the characterizing portion, E1, page 4, l. 28 - 33 indicated that rinsing should be carried out twice or three times and the speed of rotation should be kept at 80 -240 rpm at which speed the laundry remained on the drum wall. Thus E1 disclosed the complete subject-matter of claim 1.

E5 also disclosed all features of claim 1. Its sole Figure showed that during the time interval of phase II the drum was constantly kept in movement without reversing its rotation sense and the angular speed was

such as to always maintain the laundry items adherent to the drum sides. Phase II constituted a rinsing phase and accordingly a time interval such as defined in the characterising part of claim 1 of the patent in suit. Concerning the feature of the preamble "said items come temporarily and at least partially into contact with the rinsing liquid and/or foam", E5 referred to continuously spraying water into the drum while maintaining a rotation speed of 100 rpm (col. 2, l. 1 - 5) which was equivalent to the claimed feature in question.

Moreover, the scope of the subject-matter of claim 1 of the patent in suit extended to further unspecified method steps. Such a step was referred to in paragraph [0070] of the description in relation to an intermediate spinning stage which could be present at the end of the washing stage LB and followed by the first rinsing stage RS1. Accordingly, the relevance of such additional steps for the time interval defined in the characterising portion of claim 1 was unclear.

Concerning inventive step, the closest prior art was represented by either E1 or E5. The subject-matter of claim 1 did not involve an inventive step either on the basis of the disclosure of E1 alone in combination with the knowledge of the skilled person, or on the basis of the disclosure of E1 when taken in combination with the disclosure of E5, or when starting from E5 and combining its disclosure with the teaching of E1.

VII. In support of its requests the respondent argued essentially as follows:

Neither E1 nor E5 disclosed the characterizing portion of claim 1. Therefore, the subject-matter of claim 1 was novel. Moreover, E5 referred to a method according to which the rinsing water was sprayed radially inside the drum. Consequently, the laundry items did not come temporarily and at least partially into contact with the rinsing liquid and/or foam as set out in the preamble of claim 1.

Accordingly, also the combination of these teachings could not lead to the claimed subject-matter. Since no other document was cited which led the skilled person to a constant movement of the basket between the rinsing stages, the subject-matter of claim 1 involved an inventive step. The appeal should be dismissed.

Reasons for the Decision

1. The appeal is admissible.

2. *Novelty over E1*

2.1 E1 which is cited in the patent in suit in the form of its family member IT-B-1.230.903 in paragraphs [0015], [0017], [0030], [0053], [0057] and [0060]) refers to a process for washing delicate textile articles (page 2, l. 3 - 5). Therein the washing cycle of previous prior art washing machines is improved in that the rotation speed of the drum is increased to a value equal to or higher than the lowest speed to allow holding the textile articles adhering to the drum wall. Such rotation speed of the drum is considered to represent a sort of "soft spinning" (page 3, l. 11 - 21). In

average household washing machines having a drum diameter within a range of 40 to 50 cm and being loaded not exceeding 1.5 kg of delicate textile products, such rotation speed would lie within the range of 80 to 240 rpm. The inventive concept in E1 is to maintain such rotation speed during the whole washing and/or drying cycle (page 3, l. 22 - 30). A typical programme of the washing cycle is successively followed by two or three rinsings with cold water (page 4, l. 18 - 22).

2.2 With regard to rinsing, E1 refers generally to the concept of alternating rotations at different speeds and pauses which is disclosed on page 4, l. 23 - 30: *"The washing takes place alternating periods of rotation of the drum at the speed according to the invention to periods of "strong spinning" (250 - 600 rpm) and to periods of steady drum (zero speed) and/or slow rotation (20 - 40 rpm) to allow the products change their position in the drum and avoid the formation of folds. ... The rinsing is carried out twice or three times according to the aforereported concept of alternating rotations at different speeds and pauses; at the end of each rinsing the water is discharged (with steady drum or rotation at 80 - 240 rpm) and a final high-speed spinning is performed".*

2.3 Accordingly, the programmed process of E1 is based upon a concept of two or three rinsing cycles within the whole rinsing action the rinsing cycles being separated from each other by pauses for enabling alternating rotations. The wording "*at the end of each rinsing the water is discharged (with steady drum or rotation at 80 - 240 rpm) and a final spinning is performed)*" refers to the draining of the water at the end of each rinsing

cycle but does not alter the central concept of alternating rotations within the whole rinsing action. With regard to this concept there has to be mandatorily a time interval between the rinsing cycles which allows to alternate the rotation of the basket and which accordingly includes necessarily at least one moment of steady drum.

2.4 In contrast, the subject-matter of the characterizing portion of claim 1 requires a continuous rotation of the drum during the whole rinsing action and, thus excludes reversing of the rotation direction. E1 thus fails to disclose this feature set out in the characterizing part of claim 1. Therefore, the subject-matter of claim 1 is novel over E1.

2.5 The appellant's view that the concept of E1 would be understood by the skilled person as omitting the alternating rotations and pauses is thus based upon a misinterpretation of the disclosure of E1.

2.6 In support of his view, the appellant further relied on the reference in claim 1 of the patent in suit to "*the method providing for at least a washing stage and a plurality of rinsing stages*" [emphasis added] in combination with paragraph [0070] of the description referring to an intermediate spinning stage which spinning stage is not mentioned in the claim. However, the fact that there are further method steps possible within the scope of the claim, in particular such an intermediate spinning stage, is not contradictory to the above assessment, it being an indispensable feature of the claimed method that between two rinsing stages

the drum is kept in constant movement. That is clearly not derivable from E1.

3. *Novelty over E5*

3.1 E5 discloses a method to rinse and spin-dry laundry items in a programmable washing machine. It is concerned with the problem of reducing water consumption (col. 1, l. 36 - 41). In its single Figure two rinsing cycles are shown, each having four high-spinning stages (around 800 rev/min) alternating with lower spinning stages (around 100 rev/min) whereby water is added during the lower spinning stages. These two rinsing cycles are denominated Roman II in the Figure and are separated from each other by a redistribution phase, denominated Roman III. E5 discloses consistently in the description (col. 2, l. 6 - 50) that after a rinsing cycle comprising various rinsing and spinning/draining stages a redistribution of the laundry items is to be made by reducing the rotation to 50 rev/min (col. 2, l. 35 - 37); at the same time a higher amount of rinsing liquid (about 5 to 6 litres) is to be added. Such reduction of the rotation speed is referred to as being necessary in order to achieve a redistribution of the laundry which is considered to be necessary for an even rinsing of the laundry items (col. 2, l. 33/34).

3.2 The appellant's view that the phase designated Roman II corresponds to the time interval claimed in the characterising portion of claim 1 of the patent in suit is based upon an incomplete consideration of the claimed subject-matter.

3.3 Claim 1 specifies in its preamble that during rinsing the rotational speed is high enough to keep the laundry adhering to the drum, in its characterising portion it is further specified that this drum speed is maintained between at least two rinsing stages.

3.4 Accordingly, the appellant's view to interpret the time interval designated Roman II in the Figure of E5 as the time interval corresponding to the one specified in claim 1 of the patent in suit cannot be followed, because of all phases designated Roman II and the redistribution phase designated Roman III altogether constitute the rinsing cycle of E5 which thus corresponds to the claimed time interval.

3.5 Accordingly, the feature of the characterising portion of claim 1 is not known from the disclosure of E5 and the subject-matter of claim 1 is novel over the disclosure in E5.

3.6 In view of this distinguishing feature, it is not necessary to decide on the presence or absence of the further disputed feature of the preamble of claim 1 concerning the laundry items coming temporarily and at least partially into contact with the rinsing liquid and/or foam.

4. *Inventive step - closest prior art*

4.1 The closest prior art for assessing inventive step is normally a prior art document disclosing subject-matter conceived for the same purpose or aiming at the same objective as the claimed invention and having the most relevant technical features in common. Applying this

approach for selecting in the present case the closest prior art, the purpose of the invention of the patent in suit has to be established.

4.2 The purpose of the invention was to reduce the damaging of the articles being washed by means of a laundry washing machine, such as articles of particular delicate fabrics and/or which undergo dimensional variations, like knitwear items and/or items which may felt up and/or slacken (paragraphs [0013], [0024]). Moreover, an additional aim was directed to the reduction of water and/or electric power consumption and/or the time being necessary for treating the laundry items (paragraph [0025]).

4.3 When taking into account the repeated reference to IT-B-1.230.903 (family member of E1) in paragraphs [0015], [0017], [0030], [0053], [0057] and [0060], no doubt could arise that the primary purpose was related to the treatment of delicate fabrics whereas the additional aim directed to simultaneously reduce water and electric power consumption was of subordinate importance.

4.4 E1 is concerned with delicate laundry. It points to the problem of the size shrinkage due to felting and/or relaxation of textile articles during their washing in water and/or their drying. It states that the problem is mainly due to the mechanical agitation and that the known washing methods aim to reduce the mechanical action by reducing the cycle time and the load of articles and by increasing the volume of water.

4.5 According to the disclosure in E1 these problems can be solved by increasing the normal rotation speed of the drum during the washing cycle up to a value which is equal to or higher than the lowest speed to allow holding the products adhering to the drum walls and that thus the mechanical agitation of every single textile article adhering to the drum walls is reduced. Accordingly, E1 represents an appropriate starting point for the evaluation of inventive step. Such approach is consistent with the appellant's and the respondent's view.

4.6 The appellant's further attempt to qualify E5 also as a document suitable for representing the closest prior art must fail. E5 is not concerned with the washing of delicate laundry but only with the reduction of water consumption (col. 1, l. 36 - 40). This issue, however, is of minor importance in the patent in suit, as claim 1 of the patent in suit does not concern water consumption.

5. *Inventive step when considering E1 alone*

5.1 The problem to be solved by the subject-matter claimed in claim 1 is set out in the patent in suit in paragraphs [0012] - [0019]: to provide washing cycles which allow to wash wool/knitwear articles with the label "hand washing". It would appear that this problem is solved by the disclosure in E1 (see page 3, l. 5 - 15; page 5, l. 1 - 16 and Table 1). Accordingly, the objective technical problem is to find an alternative or a better solution to the same problem.

5.2 The solution according to claim 1 of the patent in suit is related to the rotational speed of the drum during the time interval between the rinsing stages. This rotational speed prevents the collapsing of the laundry items during at least part of the rinsing action and accordingly reduces mechanical stress to delicate fabrics.

5.3 E1 particularly refers to rinsing periods with changing speeds and zero speed in order to allow the articles to be redistributed. No suggestion is made to keep the speed high enough that during and in between two rinsing stages the laundry adheres to the drum wall.

5.4 Thus, the appellant's contention that the skilled person would have omitted redistribution during the rinsing step is based on hindsight. All prior art washing methods include a reversal of rotation and redistribution of the laundry items during the rinsing stage. In the absence of any teaching to maintain a drum speed sufficiently high for avoiding redistribution of the laundry items during the pause between two rinsing stages, the subject-matter of claim 1 involves an inventive step over the disclosure of E1 alone also when taking into consideration the knowledge of the skilled person.

6. *Inventive step - E1 combined with E5 or E5 with E1*

6.1 The arguments presented by the appellant in this context are based on the assumption that the program phase Roman II in E5 should be considered as constituting multiple rinsing stages wherein the drum is kept constantly in movement. However, as already set

out above when discussing novelty, the program phase Roman II of E5 constitutes one (separate) rinsing stage and the program phase Roman III represents a time interval between two such rinsing stages during which interval the angular speed of the drum is lowered to around 50 rpm to allow the laundry to collapse and become redistributed.

6.2 Accordingly, also the combination of the teaching of E1 with the disclosure of E5 results in time intervals between the rinsing stages wherein the angular speed of the drum is not sufficient to maintain the laundry items adherent to the drum wall. Hence, the combination did not teach the skilled person away from what was suggested to him/her by the prior art, namely a redistribution of the laundry items during rinsing. Accordingly, the combination of both disclosures either starting from E1 or E5 also does not lead to the claimed subject-matter.

7. It follows that the grounds of opposition do not prejudice the maintenance of the patent.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

M. Patin P. Alting van Geusau