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D E C I S I O N
of 18 June 2004

Case Number: T 1006/01 - 3.2.4

Application Number: 93201776.7

Publication Number: 0576085

IPC: A01J 7/00

Language of the proceedings: EN

Title of invention:

A construction for automatically milking animals, such as cows

Patentee:

MAASLAND N.V.

Opponent:

PROLION B.V.
DeLaval International AB

Headword:

Manually operable milking implement/MAASLAND N.V

Relevant legal provisions:

EPC Art. 100(a) and (b)

Keyword:

"Inventive step (no)"

Decisions cited:

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Catchword:

-



Case Number: T 1006/01 - 3.2.4

D E C I S I O N
of the Technical Board of Appeal 3.2.4
of 18 June 2004

Appellant: DeLaval International AB
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 2 July 2001
rejecting the oppositions filed against
European patent No. 0576085 pursuant to Article
102(2) EPC.

Composition of the Board:

Chairman: M. Ceyte
Members: P. Petti
M.-B. Tardo-Dino

Summary of Facts and Submissions

- I. Two oppositions were filed against the European patent No. 576 085. By the decision of the opposition division dispatched on 2 July 2001 the oppositions were rejected.

Claim 1 of the patent as granted reads as follows:

"1. A construction for automatically milking animals, such as cows, comprising at least one automatically operating milking implement (45) and a milking robot including milking means, characterized in that the automatically operating milking implement is equipped with means (74) with the aid of which the automatically operating milking implement can be switched over to manual operation, while the construction furthermore includes a manually operable milking implement (65)."

- II. On 29 August 2001 opponent I lodged a first appeal against this decision and simultaneously paid the appeal fee. No statement setting out the grounds of appeal was filed.
- III. On 30 August 2001 opponent II (hereinafter appellant) lodged a second appeal against this decision and simultaneously paid the appeal fee. A statement setting out the grounds of appeal was received on 9 November 2001.

With the statement setting out the grounds of appeal the respondent filed three new documents, one of which is the document "*Mjölkingmaskinen*", in "*Nordisk*

Rotogravyrs Handböcker för Jordbrukare", pages 94-99, 106 and 107, together with a translation into English of pages 96, 97, 106 and 107 (hereinafter referred to as document A2).

IV. Oral proceedings before the board were held on 18 June 2004.

V. During the written phase of the proceedings the respondent had requested that the documents filed by the appellant with the statement setting out the grounds of appeal be not allowed into the proceedings because they had to be considered as being "late filed".

During the oral proceedings the board decided to introduce document A2 into the proceedings.

VI. The appellant requested that the decision under appeal be set aside and the patent be revoked.

The respondent requested that the appeal be dismissed.

VII. In support of its request, the appellant submitted that the claims of the patent as granted could be interpreted so as to define an implement which was not disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (Article 100(b) EPC). This was contested by the respondent.

VIII. With regard to Article 100(a) EPC, the appellant submitted

- (i) that the subject-matter of claim 1 of the patent as granted lacked novelty with respect to the content of the article by B. Scheidemamm "*Ein kartesisch arbeitender Melkroboter - Aufbau und Erfahrungen*", in "Robotereinsatz in der Landwirtschaft am Beispiel des Melkens", VDI/MEG Kolloquium Landtechnik, Tagung Braunschweig-Völkenrode, 5 and 6 December 1990, pages 221 to 227 (hereinafter referred to as document D1) as well as with respect to the content of the article by R. Artmann and D. Schillingmann, "Automation of milking by using robots and electronics", pages 331 to 347 (hereinafter referred to as document D17), and
- (ii) that the subject-matter of claim 1 of the patent as granted did not involve an inventive step having regard to the content of document D1 and to the general technical knowledge of the skilled person, in particular as reflected by document A2.

IX. The respondent rejected the arguments brought forward by the appellants and submitted the reasons for which the subject-matter of claim 1 of the patent as granted was considered as implying an inventive step.

Reasons for the Decision

1. *Admissibility of the appeals*

The second appeal is admissible.

The first appeal is not admissible because no statement setting out the grounds of appeal was filed. However, opponent I remains a party as of right to the proceedings.

2. *The claimed subject-matter*

2.1 Claim 1 of the patent as granted is directed to a construction defined by the following features:

- (A) the construction is suitable for automatically milking animals, such as cows;
- (B) the construction comprises at least one automatically operating milking implement (45);
- (C) the construction comprises a milking robot including milking means;
- (B1) the automatic operating milking implement is equipped with means (74) with the aid of which the automatically operating milking implement can be switched over to manual operation;
- (D) the construction furthermore includes a manually operable milking implement (65).

2.1.1 Feature B refers to an automatically operating milking implement, wherein feature B1 makes it clear that this automatically operating milking implement can be switched over to manual operation with the aid of a means which is not further specified.

2.1.2 Feature D refers to "a manually operable milking implement", while feature B refers to "an automatically operating milking implement". Thus, it has to be understood from the wording of the claim that the claimed construction comprises **two different milking implements**. The **first** milking implement can be **automatically operated** and, if necessary, can be switched over to manual operation, while the **second** milking implement is **manually operable**. When the first milking implement is out of order, it can be switched off and the milking can be continued (manually) by means of the second milking implement (see also the description of the patent, column 1, lines 30 to 34).

This is also consistent with the description and the drawings of the patent (see column 5, lines 52 to 54; Figures 2 and 3) which refer to a construction provided with a milking robot 12 having a (first) set of teat cups 45 (i.e. with an automatic operable milking implement) **and** with a further (second) set of teat cups 65 which can be manually operated (i.e. with an manually operable milking implement).

2.1.3 It is to be noted that dependent claim 7 refers to "a carrier member (47) on which teat cups (45) are disposed", while dependent claim 13 refers to "a second set of teat cups (65) with tubes (67, 68)". Having regard to the description of the patent, it has to be

understood that the teat cups referred to in claim 7 relate to the automatically operating milking implement defined in Claim 1, while the second set of teat cups referred to in claim 13 relates to the manually operable milking implement defined in Claim 1.

- 2.1.4 The second milking implement is referred to in feature D only as being "manually operable" without defining either further (functional or structural) features of the implement or the relationship of this manually operable implement to the remaining features of the construction.

Therefore, feature D is to be construed as covering any manually operable milking implement, i.e. also a separate portable milking arrangement. This interpretation of feature D was agreed with by the respondent during the oral proceedings.

- 2.2 It has to be noted that Figure 1 of the patent as granted, which is described as being "a plan view of a **first embodiment** of the construction according to the invention" (see column 2, lines 34 to 38; emphasis added), represents a construction provided with a milking robot carrying a first set of teat cups 45 (i.e. an automatically operating milking implement) without showing any manually operable milking implement.

However, Figure 2 of the patent as granted, which is described as being "a plan view of a **second embodiment** of the construction according to the invention" (see column 2, lines 39 to 42; emphasis added) represents a construction provided with **a first set of teat cups 45**

carried by a milking robot **and** with **a second set of teat cups** 65 which are manually operable.

2.2.1 In these respects, the appellant argued that the manually operable milking embodiment mentioned in Claim 1 of the patent as granted (feature D) - due to the fact that the embodiment according to Figure 1 is not provided with a second set of teat cups - can also be interpreted as referring to the automatically operating milking implement when it is switched over to manual operation.

2.2.2 The board cannot accept this appellant's argument for the following reasons:

(i) The wording used in claim 1 - in particular due to the term "furthermore" - makes it clear that the claimed construction is provided with two different milking implements. This is consistent with Figures 2 and 3 of the patent as well as with the parts of the description of the patent which refers to Figures 2 and 3 (see also the above section 2.1.2).

(ii) It is clear from the description of the patent that "in the embodiment shown in Figure 2 and 3, the construction includes **in addition to** a first set of teat cups 45 ... a further second set of teat cups 65" (see column 5, lines 52 to 55; emphasis added).

(iii) The milking robot represented in Figure 1 as being positioned under the animal present in the milking parlour is identical with and is provided with the

same reference number as the milking robot which is represented in Figure 2 as being positioned outside of the milking parlour. Thus, the parts of the description which describe the milking robot and explicitly refer to Figure 1 can be understood as relating also to the milking robot shown in Figure 2. This can also be deduced from the fact that Figure 5, which shows the end portion of the milking robot 12, is described as being a "view of a ... part of the construction of **Figures 1 to 3**" (see column 2, lines 48 to 50; emphasis added). Therefore, the skilled person reading the patent would immediately understand that Figure 1 of the patent does not represent "a first embodiment of the construction in accordance with the invention" (as stated in column 2, lines 34 to 38) and that this figure as well the portions of the description relating to it are useful to understand the invention which relates to a construction provided with **two different milking implements**, the invention as claimed being supported by Figures 2 and 3.

3. *Procedural matter*

Document A2 relates to a portable manual milking arrangement. This citation was filed together with the statement of grounds of appeal in reply to the grounds of the decision under appeal, stating that none of the cited prior art documents discloses a second manually operable implement.

Therefore, the filing of document A2 is to be considered as being a reaction to the grounds of the decision and this citation cannot be considered as "late filed".

4. *The prior art known from document D1*

Document D1 refers to a construction for automatically milking animals, such as cows, comprising an automatically operating milking implement including a milking robot and milking means comprising a set of four teat cups. The teats cups of the milking means can be automatically applied to the teats of an animal's udder by means of the milking robot (see particularly page 224, "Automatisches Ansetzen", first paragraph). If the robot arm or the sensors are out of order, the application of the teat cups is switched over from automatic to manual operation (see particularly page 226, "Hand-Ansetzen").

5. *Article 100(a) EPC (novelty)*

5.1 The objections of lack novelty submitted by the appellant during the oral proceedings (see section VIII above, item (i)) were based

(a) upon the assumption that the set of teat cups referred to in document D1 or in document D17 can be considered as being divided into two sub-sets of teat cups, the first sub-set (comprising e.g. one teat cup) defining a first milking implement, while the second sub-set (comprising e.g. three teat cups) defines a second milking implement.

(b) and upon the assumption that claim 1 does not indicate how many teat cups are included by each of the milking implements.

5.2 The assumption under item 5.1(a) above was contested by the respondent, who essentially stated that the set of teat cups referred to in document D1 or in document D17 forms part of a unique milking implement which is automatically operable.

5.3 The board considers that the assumption under item 5.1(a) above is the result of an *ex post facto* analysis of the prior art documents D1 and D17.

Each of documents D1 and D17 discloses a construction provided with only one milking implement which is automatically operable and which could be switched over to manual operation. However both documents fail to disclose a second milking implement which is manually operable.

6. *Article 100(a) EPC (inventive step)*

6.1 The objection of lack of inventive step submitted by the appellant was based upon the assumption that the set of teat cups referred to in document D1 forms part of an automatically operable milking implement.

Under this assumption, which the board considers as being based upon a correct analysis of document D1, both parties agreed that document D1 discloses a construction provided with features A, B, B1 and C.

6.2 According to document D1 (see the above section 4), the application of the teat cups to the teats of an animal's udder can be switched over (from automatic) to manual operation, if the robot arm or the sensors are out of order. Thus, the construction according this document permits continuation of the milking procedure by manual operation of the milking implement.

However, the construction according to document D1 presents the disadvantage that the milking procedure cannot be continued when a fault occurs in a component of the milking implement which is vital to the milking procedure.

The subject-matter of claim 1 of the patent as granted differs from the content of document D1 only in that the claimed construction furthermore includes a manually operable milking implement (feature D).

The distinguishing feature D results in the possibility of continuing the milking procedure when the automatically milking implement is out of order because of a fault occurring in a component which is vital to the milking procedure, i.e. even when the milking operation cannot be performed by manual operation of the automatic milking implement.

6.2.1 Therefore, the technical problem to be solved is to provide a construction which overcomes the above mentioned disadvantage.

Since this disadvantage can easily be recognised by a skilled person and the overcoming of disadvantages has to be considered as being a normal task of the skilled person, no contribution to the inventive step of the solution can be seen in the formulation of the problem.

6.2.2 Portable milking machines comprising a bucket and milking means are well known in the art. Document A2 (see particularly Figures 51 and 52a) shows for instance portable manual milking arrangements, comprising each a bucket and a set of teat cups, which can be used for outdoor milking, when the stationary milking machines used in the farm during winter time, are not used.

The skilled person would immediately realize that a well known portable manual milking machine can be used instead of the automatic milking implement, if the latter is out of order.

It would therefore be obvious for the skilled person, confronted with the above mentioned technical problem, to provide the construction known from document D1 with a manual milking implement.

In these respects, it has also to be noted that the subject-matter of claim 1 consists merely in the association of two technical entities, the construction known from document D1 and a well known manual milking implement, without there being any functional relationship between these two known technical entities.

6.3 The respondent essentially argued as follows:

- (i) The problem of allowing the continuation of the milking procedure when the automatic milking implement is out of order (due to a fault) is already solved by the construction according to document D1, in so far as this document suggests the manual operation of the milking implement. Therefore, the skilled person would not need to solve this problem by providing the known construction with a further manual milking implement.

- (ii) The problem to be solved does not relate to faults occurring in the automatic milking implement but consists in making it possible to continue the milking procedure during the servicing of the automatic milking implement so as to increase the milking capacity of the construction. This problem can be deduced from the description of the patent in so far as it indicates that the manual milking implement is usable when the milking robot is "overhauled" (column 6, lines 28 to 32). Since there is no suggestion in the available prior art to use a manual milking implement to increase the milking capacity of the construction, the skilled person would not arrive in an obvious way to the claimed subject-matter.

- (iii) The subject-matter of claim 1 represents a "problem invention", in so far as the perception of the problem as referred to in item 6.3(ii) involves an inventive step.

6.4 The board cannot accept the arguments of the respondent for the following reasons:

- (i) As already stated in the above section 6.2, the construction known from document D1 allows continuation of the milking procedure when there is fault concerning the robot arm or the sensors. Thus, the problem solved by the construction of document D1 only relates to faults of this kind.

The objective problem underlying the patent in suit is a different problem in so far as it relates to faults occurring in the milking implement which do not allow continuation of the milking procedure even if the automatic milking implement is switched over to manual operation.

- (ii) According to the "problem and solution approach", the objective problem to be solved has to be determined on the basis of the features which distinguish the claimed subject-matter from the closest prior art. In the present case, it can be assumed that the distinguishing feature D permits the continuation of the milking operations not only when the automatic milking implement has to be serviced but also when it cannot perform its tasks because of a fault or other defect which hinders the milking procedure. Therefore, the skilled person would try to find a solution to the problem relating to serious faults in the automatic milking implement and arrive at a construction falling within the terms of Claim 1, wherein the solution of this problem would offer the additional possibility of continuing the

milking during servicing of the automatically operating milking implement. Such additional possibility would represent a "bonus effect" which does not contribute to the inventive character of the solution.

(iii) Servicing an automatic installation represents a normal activity relating to the management of the installation. A skilled person would immediately recognise that a servicing activity requiring interruption of the milking procedure constitutes a drawback of the installation. Since the overcoming of recognised disadvantages is a normal task of the skilled person, no contribution to the inventive step of the solution can be seen in the formulation of this problem.

6.5 Having regard to the above comments, it would be obvious for the skilled person to arrive at a construction falling within the terms of claim 1 of the patent as granted.

Therefore, the patent cannot be maintained on the basis of claim 1 as granted.

7. *Article 100(b) EPC*

Having regard to the findings of the present decision, it is not necessary to deal with the arguments submitted by the appellant with respect Article 100(b) EPC (see the above section VII).

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:

G. Magouliotis

M. Ceyte