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**Datasheet for the decision  
of 11 April 2018**

**Case Number:** T 0589/14 - 3.2.04

**Application Number:** 06835653.4

**Publication Number:** 1962580

**IPC:** A01J5/007

**Language of the proceedings:** EN

**Title of invention:**

A METHOD OF AND AN INSTALLATION FOR MILKING AN ANIMAL

**Patent Proprietor:**

Lely Enterprises AG

**Opponent:**

DeLaval International AB

**Headword:**

**Relevant legal provisions:**

EPC Art. 56

**Keyword:**

Inventive step - main request as upheld (no)  
Amendments admissible - auxiliary request (no)

**Decisions cited:**

G 0009/92, G 0004/93

**Catchword:**



**Beschwerdekammern**

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Case Number: T 0589/14 - 3.2.04

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.04**  
**of 11 April 2018**

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**Decision under appeal:** **Interlocutory decision of the Opposition**  
**Division of the European Patent Office posted on**  
**3 February 2014 concerning maintenance of the**  
**European Patent No. 1962580 in amended form.**

**Composition of the Board:**

**Chairman** A. de Vries  
**Members:** E. Frank  
C. Schmidt

## **Summary of Facts and Submissions**

I. The appeal lies from the interlocutory decision of the opposition division posted on 3 February 2014, to maintain the European patent No. 1 962 580 in amended form pursuant to Article 101(3)(a) EPC. The appellant (opponent) filed a notice of appeal on 13 March 2014, paying the appeal fee on the same day. The statement of grounds of appeal was submitted on 5 June 2014.

II. The opposition was filed against the patent as a whole and based on Article 100(a) in conjunction with Articles 52(1), 54, and 56, and Article 100 (c) EPC.

The opposition division held that the patent as amended based on claims 1 and 4 of the auxiliary request IIIbis as filed during the oral proceedings on 26 November 2013 met the requirements of the EPC. In its decision the division considered the following prior art, amongst others:

D1 = WO 2004/008844 A1

III. A communication pursuant to Article 15(1) RPBA was issued after a summons to attend oral proceedings, which were duly held on 11 April 2018.

IV. The appellant requested that the decision under appeal be set aside and that the patent be revoked in its entirety.

The respondent (proprietor) requested that the appeal be dismissed and that the patent be maintained in the form as upheld (main request), or, alternatively, that the decision under appeal be set aside and that the

patent be maintained on the basis of the auxiliary request, filed with letter dated 16 December 2014.

V. The claim wording of the requests is as follows:

Main request (as upheld)

"1. A method of milking an animal, the method comprising the Steps of:

determining the identity of the animal before the animal enters the milking place; and

discharging the milk obtained by milking the identified animal to a storage Container for storing the milk obtained by milking the identified animal in the storage Container;

characterized in that the method comprises the additional step of determining the identity of the animal after connecting a teat cup to a teat of the animal and before discharging the milk to the storage container, and in that the method comprises the step of writing information relating to the medicine treatment in a readable memory, in particular comprising a memory worn by the animal, when an animal is treated with medicines, such as antibiotics,

and in particular the additional step of reading the memory after connecting the teat cup and before discharging the milk to the storage Container."

"4. An installation for milking an animal, the installation being provided with:

a determination device for determining the identity of the animal before the animal enters the milking place;

transport means for transporting milk to a storage container for storing the milk obtained by milking the identified animal, which storage container belongs to the installation; and

a control unit for controlling the determination device and the transport means,

characterized in that the control unit is programmed for additionally determining the identity of the animal after connecting a teat cup to a teat of the animal and before discharging the milk to the storage container, and in that the installation comprises means for writing information relating to the medicine treatment in a readable memory, in particular comprising a memory worn by the animal, when an animal is treated with medicines, such as antibiotics, and in that the control means are programmed for additionally reading the memory after connecting a teat cup to a teat of the animal."

Auxiliary request

the following claims have been added:

"4. A method of milking an animal, the method comprising the steps of:

determining the identity of the animal before the animal enters the milking place;

discharging the milk obtained by milking the identified animal to a storage container for storing the milk

obtained by milking the identified animal in the storage container; and

writing information relating to the medicine treatment in a readable memory when an animal is treated with medicines, such as antibiotics, characterized in that the method comprises the additional step of reading the memory after connecting a teat cup to a teat of the animal and before discharging the milk to the storage container."

"10. An installation for milking an animal, the installation being provided with:

a determination device for determining the identity of the animal before the animal enters the milking place;

transport means for transporting milk to a storage container for storing the milk obtained by milking the identified animal, which storage container belongs to the installation;

means for writing information relating to the medicine treatment in a readable memory worn by the animal, when an animal is treated with medicines, such as antibiotics, and

a control unit for controlling the determination device, the milking device and the transport means,

characterized in that the control unit is programmed for reading the memory after connecting a teat cup to a teat of the animal."

VI. The appellant argued as follows:

From page 11, lines 1-8 of D1 the skilled person would understand that cow identification takes place at a later time once the animal is installed in a rotary stall, but before the milk is weighed and transported to a bulk tank. Moreover, it is common practice to collect milk separately during milking, since milking may be started well before identification on a rotary parlor of figure 3. Thus, figure 3 of D1 discloses the step of additional identification of the animal after connecting a teat cup. Since claim 1 only differs from D1 by the step of writing information relating to the medicine treatment in a readable memory, which is obvious for the skilled person, method claim 1 of the main request (as upheld) does not involve an inventive step in the light of D1 and common general knowledge. The amendments of claims 4 and 10 of the auxiliary request are inadmissible, since they are not in line with the principle of *reformatio in peius*.

VII. The respondent argued as follows:

Firstly, page 11, lines 1-8 of D1 requires that cow identification takes place "before the milking is performed", that is, before the teat cups are connected. This contradicts the figure 3 embodiment, unless the cow identification is determined in each stall, i.e. before a teat cup is connected and milk flows (as opposed to claim 1 of the patent). Secondly, even if figure 3 of D1 describes identification after connecting a teat cup, and page 11 of D1 has to be understood as "before the milk is weighed and transported to a storage tank" this would contradict the overall disclosure of D1. D1 does not concern robotic milking as is required by claim 1 of the



patent, but manual milking, cf. page 2 of D1, last paragraph. No intermediate storage container is thus suggested by D1, and bad milk of an unidentified cow under treatment would then be also sent to the storage tank when cow identification would take place after teat cup connection. Consequently, since based on the overall disclosure/teaching of D1 the step of additional identification of the animal after connecting a teat cup is neither directly and unambiguously disclosed nor rendered obvious by D1, the subject-matter of claim 1 is inventive over D1 and the common general knowledge of the skilled person.

### **Reasons for the Decision**

1. The appeal is admissible.
2. Inventive step, main request
  - 2.1 The method according to claim 1 prevents milk of an expected quality from being mixed with milk of poor quality in the final storage container. This may happen if, after the identity of an animal has been determined at the entrance to allow the animal to have access to the milking place, another animal (which may have been treated with medicines) enters the milking place and is milked instead of the previous one. That is, if a misidentification at the entrance of the milking place takes place. This problem is overcome by additionally determining, i.e. double-checking, the identity of the animal after connecting a teat cup and before the milk is transported to the final storage container, cf. characterising part of claim 1, and the patent specification, paragraphs 0002 to 0004.

- 2.2 Document D1 relates to methods and arrangements for automatically verifying identities of milk producing animals (e.g. cows) in a milking parlor. During the milking, measurements of the milk produced by the cows are performed. These typically at least include the milk weights, which in D1 will be correlated with verified cow identities. Upon completion of milking, the cows are permitted to exit from the milking parlor, cf. D1, page 1, 1<sup>st</sup> paragraph, page 2, 2<sup>nd</sup> paragraph, and page 8, 2<sup>nd</sup> paragraph.
- 2.3 As in the patent in suit, in order to avoid misidentifications, the cow identification read at the entrance of the parlor is subsequently double-checked and thereby verified in D1. This is particularly important in case of cows under treatment, since their milk must not be stored with the milk from healthy cows, cf. D1, abstract, page 2 to page 3, 1st paragraph, and page 10, line 24 to page 11, line 8, and figures 1 to 5.
- 2.4 The figure 3 embodiment of D1, cf. page 13, 2<sup>nd</sup> last paragraph, refers to a milking parlor in a rotary configuration. The parlor is comprised of a rotatable circular row of stalls. Here, the cows can be milked in a unbroken manner, and not group wise as in parallel or herringbone milking parlors (cf. figures 1,2 and 4).
- 2.4.1 At the entrance of figure 3's rotary parlor, a cow identification station 20 is provided through which the cows can pass while being identified. Moreover, first, second, and third identification members 24, 26, 28 or antennas are foreseen in said circular row of stalls on the rotating platform. The arrangement of D1 identifies the cows in the first, n'th and last stall, as counted from the far end of the row 14b. The microprocessor 36

then compares, by means of the software code 38, the identifications of the first, second, and third identification antennas 24, 26, 28, respectively, with the first, last and n'th identifications, respectively, from the cow identification station 20. Finally, microprocessor 36 corrects/verifies, by means of the software code 42/40, depending on the comparison made, the identities of at least some of the cows in the row of stalls, cf. D1, page 9, line 13 to page 10, line 23.

- 2.4.2 In figure 3 of D1, the double-checking method is implemented by defining virtual front and back ends 14a, 14b and by performing the identification, comparison, optionally correction, and verification for each revolution of the rotary parlor. The more identification antennas used, the more accurate verification is obtained, and the larger number of correctly identified cows are obtained, but at the cost of more expensive equipment and more signaling/computing, cf. D1, page 13, 2<sup>nd</sup> last paragraph, and page 14, last paragraph.

As argued by the appellant, D1 teaches that for a row of N stalls, where N is at least six, the arrangement of D1 should preferably comprise between three and N/2 identification antennas essentially evenly distributed among the stalls in the row of stalls, cf. D1, page 14, last paragraph.

- 2.5 Consequently, assuming that three identification antennas 24, 26 and 28 as shown in the figure 3 embodiment are used, the verification module 40 does not verify, i.e. determine, the corrected identity of the cows until one revolution of the rotary parlor has taken place and the first cow is about to again leave the rotary platform. As the cows are milked in an

unbroken manner during the rotation, this means that milking must certainly have started (indeed is nearing completion) for some cows.

Hence, the board can but conclude that in figure 3 of D1, the milking of (at least) some cows in stalls 1 to n of the rotary platform necessarily must have been started, that is, (at least some) teat cups must have been connected and thus milk flows prior to determining the identity of such cows.

2.6 Referring to the statement in the first paragraph of page 11, the respondent disputes that D1 would directly and unambiguously disclose verifying (i.e. determining) the cow identities after teat cup connection.

2.6.1 Firstly, the argument goes, in case of cows under treatment on page 11 of D1, first paragraph, it is clearly stated that it "is important to know the correct identities of the cows before the milking is performed". In other words, according to the invention disclosed by D1, the additional determination of the identity would have to take place "before the milking is performed", i.e. before the milk flows. Such an identification could thus only be carried out before the teat cups are going to be connected to the udder and the milk starts to flow.

The figure 3 rotary parlor embodiment of D1 can therefore only be carried out if a cow's identity is verified (i.e. determined) early, that is, in each single stall by modifying the software modules 38, 40 and 42 of the microprocessor according to page 15 of D1, 2<sup>nd</sup> last paragraph (in context with the figure 5 rotary parlor). Only in this particular case would the determination of the identity be able to take place

prior to the attachment of the teat cups, i.e. "before the milking is performed" that is without contradiction to the cited passage on page 11.

- 2.6.2 Secondly, even if it were to be assumed that the skilled person would glean from the context of page 11 of D1, first paragraph, that "before the milking is performed" merely means that the identities of the cows had to be corrected/verified "before the milk weights have been measured", that is, before the milk is weighed and transported to a bulk tank, then the figure 3 embodiment with only three antennas would still contradict the overall disclosure of D1.

In such a case, namely, although the identity of a cow admittedly may be determined after the teat cup connection, see above, (bad) milk of a cow under treatment will then also flow to the storage tank and will thus be mixed with milk of an expected quality. This is so because D1 only concerns manual and not robotic milking (meaning teat cup connection), cf. page 2 of D1, last paragraph: "the farmers ... can correct missed identifications manually". Only robotic milking involves intermediate storage containers (milk glasses) which are necessary if, as in the patent, bad milk is not to be mixed in with good milk once milking has started, that is after the teat cup connection. Manual milking as in D1 does not require intermediate storage. The skilled person would therefore not foresee an intermediate storage container for milk separation on the rotary platform of the figure 3 embodiment of D1. Consequently, as such intermediate storage is not disclosed in D1 the embodiment of figure 3 cannot work.

- 2.7 The Board is not convinced by the above line of argument of the respondent.

2.7.1 The Board rather follows the appellant's view that the assumption that D1 - whether it concerns manual or robotic milking - would exclude intermediate storage is incorrect. D1's main concern is to correlate milk weights with verified cow identities, page 10, last paragraph, and cow milk weight is determined not only from flow but also directly from measured weight, cf. page 8, line 4 to 7, which implies intermediate storage. Moreover, it is exactly because all cows on the platform, including sick cows, are indisputably milked and bad milk from a sick cow should not be mixed with good milk, that the skilled person immediately recognizes that the milk must be separated in the figure 3 rotary embodiment of D1 in advance, before verification takes place and the milk can be given the all clear or not, that is before the identity of a cow treated with medicines has been double-checked, i.e. be determined by means of the verification module 40. Finally, the patent itself does not distinguish between manual and robotic milking.

2.7.2 As further argued by the appellant, the skilled person would readily derive from of page 11, first paragraph, of D1, that in the context of milking in a continuous fashion on a rotary parlor of figure 3 ("in a unbroken manner", cf. page 13, line 22), the wording "before the milking is performed" has to be understood in a much broader sense as "before the milk is weighed and transported to the final storage tank". Thus the skilled person would understand from page 11 and the figure 3 embodiment, that the verification of identification need not be performed before milk flows, but only before the milk is sent to a bulk tank where it will be mixed with milk from other animals.

2.8 In the light of the above, the Board thus holds that the additional method step of claim 1 of the patent, viz. determining the identity of the animal after connecting a teat cup to a teat of the animal, must be considered to be disclosed by the embodiment shown in figure 3 of D1.

2.9 Otherwise, it is common ground that D1 does not disclose the step of writing information relating to the medicine treatment in a readable memory. This therefore represents the only difference of the claimed invention over D1.

As already held in the decision under appeal, writing (and reading) treatment data in a memory constitutes an obvious way of ensuring that the correct identity of a cow under treatment is known (cf. D1, page 11, lines 1 to 8), if its milk is not to be stored with milk from healthy cows. This is in particular so in the context of automatic milking using animal identification. Nor is this contested by the respondent.

Therefore method claim 1 does not involve an inventive step in the light of D1 and common general knowledge of the skilled person.

2.10 Thus, the main request (amended form as upheld) cannot be considered allowable by the Board.

### 3. Amendments, auxiliary request

As argued by the appellant, the auxiliary request *inter alia* includes additional independent claims 4 and 10. Their subject-matter is different from claims 1 and 4 of the upheld main request, due to the omission of the additional method step whereby the animal is identified

after connection of the teat cups and before discharge of milk to the storage container. This results in a broadening of claim scope vis-a-vis the claims upheld and is therefore against the principle of prohibition of reformatio in peius (cf. G4/93 and G9/92). Nor did the respondent argue to the contrary.

Hence, the amendments proposed by the respondent are rejected as inadmissible by the Board, and the auxiliary request thus also cannot be allowed.

4. As none of the amendments proposed in the main and auxiliary requests meet the requirements of the EPC, the Board must revoke the patent pursuant to Article 101(3)(b) EPC.



**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

A. de Vries

Decision electronically authenticated