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**D E C I S I O N**  
**of 6 April 2004**

**Case Number:** T 0623/02 - 3.2.4

**Application Number:** 95203114.4

**Publication Number:** 0713641

**IPC:** A01J 5/017

**Language of the proceedings:** EN

**Title of invention:**

A method of automatically milking animals and an implement for applying same

**Patentee:**

MAASLAND N.V.

**Opponents:**

DeLaval International AB  
Prolion B.V.

**Headword:**

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**Relevant legal provisions:**

EPC Art. 100(a), 100(b)

**Keyword:**

"Feasibility (yes)" "Implementation of new ground of opposition (no)"

"Novelty (yes), inventive step (no)"

**Decisions cited:**

G 0009/91, G 0010/91, G 0001/95

**Catchword:**

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Case Number: T 0623/02 - 3.2.4

**D E C I S I O N**  
**of the Technical Board of Appeal 3.2.4**  
**of 6 April 2004**

**Appellant I:** DeLaval International AB  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 27 May 2002  
rejecting the oppositions filed against  
European patent No. 0713641 pursuant to Article  
102(2) EPC.

**Composition of the Board:**

**Chairman:** C. A. J. Andries  
**Members:** C. D. A. Scheibling  
M. K. S. Aúz Castro

## Summary of Facts and Submissions

I. By its decision dated 27 May 2002 the Opposition Division rejected the oppositions. On 18 July 2002 appellant I (opponent I) filed an appeal and paid the appeal fee simultaneously. The corresponding statement setting out the grounds of appeal was received on 1 October 2002. On 11 June 2002 appellant II (opponent II) filed an appeal and paid the appeal fee simultaneously. The corresponding statement setting out the grounds of appeal was received on 4 October 2002.

II. The patent was opposed on the grounds based on Articles 100(a) EPC (54 and 56 EPC) and 100(b) EPC.

III. Claim 1 as granted reads:

"1. An implement, such as an implement for automatically milking animals, such as cows, provided with at least one milking robot, with one or more sensors (23 - 26) and with one or more computers (27), characterized in that, if a signal, transmitted by one or more sensors (23 - 26), varies to a certain extent to a defined average value, the computer (27) indicates that said sensor/sensors (23 - 26) has to be regarded as being defective".

Claim 4 as granted reads:

"4. A method, such as a method of automatically milking animals, such as cows, using at least one milking robot and using one or more sensors (23 - 26), characterized in that the sensor/sensors (23 - 26) are regarded as being defective, if a signal, transmitted by the

sensor/sensors (23 - 26), or a combination thereof, varies to a certain extent to a defined average".

IV. The following documents played a role in the appeal proceedings:

D1: EP-A-0 576 086

D3: EP-A-0 534 564

D5: "Proceedings of the International Symposium on Prospects for automatic milking, Wageningen, Netherlands, 23-25 November 1992, EAAP Publications N° 65, 1992", ISBN 90-220-1076-7, "Contents" and pages 338 to 345

D8: "Sensors and Actuators", "International Journal Devoted to Research and Development of Physical and Chemical Transducers", A / Physical, Volume A41 (1994), Proceedings of Euroensors VII, part III, pages 183 to 191, cover date 1 April 1994

V. Oral proceedings took place on 6 April 2004

The appellants mainly argued as follows:

With respect to Article 100(b) EPC, it was argued that the patent did not disclose the claimed apparatus and method in a manner sufficiently clear and complete for it to be implemented over the whole range claimed, i.e. for all types of sensors falling under the claimed definition, since the patent did not disclose to a skilled person how to prevent the automatic milking

arrangement from stopping even when an essential sensor had to be considered as defective.

With respect to novelty it was argued that the subject-matter of the independent claims was not new in view of D5.

With respect to inventive step it was argued that the subject-matter of the independent claims did not involve an inventive step in comparison with D1 in combination with D8 or with D3 in combination with D8.

With a letter dated 27 February 2004 appellant II submitted that the ground for opposition pursuant to Article 100(a) EPC was also pertinent with regard to Articles 52(2) and (3) EPC.

The respondent (patentee) mainly argued with respect to Article 100(b) EPC that the invention was not concerned with continuing or stopping the milking process in case of a defective sensor and that for all sensors, the computer could indicate the defectiveness as claimed. He further argued with respect to novelty that D5 did not disclose the use of a milking robot and that a milk meter error in D5 did not imply that the sensor was defective. He finally argued with respect to inventive step that D8 did not disclose a defined average value and did not imply that defectiveness of a sensor was indicated by a computer.

The respondent disagreed to have the fresh ground for opposition introduced into the proceedings.

VI. Requests

Both appellants requested that the decision under appeal be set aside and that the patent be revoked.

The respondent requested that the appeals be dismissed (main request), auxiliary with the proviso that the patent be maintained on the basis of claims 4 to 9 as granted, being renumbered 1 to 6 (auxiliary request).

**Reasons for the Decision**

1. The appeals are admissible.
2. *Objection under Article 100(b) EPC*

For the essentials, no new arguments were presented during the oral proceedings so that the Board sees no reason to depart from its provisional opinion, put forward in the annex to the summons to attend oral proceedings, where the Board indicated that the independent claims did not require that automatic milking continues when a sensor has to be regarded as being defective.

Consequently, the ground for opposition based on Article 100(b) EPC does not prejudice the maintenance of the patent as granted.

3. *Fresh ground for opposition*

In its opinion G 10/91 (OJ EPO 1993, 420) the Enlarged Board of Appeal has decided that fresh grounds for opposition may only be introduced at the appeal stage if the patentee agrees.

According to the further decision of the Enlarged Board of Appeal G 1/95 (OJ EPO 1996, 615), in a case where a patent has been opposed on the grounds set out in Article 100(a) EPC, but the opposition has only been substantiated on the grounds of lack of novelty and lack of inventive step, the ground of unpatentable subject-matter based upon Articles 52(2) and (3) EPC is a fresh ground for opposition and accordingly may not be introduced into the appeal proceedings without the agreement of the patentee.

Since in the present case the patentee did not agree thereto, the fresh ground for opposition based on Articles 52(2) and (3) EPC is not introduced into the appeal proceedings.

4. *Novelty*

4.1 Novelty has solely been disputed in relation with document D5.

As it is clear from figures 3 and 4 of D5, deviations from the average do not lead to the immediate conclusion that the milk meter signal is defective.

4.2 Thus, novelty of the subject-matter of the independent claims 1 and 4 of the main request (as granted), and

thus also of claim 1 according to the auxiliary request is given with respect to D5.

- 4.3 None of the other cited prior art documents appears *prima facie* to be novelty destroying for the subject-matter of claims 1 and 4 of the main request (as granted) and thus also of claim 1 according to the auxiliary request.

5. *Closest prior art document*

- 5.1 D3 is considered to be the closest prior art document.

- 5.2 D3 (column 1, lines 1 to 7 and 16 to 25; Figure 1) discloses the features of the prior art portion of claims 1 and 4 as granted.

D3 further teaches to process signals originating from sensors (23 to 26) by means of a computer (27), to check whether and to what extent animal related parameters exceed their respective predetermined values (see column 6, lines 8 to 30), wherein the predetermined value is repeatedly redefined by the progressive average of the relevant values established in the immediately preceding period of time (see column 5, lines 37 to 43; claim 30).

D3 does not disclose how the reliability of the sensor itself can be checked.

6. *Inventive step - main request*

- 6.1 The implement of claim 1 as granted differs from that disclosed by D3 in that:



- if a signal, transmitted by one or more sensors, varies to a certain extent to a defined average value, the computer indicates that said sensor/sensors has to be regarded as being defective.
- 6.2 Thus, the problem to be solved is to improve reliability of the sensor / sensors. This problem is a general problem common to all electronic control systems. The person skilled in the art in charge of said problem is therefore in particular an engineer conversant with automatic milking equipments and for the more specific sensor problem an electronic engineer conversant with electronic control systems using sensors.
- 6.3 D8 and more particularly the section 2.5 (page 186) thereof relates to reliability of intelligent sensor systems. In said section, entitled "Reliability" it is indicated that "The reliability can be further improved by intelligent data processing in the case of excessive value of the data or their derivates, alarm functions are activated".
- 6.4 Therefore, in order to improve reliability of the sensor system of D3, a skilled person would apply the teaching of D8 to D3.
- 6.5 It is obvious for a person skilled in the art, that a value can only be said to be excessive if it is well known what can be considered to be the normal value. In this respect, D3 already proposes to determine the deviation of a given actual sensor value with respect to a predetermined value (see column 6, lines 8 to 15), which therefore has logically to be considered as

defining the normal value since it is used as reference. Said predetermined value is defined in D3 as being the average of the relevant value (column 5, lines 37 to 44; claim 30). Therefore, when applying the teaching of D8 to D3, a skilled person would obviously consider the average of the relevant value to be the normal (reference) value in order to determine whether or not an actual value should be considered to be excessive.

Furthermore, it lies within the capability of a person skilled in the art to determine by what extent a value must vary with respect to the average value to be considered as being excessive. This point has not been disputed by the respondent.

Since the system disclosed in D8 includes a computer, and since data processing also implies a computer, it is implicit that, in D8, the alarm function is computer generated, all the more because the corresponding minimum hardware configuration, as indicated in Figure 1 of page 184, comprises solely a sensor, wires and a computer.

- 6.6 The respondent argued that D8 did not state that the deviation of the value, in order to determine whether it was excessive, should be compared with an average value rather than with a predetermined range (defined independently of the average value).

However, as stated in section 6.5 above, D3 already indicates that a given actual sensor value is compared to the average of the relevant value to determine the deviation, so that there would be no reason for a

skilled person to introduce a further criterion in form of a range not linked to the average value, solely to determine whether or not the deviation becomes excessive.

- 6.7 The respondent also argued that D8 only indicated that in case of excessive values alarm functions were activated and that in D8 there was no indication that this implied that the sensors were therefore regarded to be defective.

On the one hand, the feature of claim 1 in suit which reads "the computer indicates that the said sensor/sensors (23 - 26) has to be regarded as being defective" is not a technical feature, but an indication how a technical feature (the presence of a signal indicating that a sensor signal has varied to a certain extend to a defined average value) has to be interpreted. However, this specific technical feature (the presence of a signal indicating that a sensor signal has varied to a certain extend to a defined average value) is likewise disclosed in D8 (signal activating an alarm function). Thus, the feature of claim 1 referred to, is not a distinctive feature with respect to D8.

On the other hand, D8 relates to the reliability of intelligent sensor systems, and teaches that an alarm function is activated to indicate that a sensor system is no longer reliable. The Board holds that a skilled reader which is provided with the indication that it is no longer possible to rely on a sensor system would normally understand that said sensor system is defective.

6.8 The respondent further argued that even if "alarm" would be considered to mean "defective", D8 could only indicate that the sensor system as a whole is defective and not that the sensor itself is defective.

The Board notes that the patent in suit is not able to distinguish between these possibilities either. If for example, in the patent in suit the wires transmitting the signals were defective, the claimed implement would not be able to distinguish whether the wires or the sensors as such are defective. Therefore, in the meaning of the patent in suit the term "sensor/sensors" has to be considered as meaning the sensor system.

6.9 Thus, the Board comes to the conclusion that by applying the teaching of D8 to an implement according to D3 a skilled person would unavoidably arrive at the subject-matter of claim 1 of the patent in suit, which consequently does not involve an inventive step.

6.10 Additionally, the feature of claim 4 of the patent in suit, where reference is made to "a signal, transmitted by the sensor/sensors (23 - 26), or a combination thereof" clearly refers to a sensor system. Thus, for the same reasons as indicated with respect to claim 1 of the patent in suit and since, as indicated in section 6.7 above, a skilled person would normally understand from D8 that the activation of the alarm function is an indication that the sensor system is defective, claim 4 of the patent in suit does not involve an inventive step either.

6.11 Consequently the main request is not allowable.

7. *Auxiliary request*

Claim 1 of the auxiliary request corresponds to claim 4 of the main request. Thus, for the reasons given in section 6.10 above, the subject-matter of claim 1 of the auxiliary request does not involve an inventive step and consequently, the auxiliary request is also not allowable.

**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

C. Andries