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**Datasheet for the decision
of 29 November 2010**

Case Number: T 0526/08 - 3.2.04

Application Number: 95937223.6

Publication Number: 0741513

IPC: A01J 7/02

Language of the proceedings: EN

Title of invention:

An implement for milking animals

Patentee:

MAASLAND N.V.

Opponent:

DeLaval International AB

Headword:

Contamination/MAASLAND

Relevant legal provisions:

EPC Art. 56

Relevant legal provisions (EPC 1973):

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Keyword:

"Inventive step (no)"

Decisions cited:

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Catchword:

-



Case Number: T 0526/08 - 3.2.04

D E C I S I O N
of the Technical Board of Appeal 3.2.04
of 29 November 2010

Appellant: DeLaval International AB
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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
15 January 2008 concerning maintenance of the
European patent No. 0741513 in amended form.

Composition of the Board:

Chairman: M. Ceyte
Members: P. Petti
T. Bokor

Summary of Facts and Submissions

- I. In its interlocutory decision dated 15 January 2008, the opposition division found that, having regard to the amendments submitted by the patent proprietor, the European patent No. 0 741 513 met the requirements of the European Patent Convention.

Claim 1 held allowable by the opposition division reads as follows:

"1. An implement for milking animals, such as cows, comprising at least one milking machine (1) for milking the animals, the implement being provided with sensors (23 - 26) for the detection of contaminations in the milking system of the milking machine (1) characterized in that the milking machine (1) is suitable for automatically milking the animals, the implement comprises at least one milking robot (8) for automatically connecting teat cups (4) to the teats of an animal, there is provided a computer (9) for the recording of contaminations in the milking system that have been ascertained by the sensors (23 - 26), on the basis of the information supplied by the sensors (23 - 26) there is defined a degree of contamination in the computer (9), there are provided cleaning means for the milking system, and the cleaning of the milking system is effected on the basis of the degree of contamination."

- II. On 12 March 2008 the opponent (hereinafter appellant) lodged an appeal against this decision and simultaneously paid the appeal fee. The grounds of appeal were received on 29 April 2008.

- III. Oral proceedings before the board were held on 29 November 2008.
- IV. The appellant requested that the decision under appeal be set aside and the patent be revoked.
- V. The patent proprietor (hereinafter respondent) requested that the appeal be dismissed.
- VI. The appellant inter alia submitted that the claimed subject-matter lacked an inventive step having regard to WO-A-94/08450 (D1) in combination with WO-A-94/16553 (D5) and common general knowledge as illustrated by either D5 or EP-A-476 771 (D2).

In this respect, the respondent essentially submitted that in document D1 there is no definition of a contamination degree in the computer and that the skilled person would not have considered combining D1 with the teaching of D5.

Reasons for the Decision

- 1. The appeal is admissible.
- 2. *Inventive step*
 - 2.1 D1 discloses (see Figures 1, 2, 7 and 8) **an implement for milking animals, such as cows, comprising at least one milking machine (milking claw), which is suitable for automatically milking the animals**, the milking machine being provided with a plurality of inlet paths

(110, 111, 112, 113; 18) and an outlet path (122; 54) leading to a milk tank.

This implement **is provided with sensors** ("transducers" 114; 115; 116, 117; 21), each sensor being arranged in the respective inlet path of the milking machine **for detecting contaminations in the milking system of the milking machine** which are caused by the occurrence of mastitis in the milked animal. Moreover, **there is provided a computer** in which the signals of the sensors are processed, wherein the computer may be either incorporated in the housing (118) of the milking machine or arranged at a central station remote from the housing (118). Each sensor provides a quantitative signal representing the detected contamination of the milk in the respective inlet path. Each quantitative signal is compared with a reference value in a comparator (OA8). If the detected contamination differs by more than a pre-determined amount from the reference value, the comparator (OA8) provides an output signal which actuates a control valve (128) to divert milk flow away from the milk tank (see claims 1 to 3; page 15, 4th paragraph to page 16, 2nd paragraph). Thus, **on the basis of the information supplied by the sensors** (114; 115; 116, 117; 21) **there is defined a degree of contamination in the computer** and an operation concerning the milking system (i.e. the diversion of the milk) is effected on the basis of the degree of contamination.

Furthermore, in the implement of D1 **there are provided cleaning means for the cleaning system**, wherein the cleaning is carried out at the end of a milking operation (see particularly page 18, lines 3 and 4).

According to page 8, lines 9 to 21, the computer arranged at the central station includes means for recording information from the milking machine. Therefore, the computer is suitable **for recording the contaminations in the milking system that have been ascertained by the sensors.**

2.2 The claimed subject-matter thus differs from D1 in that

- (a) the cleaning of the milking system is effected on the basis of the degree of contamination,
- (b) the implement comprises at least one milking robot for automatically connecting teat cups to the teats of an animal.

2.3 Feature (a) has the effect of insuring that the milking system is only cleaned when a certain degree of contamination has occurred (see patent specification, column 1, lines 43 to 45). Feature (b) has the effect of increasing the automation level of the milking machine.

These two distinguishing features a) and b) have unrelated effects and thus address separate partial problems. The partial problem underlying feature (a) is to improve the efficiency of the implement with respect to the cleaning process of the milking system, while the partial problem underlying feature (b) is to improve the automation level of the implement with respect to connecting the teat cups to the teats of an animal to be milked. For the evaluation of inventive

step, each distinguishing feature can therefore be discussed independently.

- 2.4 Document D5 discloses (see page 32, line 4 to page 33, line 8; Figure 6) an implement for milking animals comprising at least one milking machine for automatically milking the animals including a milking robot (3) for automatically connecting the teat cups to the teats of an animals. The implement also comprises a cleaning implement (52) for the milking system, a process computer (9) and two sensors (101, 102) for ascertaining contaminations in the milking system, the two sensors being arranged in the milk line before and behind a filter (85). This citation also teaches that the signals of the sensors (101, 102) are supplied to the process computer and recorded in the computer, and the difference between the signals of the sensors (101, 102), which is indicative of the degree of contamination is calculated, i.e. defined in the computer, wherein if the defined degree of contamination exceeds a threshold value, the cleaning process is automatically performed, i.e. the cleaning of the milking system is effected on the basis of the degree of contamination.

The skilled person would immediately realize that the implement of D5 permits the milking system to be cleaned only when a certain degree of contamination has occurred. Therefore, the skilled person seeking for a solution to the problem of improving the efficiency of the implement with respect to the cleaning process would apply the teaching of D5 to the implement of D1 and arrive at an implement in which the contaminations ascertained by the sensors are recorded in the computer

and the cleaning of the milking system is effected on the basis of the degree of contamination.

Milking implements provided with a milking robot for automatically connecting teat cups to the teats of an animal are well known, for instance from D5 or from D2 (see column 5, lines 16 to 19; Figure 1). It would be obvious for a skilled person seeking for a solution to the problem of increasing the automation level of the implement of D1 to provide this implement with a milking robot.

Therefore, the skilled person would arrive at the claimed subject-matter without exercising any inventive skill.

- 2.5 In this respect, the respondent submitted that D1 neither relates to the possibility of storing in the computer the contaminations ascertained by the sensors, nor discloses the definition of a contamination degree in the computer, which is determined on the basis of the information supplied by the sensors. According to the Collins Dictionary of English language a degree is "a stage in a scale of relative amount or intensity". Therefore, claim 1 requires the contamination to be quantified. In D1 there is no definition of a contamination degree because the comparator provides a signal only if the magnitude of a certain property of the milk differs by more than a pre-determined amount from a reference magnitude and thus D1 does not suggest distinguishing feature (a).

The board does not find these arguments convincing for the following reasons:

- Claim 1 only requires the computer to be suitable "for recording the contaminations in the milking system which have been ascertained by the sensors (23-26)" and "on the basis of the **information supplied by the sensors** (23-26), there is defined a degree of contamination in the computer" (emphasis added). The implement of D1 is provided with a computer which is also suitable for recording the information supplied by the sensors.
- As has been explained, the output signal of each sensor of D1 is compared with a reference value and it is established whether the output signal differs by more than a pre-determined amount from the reference value. In this way it is established whether the contamination detected by each sensor reaches a certain degree and, if this certain degree has been reached, the cleaning is performed.
- In any case, even if D1 were to be considered as not defining a degree of contamination in the computer, the respondent's arguments would not be relevant for the finding of the present decision in so far as the definition of a degree of contamination is taught from D5. In this citation, the sensors (101, 102) arranged in the milk line before and behind the filter (85) are referred to as "pressure sensors (101, 102) which are connected to the computer (9)" (see claim 50), wherein the pressure difference in the milk flow before and behind the filter device is recorded

(see page 32, line 36 to page 33, line 1). This means that in D5 a degree of contamination (represented by said pressure difference) is calculated, i.e. quantitatively defined, and recorded in a computer and on the basis of this quantified degree a cleaning cycle is initiated. It is also observed that in the patent specification itself the contamination can be detected by means of "a combination of a filter and pressure measuring means incorporated in a milk line ..." (see column 4, line 58 to column 5, line 3 and granted claim 10).

- 2.6 The respondent's further argument that the skilled person would have not considered combining D1 with D5 is also not convincing since both citations relate to an implement for milking animals comprising sensors for the detection of contaminations in the milk and thus in the milking system of the milking machine. D5 teaches to measure a degree of contamination in the system and to carry out cleaning on that basis. Thus, the skilled person seeking to improve the efficiency of the milking system regarding its cleaning would have seen the advantages of this teaching and thus would have applied it to the implement of D1.
- 2.7 Therefore, the claimed subject-matter does not involve an inventive step (Article 56 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

M. Ceyte