Case Number: T 1260/07 - 3.2.04
Application Number: 03075778.5
Publication Number: 1369032
IPC: A01J 5/007
Language of the proceedings: EN

Title of invention:
A device for automatically milking an animal

Patentee:
Lely Enterprises AG

Opponent:
DeLaval International AB

Headword:
Vacuum pump/LELY

Relevant legal provisions:
EPC Art. 100(b)

Relevant legal provisions (EPC 1973):
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Keyword:
"Insufficiency of disclosure"

Decisions cited:
-

Catchword:
-
Case Number: T 1260/07 - 3.2.04

DECISION of the Technical Board of Appeal 3.2.04 of 7 October 2010

Appellant: DeLaval International AB
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Respondent: Lely Enterprises AG
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Decision under appeal: Decision of the Opposition Division of the European Patent Office posted 12 June 2007 rejecting the opposition filed against European patent No. 1369032 pursuant to Article 102(2) EPC.

Composition of the Board:
Chairman: M. Ceyte
Members: P. Petti
T. Bokor
Summary of Facts and Submissions

I. An opposition filed against the European patent EP-B-1 369 032 was rejected by decision of the opposition division dated 12 June 2007.

Granted claim 1 reads as follows:

1. A device (8) for automatically milking an animal, which device is provided with at least two teat cups (1) to be connected to respective teats of the animal, and with a milking vacuum unit (9) for generating a milking vacuum in the teat cups (1), which milking vacuum unit (9) comprises at least two vacuum lines that are each connectable to a respective teat cup (1), characterized in that the milking vacuum unit (9) is provided with a common vacuum pump (10), with a common buffer vessel (11) to which vacuum can be applied by means of the common vacuum pump (10), all vacuum lines being connectable to the common buffer vessel (11), and with an individual buffer vessel (13) in each vacuum line, which individual buffer vessel (13) is disposed between the common buffer vessel (11) and the respective teat cup (1), an individual buffer vessel (13) being connectable to the common buffer vessel (11) by a first vacuum line portion (12a) and being connectable to the respective teat cup (1) by a second vacuum line portion (12b), an individual buffer vessel (13) being provided with a respective individual vacuum pump (14) for applying vacuum to the individual buffer vessel (13).
II. On 24 July 2007 the opponent (hereinafter appellant) lodged an appeal against this decision. The appeal fee was paid on 23 July 2007. A statement setting out the grounds of appeal was received on 22 October 2007.

III. Oral proceedings before the board were held on 7 October 2010.

By letter dated 27 September 2010 the patent proprietor (hereinafter respondent), who had been duly summoned, withdrew his request for oral proceedings and informed the board that he would not attend the oral proceedings. In accordance with Rule 115 (2) EPC, the oral proceedings were held without him.

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

The respondent requested in writing that the appeal be dismissed.

V. In the grounds of appeal (point 4.3; see particularly page 4, line 29 to page 5, line 10) as well as during oral proceedings, the appellant essentially submitted the following arguments:

- In the embodiment described in the patent specification with reference to the drawings, the pumps connected to the individual buffer vessels serving as milk separators are milk pumps.

- However, the milk pumps cannot serve to establish in the individual buffer vessels vacuum levels such that "it is possible to apply a milking
vacuum per teat cup in an accurate and reproducible way" (see column 1, lines 14 to 18 of the patent specification). Therefore, the patent does not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a skilled person, because it does not describe even one embodiment wherein an individual pump connected to an individual buffer vessel serving as a milk separator is capable of applying vacuum to the individual buffer vessel.

VI. By letter dated 29 April 2008 (see page 2, 2nd paragraph to page 3, 1st paragraph), the respondent replied to these arguments of the appellant essentially by submitting that the individual vacuum pump referred to in claim 1 could be a peristaltic type pump capable of pumping a milk/air mixture and that "[t]he individual buffer vessels 13 can still function as milk separators since they at least separate the milk from the remainder of the vacuum as applied via the common buffer vessel 11".

Furthermore, claim 1 covers also cases in which the individual vacuum pumps are located at the upper part of their respective individual buffer vessels and thus could serve to produce the controlled vacuum level in the individual buffer vessels. Moreover, the skilled person is familiar with using frequency controlled vacuum pumps of the type used together with the common buffer vessel and would have no difficulty in providing one these vacuum pumps for each of the individual buffer vessels.
Reasons for the Decision

1. The appeal is admissible.

2. Article 100 (b) EPC

2.1 The claimed invention relates to a device for automatically milking an animal comprising teat cups to be attached to the teats of the animal and a milking vacuum unit for generating a milking vacuum in the teat cups, the milking vacuum unit comprising a common buffer vessel connected to a common vacuum pump and individual buffer vessels, each of which is connected to the respective teat cup and is provided with a respective individual vacuum pump. It is an essential requirement of granted claim 1 that the individual vacuum pump is "for applying vacuum to the individual buffer vessel". According to the patent specification, "[d]ue to the fact that the milking vacuum unit comprises both a common vacuum pump and an individual vacuum pump per individual buffer vessel, it is possible to apply a milking vacuum per teat cup in an accurate and reproducible way" (column 1, lines 14 to 18).

The patent specification describes only one way of carrying out the claimed invention (see particularly column 4, line 4 to column 5, line 21; Figure 2). This single embodiment described with reference to the drawings concerns a milking vacuum unit provided with four individual buffer vessels 13, each of which is connected to the lower side (milk line) of the respective teat cup via the respective vacuum/milk line portion 12b and to the main vacuum pump 10 via the
respective vacuum line portion 12a and the common buffer vessel 11. Each individual buffer vessel is provided with an individual milk pump 14 which is "for applying vacuum to their respective individual buffer vessels" (see particularly paragraphs [0024] to [0026] and Figure 2). The individual milk pump is located at the outlet in the lower side of the individual vessel, i.e. in a position in which milk contained in the individual buffer vessel can be pumped out by the milk pump. The individual buffer vessel serves as a milk separator, i.e. it acts as receiver vessel for collecting in its lower part the milk extracted by means of the respective teat cup and for separating air from the milk which is collected in the lower part of the vessel (due to the presence of vacuum in the upper side of the vessel).

2.2 Claim 1 encompasses this single embodiment described with reference to the drawings. This particular embodiment is more specifically defined in granted claim 7 according to which an individual vacuum pump connected to an individual vacuum vessel is disposed in an outlet provided in the lower part of the individual buffer vessel.

2.3 However, the disclosure of the patent is insufficient to enable a skilled person to carry out such an embodiment since there is no guidance as to how a milk pump whose function is to pump the milk collected in the lower part of an individual buffer vessel acting as a milk separator could apply - in a controlled manner - vacuum to that individual buffer vessel. Such a milk pump would have to apply suction to the milk at the lower part of the individual buffer vessel but could
not pump the air contained in the upper part of the vessel because of the presence of the milk. Therefore, such a milk pump could not produce the controlled vacuum level that has to be maintained in the individual buffer vessel during milking and, thus, would not operate as a vacuum pump.

2.4 The board cannot accept the respondent's arguments mentioned in section V above for the following reasons:

- It is true that the individual buffer vessels function as milk separators for separating air from the milk, since the common vacuum pump applies vacuum to the individual buffer vessel via the common buffer vessel 11 which is connected to the upper part of an individual buffer vessel 13 via the respective first vacuum line portion 12a. Due to the vacuum applied by the common vacuum pump, air can be separated from the milk which is collected in the lower part of the individual buffer vessel. However, the individual milk pump connected to the lower part of the individual buffer vessel would have to pump milk out of the buffer vessel and thus could not produce the controlled vacuum that should necessarily be maintained in the respective buffer vessel during milking.

- The patent specification refers neither to a peristaltic pump nor to a pump capable of pumping milk and at the same time generating a controlled vacuum in the buffer vessel. In any case, even if the milk pumps (14) in Figures 2 and 4 were to be capable of pumping an air/milk mixture, they would
not be suitable for applying during milking a controlled vacuum in the respective individual buffer vessels, given that each of the individual buffer vessels has to act as a milk separator.

2.5 The board finds the respondent's further argument, which concerns the cases where the individual pump is not located at the lower part of its respective individual vessel, as being irrelevant for the finding of the decision, for the following reasons:

- Claim 1 covers the single embodiment described with reference to the drawings and, as stated above, the disclosure of this embodiment is insufficient to enable a skilled person to carry it out. Moreover, the disclosure of the patent is also insufficient to carry out the claimed invention defined in claim 7, which requires the individual vacuum pumps to be connected to the lower part of the individual buffer vessels.

- In any case, even if the skilled person on the basis of common general knowledge were to immediately realize that a conventional vacuum pump may be located at the upper part of the vessel, the patent specification would not disclose the invention in manner sufficiently clear and complete for it to be carried out in the whole claimed range.

2.6 Therefore, the ground for opposition mentioned in Article 100 (b) EPC prejudices the maintenance of the patent as granted.
Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: L. Fernández Gómez

The Chairman: M. Ceyte