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Datasheet for the decision of 6 March 2008

Case Number: T 0801/05 - 3.2.04

Application Number: 98953146.2

Publication Number: 1030548

IPC: A01J 5/007

Language of the proceedings: EN

Title of invention:
An automatic milking apparatus

Patentee:
DeLaval Holding AB

Opponents:
Maasland N.V.
WestfaliaSurge GmbH

Headword:
Lactation period/DELAVAL

Relevant legal provisions:
-

Relevant legal provisions (EPC 1973):
EPC Art. 56

Keyword:
"Inventive step (no)"

Decisions cited:
-

Catchword:
-

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Case Number: T 0801/05 - 3.2.04

D E C I S I O N
of the Technical Board of Appeal 3.2.04
of 6 March 2008

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Decision under appeal:
Interlocutory decision of the Opposition Division of the European Patent Office posted 20 April 2005 concerning maintenance of European patent No. 1030548 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 20 April 2005, the opposition division found that the European patent No. 1 030 548 (against which two oppositions had been filed) met the requirements of the European Patent Convention, having regard to the amendments submitted by the patent proprietor.

II. Opponent I (hereinafter appellant) lodged an appeal against this decision on 17 June 2005 and paid the appeal fee on 20 June 2005. A statement setting out the grounds of appeal was received on 30 August 2005.

III. Oral proceedings before the board were held on 6 March 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 decision under appeal be set aside and the patent be maintained on the basis of claims 1 and 18 filed as main request or claims 1 and 18 filed as first auxiliary request, both filed with letter dated 5 February 2008.

Claim 1 of the main request reads as follows:

"1. An automatic milking apparatus comprising a milking equipment having at least one teatcup (11), a robot arm (8) for attaching a teatcup to an animal's teat, an animal identification means (5,6) for allowing identification of an animal individual, and an animal

space (1) provided with an animal accepting/rejecting means (2) associated with a control means, said control means being programmed to allow an animal substantially in the beginning of its lactation period to be milked more often than in a later stage thereof, wherein said control means its switchable between at least two stages of the lactation period, a first stage starting at the beginning of the lactation period, a last stage ending towards the end of the lactation period, said lactation period being divided into stages having a variable length of at least one day, and wherein the length of each stage of the whole lactation period is set before the beginning of the first stage."

Claim 1 of the first auxiliary request reads as follows:

"1. An automatic milking apparatus comprising a milking equipment having at least one teatcup (11), a robot arm (8) for attaching a teatcup to an animal's teat, an animal identification means (5, 6) for allowing identification of an animal individual, and an animal space (1) provided with an animal accepting/rejecting means (2) associated with a control means, said control means being programmed to allow an animal substantially in the beginning of its lactation period to be milked more often than in a later stage thereof, wherein said control means is switchable between at least two stages of the lactation period, the first stage starting at the beginning of the lactation period, a last stage ending towards the end of the lactation period, said lactation period being divided into stages having a variable length of at least one day, and wherein the length of each stage for

the whole lactation period is set before the beginning of the first stage, and wherein the length of said stage is adaptable during the lactation period."

VI. Opponent II (party to the appeal proceedings, according to Article 107 EPC (1973)) essentially submitted that the subject-matter of claim 1 of the main request as well that of claim 1 of the auxiliary request did not involve an inventive step over document D1 in combination with document D6.

The appellant essentially submitted that, if the subject-matter of claim 1 of the main request were to be considered as lacking inventive step, the subject-matter of claim 1 of the auxiliary request would also lack an inventive step.

The respondent contested these arguments. He submitted that there is no indication in D1 or in any other citation of systematically dividing the lactation period into stages, for the whole lactation period and before the beginning of the first stage. Claim 1 of the auxiliary request further requires the length of the stages to be adaptable during the lactation period. No disclosure is made in any of the citations which teaches or suggests the claimed apparatus of the auxiliary request.

Reasons for the Decision

Since the European patent was already granted at the time of the entry into force of the EPC 2000 on 13 December 2007, the transitional provisions according to Article 7 of the Act revising the EPC of 29 November 2000 and the Decisions of the Administrative Council of 28 June 2001 and of 7 December 2006, Article 2, have been applied. When Articles or Rules of the version of the EPC 1973 are cited, the year is indicated.

1. The appeal is admissible.

2. *Main request (inventive step)*

2.1 Document EP-A-639 327 (D1) discloses an automatic milking apparatus comprising a milking equipment having at least one teat cup (22), a robot arm (19) for attaching a teat cup to an animal's teat, an animal identification means (18) for allowing identification of an animal individual, and an animal space (1) provided with an animal accepting/rejecting means (16, 10, 9) associated with a control means (the "computer system" 25), which is adapted to decide whether an animal has to be allowed to be milked (see particularly Figure 1).

According to column 2, lines 12 to 44,

- the animal accepting/rejecting means deciding whether an animal is admitted to the milking box gives the animal priority or not "depending on the extent to which the period has advanced",

- "an animal at the beginning of the lactation period ... can thus be milked a larger number of times per period of 24 hours than at the end of the lactation period"

– it is stored in the computer "in what stage of the lactation [the] animal is and this can be used as a basis for making the decision to admit the animal into the milk box ...".

Thus, contrary to the respondent's submissions, D1 implicitly discloses the features that

– the control means is programmed to allow an animal substantially in the beginning of its lactation period to be milked more often than in a later stage of the lactation period,

– the whole lactation period is divided in two stages having a length of at least one day, the first stage starting at the beginning of the lactation period, the second (last) stage ending towards the end of the lactation period,

– the control means is switchable between these two stages of the lactation period.

Moreover, the fact that the computer is provided with data to determine whether or not the animal is in the first stage implies that the length of the first stage is set before the beginning of the first stage. This also implies that the length of the first stage is variable in so far as the setting of this value - as submitted by the respondent in his letter dated 15 November 2005, page 2) "is in itself a selection of the length of the value".

Document D1 is silent with respect to the end of the last stage.

2.2 Therefore, the subject-matter of claim 1 of the main request differs from this prior art only in that

(a) "the length of each stage of the whole lactation period is set before the beginning of the first stage".

In particular, in the context of document D1, which refers to a lactation period divided into two stages, this feature only means that the end of the second stage, which coincides with the end of the lactation period, is set before the beginning of the first stage, i.e. before the beginning of the lactation period.

2.2.1 According to the respondent, this feature provides the advantage that "a more precise definition of the milking regime is foreseen at the outset".

Thus, starting from document D1 as closest prior art, the problem to be solved may be seen in allowing previsions or estimations concerning the milking regime of an animal to be made.

2.3 Document D1 does not disclose how the length of the lactation period is established. However, the skilled reader would immediately realize that the length of the lactation period has to be set at least before its end.

In any case, document D6 which is concerned with the analysis of the lactation curve of milk cows addresses the problem of estimating the milking regime of cows

(see the section headed "Vorwort", 3rd paragraph as well as the section headed "Fünf Phasen des Verlaufes der Laktationskurve", page 15, second last paragraph). The diagram on page 23 represents a standard lactation curve which relates to a standard intercalving period ("Zwischekalbzeit ZKZ") of 355 days and to a standard lactation period of 305 days which is divided into five phases or stages.

Thus, document D6 teaches to set the length of the lactation period so as to allow an estimation of the milking regime of a cow. Therefore, to set the length of the lactation period would not have involved any inventive activity.

In an automatic milking apparatus disclosed in document D1 which is provided with a programmable control means, this control means, i.e. the computer, has to be provided at a certain time with the information concerning the length of the lactation period. In order to input this information into the computer, the skilled person only has to choose between two possibilities: to set the end of the lactation period before the beginning of the lactation period, or during it. Setting the length of the lactation period before the beginning of the lactation period allows previsions to be made as soon as possible. This effect can easily be foreseen by a skilled person so that the implementation of feature a) would not have involved any inventive activity.

2.3.1 In this respect, the respondent essentially submitted

i) that feature (a) implies that the successive milking frequencies of an animal are pre-established through the whole lactation period which is divided into a plurality of successive stages each associated with a given milking frequency, as illustrated by the diagram of Figure 5b which shows a lactation period divided into five stages, and, thus, this feature reflects a "conceptual" difference with respect to the prior art,

ii) and that in D1 the length of the stages is not pre-established and the criterion used to change the milking frequency is of the type "see how we go". Therefore, in this known apparatus there is no need to define the length of each stage at the outset and in particular, there is no need to establish the end of the last stage, i.e. the end of the lactation period.

2.3.2 The board cannot accept the respondent's arguments for the following reasons:

i) In the apparatus of document D1, the lactation period is divided in only two stages, namely a first stage whose length has to be set before beginning of the lactation period and a second (last) stage whose beginning coincides with the end of the first one. According to claim 1, the lactation period is divided into "at least two stages". In this respect, no "conceptual"

differences between the claimed apparatus and the prior art can be seen.

ii) As already stated, the skilled person reading document D1 would immediately realize that the length of the lactation period has to be set at least before its end. In particular, since it is well known that pregnant cows are dried off before they are due to freshen in order to allow them to build up strength for the upcoming birth and the next lactation period, the skilled reader, would realize that there is a need to establish the end of the lactation period for each animal. Moreover, as has been explained, it would have been obvious in view of D6 to determine the length of the lactation period so as to allow an estimation of the milking regime of a cow.

2.4 Thus, the subject-matter of claim 1 of the main request does not involve an inventive step (Article 56 EPC (1973)). Therefore, the main request has to be rejected.

3. *Auxiliary request*

3.1 Claim 1 of this request further requires that

(b) "the length of said stage is adaptable during the lactation period".

3.2 According to the patent specification, the additional feature (b) makes it possible to adapt the length of a stage, during the lactation period, for each animal individually (see column 2, lines 30 to 33). More particularly, this feature allows the previsions or

estimations concerning the milking regime of an animal to be corrected on the basis of particular circumstances concerning that animal.

3.3 According to document D6 (see the paragraph headed "Phase 5 - verstärkter Leistungsabfall", on page 22), if the intercalving period is protracted, the last stage of the lactation period will be delayed i.e. the end the lactation period will be postponed. This may happen if the first insemination of a cow after calving is not successful, i.e. if the insemination does not result in the pregnancy of the cow. Thus, document D6 suggests not only that the length of the lactation period has to be set in order to allow an estimation of the milking regime but also that the length of the last stage of the lactation period can be adapted during the lactation period in response to particular circumstances of individual animals so as to allow corrections of the estimation.

Incidentally, it is well known that parameters relating to the behaviour of animals in automatic milking systems may change due to e.g. an unexpected behaviour of an animal. Accordingly it would be obvious to provide for the possibility of manually correcting a parameter, such as the length of a stage of the lactation period. Indeed, it is difficult to imagine an useful system in which such a manual correction would not be possible.

Accordingly, it would have been obvious for the skilled person starting from document D1 to arrive at an apparatus falling within the terms of claim 1 of the auxiliary request.

3.4 Thus, the subject-matter of claim 1 of the auxiliary request does not involve an inventive step (Article 56 EPC 1973). Therefore, this request has to be rejected.

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