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D E C I S I O N
of 25 January 2006

Case Number: T 0278/04 - 3.2.04

Application Number: 94905246.8

Publication Number: 0682470

IPC: A01J 9/02

Language of the proceedings: EN

Title of invention:
A construction for automatically milking animals, such as cows

Patentee:
MAASLAND N.V.

Opponent:
DeLaval International AB

Headword:
Cooling tank/MAASLAND

Relevant legal provisions:
EPC Art. 56
RPBA R. 10b(1)

Keyword:
"Inventive step: no"
"Auxiliary request filed during oral proceedings - admissibility (no)"

Decisions cited:
T 0153/85, T 0074/96

Catchword:
-

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Case Number: T 0278/04 - 3.2.04

D E C I S I O N
of the Technical Board of Appeal 3.2.04
of 25 January 2006

Appellant: (Opponent)
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Decision under appeal: **Interlocutory decision of the Opposition Division of the European Patent Office posted 14 January 2004 concerning maintenance of European patent No. 0682470 in amended form.**

Composition of the Board:

Chairman: M. Ceyte
Members: P. Petti
M.-B. Tardo-Dino

Summary of Facts and Submissions

I. An opposition based *inter alia* upon Articles 100(a) and (c) EPC was filed against the European patent No. 0 682 470. In its interlocutory decision dispatched on 14 January 2004, the opposition division found that the patent in an amended version based upon the independent claim 1 filed during the oral proceedings on 11 November 2003 met the requirements of the Convention.

This independent Claim 1 reads as follows:

"1 A construction (1) for automatically milking of animals, such as cows, by means of a milking robot (3), including an automatic milking system and means (5,9) for automatically connecting and disconnecting teat cups (10) to and from the teats of an animal, the construction further comprising a milk tank (60), connected to the milking robot (3), for storing and cooling milk obtained by the milking robot (3), and a computer (9) controlling the milking process, characterized in that the computer (9) further is utilized to automatically activate the cooling of the milk in the milk tank (60), such that, after emptying and possibly cleaning of the milk tank (60), the cooling is activated when it has become known to the computer (9) that a predetermined amount of milk has entered the milk tank (60) via the milking robot (3)".

II. The opponent (hereinafter appellant) lodged an appeal against this decision on 23 February 2004 and simultaneously paid the appeal fee. The statement

setting out the grounds of appeal was received on 21 May 2004.

III. Oral proceedings before the board were held on 25 January 2006.

During the oral proceedings, the respondent submitted an auxiliary request based upon a further amended claim 1 which was a combination of features from claim 1 of the main request and claim 5 as granted stating that "the predetermined amount of milk, necessary for activating the cooling of the reservoir, can be set in the computer system (9)".

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

The patent proprietor (hereinafter respondent) requested that the appeal be dismissed.

V. With respect to Article 100(c) EPC, the appellant essentially argued that claim 1 (of the main request), due to the expressions "automatic milking system" and "means (5, 9) for automatically connecting and disconnecting teat cups (10) to and from the teats of an animal", contains subject-matter extending beyond the application as filed.

With regard to Article 100(a) EPC, the appellant essentially argued that the subject-matter of claim 1 (of the main request) lacked an inventive step having regard to the combination of document EP-A-385 539 (hereinafter D1) with document JP-A-61/55568, for which

an English translation has been filed (hereinafter document D11).

In reply, the respondent essentially argued that the characterising features of claim 1 implicitly defined some kind of sensor capable of establishing the amount of milk present in the tank.

With respect to the admissibility of the auxiliary request into the proceedings, the respondent essentially argued that claim 1 of this request contains the features of claim 5 as granted which contribute to the solution of a new problem consisting in adapting a milking robot to different types of milk tank. The available prior art neither addressed this new problem, nor suggested the features of claim 5 as granted. Therefore, the subject-matter of claim 1 is *prima facie* inventive over this prior art.

The appellant requested that this late submitted request be rejected as inadmissible and essentially argued that this auxiliary request could have been filed well before the oral proceedings. Furthermore, amended claim 1 of the auxiliary request was not *prima facie* allowable because it lacked clarity and did not immediately overcome the objections previously raised by the appellant. In particular, the technical problem solved by the features of claim 1 of the auxiliary request was the same as the problem underlying the invention defined by claim 1 of the main request.

Reasons for the Decision

1. The appeal is admissible.

2. *The claimed subject-matter*

2.1 According to the characterising portion of claim 1, "the computer (9) is further utilized to automatically activate the cooling of the milk in the milk tank (60), such that, after emptying and possibly cleaning of the milk tank (60), the cooling is activated when it has become known to the computer (9) that a predetermined amount of milk has entered the milk tank (60) via the milking robot".

These features refer to an amount of milk which has entered the milk tank without specifying the method of measuring this amount of milk. Therefore, these features have to be interpreted as generally defining the determination of an amount of milk entering the tank independently of how this amount is determined. In this respect, it has to be noted that, according to the dependent claims of the patent as granted, the activation of the cooling of the milk tank depends either "on the amount of milk measured by a milk meter" (see claim 3) or on a signal supplied by a "level sensor" (see claim 5) or "on the time passed since the first passing of milk to the milk tank" (claim 11).

2.2 The expression "it has become known to the computer (9) ..." means that the information that a predetermined amount of milk has entered the milk tank is provided to the computer.

3. *Inventive step (main request)*

3.1 The objections under Articles 100(c) EPC related to features specified in the pre-characterising portion of claim 1 which for the reasons given below do not play any role in the assessment of inventive step.

3.2 During the oral proceedings, both parties agreed that document D1 was the closest prior art and disclosed a construction having all the features of the pre-characterising portion of claim 1 of the main request.

Moreover, the parties agreed that the construction known from document D1 was also provided with the necessary technical means, namely a computer, to perform the features defined in the characterising portion of the claim.

3.3 The subject-matter of claim 1 differs from this prior art by the features of the characterising portion of claim 1 (see section 2.1 above, first paragraph).

The technical problem to be solved may be seen in avoiding freezing of the milk when small amounts of milk enter an empty milk tank.

3.4 Document D11 discloses a control apparatus for a milk cooling tank which is provided with a refrigerator and a mixer, the control apparatus being provided with an operation switch for the cooler and the mixer and explicitly refers to the problem of avoiding deterioration of the milk due to freezing of the milk which can occur when there is not a sufficient amount of milk in the tank (see page 2, 2nd paragraph).

The control apparatus according to document D1 operates as follows:

– "When the raw milk reserved in the tank ... is shipped and the tank becomes vacant, then the switch of the operation switch of the refrigerator, the mixer or the like ... is turned off" (see page 5, "Operation 5".

– "A refrigerator delay timer (T) and a mixer operating delay (X2) are arranged such that they control each of the power supplies of the refrigerator, the mixer and so on ..., and when the level of milk poured into the tank ... exceeds the level of the blade of the mixer, then the refrigerator delay timer and the mixer operating delay start the driving of the refrigerator, the mixer and so on" (see page 4, "Operation 2).

Thus, the skilled person reading document D1 can immediately deduce from this document the **general teaching** that the cooling of the milk in the milk tank is automatically activated, such that, after emptying of the milk tank, the cooling is activated when the information that a predetermined amount of milk has entered the milk tank via the milking apparatus is provided to the control apparatus.

The skilled person, confronted with the technical problem to be solved, would apply this teaching to the construction known from document D1, which is provided with a computer which not only controls the milking process but is also suitable for controlling the milk

cooling system, and arrive in an obvious way at the claimed subject-matter.

3.4.1 In this respect, the respondent essentially argued as follows:

(a) The control apparatus according to document D11 is provided with a delay timer which defines the time between the beginning of the milking procedure and the instant in which the level of milk exceeds the height of the mixing blade. Therefore, document D11 does not disclose the determination of a "predetermined amount of milk" entering the milk tank, which determination implies the presence of a sensor capable of establishing the amount of milk present in the tank.

Moreover, document D11 does not indicate for how much the level of the milk has to exceed the height of the mixing blade. Thus, the exceeding of the blade height is not equivalent with the "predetermined amount" which has entered the milk tank as defined in claim 1.

(b) Document D11 relates to a conventional milking system in which the animals are milked two or three times a day and one after the other during a relative short time so that the time interval defined by a timer is sufficiently representative of the amount of milk flowing via the milking apparatus into the milk tank. Besides, document D1 relates to a "voluntary" system for milking animals in which the amount of milk flowing into the tank also depends on the number of animals

milked, so that a predetermined time interval is not representative of the amount of milk flowing into the tank. Therefore, the skilled person would not combine documents D1 and D11 because their teachings are not compatible with each other.

3.4.2 The board cannot accept the arguments of the respondent for the following reasons:

(a') Document D1 gives the skilled person a teaching which is independent of how the predetermined amount is determined (see the above section 3.4). Moreover, the characterising features of claim 1 do not specify how the "predetermined amount" is determined (see the above section 2.1). Therefore, the argument referred to in section 3.4.1(a) is irrelevant.

Furthermore, the "predetermined amount" of claim 1 can be determined also in an indirect way (see also section 2.1 above), for instance either by measuring the level of the milk in the tank (knowing the shape of the tank) or by measuring the time (knowing the average flow of milk). Thus, the "delay time" of the timer of document D11 can be seen as defining a predetermined amount of milk which has entered the milk tank.

In this respect, the respondent's argument that the exceeding of the blade height is not equivalent with the "predetermined amount" entering the milk tank is irrelevant.

(b') Document D11 explicitly indicates the technical problem underlying the claimed invention. The problem of the freezing of the milk in the tank is connected to the general problem of cooling the milk. The refrigeration of the milk poured into the tank is necessary to avoid milk deterioration due to the increase of the number of bacteria. However, when after emptying of the tank a new milking procedure begins and the first milk enters the tank (without there being a sufficient amount of milk in the tank) the freezing may occur. As submitted by the appellant during the oral proceedings, even in a voluntary milking system, the cooling is necessary also for the milk of first milked animal and, thus, the problem of avoiding freezing has to be solved also for the milk of this first animal. Therefore, also the respondent's argument referred to in section 3.4.1(b) is irrelevant.

Accordingly the board comes to the conclusion that the subject-matter of claim 1 according to the main request does not involve an inventive step. The respondent's request that the patent be maintained on the basis of the main request can therefore not be complied with.

4. *Admissibility of the auxiliary request*

4.1 The respondent's auxiliary request was submitted in the course of the oral proceedings after the main request had already been exhaustively discussed.

It is well established by the jurisprudence of the boards that the admissibility of amended claims into

appeal proceedings, particularly when the amendments are first submitted at oral proceedings is at the discretion of the board, see for instance T 153/85, OJ 1988, 1 and T 74/96 of 21 November 2001, not published. Reference is also made to Rule 10b (1) of the Rules of Procedure of the Boards of Appeal (RPBA), according to which any "amendment to a party's case after it has filed its grounds of appeal or reply may be admitted and considered at the Board's discretion", wherein the "discretion shall be exercised in view of inter alia the complexity of the new subject matter submitted, the current state of the proceedings and the need for procedural economy".

4.2 The arguments submitted by the appellant during the oral proceedings essentially corresponded to the arguments submitted in writing in the statement of grounds of appeal as well as in the letter dated 20 April 2005.

Thus, the respondent could have filed amendments taking into account the appellant's arguments well before the oral proceedings. Furthermore, the board cannot see how the respondent could have been surprised at the oral proceedings by the appellant's arguments based on the combination of documents D1 and D11. There is thus no clear justification for the late submission of the auxiliary request.

4.3 Although claim 1 of the auxiliary request clearly represents an attempt to overcome the objection of lack of inventive step, it does not appear to be linked to the particular issues discussed during the oral proceedings. It has to be noted that during the oral

proceedings the discussion concerning inventive step made it clear that the issue of whether the characterising features of claim 1 of the main request implicitly defined a sensor capable of establishing the amount of milk could be decisive for establishing whether the claimed subject-matter implied an inventive step. However, the amendments leading to claim 1 of the auxiliary request are not linked to this issue.

4.4 The amended claim 1 of the auxiliary request, although based upon a combination of the amended claim 1 of the main request and claim 5, gives rise to a rather complex problem of interpretation in order to define its subject-matter, in particular with regard to the meaning of the added features (of claim 5) in relationship to the characterising features of claim 1 of the main request, and in order to understand which technical problem these features contribute to solve.

In this respect, it has to be noted that the introductory portion of the description of the patent specification does not contain any statement referring to the features of claim 5 or to the advantageous effects obtained on account of these features allowing the understanding of the technical problem to be solved by these features. It is also observed that the respondent, asked by the board, did not mention any passage of the description from which the technical problem, as indicated by the respondent himself, could be at least implicitly deduced. Moreover, the technical problem indicated by the respondent does not immediately appear to have a causal link with the added features.

The board is therefore of the opinion that the amended claim 1 of the auxiliary request is not clearly allowable in the sense of being apt to clearly remove the outstanding objection of lack of inventive step.

4.5 Accordingly, this late filed auxiliary request must be rejected as inadmissible.

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