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**Datasheet for the decision  
of 20 January 2017**

**Case Number:** T 0705/12 - 3.2.04

**Application Number:** 03798642.9

**Publication Number:** 1545191

**IPC:** A01J5/01, G01F25/00

**Language of the proceedings:** EN

**Title of invention:**

A METHOD FOR CALIBRATION OF MILK METERS IN A MILKING SYSTEM

**Patent Proprietor:**

DeLaval Holding AB

**Opponent:**

Octrooibureau Van der Lely N.V.

**Headword:**

**Relevant legal provisions:**

EPC Art. 56

**Keyword:**

Main request - inventive step (yes)

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**  
**Boards of Appeal**  
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European Patent Office  
D-80298 MUNICH  
GERMANY  
Tel. +49 (0) 89 2399-0  
Fax +49 (0) 89 2399-4465

Case Number: T 0705/12 - 3.2.04

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.04**  
**of 20 January 2017**

**Appellant:** Octrooibureau Van der Lely N.V.  
(Opponent) Weverskade 110  
3147 PA MAASSLUIS (NL)

**Representative:** Octrooibureau Van der Lely N.V.  
Cornelis van der Lelylaan 1  
3147 PB Maassluis (NL)

**Respondent:** DeLaval Holding AB  
(Patent Proprietor) Box 39  
147 21 Tumba (SE)

**Representative:** A.A. Thornton & Co.  
10 Old Bailey  
London EC4M 7NG (GB)

**Decision under appeal:** **Interlocutory decision of the Opposition**  
**Division of the European Patent Office posted on**  
**23 January 2012 concerning maintenance of the**  
**European Patent No. 1545191 in amended form.**

**Composition of the Board:**

**Chairman** E. Frank  
**Members:** G. Martin Gonzalez  
W. Van der Eijk

## **Summary of Facts and Submissions**

- I. The appeal lies from the interlocutory decision of the opposition division, dated 5 December 2011 and posted on 23 January 2012, to maintain the European patent No. 1 545 191 in amended form pursuant to Article 101(3) (a) EPC. The appellant (opponent) filed a notice of appeal on 27 March 2012, paying the appeal fee on the same day. The statement of grounds of appeal was submitted on 4 June 2012.
- II. The opposition was filed against the patent as a whole and based on Article 100(a) in conjunction with Articles 52(1), 54, and 56, and Article 100(b) EPC.

The opposition division held that the patent as amended based on claim 1 of the first auxiliary request as filed during the oral proceedings met the requirements of the EPC. In its decision the division considered the following prior art, amongst others:

D5 = G. Wendl, X. Zenger, and H. Auernhammer: "A method for continuous automatic monitoring of accuracy of milk recording equipment", EAAP Publication No. 65, Pudoc Scientific Publishers, Wageningen, 1992, pp. 338-345.

- III. A communication pursuant to Article 15(1) RPBA was issued after a summons to attend oral proceedings, which were duly held on 20 January 2017.
- IV. The appellant requests that the decision under appeal be set aside and the patent be revoked.

The respondent (proprietor) requests that the appeal be dismissed and the patent be maintained in the amended form as upheld by the opposition division (main request), or alternatively that the patent be maintained in an amended form on the basis of the first auxiliary request filed with letter dated 20 December 2016.

V. The wording of claim 1 of the main request reads as follows:

"A method for calibrating a milk meter in a milking system (36;40) comprising at least one milking station (10a, 10b, 20, 30) and having more than one milk meter (14a, 14b; 21a, 21b, 21c, 21d; 31; 41a, 41b, 42a, 42b) that measures at least one value of a parameter that corresponds to the milking performance of a milking animal, said milking station is accessible to a herd of milking animals, characterised in that said method comprises the steps of:

- determining an internal or external reference value (RV) which reflects the amount of milk received from a number of milking animals during a selected time period in a reference unit (19, 32, 42a, 42b),
- retrieving all measured values during the selected time period for each milk meter (14a, 14b; 21a, 21b, 21c, 21d; 31; 41a, 41b; 42a, 42b) that by itself contribute [*sic*] to the amount of milk received by said reference unit (19; 32; 42a, 42b),
- comparing said reference value (RV) with the sum of all retrieved measured values and calculating a correction function (C; C<sub>com</sub>) for one of said milk meters which has been determined to be in need of a

calibration by comparing an expected value of the milking performance with the measured value, and - using said calculated correction function to adjust the measured value from said milk meter."

VI. The appellant argued as follows:

Following from the wording of claim 1, the reference value RV does not need to be a bulk value. Nor requires claim 1 that the measured value is retrieved from multiple meters. D5 does not state what will be done if an erroneous meter has been found. However, based on his common general knowledge, the skilled person would firstly consider calibration of the faulty meter. Moreover, the simplest situation which falls under the scope of claim 1 is to milk one milking animal only once. The measured erroneous value is retrieved, and compared with its reference value. Thus, it all comes down to replacing the wrong value by the reference value, thus to arrive at the subject-matter of method of claim 1 in an obvious manner. Therefore, claim 1 of the main request does not involve an inventive step.

VII. The respondent argued as follows:

The reference value RV of claim 1 is made up from multiple milk quantities, and must be compared with all retrieved measured values to calculate the correction function of claim 1. Thus, if only one milking animal is milked once, calibrating according to claim 1 does not take place, and the method of claim 1 is useless. D5 does not disclose or hint at a particular method for calibrating a milk meter, but assesses whether or not a meter is working properly. The problem of providing a specific calibration is nowhere addressed and, therefore, starting from D5 the skilled person would

not arrive at the subject-matter of claim 1. Hence, the subject-matter of claim 1 is inventive in the light of D5.

## **Reasons for the Decision**

1. The appeal is admissible.
2. Main request
  - 2.1 Interpretation of claim 1
    - 2.1.1 Having regard to the preamble of claim 1, the claimed method concerns calibrating one or more milk meters in a milking system comprising at least one milking station and having more than one milk meter. Each of the milk meters measures at least one value of a parameter that corresponds to the milking performance of a milking animal, wherein the milking station is accessible to a herd of milking animals.
    - 2.1.2 Moreover, as to the characterising part of claim 1, the Board assigns the method steps of claim 1 to a typical sequence shown in the flow chart of figure 8 of the patent, when the calibration process of one or more milk meters is carried out:  
  
figure 8 step 81  
- one of the milk meters is determined to be in need of a calibration by comparing an expected value of the milking performance with the measured value.  
  
figure 8 step 83  
- determining an internal or external reference value (RV) which reflects the amount of milk received from a

number of milking animals during a selected time period in a reference unit.

figure 8 step 84

- retrieving all measured values during the selected time period for each milk meter that by itself contribute to the amount of milk received by said reference unit.

figure 8 step 85

- comparing said reference value (RV) with the sum of all retrieved measured values and calculating a correction function (C;  $C_{com}$ ) for one of said milk meters which has been determined to be in need of a calibration, and  
- using said calculated correction function to adjust the measured value from said milk meter.

2.1.3 The skilled reader would thus readily glean from a contextual reading, that the subject-matter of claim 1 requires "more than one" (i.e. a plurality) of milk meters at the at least one milking station. Moreover, the determined internal or external reference value "RV" shall reflect the amount of milk from a "number of milking animals" (i.e. from several) in the reference unit, the latter receiving milk from each of the plurality of milk meters. Therefore, as advanced by the respondent, the reference value "RV" is made up from multiple milk quantities indeed. Furthermore, "all measured values" (i.e. a plurality) for each milk meter that by itself contributes to the amount of milk received by the reference unit shall be retrieved. Finally, the bulk reference value "RV" must be compared with the sum of "all retrieved measured values", thus to calculate a correction function which is used for the purpose of calibrating a malfunctioning milk meter.



2.1.4 In other words, contrary to the appellant's view, the skilled person would clearly understand from the context of claim 1's wording that the claimed method requires a bulk reference value reflecting the amount of milk received from multiple meters and several milking animals, which has to be compared with all measured values of each of these meters. Otherwise, the claimed correction function for the faulty meter cannot be calculated and, therefore, a calibration of the milk meter according to method claim 1 cannot be carried out.

This understanding of claim 1 is also consistently supported by the description, cf. patent, paragraphs 0050 to 0056, see in particular "Example 1", paragraphs 0060 to 0064, where milk meter 14b has been found to deviate, and the correction function "C" under paragraph 0064.

2.1.5 The Board thus concludes that it may well be that only one milking animal is milked once at one milking station of the milking system, as argued by the appellant. However, the Board concurs with the respondent that in this particular case calibrating does not take place in claim 1.

2.2 Inventive step of claim 1

2.2.1 Novelty of claim 1 is not in dispute. As for the assessment of inventive step of claim 1, the appellant argues that document D5 forms a suitable starting point.

However, D5 does not concern milk meter calibration. Rather, D5 describes a method to check the accuracy of

a milk meter continuously and suggests a meter error, if the average deviation for one milk meter is significantly different from zero during a longer period, cf. D5, page 338 "Introduction" to page 339, first two paragraphs. This method can be adapted to automatic milking and constitutes a suitable and cost effective procedure for monitoring the accuracy of milk meters, cf. D5, page 345, "Conclusion".

- 2.2.2 It has not been contested that D5 does not state what will be done if an erroneous milk meter has been found. Therefore, the subject-matter of claim 1 differs from D5's disclosure by a calibrating process for a milk meter, in particular according to the characterising portion of claim 1.

Therefore, the problem to be deduced in the light of these distinguishing features may be formulated as follows: How to provide a specific calibration for a plurality of meters.

- 2.2.3 D5 merely assesses whether a meter is working properly, or not. Hence, in the Board's view, since the above stated problem is nowhere addressed in D5, there is firstly no motivation for the skilled person to take into consideration or use the teaching of D5 for calibrating a milk meter in a milking system. For example, the signalled error might also be used to replace, clean, or block a malfunctioning meter, and to calibrate it would only be one of many choices for the skilled person.

Moreover, even if the skilled person based on his common general knowledge were to consider the signal of an erroneous milk meter in D5 as a suggestion to calibrate the deviating meter, D5 would not lead to any

specific calibration method, let alone to method steps as required by the characterising part of claim 1 of the main request.

- 2.2.4 Summing up, the Board holds that the skilled person would not arrive at the subject-matter of claim 1 in the light of document D5 and common general knowledge in an obvious manner. Finally, the Board is also convinced that the remaining documents referred to in the written procedure are not more relevant than D5 discussed before the Board.

Therefore, the subject-matter of claim 1 of the main request involves an inventive step.

3. In conclusion the Board finds that the appellant's contentions against the patent as upheld in amended form corresponding to the main request are without merit. The Board thus confirms the decision under appeal and, therefore, the respondent's first auxiliary request need not be considered by the Board.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:



G. Magouliotis

E. Frank

Decision electronically authenticated