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D E C I S I O N
of 23 October 1997

Case Number: T 0393/96 - 3.2.4

Application Number: 89103332.6

Publication Number: 0322404

IPC: A01J 7/00

Language of the proceedings: EN

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

Patentee:
Maasland N.V.

Opponent:
Alfa Laval Agri AB

Headword:
Milking/MAASLAND

Relevant legal provisions:
EPC Art. 100(a), 54(3), 56

Keyword:
"Prior art used to interpret the claims"
"Subject-matter extending beyond the content of the present application (no)"
"Novelty - combination of different passages within a single document"
"Inventive step (yes)"

Decisions cited:
T 0183/84

Catchword:

Europäisches Patentamt | European Patent Office | Office européen des brevets

Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0393/96 - 3.2.4

D E C I S I O N
of the Technical Board of Appeal 3.2.4
of 23 October 1997

Appellant: (Opponent)
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Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted 19 March 1996 rejecting the opposition filed against European patent No. 0 322 404 pursuant to Article 102(2) EPC.**

Composition of the Board:

Chairman: C. A. J. Andries
Members: P. Petti
J. P. B. Seitz

Summary of facts and submissions

I. The European patent No. 322 404 is based on the European patent application No. 89 103 332.6 filed as a divisional application of the earlier European patent application No. 86 200 099.9 (parent application) and published under the publication number EP-A-191 517. An opposition based upon Articles 100(a) and 100(c) EPC was filed against the patent No. 322 404. The opposition was rejected by the decision of the opposition division dispatched on 19 March 1996.

The independent Claim 1 of the patent as granted reads as follows:

"1. A device for milking animals, such as cows,comprising a milking parlour, a milking machine with a milking cluster (18) and with a support (26) therefore, which support (26) is capable of lateral movement, positioning means (12,13, 27, 54) to position an animal in the longitudinal direction in the milking parlour and sensor means (16) for determining the position of an animal in the lateral direction in the milking parlour, characterized in that the sensor means (16) are disposed on each side of the milking parlour and are arranged to determine said lateral position in contact with an animal in the milking parlour, said sensor means (16) further being coupled to the support (26) in such a manner that they maintain the milking cluster (18) central to parts of the sensor means (16) arranged to be in contact with an animal in

the milking parlour."

II. On 8 May 1996 the appellant (opponent) lodged an appeal against this decision and simultaneously paid the appeal fee. A statement setting out the grounds of appeal was received on 28 June 1996.

III. Oral proceedings were held on 23 October 1997.

IV. With respect to the opposition ground according to Article 100(c) EPC the appellant argued that the subject-matter of Claim 1 of the patent extended beyond the content of both the divisional application as filed and the parent application as filed.

With respect to the opposition ground according to Article 100(a) EPC the appellant argued that the subject-matter of Claim 1 of the patent, firstly, was not novel with respect to the European patent application EP-A-188 303 (document D1) and, secondly, did not involve an inventive step as required by Article 56 EPC having regard to the European patent application EP-A-91 892 (document D2) and to the article of V.PARENTI CASTELLI and G.VASSURA, *"Contributo allo studio dei problemi relativi alla automazione delle operazioni di mungitura"*, in *"Il Latte"*, Vol. IX, March 1984 (document D3), for which an English translation (document D'3) was filed.

The respondent (proprietor of the patent) contested the arguments of the appellant.

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

The respondent requested as a main request that the appeal be dismissed so that the patent be maintained as granted.

Auxiliarily, the respondent requested that the decision under appeal be set aside and the patent be maintained on the basis of an amended Claim 1 filed during the oral proceedings.

Reasons for the decision

1. The appeal is admissible.

2. The claimed subject-matter (main request of the respondent)

2.1 The subject-matter of Claim 1 of the patent as granted has to be determined in order to decide whether it extends beyond the subject-matter of the application as filed (Article 100(c) EPC) and to compare it with the prior art for the examination of novelty and inventive step (Articles 54 and 56 EPC).

2.2 Claim 1 is directed to

a device for milking animals, such as cows, comprising

A) a milking parlour,

B) a milking machine

B.1) with a milking cluster (18)

B.2) and with a support (26) therefor,

B.2.1) which support is capable of lateral movement,

C) positioning means (12, 13, 27, 54) to position an animal in the longitudinal direction in the milking parlour

D) and sensor means (16) for determining the position of an animal in the lateral direction in the milking parlour,

D.1) the sensor means are disposed on each side of the milking parlour,

D.2) the sensor means are arranged to determine said lateral position in contact with an animal in the milking parlour,

D.3) the sensor means having parts of the sensor means (16) arranged to be in contact with an animal in the milking parlour

D.4) the sensor means are coupled to the support (26)

D.4.1) in such a manner that they maintain the milking cluster

(18) central to said parts of the sensor means (16) arranged to be in contact with an animal in the milking parlour.

It is to be noted that feature D3) has been taken separately, out of feature D.4.1).

2.3 Feature C), which defines the positioning of the animal in the longitudinal direction has to be interpreted in the context of the claims and the description and drawings of the patent in suit.

It can be seen that Claim 1 is followed by a dependent Claim 7 which contains a reference to "any one of the preceding claims". Claim 7 contains the expression "**the** means to force the animal in a predetermined longitudinal position" (emphasis added). The description of the patent refers, in the opening paragraph (column 1, lines 3 to 11), to "positioning means" and, in a subsequent paragraph (column 2, lines 29 to 34), to "**the** means to force the animal ..." (emphasis added) in the same terms as used, respectively, in Claims 1 and 7.
Claim 7, which is dependent on any of the preceding Claims 1 to 6, refers to "means to force the animal in a predetermined longitudinal position" by using the definite article "the" without there being a preceding claim referring expressis verbis to this "means to force ...". Since feature C) in Claim 1 is the only feature - among the features specified in these preceding Claims 1 to 6 - which relates to the

longitudinal position of the animal, it must be understood from the claims of the patent that there is a technical identity between the expressions "positioning means ..." as defined by feature C) in Claim 1 and "means to force the animal in a predetermined longitudinal position" (in Claim 7).

This interpretation is consistent with the whole patent which discloses many specific elements by means of which the animal can be positioned in the longitudinal position (see for instance column 5, lines 29 to 35) or its position can be corrected (see for instance column 2, lines 40 to 44) or which are provided to move the animal to an appropriate position (see column 4, lines 41 to 45).

Thus, feature C) in Claim 1 has to be interpreted as defining means suitable to force the animal into a predetermined longitudinal position, i.e. suitable for exerting, if necessary, a force (which can also be a reaction force, such as for instance in the case of retaining means) on the animal such that the animal can be brought into and/or held in a longitudinal position which is appropriate for milking.

2.3.1 This interpretation, which is also consistent with the description of the parent application (see for instance page 5, lines 5 to 10; page 6, lines 27 to 32; page 7, lines 9 to 23; page 10, lines 31 to 34; page 11, lines 29 to 31; page 13, lines 25 to 28; page 14, lines 29 to 34), was agreed to by the respondent during

the oral proceedings as well as in the written proceedings (see respondent's letter dated 5 December 1996, page 1).

2.3.2 In the Statement of Grounds the appellant asserted that the term "positioning means" defines means not only to "force" the animal into a certain position but also to "lure" the animal into this position. This interpretation cannot be accepted by the board because, firstly, it is not consistent with the description and the drawings of the patent and, secondly, it has no basis either in the parent application as filed or in the divisional application as filed (see above sections 2.3 and 2.3.1).

2.3.3 During the oral proceedings the appellant argued that the term "positioning means" has not only the meaning of "means to force the animal into a certain position" but also a second meaning, namely that of "means for determining by means of sensors the lateral position of the animal", since it is stated in the description of the patent (see column 1, lines 1 to 11 and 19 to 30) that a milking device provided with positioning means to position the animal in the longitudinal position is known from document D2 and since document D2 discloses a milking device which is not provided with means to force the animal into a certain position but only with sensor means determining the position of the animal. The appellant argued that this second meaning of the term "positioning means" is plausible having regard to the fact that the description of the patent refers to

document D2.

The board cannot accept this argument of the appellant for the following reasons.
The appellant interpreted Claim 1 of the patent solely on the basis of the prior art disclosed in a document cited in the patent. The prior art disclosed in documents referred to in the patent specification can be used to interpret the claims only to the extent that this prior art is clearly indicated in the patent. In the present case, it is stated in the description of the patent that "for retaining the animal ... [the milking parlour of the device according to document D2] is closable by means of gates or screens which are adapted to bring the cow to take a more or less defined position" (see column 1, lines 19 to 24). Therefore, the description of the patent refers to document D2 as disclosing a milking device provided with positioning means in the form of retaining means, i.e. of means suitable to force, if necessary, the animal into a predetermined position. The indication of this prior art in the description of the patent does not permit the term "positioning means" to be interpreted as "sensing means". Moreover, this interpretation would be inconsistent not only with the remaining parts of the patent specification but also with the divisional and the parent applications as filed, which applications did not contain any statement referring to document D2.

2.4 Features D.4) and D.4.1) need to be interpreted with respect to the meaning of the term "coupled", which

defines the relationship between the sensor means and the support of the milking cluster, and the term "maintain", which is used to further specify this relationship (i.e. the coupling) in a functional way. It is clear from the description and from the drawings of the patent that the sensor means and the support of the milking cluster are **permanently** coupled such that they maintain the milking cluster central to the parts of the sensors in contact with the animal (see feature D.4.1), i.e. such that the milking cluster support "will always be central under the animal" and "even if the animal moves during milking in a lateral direction, ... will follow this movement" (see description of the patent, column 6, lines 23 to 30).

This interpretation, which is also consistent with the content of the divisional application as filed (see page 1, line 23 to page 2, line 2; page 7, line 35 to page 8, line 3) and the parent application as filed (see page 9, lines 1 to 5 and 25 to 28; page 16, lines 1 to 8), was agreed to by the respondent during the oral proceedings.

2.5 Having regard to the comments in the above section 2.4, features D.4) and D.4.1) also imply that the support of the milking cluster and the milking cluster itself are permanently connected, such that the milking cluster - because of the coupling between the sensor means and the support - is maintained central to the parts of the sensor means which are in contact with the animal.

2.6 Moreover, features D.4) and D.4.1) - read in combination with features B.2.1) and D.2)- also imply that the milking cluster support is maintained in a central position (seen in the lateral direction of the milking parlour) with respect to the animal.

2.7 Feature B.2.1) must be read together with features D.4) and D.4.1) in so far as the lateral movement of the animal results in the lateral movement of this support, due to the coupling between the sensor means and the support of the milking cluster.

Features B.2.1), D.4) and D.4.1) are also linked to feature C) in so far as it is particularly important that the animal is positioned in the longitudinal direction when the support of the milking cluster is capable of lateral movement but not capable of longitudinal movement, as can be clearly understood from the description and the drawings of the patent. In other words, in the device according to Claim 1, firstly, the animal is positioned in the longitudinal direction such that the position of the udder corresponds longitudinally with the support of the milking cluster and, secondly, the support of the milking cluster is able to be moved laterally (by means of the sensors) such that during milking it is always kept in a central position under the udder.

3. Article 100 (c) EPC (main request)

3.1 Claim 1 of the divisional application as filed contains

the feature that "means are provided to force the animal in a predetermined longitudinal position" whose meaning - having regard to the interpretation in the above section 2.3 - is technically identical to the meaning of feature C) in Claim 1 of the patent as granted.

Therefore, the combination of the features specified in Claim 1 of the patent can be derived substantially from the features specified in Claims 1, 2 and 5 of the divisional application as filed by addition of feature D1, which feature can be unambiguously derived from the sentence bridging pages 7 and 8 of the divisional application as filed.

3.1.1 The appellant argued that the deletion of the expression "predetermined longitudinal position" from Claim 1 of the divisional application as filed was not allowable with regard to Article 123(2) EPC, because of the essential character of this expression. Having regard to the comments in the above sections 2.3 and 3.1, this argument of the appellant is not relevant, particularly since the indication "to position the animal in the longitudinal direction" has a technical meaning only if it is understood as disclosed, namely as meaning "to fix the animal in a precise position".

3.2 The introductory part of the description of the parent application (page 1, line 1 to page 13, line 29) contains many statements each providing generalisations of what is illustrated in the **single example** described

in detail referring to Figures 1 to 6.

The origin of Claim 1 of the patent can be found in a passage bridging pages 8 and 9 of the parent application. This passage (see page 8, line 35 to page 9, line 5) defines a milking cluster support capable of lateral movement and coupled to a sensor device to determine the lateral position of the animal such that the milking cluster support always remains in a central position under the animal.

Thus, this passage explicitly defines the combination of features B), B.1), B.2), B.2.1), D), D4) and part of feature D.4.1), in so far as the sensor means and the support are coupled in such a manner that they maintain the milking cluster in the central position **with respect to the animal.**

This passage does not explicitly refer to either a milking parlour (feature A)) or a positioning means to position the animal in the longitudinal position in the milking parlour (feature C)). However, it is clear from the whole description of the parent application that the milking operation necessarily requires that the animal be placed in a milking parlour and be longitudinally positioned such that the position of the udder of the animal - in the longitudinal direction - can be predetermined.
Therefore, features A) and C) are implicitly disclosed in this passage when it is read in the context of the whole description.

Moreover, features A) and C) have an explicit basis in the introductory part of the description of the parent application. The passage on page 1, lines 4 to 6 refers namely to "the milking parlour ... as a space in which the animal can be positioned ...". The first sentence of the passage on page 13, lines 25 to 28 refers to "members ... provided to move the cow to an appropriate position or location", i.e. positioning means, and it can be clearly understood from the second sentence of this passage that the appropriate position is a position in the longitudinal direction. The skilled reader of the parent application will immediately realize that these passages (page 1, lines 4 to 6; and page 13, lines 25 and 26) together with the above mentioned passage of the introductory part of the parent application (page 8, line 35 to page 9, line 5) do not constitute separate teachings but form a unitary disclosure generalising the **single** specific **example** described referring to the drawings.

Thus, the introductory part of the parent application defines the combination of features A), B), B.1), B.2), B.2.1), C), D), D4) and part of feature D.4.1)

The subject-matter of Claim 1 can be derived from this combination of features by addition of the features, D.1), D.2), D.3) and of the remaining part of feature D.4.1) (in so far as the central position of the milking cluster support is defined with respect to the parts of the sensor means in contact with the animal). These features which further specify the sensor means defined by feature D) can be unambiguously derived from the drawings (see Figures 2 and 3, which relate to a single specific example).

3.2.1 The appellant argued that Claim 1 infringes Article 100(c) EPC in so far as feature C) - due to its high degree of generalisation - can also be interpreted as including "sensors for determining the longitudinal position of the animal", which sensors are not disclosed either in the divisional application or in the parent application as filed. This argument of the appellant cannot be accepted because it relies on an interpretation of Claim 1 which is inconsistent with the description and drawings of the patent (see the above section 2.3.3).

3.2.2 Having regard to the above comments, not only there is a clear basis for the subject-matter of Claim 1 in the parent application as filed but also the description and the drawings of the patent do not allow an interpretation of Claim 1 for which there is no basis in the parent application as filed.

3.3 In view of the comments in above sections 3.1 and 3.2,

Claim 1 does not infringe Article 100(c) EPC.

4. Novelty (main request)

4.1 The subject-matter of Claim 1 is novel (Article 54 EPC) with respect to the cited prior art.

4.2 Novelty was disputed only over document D1, which has to be considered as comprised in the state of the art according to Article 54(3) and (4) EPC for all the designated Contracting States.

4.2.1 With respect to this document, the appellant referred to many passages of the introductory part of the description of this document, namely the passages on page 1, lines 1 to 3; page 2, lines 19 to 23 and 27 to 29; page 4, line 29 to page 5, line 5; page 5, line 33 to page 6, line 4; page 6, lines 10 to 17. According to the appellant all these passages form a unitary disclosure which deprives the subject-matter of Claim 1 of novelty.

The board cannot accept this argument of the appellant for the following reasons.

It is normally not permissible for assessing novelty either to mosaic two documents or to combine separate parts of a single document in a way which is not clearly indicated in the document itself (see for instance T 183/84, unpublished, section 7). In the present case, the passages referred to by the appellant

provide generalisations of what is illustrated in detail in the second part of the description of document D1 referring to Figures 1 to 10. However, this second part of the description illustrates **four** different **examples** of milking devices. Therefore, for the skilled reader of document D1, it is not immediately clear that all the above mentioned passages represent a single teaching relating to a single example. Besides, it is clear from the whole document that the passage bridging pages 4 and 5, which defines guide members movable in a lateral direction, clearly relates to the example illustrated in Figures 4 and 5 and that the passage bridging pages 5 and 6, which define a stop member against which the animal leans in the longitudinal direction, relates to the example according to Figures 6 and 7. Thus, it is clear that these passages relate to different teachings represented in different specific examples. The document itself not only does not suggest a combination of the two passages but also shows the teachings in separate distinct examples of milking devices. Therefore, this argument of the appellant relies on the combination of separate teachings within a single document without there being an unequivocal disclosure of this combination.

5. *Problem and solution (main request)*

5.1 The board and both parties consider the milking device described in document D2 as being the closest prior art.

5.2 Document D2 discloses (see particularly Figures 2 and 5 to 9) a device for milking animals comprising a milking parlour 1, a milking robot 8 with a support 16 for the milking cluster 6, the support 16 being capable of lateral and longitudinal movements, the milking robot being provided with first sensor means 14 for determining the position of the teats of the animal in the longitudinal and lateral directions and with second sensor means 18 for determining the position of the teats of the animal in the vertical direction. Moreover, means 4, 4', 4" are provided for retaining the animal in the milking parlour. When the milking cluster has been applied by the robot and the milking operation is started, the robot can return in its inactive position so that the support is separated from the milking cluster (see page 6, lines 9 to 13; Figure 9).

Although the type of sensors is not explicitly defined in document D2, it is stated that they are suitable to sense the distance to and the position of the teats and are adapted to control the robot for moving and applying the milking cluster (see for instance Claim 10). In other words, it is clear that the milking device according to document D2 requires a rather complex sensing system.

5.3 The subject-matter of the Claim 1 substantially differs from the milking device according to document D1 by the features specified in the characterising portion of the

claim, i.e. by features D.1), D.2), D.3), D.4) and D.4.1).

These distinguishing features result in the provision of a milking device in which the milking cluster can be attached to the teats of the animal in an efficient and reliable manner without using a complex sensing system for determining the position of the teats and a complex moving system for moving the support of the milking cluster. In other words, according to the claimed solution, not only it is possible to detect the position of the animal only in the lateral direction of the milking parlour by means of sensors disposed on each side of the milking parlour and having parts in contact with the animal (mechanical sensing) but also it can be avoided that the support of the milking cluster - for application to the teats of the animal - be moved in the longitudinal direction of the milking parlour.

Moreover, according to the claimed solution, not only the milking cluster but also the support of the milking cluster is maintained - during milking - central with respect to the parts of the sensor means which are in contact with the animal and, thus, with respect to the animal (see the above sections 2.3 to 2.5).

6. *Inventive step (main request)*

6.1 The claimed solution is based on the general idea of positioning the animal in the longitudinal direction and sensing its position solely in the lateral direction so as to make it possible for the support of the milking cluster not to have to move in the longitudinal direction.

6.2 Document D3 can be taken into consideration for the assessment of inventive step because it relates to the same technical field and indicates the aim of developing an automatic milking device enabling correct operation without using complex detection and positioning systems (see page 207, second column, paragraph "Presupposti e finalità").

Document D3 teaches that, firstly, the position of the udder is indirectly determined by sensing the position of the back extremity of the animal by means of a yoke capable of being delicately attached on the back of the animal and, secondly, the milking unit carrying the teat cups is brought to the vicinity of the teats in order to capture them (see page 211, first and second columns, paragraph "Principio di funzionamento"). The device for moving the teat cups for their application to the teats of the animal is defined in document D3 as a spatial mechanism ("meccanismo spaziale") having at least 3 degrees of freedom, namely three translations along the axes of reference, i.e. in the longitudinal, lateral and vertical directions (see page 211, second column, last line to third column, line 13). Therefore, document D3 does not suggest the general idea on which

the claimed solution is based.

Moreover, even if it is considered that the yoke performs the functions of the sensor means according to features D.1) to D.4), there is no indication in document D3 that the sensor means, i.e. the yoke, is coupled to the support of the milking cluster in such a manner that they maintain the milking cluster central with respect to the parts of the yoke which are in contact with the animal. Therefore, even if the skilled person were to combine the teaching of document D3 with that of document D2, he would not arrive at the claimed subject-matter.

6.3 Having regard to the above comments, the board finds that the subject-matter of the independent Claim 1 of the patent as granted, upon which the main request of the respondent is based, is not obvious to a person skilled in the art and thus considers it as involving the inventive step required by Article 56 EPC.

7. Since the patent can therefore be maintained as granted according to main request of the respondent, the respondent's subsidiary request does not need to be considered.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

N. Maslin C. Andries