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**Datasheet for the decision
of 20 June 2013**

Case Number: T 0215/11 - 3.2.04

Application Number: 95200027.1

Publication Number: 663146

IPC: A01J7/00

Language of the proceedings: EN

Title of invention:

A construction for automatically milking animals

Patent Proprietor:

MAASLAND N.V.

Opponent:

DeLaval International AB

Headword:

Relevant legal provisions:

EPC Art. 56, 123(3)

EPC R. 140

Keyword:

Inventive step - (yes)

Amendments - extension beyond the content of the application
as filed (no)

correction of printing errors - page missing from

Druckexemplar

Decisions cited:

G 0001/10

Catchword:



**Beschwerdekammern
Boards of Appeal
Chambres de recours**

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Case Number: T 0215/11 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 20 June 2013

Appellant:
(Patent Proprietor)

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(Opponent)

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Decision under appeal:

**Decision of the Opposition Division of the
European Patent Office posted on 19 November
2010 revoking European patent No. 663146
pursuant to Article 101(3)(b) EPC.**

Composition of the Board:

Chairman: A. de Vries
Members: E. Frank
T. Bokor

Summary of Facts and Submissions

- I. European patent No. 0 663 146 to Maasland N.V. (proprietor) was opposed by DeLaval International AB (opponent). Opposition was based on Articles 100(a) 1973 together with Articles 52(1), 54 and 56 EPC 1973, further on Article 100(b) and (c) EPC 1973.

In a first decision the opposition division revoked the patent solely based on extended subject-matter of claim 1 as granted.

That decision was appealed by the proprietor and was heard as T 0416/04. The Board in that case decided that granted claim 1 met the requirements of Article 100(c) EPC 1973, and remitted the case to the opposition division for further prosecution.

- II. In the present proceedings the proprietor appeals the decision of the opposition division dated 16 September 2010 and posted on 19 November 2010 to revoke the patent for lack of inventive step of claim 1 as granted. He filed the notice of appeal on 28 January 2011, and paid the appeal fee on the same day. A statement containing the grounds of appeal was filed on 28 March 2011.

- III. A communication pursuant to Article 15(1) RPBA was issued after summons to attend oral proceedings. This communication makes reference to the following documents which played a role in the present appeal proceedings:

D2 = EP 0 306 579 A;

D4 = "Zukunftsorientierte Milchproduktion durch moderne Elektronik", Arbeiten der DLG, Band 181, DLG-Verlag, 1984: pages 142 to 153;

D6 = EP 0 551 957 A (cited in the patent).

Oral proceedings were duly held on 20 June 2013.

- IV. The appellant (proprietor) requests that the decision under appeal be set aside and the patent be maintained with claims as granted and the specification completed with the omitted page 6 of the application as filed.

The respondent (opponent) requests that the appeal be dismissed.

- V. Claim 1 as granted reads as follows:

"Construction for milking animals, such as cows, comprising at least one milking machine a first computer and at least one milking robot, the or each milking robot being associated with its own animal recognition system and second computer, the first computer storing data in respect of each animal, characterized in that the first and respective second computers are connected for data exchange whereby.[sic] when an animal has been recognised by the recognition system, data concerning the animal is communicated from the first to the second computer.[sic] following which data communication the second computer may control the respective milking robot and milking machine to perform the milking and wherein data held in the second computer enable performance of the milking under the control of the second computer even if the data communication from the first computer is unsatisfactory."

VI. The appellant argued as follows:

The reinsertion of page 6 of the original description into the patent specification was occasioned by the ground under Article 100(b) EPC. Moreover, the now restored text did not alter the scope of the patent. As for inventive step, the nearest prior art D2 firstly did not disclose that all animals can go to each and every stall. Secondly, irrespective of whether data might be updated in D2's computers or not, the data held could not enable performance of the milking as in claim 1, since in D2 a camera was always needed to process the final calculation of the teat coordinates for the milking robot. D4 only very generally described a simple master - slave system, whereby the slaves were completely dependent on data from the master. Thus, the combination of D2 and D4 (and *vice versa*) could not have lead to the inventive concept of claim 1 of the patent, i.e. to provide the minimum information necessary for the robot to work autonomously in case of a malfunction between the first joint computer and each of the second computers at the respective milking robot. As to D6 cited in the patent, this document clearly taught two independently working computer systems, which did not require any further computer, such as in D4, for control of the milking. Therefore claim 1 involved an inventive step.

VII. The respondent argued as follows:

The data held in the second computer of claim 1 had previously been interpreted in the absence of page 6 as filed. Due to additional information on original page 6, lines 1 to 10, that stored data now had more significance and, therefore claim 1's scope had been

extended by the reinsertion of page 6, contrary to Article 123(3) EPC. As regards inventive step, D2 was a suitable starting point. D2 taught that animals freely access any milking stall. Moreover, animal control data held on the robot's computer in each stall was updated every day, thereby enabling the robotic milking to work autonomously solely based on this data, such as was also required by claim 1 of the patent. If the skilled person then had to manage the separate stalls of D2, he would turn to a hierarchical system as shown in D4. D4 hinted at a first centralised management computer ("*Betriebscomputer*") which allowed to share cow specific control data with second master computer systems ("*Haupt-Prozeßrechner*"), thus to ultimately control the milking robots at the slave stations: see D4, figures 94 and 97. It would therefore be obvious for the skilled person to provide a control data memory on the autonomous computer system of D2 which was accessible to be managed in a separate, centralised, management computer as suggested by D4. This being only a small step for the skilled person, the subject-matter of claim 1 thus was not inventive in the light of D2 and D4. Alternatively, D4, which was concerned with the automation of animal management, disclosed all features of claim 1 with the exception of a milking robot that was associated with the animal recognition system in each stall. It would have been an obvious modification of D4 to include a milking robot of D2 in the hierarchical system of D4, to further automate the process of dairy herd management and to arrive at the subject-matter of claim 1. Finally, although D6, which was cited in the patent, described two independent feeding and milking computer systems, respectively, there had to be some overall control of these systems, ie a herd management such as taught in D4. Hence, claim

1 also did not involve an inventive step in the light of D6 and D4.

Reasons for the Decision

1. The appeal is admissible.
2. *Reinstatement of missing page 6*
 - 2.1 The Appellant had requested reinstatement initially as a correction of the decision to grant under Rule 140 EPC, then as an amendment to the patent under Article 123 EPC in view of G 1/10 (OJ 2013, 194) point 13 of the Reasons. The Board held this amendment to be a fair attempt to overcome the objection of insufficiency of disclosure raised by the respondent during the opposition procedure, Rule 80 EPC 1973. That objection had been based on the absence in the patent specification of information appearing on page 6 of the description as filed.

Taking into account the fact that in principle amendments of the specification may affect the scope of the patent, Article 69 EPC, the Board examined the scope of protection of the patent with and without the missing page and found that the restored additional information from page 6 as filed, lines 1 to 10, would at most result in a narrower interpretation of claim 1 as regards the required data collected by or held in, respectively, the second computer. It furthermore found that this same data was also mentioned in the context of the second computers under paragraph [0005] of the patent.

That said, it is simply not apparent to the Board why the re-insertion of the missing page would create any new subject-matter which the skilled person would not have considered to fall under the scope of protection when interpreting the patent in its unamended form.

Therefore, the Board concluded that the reinstatement of missing description page 6 did not extend the scope of protection contrary to Article 123(3) EPC.

- 2.2 The Board notes, by way of *obiter dictum*, that following the announcement of the decision during the oral proceedings the Board has become aware that missing page 6 was in fact originally included in the text of the description on which the examining division based its decision to grant: see the "Druckexemplar" attached to the communication under Rule 51(4) EPC 1973, dated 14 September 2000. Page 6 was thus erroneously omitted from the "Druckexemplar" by the EPO upon publication of the specification of the European patent. The correct procedure for dealing with errors of this kind is outlined in EPC Guidelines, H-VI 3 (September 2013), where it is also stated that errors of this kind can be corrected at any time, and the Board sees no reason to disagree. Correction is then effected by way of a corrigendum or reprint of the entire specification, see EPC Guidelines C-V 10 (September 2013), last paragraph. As indicated there only the text on which the decision to grant the patent is based is decisive, i.e. that text is legally binding as regards existence and scope of the patent. As the Druckexemplar did in fact include page 6, and this was the legally binding text, the objections raised by the respondent-opponent under Article 100(b) and Article 123(3) EPC, based solely on the missing page 6, the appellant proprietor's requests for correction under

Rule 140 or amendment, as well as the ensuing discussion during the oral proceedings before the Board concerning Articles 123(3) EPC) and the Board's finding above were from a substantive point of view legally unfounded (not having considered the totality of the relevant facts) and obviously unnecessary. However, notwithstanding this deficiency, that final decision by the Board has not lead to a different outcome of the appeal than if a corrigendum had been issued, nor has it resulted in any adverse effect or some other unwarranted loss of rights of either party.

3. *Inventive step*

3.1 With respect to the wording of claim 1 the Board notes that, when the second computers control their respective milking robot and milking machine to perform the milking, the term "milking machine" has to be considered an entity suitable for milking: see T 0416/04, points 2.5 to 2.7. This indeed is the only technically meaningful interpretation of claim 1 for the skilled person and it is supported by the description, cf. patent, par. [0018] to [0020].

3.2 It is common ground that document D2 can be considered to represent the closest prior art, since D2 concerns a plurality of decentralised, autonomously controlled, milking stalls (cf. column 5, line 54, to column 6, line 4; column 6, line 58 to column 7, line 7; and figures 1 and 2). The robotic milking is carried out with the aid of a optical scanning system 101 and camera 110, providing data representative to the teat's image of an animal entering the stall. Based on this data, a computer ("*dispositif de traitement d'informations 120*") subsequently calculates the teat coordinates to control the robot arms and the milking

machine to ultimately perform the automated milking (cf. D2; column 7, line 51 to column 8, line 2). Apart from the individual computers each associated with a respective stall no other computers, let alone a central computer are disclosed in D2.

In a preferred embodiment, the computer comprises a memory ("*mémoire*") to save data of teat coordinates of animals which entered the stall in the past. Hence, as soon as an animal now enters the stall and has been identified by the recognition system, an approximate positioning of the teat cups by the robot arms with respect to its teats can firstly be carried out on the basis of this previously memorised data. The camera analysis of the animal's teats' image can then be limited, and thus time saved when the final position of the teats is calculated by the computer to eventually adjust the robot arms to perform the milking. The memory can be updated with these newly calculated final teat coordinates, thereby also taking into account the evolution of the animal's morphology (cf. D2; column 4, line 32 to 52; column 11, lines 16 to 26; column 12, lines 25 to 47; and figure 9).

- 3.3 However, as argued by the appellant, even though (updated) data may be held in the memory of D2's computer, this data is invariably used to only approximate the teat cups to the teats' position. The milking is not performed until after a final calculation of the teat coordinates based on the camera's teat image data of a newly entered animal has been made: see D2; column 12, lines 43 to 53. Thus, as opposed to the data held in the second computer of claim 1 of the patent, D2's saved data alone cannot enable performance of the milking under the control of D2's computer. That is, D2's milking robot does not

function as an autonomous unit based solely on minimum information stored in the computer memory as defined in claim 1. This understanding of claim 1's final feature in contrast to D2's disclosure is also technically meaningful to the skilled person in the light of the patent's description: see specification paragraph [0005].

3.4 In the Board's view, therefore, irrespective of whether D2 teaches that any animal of the herd may access any milking stall (as is also required by claim 1 of the patent) or not, the subject-matter of claim 1 in any event differs from the disclosure of D2 in that

(i) a first computer storing data in respect of each animal is provided, wherein the second computers are connected with the first computer for data exchange from the first to the second computer when an animal has been recognized at the milking robot and may then control the respective milking robots and milking machines to perform the milking, and in that

(ii) data held in the second computer enables performance of the milking under the control of the second computer even if data communication from the first computer is unsatisfactory.

3.5 Vis-a-vis D2 these features result in central collection and storage of animal data of a dairy herd in which the individual milk robots nevertheless retain some autonomy, in particular in the event of a malfunction in the data communication between a central and the second computers, cf. specification paragraph [0005]. The resultant master and autonomous slave architecture represents an alternative to the simple architecture of D2 that coordinates animal data of a

dairy herd in order for the at least one milking robot and milking machine to perform automated milking. The objective technical problem underlying these distinguishing features can thus be formulated as how to find an alternative to the architecture of D2 that coordinates animal data of a dairy herd.

- 3.6 The prior art D4 describes a hierarchical system for milking dairy cattle. A master computer ("*Haupt-Prozeßrechner*"), which centrally stores data of a dairy herd, and decentralised slave computer systems ("*Untersysteme*") are foreseen, to thus control the robotic milking ("*Melkzeugsteuerung*"): cf. page 148, and figure 97 on page 147. The master and slaves are connected for data exchange. However, D4 states that at their operating place, the slave computers merely read, process, and, where necessary, use data for control. In so doing, the slave computers either send data to the joint master computer, or receive it therefrom: see page 148, second paragraph. D4 does not disclose or hint at any animal data to be stored in the slaves, i.e. the second computers. Moreover, contrary to the respondent's view, the third computer addressed in D4, that is the management PC ("*Betriebscomputer*"), is used for purely managerial functions: see figure 94 on page 143; page 148, second last paragraph, and figure 97 on page 147. There is moreover no data exchange triggered by cow recognition ("*Identifizierung*": see figure 97 on page 147) between the management PC and the joint master computer, such as in claim 1 between the first and second computers. Therefore, D4's management PC does not store or send any cow specific data to the central master computer which in turn may control the respective milking robot and milking machine at the slave stations to perform the milking.

- 3.7 In summary, starting from D2 the skilled person, faced with the problem of finding an alternative architecture that coordinates the animal data of the herd to perform the robotic milking in each stall of D2, is not given any suggestion by D4 to hold data in the memory of D2's computer to enable performance of the milking, let alone in case of malfunction of data communication between a first joint computer and each of D2's decentralised computers, thus to obtain autonomous robot units according to claim 1 of the patent. Rather, D4 teaches the skilled person to store data for the performance of the milking in the joint master computer, i.e. to centralise the cow specific control data of D2 in a master system, but not to store this data locally on computers in each stall.
- 3.8 In the written procedure, the respondent also submitted that claim 1 was obvious in light of D4 and D2. However, as stated above, neither the slave stations of D4 nor the computers at the milking robots of D2 hold data which enables automatic milking to be carried out. Thus, the Board is satisfied that a combination of D4 and D2 also cannot lead the skilled person to the claimed solution.
- 3.9 Finally, reference has also been made to document D6 cited in the patent. D6 is silent as to whether or not data is stored on the computer system 14 controlling an individual milking robot 15 (see abstract and figure 1). However, even if, as argued by the respondent, the computer system 14 of D6 for controlling the milking robot and the automatic milking independently of a further computer 13 controlling the feeder (cf. column 3, lines 13,14; column 8, line 56 to column 9, line 27; and figure 1) were taken as nearest prior art, D4 as stated does not provide any disclosure or hint for the

skilled person to locally store control data in the computers 14 of D6 which would enable automatic milking even if control data communication from a first joint computer were unsatisfactory, to thus arrive at the construction of claim 1. The Board notes that D4 would merely instruct the skilled person to centrally store control data previously memorised on each indication-information member 18 of D6 in a joint master computer described by D4.

- 3.10 In the light of the above the Board concludes that the subject-matter of claim 1 involves an inventive step, Articles 100(a), 52(1) and 56 EPC 1973.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance with the order to maintain the patent in the following version:

Description:

pages 2, 3 of the published patent specification,
including page 6 as originally filed;

Claims:

1-11 of the patent specification

Drawings:

Fig. 1 of the patent specification.

The Registrar:

The Chairman:



G. Magouliotis

A. de Vries

Decision electronically authenticated