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**Datasheet for the decision
of 12 September 2023**

Case Number: T 3123/19 - 3.4.01

Application Number: 13824414.0

Publication Number: 2934098

IPC: G06K7/10, A01J5/007, A01J5/017,
A01J5/08

Language of the proceedings: EN

Title of invention:

MILKING ARRANGEMENT, SET OF EXCHANGEABLE EXPENDABLE PARTS AND
METHOD FOR A MILKING ARRANGEMENT

Patent Proprietor:

DeLaval Holding AB

Opponent:

Octrooibureau Van der Lely N.V.

Headword:

Milking arrangement (DeLaval)

Relevant legal provisions:

EPC Art. 100(a), 52(1), 56
RPBA 2020 Art. 13(1)

Keyword:

Inventive step - main request, auxiliary request 1, auxiliary request 2, auxiliary request 4 (no) - auxiliary request 5 (yes)

Amendment to appeal case - auxiliary request 3 - amendment overcomes issues indentified (with a higher ranking request) (no) - auxiliary request 5 - amendment overcomes issues identified (with a higher ranking request) (yes)



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Case Number: T 3123/19 - 3.4.01

D E C I S I O N
of Technical Board of Appeal 3.4.01
of 12 September 2023

Appellant: Octrooibureau Van der Lely N.V.
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Respondent: DeLaval Holding AB
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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 28 October 2019
rejecting the opposition filed against European
patent No. 2934098 pursuant to Article 101(2)
EPC.**

Composition of the Board:

Chair P. Scriven
Members: A. Medeiros Gaspar
R. Winkelhofer

Summary of Facts and Submissions

- I. The opponent appealed the Opposition Division's decision to reject the opposition.
- II. The Opposition Division held, *inter alia*, that the independent claims of the patent were new and inventive having regard to document

D1 US6427625 B1,

be it taken alone or in combination with the common general knowledge of the skilled person or in combination with

D7 US2010/0013594 A1.

- III. Further documents

D3 WO00/32298
D4 US7980975
D5 US5940095
D6 US2003/0156401
D8 US2008/0272915
D9 US2005/0248455
D10 US5812156
D11 US6065824

were held not to illustrate the common general knowledge of the skilled person.

- IV. On appeal, the opponent, *inter alia*, contested these conclusions; and argued that the auxiliary requests presented before the Opposition Division also lacked inventive step having regard to the disclosure of document D1, either taken alone, or combined with common general knowledge (as illustrated by D3-D11), or with D7.
- V. The proprietor defended their patent and upheld auxiliary requests 1 to 4 as submitted in reply to the notice of opposition. They did not, then, request oral proceedings.
- VI. In a communication pursuant to Rule 100(2) EPC, the Board informed the parties of their provisional opinion (under Article 17(2) RPBA 2020) that none of the claim requests on file was allowable.
- VII. The proprietor filed, with their reply, auxiliary requests 3 to 5, where auxiliary request 3 and 5 were new, and auxiliary request 4 was identical to former auxiliary request 3. They also requested oral proceedings.
- VIII. The parties were summoned to oral proceedings. In the communication accompanying the summons, the Board indicated that it was still of the opinion expressed in the communication under Rule 100(2) EPC and that admission of the new requests would need be discussed.

IX. The final requests of the opponent are that the decision be set aside and the patent be revoked. The final requests of the proprietor are that the appeal be dismissed (main request), or that the patent be maintained on the basis of auxiliary requests 1 or 2, submitted with the reply to the notice of opposition, or of auxiliary requests 3 to 5, submitted in reply to the communication pursuant to Rule 100(2) EPC.

X. Claim 1 of the main request (patent) reads (without reference signs):

*A milking arrangement comprising:
milking equipment provided for milking
animals; and
a computer system provided for monitoring
and/or controlling the milking equipment,
wherein
the milking equipment comprises a plurality
of exchangeable expendable parts in form of
teat cup liners or cartridges including
teat cup liners and/or milk or vacuum tubes
connected to teat cups of the milking
equipment, characterized in that*

- at least one of said exchangeable
expendable parts comprise data, by which
the model and/or manufacturing date of
said exchangeable expendable part can be
uniquely identified;*
- the milking equipment further comprises
a reader operatively connected to the
computer system and arranged to
repeatedly read the data of the
identification tag of said exchangeable
expendable part and to forward the*

readings of the identification tag of said exchangeable expendable part to the computer system;

- the computer system is configured to identify the model and/or manufacturing date of said exchangeable expendable part based on said readings; and*
- the computer system is configured, in response to the identified model and/or manufacturing date,*
 - (i) to alert an operator and/or*
 - (ii) to monitor and/or control the milking equipment, and/or*
 - (iii) to make the model and/or manufacturing date of said exchangeable expendable part available to the operator.*

XI. Claim 1 of auxiliary requests 1 and 2 is identical to claim 1 of the main request.

XII. Claim 1 of auxiliary request 3 adds, at the end of claim 1 of the main request, the additional feature defined in claim 2 of the patent:

*... ,
wherein the identification tag is a RFID
(radio frequency identification) tag and
the reader is a RFID reader.*

XIII. Claim 1 of auxiliary request 4 restricts the last feature of claim 1 of the main request to the second of the three alternative responses, and adds the

additional feature defined in claim 6 of the patent, so that its last part reads:

...

- the computer system is configured, in response to the identified model and/or manufacturing date, to monitor and/or control the milking equipment, wherein the computer system comprises a database of said exchangeable parts, in which said data is associated with a model and/or a manufacturing date of said exchangeable expendable part, such that the computer system is capable of retrieving the model and/or manufacturing date of an exchangeable expendable part after having received a reading of the data of the identification tag of the exchangeable expendable part.

XIV. Claim 1 of auxiliary request 5 modifies the following features of claim 1 of the main request, defining the computer system of the milking arrangement:

...

- a computer system provided for monitoring and controlling the milking equipment, wherein

...

- the computer system is configured to identify the model and the manufacturing date of said expendable part based on said readings, and
- the computer system is configured, in response to the identified model and manufacturing date, to control milking parameters of the milking equipment, used during milking including at least

one of milking vacuum, pulsation vacuum, pulsation rate, and pulsation frequency.

XV. Claim 9 of auxiliary request 5 reads:

A method for a milking arrangement comprising milking equipment provided for milking animals; and a computer system provided for monitoring and controlling the milking equipment, wherein the milking equipment comprises a plurality of exchangeable expendable parts in the form of teat cup liners or cartridges including teat cup liners and/or milk or vacuum tubes connected to teat cups of the milking equipment, characterized by the steps of:

- providing at least one of the exchangeable expendable parts with an identification tag comprising data, by which the model and a manufacturing date of said exchangeable expendable part can be uniquely identified,*
- repeatedly reading the identification tag of said exchangeable expendable part by a reader operatively connected to the computer system,*
- forwarding the readings of the identification tag of said exchangeable expendable part to the computer system,*
- uniquely identifying the model and manufacturing date of said exchangeable expendable part based on said readings; and*
- in response to the identified model and manufacturing date, controlling milking parameters of the milking equipment, used during milking including at least one of milking vacuum, pulsation vacuum, pulsation rate, and pulsation frequency.*

Reasons for the Decision

The invention as described in the patent

1. The invention relates to milking arrangements comprising exchangeable expendable parts, that require replacement at certain intervals. Examples are teat cup liners or cartridges including teat cup liners, and milk and/or vacuum tubes.
2. Paragraph [0005] of the patent describes cartridges consisting of a sleeve and a teat-cup liner. In this arrangement, the whole cartridge is replaced. This is contrasted with other prior art, in which only the liner is replaced.
3. The patent addresses problems arising in connection to replacement of exchangeable expendable parts, such as their replacement by incompatible parts, and the failure to replace them when necessary.
4. It proposes providing these parts with an identification tag comprising data enabling the identification of the respective part's model or manufacturing date.
5. By additionally providing the milking arrangement with a tag reader and configuring its computer system to act in response to those readings (whether by informing the operator or by controlling the milking process), the identification of problems and their resolution are expedited.

Main Request: inventive step in view of D1

6. D1 relates, like the patent, to milking arrangements comprising exchangeable expendable parts.
7. The arrangement of D1 comprises different sets of teat cups, provided in teat cup magazines. Each teat cup comprises a flexible liner placed within a rigid shell (D1: abstract; column 4, line 60 to column 5 line 23; figure 4).
8. The milking arrangement of D1 is adapted automatically to attach, for each animal, teat cups that fit the size and shape of the animal's teats (D1: column 2 lines 11 to 23). It provides both the animals and the shells of the different teat cups available with unique identifiers. These can be read by a reader connected to a computer system, enabling identification of the most appropriate teat cup for each animal (D1: column 2 lines 24 to 28; column 6 lines 17 to 25; figure 8). Neither the teat cup liners, nor the tubing of the milking arrangement of D1 comprise unique identifiers.
9. What concrete information is contained in the identification tags, and how, in practice, the best match to a particular animal is automatically identified are not disclosed in detail. Rather, D1 discloses only that the size of the each animal's teats is stored in memory, and that the control means are capable of automatically identifying the different teat cups, based on the information read from the ID tags, selecting those to be employed, and controlling the milking arrangement so as to attach the correct teat cups (D1: column 2 lines 11 to 28; column 6 lines 3 to 16).

10. The milking arrangement of claim 1 of the patent differs from the milking arrangement of D1 in that:
 - (a) it requires an *exchangeable expendable part in the form of teat cup liners or cartridge including teat cup liners and/or milk or vacuum tubes connected to the teat cup to comprise an identification tag;*
 - (b) the identification tag comprises *data, by which the model and/or manufacturing date of said exchangeable expendable part can be uniquely identified;*
 - (c) *the computer system is configured to*
 - (i) *identify the model and/or manufacturing date of said exchangeable expendable part based on said readings; and*
 - (ii) *in response to the identified model and/or manufacturing date, (i) to alert an operator and/or (ii) to monitor and/or control the milking equipment, and/or (iii) to make the model and/or manufacturing date of said exchangeable expendable part available to the operator.*

11. Providing the teat cup liners with a unique identifier and configuring the computer system as defined in the claim enables automated identification of the teat cup liner, and verification of its compatibility with the teat cup shell and with the animal, thereby contributing to an improved fitting of the teat cups to the animal.

12. The proprietor argues that the milking arrangement of D1 already employs a unique identifier, provided on the teat cup shell, so as to enable verification of the compatibility of the teat cup with the animal. Hence, starting from the disclosure of D1, the skilled person would not have come to the idea of providing a unique

identifier on the teat cup liner, whether instead of or in addition to the one on the shell.

13. However, in D1, the proper choice of teat cup liner is important (D1: column 5, lines 24 to 54; figures 5 and 6), quite apart from the fact that D1 explicitly discloses the possibility of using teat cup liners of different sizes depending on the size and shape of the teats of the animal (D1: column 2 lines 37-41).
14. The skilled person seeking to improve the fitting of the teat cups to the animal would, then, based on this further disclosure on D1, have considered employing different combinations of teat cup shells and liners, and of providing both elements with identifiers.
15. Contrary to what is also argued by the proprietor, providing the teat cup liners of D1 with identification tags would not present technical difficulties that would dissuade the skilled person from implementing such a solution. Identification tags, such as the one provided on the teat cup shells, could, for example, be easily provided on the external wall of the upper part of the liners, i.e. on their so-called lip (D1: Figures 4 and 5).
16. Any difficulty in reading tags on liners, due to variations in rotational alignment could have been solved in the same way as for the teat cup shells. Alternatively, the skilled person would also have considered using transponders such as the ones used on the animals in D1, rather than bar codes (D1: column 6, lines 3-7).
17. The further configuration of the computer system so as to act in response not only to the ID tags on the

shells and the animals, but also in response to the ID tags on the cup liners, would not have presented additional difficulties and could have been straightforward to implement.

18. Lastly, providing the tag with data by which the model of the teat cup could be uniquely identified would have been among the trivial options at the disposal of the skilled person seeking to implement a unique identification of the teat cup liner. Indeed, it would be immediately apparent to the skilled person that, based on the model of the teat cup liner, access would be easily gained to the further specifications of the teat cup liner, in particular, to its size and shape, thereby enabling the determination of the best match to each particular animal.
19. Therefore, claim 1 of the patent does not entail an inventive step having regard to the disclosure of D1 and the skilled person's common general knowledge. Consequently, the main request is not allowable.

Auxiliary requests 1 and 2: inventive step in view of D1

20. Auxiliary requests 1 and 2 were filed in reply to the notice of opposition.
21. Claim 1 of each of these requests is identical to claim 1 of the patent.
22. Hence auxiliary requests 1 and 2 are not allowable for the reasons indicated above with regards to claim 1 of the main request.

Auxiliary request 3: Article 13(1) RPBA 2020

23. Auxiliary request 3 was filed within the time period specified by the Board in the communication under Rule 100(2) EPC.
24. Its claim 1 corresponds to claim 2 of the patent. It adds, to claim 1 of the patent, the further limitation that *the identification tag is an RFID (radio frequency identification) tag and the reader is an RFID reader.*
25. This request is an amendment of the proprietor's appeal case, and its consideration is at the Board's discretion, under Article 13(1) RPBA 2020.
26. According to Article 13(1) RPBA 2020, the Board shall exercise its discretion in view of, inter alia, the state of the proceedings, the suitability of the amendment to resolve the issues which have been admissibly raised by another party and, in case of an amendment, whether, prima facie, it overcomes the issues raised and does not give rise to new objections.
27. The proprietor argued that, since the identification tags employed in the teat cup shells of D1 were not RFID tags, but instead bar codes (D1: Figure 8), the skilled person would not have considered a different type of tag for the teat cup liner. Hence, the amendment prima facie overcame the lack of inventive step of claim 1 of the patent, without giving rise to new objections.
28. However, while it is true that the teat cup shells of D1 are provided with bar codes, it is also true that the animals are provided with transponders (D1: column 6, lines 3-7). Additionally, RFID tags were well known

at the priority date, as the opponent noted in their notice of opposition. This has not not been disputed by the proprietor.

29. There remains, therefore, considerable doubts as to the inventive step of claim 1 of this request, having regards to D1. Therefore, the amendment does not, *prima facie*, overcome the issue of lack of inventive step having regards to D1 and the skilled person's common general knowledge..
30. Therefore, auxiliary request 3 is not to be considered in these appeal proceedings.

Auxiliary request 4: inventive step in view of D1

31. Auxiliary request 4 was filed in reply to the notice of opposition, at that time as auxiliary request 3.
32. It defines the computer system as responding to the identified model or manufacturing date, by controlling *the milking equipment; and as comprising a database of said exchangeable expendable parts, in which said data is associated with a model and/or manufacturing date of said exchangeable part, such that the computer system is capable or retrieving the model and/or manufacturing date of an exchangeable part after having received a reading of the data of the identification tag of the exchangeable expendable part.*
33. As indicated with regards to the main request (paragraphs 11 to 18 above), neither the provision of an identification tag on the teat cup liners of milking arrangement of D1, such that the model of the teat cup liners can be identified, nor the configuration of its

computer system to control the milking arrangement in response to the identified model entails an inventive step in view of D1.

34. The further definition that the computer system comprises a database of exchangeable expendable parts, in which the tag data is associated with a model, is also unable to contribute to an inventive step, since it is no more than the use of a well-known way of storing and retrieving data. The proprietor did not challenge this.
35. Therefore claim 1 of auxiliary request 4 also does not entail an inventive step in view of D1.

Auxiliary request 5: Article 13(1) RPBA 2020

36. Auxiliary request 5 was filed within the time period specified by the Board in the communication under Rule 100(2) EPC.
37. Claim 1 of this request includes a modification with regards to claim 1 of the auxiliary request 4 that was filed in reply to the notice of opposition, and re-filed in reply to the appeal of the opponent.
38. This request is an amendment of the proprietor's appeal case, whose admission is at the Board's discretion pursuant to Article 13(1) RPBA 2020.
39. Claim 1 of the version filed in reply to the notice of opposition, defined the computer system of the milking arrangement as being *for monitoring and controlling the milking* equipment, and, furthermore, as being configured:

- *to identify the model and the manufacturing date of the exchangeable part based on the readings of the data on the identification tag; and,*
- *in response to the identified model and manufacturing date, to monitor and control the milking parameters of the milking equipment used during milking including at least one of milking vacuum, pulsation vacuum, pulsation rate, and pulsation frequency.*

41. The opponent raised objections under Articles 56 and 123(2) EPC against this request, which were addressed, in substance, during the written opposition and appeal proceedings, including in the Board's provisional opinion.
42. The provisional opinion indicated that, while the Board was not persuaded by the opponent's arguments regarding inventive-step in view of D1, it saw some merit in the objection under Article 123(2) EPC, because a configuration of the computer system to monitor the milking parameters could not be directly and unambiguously derived from the original disclosure of the patent.
43. Claim 1 of auxiliary request 5 defines the configuration of the computer system as being to control the milking parameters. Consequently, the objection under Article 123(2) EPC is no longer relevant.
44. While this amendment could have been filed earlier, it reduces issues to be discussed to that of inventive step in view of D1. This is the issue that was decisive with regards to the higher-ranking requests, and, furthermore, an issue that had already been discussed

in substance during written opposition and appeal proceedings, given that the relevant additional features (see paragraph 39) were submitted with reply to the notice of opposition.

45. There is, therefore, no reason why auxiliary request 5 should not be dealt with in substance.

Auxiliary request 5: inventive step in view of D1 (and D3 to D11)

46. As indicated above, claim 1 of the auxiliary request 5 further defines the computer system of the milking arrangement as being *for monitoring and controlling the milking* equipment, and, furthermore, defines it as being configured:

- *to identify the model and the manufacturing date of the exchangeable part based on the readings of the data on the identification tag on the exchangeable expendable part; and,*
- *in response to the identified model and manufacturing date, to control the milking parameters of the milking equipment used during milking including at least one of milking vacuum, pulsation vacuum, pulsation rate, and pulsation frequency.*

49. As already indicated, D1 discloses a computer system that is adapted to monitor and control the milking equipment. Concretely, the automatic identification and selection of the teat cups that best fit a particular animal and the automatic control of the milking equipment so as to perform teat cup attachment (D1: column 6, lines 8-16).

50. D1 also discusses the relevance of the teat cup liner for the fitting process, in particular, its shape, size and lip flexibility (D1: column 5, lines 24 to 54), even if it does not discuss the possible relevance of the age of the teat cup liners.
51. D1 is, however, silent as to the subsequent milking process, or the control of milking parameters during milking.
52. Claim 1 of auxiliary request 5 differs from the disclosure of document D1 in that:
- (a) it requires an *exchangeable expendable part in the form of teat cup liner or cartridge including teat cup liner and/or milk or vacuum tubes connected to teat cups to comprise an identification tag; in that*
 - (b) the identification tag comprises *data, by which the model and manufacturing date of said exchangeable expendable part can be uniquely identified; and in that its*
 - (c) *computer system is configured to identify the model and manufacturing date of said exchangeable expendable part based on said readings; and that,*
 - (d) *the computer system is configured, in response to the identified model and manufacturing date, to control milking parameters of the milking equipment, used during milking including at least one of milking vacuum, pulsation vacuum, pulsation rate, and pulsation frequency.*
53. Whereas differences (a) to (c) can be seen to influence the fitting of the teat cups to a given animal, difference (d) rather relates to the subsequent milking process.

54. Indeed, the control of milking parameters in accordance to the model and manufacturing date of the teat cup liners employed enables adaptation of the milking process to the parts being used (patent: paragraph [0049]).
55. The opponent argued that the disclosure, in D1, of different valves connecting the different sets of teat cups to the milk meters (D1: figure 3; column 4, lines 50 to 54), already suggests an adaptation of the milking parameters to the specific teat cups being employed and, hence, at an adaptation as defined in claim 1.
56. However, this passage of D1 rather relates to how the connection between the teat cups and the milking equipment is established, once the teat cups are selected and attached to the animal. It does not refer to the milking process itself, let alone to the milking parameters to be employed, or to the possible relevance of the model or the manufacturing date of the teat cup liner to the milking process.
57. Therefore, the disclosure of D1 alone is not sufficient to deprive the subject-matter of claim 1 of auxiliary request 5 of an inventive step.
58. A combination of D1 with D7 would not be considered, because D7 is not concerned with milking arrangements.
59. D7 discloses, in the context of monitoring the components of a machine, the use of an "abnormal state information" to limit the operation, or reduce the speed, of the working machine (D7: [0029],[0063]). However, neither the model and manufacturing date of a

part can be equated to "abnormal state information" nor is the disclosed "limitation of the operation of the working machine", or "reduction of the motor speed" transposable to control of milking parameters in accordance to the model and manufacturing date of the patent.

60. Hence, even if a combination of D1 with D7 were to have been considered, it would not lead to the control of the milking parameters, in response to the information read from the ID tag of the teat cup liner.

61. Documents D3 to D6 and D8 to D11 also do not relate to milking arrangements and, hence, do not suggest the adaptation of milking parameters to the model and manufacturing date of an exchangeable part of a milking arrangement.

62. The documents provided by the opponent, and those from the examination proceedings, do not suggest that it was common practice, in the field of milking arrangements, to adapt the milking parameters to be employed during milking of an animal, to the model and manufacturing date, or age, of the teat cup liners or the tubing employed.

63. Therefore, claim 1 of auxiliary request 5 entails an inventive step having regard to the prior art.

Auxiliary request 5: concluding remarks

64. Claim 9 of auxiliary request 5 defines a method for a milking arrangement corresponding to claim 1, comprising, inter alia, the steps of *uniquely identifying the model and manufacturing date of the*

exchangeable expendable part and, in response to the identified model and manufacturing date, controlling the milking parameters of the milking equipment, used during milking, including at least one of milking vacuum, pulsation vacuum, pulsation rate and pulsation frequency. Hence, the reasoning as to the inventive step of claim 1 also applies to claim 9.

65. Claims 2 to 8 are dependent on claim 1, and claims 10 and 11 are dependent on claim 9. As such, they share with the independent claims their inventive concept.
66. No other objections were raised against any of the claims of this request.
67. Auxiliary request 5 also includes an amended description, adapted to the amended set of claims. The opponent has not objected to it, and nor does the Board see any problem.
68. Therefore auxiliary request 5 is allowable.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the Opposition Division with the order to maintain the patent on the basis of the description and claims of auxiliary request 5, as submitted on 16 May 2023, and the drawings of the patent.

The Registrar:

The Chair:



D. Meyfarth

P. Scriven

Decision electronically authenticated