Datasheet for the decision
of 20 November 2007

Case Number:
T 0748/05 - 3.2.04

Application Number:
95939425.5

Publication Number:
0743818

IPC:
A01J 5/017

Language of the proceedings:
EN

Title of invention:
An implement for milking animals

Patentee:
MAASLAND N.V.

Opponents:
DeLaval International AB
Prolion B.V.

Headword:
-

Relevant legal provisions:
-

Relevant legal provisions (EPC 1973):
EPC Art. 100(a)
EPC R. 71(2)

Keyword:
"Novelty (yes)"
"Inventive step - (no)"

Decisions cited:
-

Catchword:
-
Case Number: T 0748/05 - 3.2.04

DECISION
of the Technical Board of Appeal 3.2.04
of 20 November 2007

Appellant: MAASLAND N.V.
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Decision under appeal: Decision of the Opposition Division of the European Patent Office posted 4 April 2005 revoking European Patent No. 0743818 pursuant to Article 102(1) EPC.

Composition of the Board:

Chairman: M. Ceyte
Members: C. Scheibling
         T. Bokor
Summary of Facts and Submissions

I. By its decision dated 4 April 2005 the Opposition Division revoked the patent against which two oppositions had been filed. On 10 June 2005 the Appellant (patentee) filed an appeal and paid the appeal fee simultaneously. The statement setting out the grounds of appeal was received on 21 July 2005.

II. The following documents played a role in the present proceedings:

D13 (D13A): SU-A-782 768 and its translation into English
D21: FR-A-786 891

III. The oppositions were filed on the grounds based on Article 100(a), (b) and (c) EPC.

The Opposition Division found that independent claim 2 of the main request and of the first auxiliary request did not meet the requirements of Article 123(2) EPC and that the subject-matter of claim 1 of the second auxiliary request did not involve an inventive step.

IV. Oral proceedings took place on 20 November 2007 before the Board of Appeal.

The Appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of one of the sets of claims according to the main request filed with letter of 17 October 2007 and amended during the oral proceedings before the Board, the first auxiliary request filed during the oral
proceedings, the second auxiliary request filed as first auxiliary request with letter of 17 October 2007 or the third auxiliary request, filed as second auxiliary requests with letter of 17 October 2007 and amended during the oral proceedings.

Claim 1 of the main request reads as follows:

"1. An implement for milking animals, such as cows, comprising a milking machine which is provided with teat cups (1), milk lines (16, 21) connected thereto, said implement being provided with further means for the transporting or collecting of milk yielded, wherein there is provided at least one air suction line (18) running with one end into the teat space of a teat cup (1) or into a milking line (16, 21), characterized in that the air suction line (18) is connected, possibly via an air filter (26), to an air compression vessel (27)."

Claim 1 of the first auxiliary request comprises in addition to claim 1 of the main request the term "permanently" so as to read: "... the air suction line (18) is permanently connected ..."

Claim 1 of the second auxiliary request is the same as claim 1 of the main request.

Claim 1 of the third auxiliary request reads as follows:

"1. An implement for milking animals, such as cows, comprising a milking machine which is provided with teat cups (1), milk lines (16, 21) connected thereto,
said implement being provided with further means for the transporting or collecting of milk yielded, wherein there is provided at least one air suction line (18) running with one end into the teat space of a teat cup (1) or into a milking line (16, 21), characterized in that the air suction line (18) is connected to an air compression vessel (27) via a pressure control valve (25), by means of which the high pressure of the air flowing from the air compression vessel (27) can be reduced."

The Appellant mainly argued as follows:

In the meaning of the claimed invention "connection" means "permanent connection". In D13/D13A the air suction line is connected to the pressure line via a throttle valve which shuts off the air flow through the line once milk delivery commences. In D21 the air suction line is connected to a compressor group via a "derivation box" that is submitted alternatively to pressure and vacuum produced by a pulsator. Accordingly in none of these documents the air suction line is permanently connected to the pressure source. Furthermore, there is no explicit disclosure of a compression vessel in the quoted documents and since not all types of compressors necessitate a compression vessel, this feature is not implicitly disclosed either.

The use of a pressure control valve according to the third auxiliary request, allows precise tuning of the air flow admitted through the air suction line. This possibility is not rendered obvious by any cited document.
Respondent I (opponent I) contested the arguments of the Appellant and submitted that the subject-matter of claim 1 of all requests lacks novelty with respect to D13/D13A or D21. On the one hand the patent specification does not require that the air suction line is permanently under pressure, on the other hand the air suction line of these documents is physically connected to a pressure source. The feature of the third auxiliary request that the connection is realised via a pressure control valve is disclosed in D13/D13A. Even if in D21 the derivation box is connected to both a pressure line and a vacuum line, it cannot be derived from this citation that the air suction line is not permanently subjected to pressure. Furthermore, a compressor group generally comprises a compression vessel and a pressure control valve.

Even if considering that the presence of a compression vessel or a pressure control valve would not be implicit, it is common standard in the technical field of compressed air to equip a compressor group with a compression vessel and a pressure control valve.

Respondent I requested that the appeal be dismissed.

Respondent II (Opponent II) did neither file any request nor attend the oral proceedings, which according to Rule 71(2) EPC were held without him.

Reasons for the Decision

1. The appeal is admissible.
2. **Novelty - all requests:**

2.1 **D13/D13A (Figure)** discloses an implement for milking animals (page 1, second paragraph), such as cows, comprising a milking machine which is provided with teat cups (1), milk lines (12) connected thereto, said implement being provided with further means for the transporting or collecting of milk yielded, wherein there is provided at least one air suction line (13) running with one end into a milking line (4), the air suction line (13) being connected to a source of pressurised air.

2.2 There is no explicit disclosure of a compression vessel in this citation.

The Respondent argued that even if not explicitly mentioned a source of pressurised air implies the presence of a compressor unit which normally comprises a compression vessel.

However, the Board agrees with the Appellant that some types of compressors (like turbo-compressors) can be used without any compression vessel.

2.3 Accordingly, this feature is not implicitly disclosed in D13/D13A or D21. Thus, novelty of the subject-matter of claim 1 of all requests is given with respect to this prior art.

3. **Inventive step of claim 1 (main request, the first and second auxiliary requests):**
3.1 In D13/D13A (page 3, lines 1 and 2) the apparatus is connected to the vacuum and air lines of a shed. The presence of an air line implies that there is provided a compressor unit. Even if some type of compressors do not require a compression vessel, it is obvious for a skilled person that a compressor unit as commonly used for providing compressed air to the air line of a shed, necessitates a compression vessel to avoid variations in the delivery rate of compressed air and that such a compression vessel is part of the standard equipment of a compressor unit for such an use.

3.2 The Appellant argued that D13/D13A does not disclose a (permanent) connection between the air line and the air compression vessel.

3.3 However, since in the patent in suit the air suction line can be connected to the air compression vessel via a pressure control valve and is still "permanently connected" in the meaning of the claimed invention, this wording cannot be construed as meaning either a direct or an unrestricted connection.

3.4 In this citation, the object to be achieved is to improve the safety of milking. This is accomplished by a milk flow sensor in the form of a throttle diaphragm mounted in the milk discharge pipe (page 2, fourth paragraph). This throttle diaphragm regulates the pressure in a pneumatic chamber closed by a membrane which acts on a movable element of an adjustable throttle mounted in the air suction line (page 2, penultimate paragraph).
When the resistance at the throttle diaphragm is minimal, i.e. when milk delivery has not yet commenced, the air flow regulator will be maximally open (page 3, lines 9 to 15 of the second paragraph). When milk delivery increases, resistance at the throttle diaphragm increases, the adjustable throttle valve closes and air flow through the air suction line stops (page 4, lines 1 to 6).

On page 4, second paragraph it is further stated: "Depending on the characteristics of the air flow regulator, the milking apparatus can operate on a stable mode. If the characteristic is linear, it stabilizes the operating mode, while if the characteristic is not linear adjustment is performed as a function of milk delivery."

This means that, when the characteristic of the air flow regulator is not linear, the air flow is not simply interrupted as long as milk flows through the milk line, but that an adjustment of the air flow is continuously performed as a function of milk delivery.

3.5 As stated above, according to the claimed invention a (permanent) connection between the air suction line and the pressure source does not exclude the presence of a pressure control valve in the air suction line. Thus, the presence in D13/D13A of an air flow regulator (which in essence performs the same function as the pressure control valve of the patent in suit) in the air suction line and which does not shut off, but adjusts the air flow when milk runs, does not alter the fact that a (permanent) connection is realised between the air suction line and the pressure source.
3.6 The Appellant further submitted that in the claimed invention the pressure in the air suction line was used to "push" the milk, whereas at the same time the vacuum in the milk line was "pulling" it, thus improving milk flow, and that such an effect was not obtained by the implements of the cited prior art.

This point of view cannot be shared. Firstly, there is no indication in the patent specification that such an effect occurs or is even sought. Secondly, according to the patent specification, column 5, lines 27 to 33 the air pressure in the air suction line is reduced to that of the outer atmosphere or slightly higher. However, this pressure level is not different from that used in the prior art: in D13/D13A excess pressure with respect to atmospheric pressure is applied even when milk has commenced to flow (see point 3.5 above) and thus, the milk flow may also be improved in this citation by the pressure level.

3.7 Consequently, the subject-matter of claim 1 according to the main request, the first and second auxiliary requests does not involve an inventive step.

4. Since the subject-matter of claim 1 according to the first auxiliary request filed during the oral proceedings before the Board does not involve an inventive step, there is no need to consider whether this late filed submission is admissible or not.
5. **Inventive step of the subject-matter of claim 1 of the third auxiliary request:**

5.1 Claim 1 of the third auxiliary request specifies additionally with respect to claim 1 of the main request that the air suction line is connected to the compression vessel via a pressure control valve.

5.2 Given that it is standard practice to provide the compression vessel of a compressor unit with a pressure control valve and since, as stated above, the air flow regulator of D13/D13A fulfils in essence the same function as the claimed pressure control valve, the provision of this additional feature does not add anything of inventive significance to the subject-matter of claim 1 of the main request.

5.3 Accordingly, the subject matter of claim 1 of the third auxiliary request does not involve an inventive step either.

**Order**

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

The appeal is dismissed.

The registrar: The Chairman:

G. Magouliotis M. Ceyte

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