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D E C I S I O N
of 27 October 2005

Case Number: T 0302/04 - 3.2.04

Application Number: 93914756.7

Publication Number: 0649326

IPC: A62C 3/10

Language of the proceedings: EN

Title of invention:
Installation for fighting fire

Patentee:
Sundholm, Göran

Opponent:
Danfoss A/S

Headword:

-

Relevant legal provisions:
EPC Art. 100(a), 100(c), 123(2), 123(3)

Keyword:
"Added subject-matter (no)"
"Extension of the scope of protection (no)"
"Novelty (yes)"
"Inventive step (yes)"

Decisions cited:

-

Catchword:

-



Case Number: T 0302/04 - 3.2.04

D E C I S I O N
of the Technical Board of Appeal 3.2.04
of 27 October 2005

Appellant: Danfoss A/S
(Opponent) DK-6430 Nordborg (DK)

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Respondent: Sundholm, Göran
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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
5 February 2004 concerning maintenance of
European patent No. 0649326 in amended form.

Composition of the Board:

Chairman: M. Ceyte
Members: C. Scheibling
H. Preglau

Summary of Facts and Submissions

I. In its interlocutory decision posted 5 February 2004, the Opposition Division found that, taking into consideration the amendments according to the second auxiliary request filed by the patent proprietor during opposition proceedings, the European patent and the invention to which it relates, met the requirements of the EPC. On 19 February 2004 the Appellant (opponent) filed an appeal and paid the appeal fee simultaneously. The statement setting out the grounds of appeal was received on 4 June 2004.

II. Opposition was filed on the grounds based on Article 100(a) (Articles 54 and 56) and 100(c) EPC.

III. Amended Claim 1 as accepted by the Opposition Division in its decision reads as follows:

"1. A hydraulic system in a unit, the hydraulic system being to drive regular hydraulic functions of the unit and including a drive medium, a power source for driving the drive medium, and a pressure line and an return line for conducting the drive medium through the hydraulic system; characterized in that the drive medium is water and in that the hydraulic system further includes sprinklers or spray heads connected to the power source via the pressure line and optionally the return line, the sprinklers or spray heads utilizing the water of the hydraulic system as a fire-extinguishing medium and being adapted to fight fire in the unit, whereby the hydraulic system can be utilised for fire fighting as well as for the regular hydraulic functions of the unit."

IV. The following prior art played a role during the appeal proceedings:

E1: WO-A-93/10349

E2: US-A-4 786 239

E3: Article "Fire Service develops unique water spear", Airway, 5 December 1990, page 9

E4: Article "Aircraft firefighters learn a new drill", New Scientist, 3 November 1990, page 31

V. Oral proceedings took place on 27 October 2005.

The Appellant (opponent) requested that the decision under appeal be set aside and that the patent be revoked.

He mainly argued as follows:

Claim 1 as originally filed was directed to an installation for fighting fire for a unit provided with a hydraulic system. Claim 1 as granted relates to a hydraulic system in a unit. Thus, solely a part of the originally claimed installation i.e. the hydraulic system is still part of the claimed subject-matter. Therefore, claim 1 does not meet the requirements of Article 100(c) EPC. The modification of the expression "for a unit" to read "in a unit" implies that the unit is now part of the claimed subject-matter. This contravenes the requirements of Article 123(3) EPC. The system disclosed in E1 comprising a motor, a pump and a water driven power tool forms a unit in itself. The power tool disclosed therein is able to perform a regular hydraulic function (drilling) and to fight fire. Should a part of this system catch fire, then the

power tool could be used to fight it, which means that it can be used to fight fire in the unit. Consequently, the subject-matter of claim 1 of the patent in suit lacks novelty with respect to the disclosure of E1. From the second embodiment of E2, it is known to use the same pump for fire fighting purposes and for driving a dewatering pump. It is obvious for a skilled person that both the fire fighting nozzle and the hydraulic motor powering the dewatering pump are connected to the pressure line at the same time, since it is indicated in E2 that the discharge line has to be ready to be taken to a fire location. Moreover, E3 and E4 disclose a fire fighting system where a pump is permanently connected to a drill and a spray head. Thus, the only difference with the claimed system is the presence of a return line. However, to provide a return line is known for the first embodiment of E2 and it would lie within the normal capability of a skilled person to provide such a return line in a system according to the second embodiment of E2. Therefore, the subject-matter of claim 1 does not involve an inventive step.

The Respondent (patentee) countered essentially as follows:

The application as filed clearly discloses a hydraulic system. Therefore, the requirements of Article 100(c) EPC are met. That the hydraulic system is used "in a unit" is disclosed in the description as filed, and does not mean that the unit is part of the claimed hydraulic system, but indicates where the hydraulic system is to be used. Therefore "in the unit" constitutes a limitation of the scope of the claim and

thus, the requirements of Article 123(3) EPC are fulfilled.

Even if considering that the system according to E1 forms a unit, such a unit would only comprise one sprayer and would not be adapted "to fight fire in the unit"; moreover such a unit would not perform a regular hydraulic function in the meaning of the patent in suit. In conclusion, E1 does not destroy novelty of the subject-matter of claim 1.

It is clear from the description of E2 that, in the system according to the second embodiment, the fire fighting nozzle and the hydraulic motor powering the dewatering pump are not connected to the pressure line at the same time. Furthermore, E2 discloses two incompatible embodiments, so that a skilled person would not use structural features of one embodiment in the other embodiment without any hint from the state of the art. Therefore, the subject-matter of claim 1 involves an inventive step.

The Respondent requested that the appeal be dismissed.

Reasons for the Decision

1. The appeal is admissible.
2. *Amendments*
 - 2.1 Claim 1 as maintained differs from claim 1 as published in WO-A-94/01179 (which has the same content as the application as originally filed) by the following amendments:

- (a) the subject-matter of claim 1 relates now to a hydraulic system in a unit whereas claim 1 as published related to an installation for fighting fire, for a unit provided with a hydraulic system,
- (b) the hydraulic system is to drive regular hydraulic functions of the unit,
- (c) the hydraulic system comprises a pressure and a return line for conducting the drive medium through the hydraulic system
- (d) sprinklers or spray heads are connected to the power source via the pressure line and optionally the return line
- (e) the hydraulic system can be utilised for fire fighting as well as for the regular hydraulic functions of the unit.

2.2 Concerning amendment (a)

2.2.1 Claim 1 as published already indicates: "Installation for fighting fire, for a unit provided with a hydraulic system, such as a ship" and "the sprinklers or spray heads intended for fighting fire are connected to the power source of the hydraulic system". Thus, a hydraulic system is disclosed in the application as published. The object for which protection is sought has been modified before grant. In this case the provisions of Article 123(3) EPC, which relates to amendments made during opposition proceedings, do not apply.

2.2.2 The Appellant objected that only part of the installation i.e. the hydraulic system is now claimed. However, since the claimed hydraulic system is clearly disclosed in the application as published, the subject-matter of claim 1 does not extend beyond the content of the application as published (and as filed) and thus meets the requirements of Article 100(c) EPC.

2.2.3 That said installation is intended to be used "in a unit" is disclosed in the description as published, page 3, lines 18 and 19.

2.2.4 The Appellant objected that the wording "in a unit" implies that the unit is part of the claimed device. The Board cannot agree with this; the word "in" only specifies where the claimed device or system is to be used, whereas the word "for" used before did not. Consequently, the use of "in" further limits the scope of claim 1 with respect to the scope of claim 1 as granted.

Therefore, this amendment does not contravene the requirements of Articles 100(c) and 123(3) EPC.

2.3 Concerning amendments (b) and (e)

These amendments are based on the description as published, page 1, lines 3 to 5 and page 2, lines 4 to 8 and 30 to 33.

2.4 Concerning amendments (c) and (d)

These amendments are based on the description as published page 1, lines 28 to 35.

The Appellant objected that the features according to amendment (c) were not disclosed in the application as filed. However, it is implicit for a person skilled in the art of hydraulic systems that the pressure line and the return line perform the function of conducting the drive medium through the hydraulic system.

3. *Interpretation of amended claim 1 as accepted by the Opposition Division in its decision*

3.1 In the description of the patent specification, column 1, lines 47 to 51 and column 2, lines 11 to 13 it is indicated that the same system is utilised for fire fighting in addition to other regular hydraulic functions.

Thus, the expression "the hydraulic system being to drive regular hydraulic functions of the unit" means that the hydraulic system is normally used to drive hydraulic functions such as hydraulic powered apparatuses of the unit which are not specially designed for fighting fire and that the hydraulic system is additionally used to drive sprinklers or spray heads to fight fire.

3.2 It is further clear from the description that the expression "the hydraulic system further includes sprinklers or spray heads connected to the power source via the pressure line" means that the sprinklers or spray heads are permanently connected to the pressure line, i.e. part of the hydraulic system, even when said

system performs regular hydraulic functions in such a way that the system can be switched from regular mode of operation to the fire fighting mode of operation without reconfiguring the system by replacing some items by others.

4. *Novelty*

- 4.1 E1 (page 5, line 22 to page 6, line 7; page 12, lines 10 to 15; page 16, lines 1 to 7) discloses a water driven power tool to drill holes in the metal skin of vehicles, containers or vessels and then to spray water in the interior thereof through the combined bit and sprayer for the purpose of extinguishing fire.
- 4.2 Claim 1 of the patent in suit reads "A hydraulic system in a unit ... the hydraulic system ... being adapted to fight fire in the unit".
- 4.3 If the vehicle container or vessel referred to in E1 were considered to form "the unit" in the meaning of claim 1, then the apparatus according to E1 would not be located in the unit wherein the fire is to be extinguished and therefore it would not be a "hydraulic system in a unit" in the meaning of the patent in suit. Moreover, in this case, the apparatus of E1 is not a hydraulic system for driving regular hydraulic functions of the unit, because to drill holes into the skin of a vehicle, container or vessel for the purpose of spraying water into it is not a "regular hydraulic function of the unit".

4.4 Furthermore, in E1, page 16, lines 1 to 7 it is indicated: "It will be recognised that the power tool according to the present invention provides a highly specialised yet effective piece of apparatus for introducing water under pressure into confined and enclosed areas ... for the purpose of extinguishing fire".

4.5 Thus, even if the apparatus of E1 were considered to form "the unit" in the meaning of claim 1, there is no disclosure in E1 that the apparatus would be "adapted" which means suitable or fit to fight a fire that breaks out in the apparatus (unit) itself.

Furthermore, in the apparatus according to E1 "drilling" is not a regular hydraulic function of the unit unlike the fire fighting function of the patent in suit (see patent specification, column 1, lines 49 to 51 and column 2, lines 11 to 13), because it solely serves the purpose of providing a hole for introducing water in a confined and enclosed area in order to fight fire and thus is not a function that is distinct from the fire fighting function. Moreover, in the present case it would imply the drilling of a hole in the apparatus (unit) itself; this however cannot be a regular hydraulic function of the apparatus (unit). Additionally, the system according to claim 1 in suit comprises "sprinklers or spray heads" whereas E1 (page 5, line 25; page 6, line 7) refers to a (single) sprayer or spray head.

Thus, novelty of the subject-matter of claim 1 of the patent in suit with respect to E1 is given. Since E1 has been cited under the provision of Article 54(3) and

(4) EPC, it is not to be taken into consideration for assessing inventive step.

4.6 Basically the documents E3 and E4 disclose the same apparatus as E1, therefore the same reasoning applies with respect to novelty. It is not disputed that E2 does not disclose in combination all the features of claim 1 of the patent in suit.

Thus, novelty of the subject-matter of claim 1 of the patent in suit with respect to E2, E3 and E4 is also given.

5. *Inventive step*

5.1 E2 is considered to be the closest prior art document.

E2 discloses two embodiments.

In the first embodiment, the hydraulic pump which is used to drive the hydraulic motor performing the regular hydraulic functions is disconnected when the system is to be used for fire fighting applications (see column 4, lines 45 to 50). Thus, there are two distinct hydraulic systems having a common power source to operate either one or the other hydraulic system, but which is not intended to operate both hydraulic systems simultaneously. Therefore, this first embodiment cannot lead to the invention of the patent in suit.

In the second embodiment (see column 6, lines 15 to 28) the fire fighting unit comprises an engine 80, a fire pump 82 and a discharge line 86, which can be connected

to a nozzle to fight fire (this is the normal configuration of the system, see column 6, lines 15 and 16). In addition thereto, the fire pump can be used to supply a hydraulic motor to drive a dewatering pump. To this purpose, the discharge line 86 (Figures 4, 5) is "run down to the water motor - submersible pump ... whereat line 86 is connected to inlet conduit 85 of water motor 84 as shown" (column 6, lines 24 to 28).

The Appellant considered that E2 does not explicitly mention that both the fire fighting nozzle and the hydraulic motor powering the dewatering pump are connected to the pressure line at the same time, but that this would be obvious for a skilled person.

The Board cannot agree with this interpretation. The passage of E2 referred to above and the figures clearly feature one single pressure line 86, which is normally connected to the nozzle and can be run down to the hydraulic motor where it is connected to its inlet. Thus, a skilled person can only interpret this passage as meaning that after the nozzle has been disconnected from the pressure line, said line is run down to the hydraulic motor where it is reconnected to the motor inlet.

Furthermore, column 6, lines 28 and 29 indicates that "While the outlet 87 of water motor 84 directs the discharge flow into the hold 112 ..." This means that no return line is provided (see also Figure 5).

5.2 Thus, the system according to claim 1 of the patent in suit differs from this second embodiment of E2 in that:

- the hydraulic system comprises a pressure line and a return line for conducting the drive medium through the hydraulic system,
- the hydraulic system further includes sprinklers or spray heads permanently connected to the power source via the pressure line,
- the hydraulic system can be utilised for fire fighting as well as for the regular hydraulic functions of the unit.

5.3 Thus, the problem to be solved can be seen in reducing the necessary hardware and weight of the fire fighting system installed in a unit provided with a hydraulic system (see patent specification, column 1, lines 47 to 54).

5.4 However, none of the documents cited by the Appellant gives a skilled person any hint to permanently connect sprinklers or spray heads to the hydraulic system so that the same system can be utilised for fire fighting as well as for performing the regular hydraulic functions of the unit without taking items apart and connecting others.

5.5 The Appellant considered that E3 or E4 would give a skilled person a clear hint to use an apparatus both for fire fighting and for the regular hydraulic functions of the unit.

This cannot be accepted by the Board, since as explained with respect to E1 above, E3 and E4 neither disclose nor suggest a system capable of performing

regular hydraulic functions of the unit (if the vehicle, container or vessel were to be considered as a unit). It would not be obvious for a skilled person to use these systems for driving regular hydraulic functions of the unit, since they are exclusively designed for fire fighting and rescue purposes. Moreover, if the system itself were to be considered as a unit, then E3 and E4 neither disclose nor suggest a system adapted to fight a fire that breaks out in the unit itself.

- 5.6 Consequently, the subject-matter of amended claim 1 as accepted by the Opposition Division in its decision involves an inventive step with respect to documents E2, E3 and E4 seen alone or in combination with each other.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

G. Magouliotis

M. Ceyte