Datasheet for the decision
of 18 January 2007

Case Number: T 1536/05 - 3.2.04
Application Number: 02258132.6
Publication Number: 1348363
IPC: A47J 27/212
Language of the proceedings: EN
Title of invention:
Gauges for liquid containing appliances
Applicant:
Kitime Industries Limited
Opponent:
-
Headword:
-
Relevant legal provisions:
EPC Art. 56, 123(2)
EPC R. 71(2)
Keyword:
"Inventive step (no)"
Decisions cited:
T 0936/96, T 0758/03
Catchword:
-
Case Number: T 1536/05 - 3.2.04

DECISION
of the Technical Board of Appeal 3.2.04
of 18 January 2007

Appellant: Kitime Industries Limited
(aplicant)
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Decision under appeal:
Decision of the Examining Division of the European Patent Office posted 8 July 2005 refusing European application No. 02258132.6 pursuant to Article 97(1) EPC.

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

I. On 6 September 2005 the Appellant (applicant) filed an appeal against the decision of the Examining Division dated 8 July 2005 to refuse the patent application. The appeal fee was paid on 6 September 2005. The statement setting out the grounds of appeal was received on 7 November 2005.

II. The Examining Division came to the conclusion that the subject-matter of claim 1 did not involve an inventive step when taking into account the disclosure of D2: EP-A-1 159 905 in combination with that of D1: US-A-4 363 240 and that the subject-matter of claims 4 and 10 was not novel with respect to D1.

III. Oral proceedings before the Board took place on 18 January 2007. Although duly summoned the Appellant did not attend the proceedings, which were continued without him according to Rule 71(2) EPC.

The Appellant requested in writing that the decision under appeal be set aside and that a patent be granted on the basis of the set of claims filed with letter of 14 December 2006.

He mainly argued as follows:
D2 represents the closest prior art document. In D2 the gauge is secured to the kettle by welding which is complex and expensive. The present invention solves the problem inherent to welding by using a plurality of spaced apart clips to compress a flexible seal positioned between opposed surfaces of the gauge and the kettle. At the priority date of the European patent
application there was a strong belief that only welding techniques were appropriate to secure gauges to kettles. Therefore, a skilled person would not have considered modifying the kettle of D2. D1 does not relate to a kettle but to a car and thus to an unrelated technical field. Furthermore, D1 is concerned with facilitating checking of the liquid level in a reservoir tank and thus is not related to reducing costs and preventing leakage when securing the gauge to the container. Thus, the subject-matter of claim 1 is novel and inventive over D1 and D2.

IV. Claims 1 and 9 read as follows:

"1. A kettle including a gauge for indicating the level of liquid present in a kettle, the gauge comprising a transparent plastics cover formed with a collar which locates in an opening formed in one side of the kettle, and carries a plurality of spaced clips which stand proud of the surface of the collar and locate behind the material which defines the rim of the opening to lock the cover in place with a flexible seal trapped between the opposed faces of the cover and the kettle, wherein the cover spans a substantial part of the height of the kettle and wherein the cover is graduated to display to the user the quantity of liquid present in the kettle."

"9. A method of producing a kettle as claimed in any of claims 5 to 8 comprising the steps of positioning the flexible seal around the periphery of the collar, inserting the collar into the opening, and applying pressure to the cover to cause the clips to locate behind the edge of the opening."
Reasons for the Decision

1. The appeal is admissible.

2. Amendments - claim 1:

2.1 Claim 1 according to the main request differs from claim 1 as originally filed in that it is directed to a kettle comprising a gauge and not to a gauge, in that "liquid containing appliance" has been replaced by "kettle" and by the addition of the following wording "wherein the cover spans a substantial part of the height of the kettle in use and wherein the cover is graduated to display to the user the quantity of liquid present in the kettle."

That the "liquid containing appliance" can be a kettle is disclosed in claim 9 as originally filed. That "the cover spans a substantial part of the height of the kettle" and that "the cover is graduated to display to the user the quantity of liquid present in the kettle" is disclosed in the description as originally filed respectively page 2, paragraph 2 and page 4, lines 4 and 5 of the second paragraph.

Thus, amended claim 1 meets the requirements of Article 123(2) EPC.

3. Inventive step:

3.1 The Board agrees with the Appellant that D2 represents the closest prior art.

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3.2 From D2 (column 2, lines 48 to 57, paragraph [0015], Figures 1, 9) there is known a kettle (10) including a gauge (14) for indicating the level of liquid present in the kettle, the gauge comprising a transparent plastic cover formed with a collar which locates in an opening formed in one side of the kettle, with a flexible seal (18F) trapped between the opposed faces of the cover and the kettle, wherein the cover spans a substantial part of the height of the kettle, and may include a scale (which means that it is graduated) for indicating the amount of water in the body (12) of the kettle (10).

3.3 The kettle according to claim 1 differs from that disclosed in D2 in that:

- the collar is carrying a plurality of spaced clips which stand proud of the surface of the collar and locate behind the edge of the material which defines the rim of the opening to lock the cover in place.

In D2 the liquid gauge is secured in place by a welding technique. This citation addresses the problem of ensuring that the engagement between the liquid gauge and the housing is water-tight. As explained on page 1 of the European patent application, a problem with securing the liquid gauge in place by welding is that welding requires the use of expensive equipment and so increases the complexity and cost of production.

3.4 Therefore, the problem to be solved may be seen in providing an alternative solution for securing a gauge to a kettle, which renders the kettle relatively easy
to assemble and avoids expensive welding equipments, while maintaining the water-tight properties achieved in the known kettle between the gauge and the housing.

3.5 From D1 (column 2, lines 17 to 66; Figures 1 to 5) there is known a gauge (10) comprising a transparent plastic cover formed with a collar which is provided with a plurality of spaced clips (26) which stand proud of the surface of the collar and locate behind the edge of the material which defines the rim of the opening to lock the cover in place and with a flexible seal (21) trapped between the opposed faces of the cover and the container (Figure 5). This gauge can be assembled to the container without expensive welding simply by applying pressure to the cover to cause the clips to locate behind the edge of the opening.

3.6 The Appellant argued that D1 does not disclose a gauge but a window for viewing the interior of a container and would not have been taken into consideration by a skilled person, since it relates to cars and thus to a remote technical field.

This point of view cannot be shared by the Board. D1 clearly discloses a gauge in the meaning of the application in suit, see D1, column 1, "Field of the invention" where it is stated "The present invention relates to liquid-level indicating windows. A liquid-level indicating window for checking the liquid level is provided on a liquid container made of completely opaque material such as a metal ..." (lines 5 to 11). Furthermore, although the embodiments disclosed in D1 refer to a reservoir for a master cylinder of two-wheel vehicles and that a reservoir tank for a car is cited
as an example of a possible use, neither the "field of the invention" as defined in the description nor the independent claims 1 and 7 limit the use to the technical field of two-wheel vehicles or cars. Thus, D1 relates to the more general technical field of liquid-level indicating windows (i.e. gauges) for containers.

Finally, according to the established case law of the Boards of appeal, the state of the art to be considered when examining the issue of inventive step includes, as well as that in the specific field of the application (here gauges for kettles), the state of any relevant art in neighbouring fields and/or a broader general field of which the specific field is part (here gauges for containers), that is to say any field in which the same problem or one similar to it arises and of which the person skilled in the art of the specific field must be expected to be aware. Therefore, a skilled person would have taken into consideration the technical field of D1 (here gauges for containers).

3.7 The Appellant further argued that D2 is representative of the strong belief in the kettle industry at the priority date that only welding techniques were suitable for securing gauges to kettles.

This point of view cannot be shared either. A "strong belief" cannot be established by a single document (D2) and is, in the absence of further evidence, merely a speculative assumption. Moreover, since D1 relates to the field of gauges for containers made of metal and discloses a gauge that is secured to the container by clipping, the conclusion that only
welding techniques could be envisaged at the priority date is traversed.

3.8 The Appellant finally argued that D1 is not concerned with the problem of reducing costs and preventing leakage.

However, the problem of avoiding leakage is also the object of the closest prior art document D2 (see paragraphs [0002] and [0003]). As already stated, starting from D2 as closest prior art, the problem to be solved may be seen in proposing an alternative solution for securing a gauge to a kettle, which renders the kettle relatively easy to assemble and avoids expensive welding while maintaining the watertight properties achieved in D2 between the gauge and the kettle housing (see section 3.4, above).

The skilled person would be encouraged to take the prior art disclosed in D1 into consideration, since the problem solved by the present invention is in essence addressed in this citation: the technical requirements imposed on liquid-level indicating windows are said to "include no liquid leakage at any time and easy attachment on the liquid container" (column 1, lines 19 to 21).

Anyway, once a realistic technical problem is defined and once it is established that a particular solution to such a problem would have been envisaged by a skilled person in the light of the relevant state of the art, then this solution lacks an inventive step, and this assessment cannot be altered by the fact that the claimed invention inherently also solves further
technical problems (such as a reduced likelihood of leakage) (see T 936/96, point 2.6; T 758/03, point 2.3.4).

3.9 In view of the foregoing, the Board concludes that it was obvious for a skilled person confronted with the above technical problem to secure a gauge to a kettle according to D2 as taught in D1 and thus to use upstanding clips to compress a flexible seal trapped between the opposed faces of the gauge cover and the kettle. Thus, the subject-matter of claim 1 does not involve an inventive step and therefore the sole request on file must fail.

Order

For these reasons it is decided that:

The appeal is dismissed.

The registrar: G. Magouliotis

The Chairman: M. Ceyte