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**Datasheet for the decision
of 4 December 2007**

Case Number: T 1143/05 - 3.2.03
Application Number: 00906512.9
Publication Number: 1173651
IPC: E06B 3/56, H02B 1/26
Language of the proceedings: EN

Title of invention:
Thermal window and method of fitment thereof

Patentee:
Cockburn Thermal Imaging Limited

Opponent:
SOREM

Headword:
-

Relevant legal provisions:
-

Relevant legal provisions (EPC 1973):
EPC Art. 100(b), 100(a), 56

Keyword:
"Late-filed ground of appeal - substantiated (no) - admitted into proceedings (no)"
"Inventive step (yes) - exclusion of hindsight"

Decisions cited:
G 0010/91

Catchword:
-



Case Number: T 1143/05 - 3.2.03

DECISION
of the Technical Board of Appeal 3.2.03
of 4 December 2007

Appellant:
(Opponent)

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Respondent:
(Patent Proprietor)

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Representative:

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Decision under appeal:

Decision of the Opposition Division of the
European Patent Office posted 8 July 2005
rejecting the opposition filed against European
patent No. 1173651 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: U. Krause
Members: G. Ashley
I. Beckedorf

Summary of Facts and Submissions

I. European Patent EP-B1-1 173 651 was granted to the Respondent in this case, and concerns a thermal window for fitting over an aperture in the casing of a piece of engineering equipment so that the electronic system for controlling the equipment can be monitored; the patent also relates to a method for fitting the window in place.

II. Independent claims 1 and 16 of the granted patent read as follows:

"1. A casing for an electronic control system for an engineering apparatus, the casing provided with at least one aperture therein having a thermal window engaged thereupon, the thermal window comprising a window frame (8) having a first forward face provided with a recess to receive a window member (6), and thermally transparent window member (6) engaged with the recess such that a first face lies generally flush with the first face of the frame (8) at least at the edge portion thereof, characterised in that it further comprises a self-adhesive frame mount (9) having a pair of opposing adhesive surfaces and so configured that a first adhesive surface is engaged over the first face of the frame and the edge portion of the window, and a second adhesive surface is in position over the aperture to effect engagement of the window thereon."

"16. A method of fitment of a thermal window to an aperture (4) in a casing (3) of an electric control system for an engineering apparatus comprising the steps of engaging a thermally transparent window member

(6) within a recess in a window frame member (8) such that a first forward face of the window frame and a first forward face of the window member at at least an edge portion thereof lie generally flush; fixing a first adhesive surface of a self-adhesive frame mount (9) having a pair of opposing adhesive surfaces over the first face of the frame and said edge portion of the window; fixing the resultant window and frame assembly in position over an aperture (4) provided on the casing (3) of a system to be observed such that a second surface of the self-adhesive frame mount (9) holds the assembly in position thereon."

Dependent claims 2 to 15 and claim 17 define preferred embodiments of the invention.

III. The grant of this patent was opposed on the grounds that the claimed subject-matter lacks an inventive step (Article 100(a) together with Article 56 EPC) with respect to the following publications:

D1: FR-A-2743153

D2: Socomec Brochure "Dossier d'identification 001A-Coffret Tole 40 à 630A"

IV. The Opposition Division was of the view that subject-matter of the granted claims was inventive, and thus, in the decision dated 8 July 2005, rejected the opposition.

V. The Appellant (Opponent) filed notice of appeal on 8 September 2005, paying the appeal fee on the same day; a statement containing the grounds of appeal was received on 12 September 2005.

The Board summoned the parties to attend oral proceedings and, in accordance with Article 11(1) of the Rules of Procedure of the Boards of Appeal, gave a preliminary opinion of the case. In a letter dated 28 November 2007, the Appellant informed the Board that it would not be attending the oral proceedings. The oral proceedings were held in the absence of the Appellant on 4 December 2007.

VI. Submissions of the Parties

(a) Article 100(b) EPC

The Appellant mentioned in the grounds of appeal that the disputed patent does not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art. No arguments in support of this allegation were submitted, and no response was given by the Respondent.

(b) Article 100(a) and Article 56 EPC (Inventive Step)

The Appellant's Case

The Appellant submitted that D1 discloses the preamble of claim 1 and forms the closest prior art for assessing inventive step. D1 relates to a thermal window provided in the casing of an engineering apparatus. The window (10) is attached to a frame (11) by means of an adhesive or mastic, and the frame is itself screwed to the casing; an air-tight seal between the frame and the casing is created by an O-ring (12).

The Appellant argued that the disputed patent describes the use of both adhesive tape and screws to mount the window to the casing (paragraph [0025]), and thus, the alleged invention does not relate to replacing the screws of D1 by an alternative means of attachment, and the absence of a reference to screws in claim 1 does not serve to distinguish the invention from D1. Notwithstanding this assertion, the Appellant was of the view that the use of self-adhesive tapes is a well known alternative to mechanical fixing using screws, and is, for example, disclosed in D2.

According to the Appellant, the difference between the subject-matter of claim 1 and that of D1 concerns the nature of the self-adhesive frame mount, with the frame mount as defined in claim 1 being an obvious adaptation for the skilled person.

In reaching this conclusion, the Appellant referred to the definition given in the claims for the self-adhesive frame mount (9), which is said to have "a pair of opposing surfaces, so configured that a first adhesive surface is engaged over the first face of the frame and the edge portion of the window and a second adhesive surface is in position over the aperture to effect engagement of the window thereon". The Appellant interpreted the expression "the edge portion of the window" as not only meaning the peripheral region around the top surface of the window, as described in the disputed patent, but also as meaning the narrow perimeter face of the glass.

The Appellant submitted that, although Article 69 EPC indicates that the description can be referred to when

interpreting the claims, this only applies when assessing the scope of protection afforded by a claim. For the purpose of clearly defining a feature in accordance with Article 84 EPC, the strict, literal meaning of the wording in a claim is to be considered. Given that the definition given in the claims in the present case is by itself clear and does not raise any question of ambiguity, there is no requirement to seek further interpretations from the description. It is therefore perfectly reasonable to construe the "edge portion of the window" of claim 1 as being the narrow perimeter face of the window glass.

The adhesive (15) that is used to attach the window to the frame in D1 corresponds to the claimed self-adhesive frame mount (9). From the figures of D1 it can be seen that adhesive (15) fills the gap between the perimeter face of window (10) and the inner face of frame (11). Adhesive (15) is therefore engaged over a first face of the frame and the edge portion of the window, as required by claim 1.

The Respondent's Case

In response, the Respondent held the view that the Appellant's interpretation of the phrase "edge portion of the window" is not reasonable, even if the claims are considered in isolation. In particular, claim 1 refers to the edge *portion*, rather than the "edge", meaning that the phrase must relate to the face of the window, as a portion of the narrow side face would make no sense in practice. This interpretation is reinforced by reference to the adhesive surface engaging "over" the edge portion. The plain language interpretation of

claim 1 is consistent with the specific embodiment given in the patent, the interpretation given by the Appellant requires features of the claim to be given contrived meanings which are only tenable when taken in isolation.

The Respondent went on to argue that the frame-mount (9) defined in claim 1 fulfils three functions; it holds the window in the frame, it fixes the frame to the casing of the apparatus and it provides a seal between the window and the casing. According to D1, three components are required to carry out these functions, namely, adhesive (15), screws (21) and o-ring (12) respectively. Although claim 1 does not explicitly refer to the sealing function, the frame-mount as defined in the claim is potentially capable of performing this function, in contrast to the adhesive (15) and screws (21) of D1.

The self-adhesive frame mount of claim 1 alone carries out the three functions mentioned above, and since no screws are required it is possible to mount the window from the outside without the need to access the inside of the apparatus. The effect of the claimed frame-mount is to provide a simpler fitting of the window to the casing using fewer components. Since the combination of features of claim 1 cannot be derived obviously from the cited documents, the claimed subject-matter has an inventive step.

VII. Requests

The Appellant requested that the decision under appeal be set aside and that the patent in suit be revoked.

The Respondent requested that the appeal be dismissed.

Reasons for the Decision

1. The appeal is admissible.
2. *Article 100(b)*

This ground was not considered by the Opposition Division; it was mentioned for the first time in the grounds of appeal (see the first page of the "Mémoire de recours") and no arguments were provided to substantiate the allegation. The Board is therefore in no position to admit this ground into the proceedings (see G 10/91 OJ 1993, 420).

3. *Article 100(a) - Inventive Step*

3.1 Document D1 concerns a thermal window and a method for fitting it to the casing of engineering equipment. The window (10) is attached to a frame (11) by means of an adhesive (15); the frame is in turn attached to the casing (2) by means of screws (21). D1 was considered by the Opposition Division and both parties to be the closest prior art, and the Board has no reason to depart from this view.

3.2 The first step in determining the issue of inventive step is to establish the difference(s) between the claimed subject-matter and that of the prior art. In this respect, the arguments put forward by the Appellant are somewhat confusing, as it submits that

the difference lies in that the adhesive surface is engaged over the first face of the frame and the edge portion of the window; however, the Appellant then goes on to argue that the arrangement shown in D1 falls within the definition given in claim 1, thereby implying there is no difference between the subject-matter as claimed and D1.

The Board, however, has identified the following differences.

- 3.2.1 Claim 1 requires that the first adhesive surface is engaged over the first face of the frame and the edge portion of the window.

The Appellant considers that the adhesive (15) used to mount the window in the frame meets the requirements of this feature. An important argument in the Appellant's case is that the internal wall of the recess in the frame of D1 corresponds to the "first face of the frame", as defined in claim 1, and the peripheral narrow side of the window of D1 equates to the "edge portion of the window".

The Appellant is correct in stating that Article 69 EPC, which allows for the description and drawings to be used for interpreting the claims, relates to the determination of the extent of protection conferred by the claims; Article 69 EPC is therefore primarily for use by judicial bodies dealing with infringement cases.

The Appellant also correctly stated that a claim should on its own clearly define the subject-matter of the invention, in accordance with Article 84 EPC. However,

this does not mean that the description should be ignored when establishing whether the claimed subject-matter is novel and inventive, and in this context there are many decisions of the boards of appeal which use the description and drawings to interpret claims containing relative, ambiguous or unclear terms, or to confirm the most obvious interpretation of the text of a claim (see the "Case Law of the Boards of Appeal of the European Patent Office, 5th Edition, Chapter II.B.5, paragraphs 5.3 and 5.3.1(c)). In the present case, claim 1 contains the expression "edge portion of the window"; given that the adhesive must contact both the first face of the frame and the window, the most obvious interpretation of this expression is that it relates to the peripheral region of the upper surface of the window, and this is confirmed by reference to Figure 1 of the disputed patent. The Board therefore does not share the interpretation of the meaning of the expression "the first face of the frame and the edge portion of the window" as given by the Appellant.

In addition, claim 1 defines the frame as having a first forward face provided with a recess to receive a window member. The frame of D1 also has a recess for a window, and this is provided in the upper face as shown in Figures 2, 3 and 5 of D1. The "first face" cannot be the internal face of the recess, as proposed by the Appellant, as this face does not itself possess a recess for receiving a window. As mentioned above, the frame of D1 does have a recess for a window, and this makes it possible to compare the orientation of the various faces of the frame and window of D1 with those of the disputed patent. It is clear that the face of the frame in D1 that corresponds to the "first face" of

the frame in claim 1 is the upper face as shown in the figures. This face is screwed to the casing and is free of any adhesive. Consequently, irrespective of which part of the window is considered to be the edge portion, D1 does not show the adhesive to be over both the edge portion and the first face of the frame.

3.2.2 Claim 1 also requires that the first face of the window lies generally flush with the first face of the frame. It can be seen from Figures 2, 3 and 5 of D1 that the upper surface of the window (10) does not lie flush with the upper surface of the frame (11).

3.2.3 In summary, the subject-matter of claim 1 differs from that of D1 in that:

- (a) the first face of the window is generally flush with first face of the frame;
- (b) a first adhesive surface is engaged over the first face of the frame and the edge portion of the window.

3.3 Starting from D1, the objective problem is seen as the simplification of the attachment of the window to the casing.

The proposed solution is to use a self-adhesive frame mount that joins both the frame and the window to the casing, as defined in claim 1; this can only be achieved if the face of the window is flush with that of the frame. The use of the self-adhesive frame mount in this way results in a simplification because it performs the functions of both the screws of D1, which attach the frame to the casing, and the adhesive, which fixes the window in the frame. However, it should be

noted here that there is no requirement in claim 1 that the self-adhesive frame mount must create a seal, and the Board does not share the view of the Respondent that a hypothetical advantage can support an argument in favour of inventive step.

Using an adhesive instead of screws also enables the window to be fixed easily from outside of the apparatus without the inconvenience of having to access the screws from the interior. The use of screws is not excluded by the present invention (see paragraph [0025]), but, as the Respondent argued, they are employed only as a belt-and-braces measure when an additional level of safety is required. It is clear that the window can be attached satisfactorily merely by the self-adhesive frame mount.

The Appellant submitted that the skilled person is well aware that screws and adhesives are alternative means of joining objects, and that it would be obvious to replace the screws of D1 by adhesive tape; in fact D2 discloses an example of thermal windows being attached using adhesive tape. This assertion was not disputed by the Respondent, and the Board also shares the view that use of adhesive for such a purpose would be part of the common general knowledge of the skilled person. However, if the screws of D1 were replaced by adhesive, the result would not be the claimed invention. The frame (11) would be fastened to the casing by adhesive, but the window would remain attached to the frame by means of the a second adhesive or mastic (15), as shown for example in Figure 3.

In order to arrive at the invention starting from D1, it would be necessary to adjust the dimensions of the recess in which the window is fixed, so that the face of the window is flush with that of the frame, and then to position the adhesive over both frame and window edge. Such measures could only be taken with the benefit of hindsight and having knowledge of the invention.

Since the claimed subject-matter cannot be derived in an obvious way, it has an inventive step.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

A. Counillon

U. Krause