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**Datasheet for the decision
of 7 July 2014**

Case Number: T 0853/13 - 3.2.05

Application Number: 01924956.4

Publication Number: 1332031

IPC: B29C51/10, B29C51/14

Language of the proceedings: EN

Title of invention:

Method for making a modular energy-absorbing assembly

Patent Proprietor:

Oakwood Energy Management Incorporated

Opponent:

Inova GmbH

Headword:

Relevant legal provisions:

EPC 1973 Art. 100(c), 111(1)

Keyword:

Added subject-matter - (no)

Remittal to the department of first instance - (yes)

Decisions cited:

Catchword:



**Beschwerdekammern
Boards of Appeal
Chambres de recours**

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Case Number: T 0853/13 - 3.2.05

**D E C I S I O N
of Technical Board of Appeal 3.2.05
of 7 July 2014**

Appellant: Oakwood Energy Management Incorporated
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Respondent: Inova GmbH
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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 25 February
2013 revoking European patent No. 1332031
pursuant to Article 101(3) (b) EPC.**

Composition of the Board:

Chairman: M. Poock
Members: P. Lanz
M. J. Vogel

Summary of Facts and Submissions

- I. The appeal by the patent proprietor is against the decision of the opposition division revoking the contested patent EP-B-1 332 031.
- II. During the opposition proceedings, the opponent raised the grounds for opposition according to Articles 100(a) (lack of novelty and lack of inventive step), 100(b) and 100(c) EPC 1973.

With respect to the patent proprietor's main request, the opposition division held that the subject-matter of independent claim 1 extended beyond the content of the application as filed.

Regarding the auxiliary request, the opposition division decided that independent claim 1 was amended in such a way that the protection conferred was extended.

- III. The appellant requests that the decision under appeal be set aside. The main request forming the basis of the impugned decision is maintained, while the auxiliary request filed on 14 February 2013 is withdrawn.

On the part of the respondent (opponent) there are no requests on file.

- IV. Independent claim 1 of the main request reads as follows:

"A method for making a modular energy-absorbing assembly with a base and one or more energy-absorbing modules associated with the base, comprising:

providing a thermoforming tool with a plurality of frusto-conical recesses defined therein,
providing a sheet; and
conforming the sheet to the tool in order to form frusto-conical recesses within the sheet;
characterized in that the sheet is a plastic sheet and the method comprises:
heating the plastic sheet to a temperature between its distortion and melt points;
bringing the heated plastic sheet into contact with the thermoforming tool and urging the heated plastic sheet onto the tool by vacuum thermoforming using an implement to urge the plastic sheet onto the thermoforming tool or using positive fluid generated pressure in order to conform the plastic sheet to the thermoforming tool, thereby forming frusto-conical recesses within the plastic sheet defining a heated plastic part;
cooling the heated plastic part to define a cooled plastic part; and
ejecting the cooled plastic from the tool, so that the cooled plastic part defines a single-sheet energy absorber;
wherein the energy-absorbing assembly is adapted for mounting on a vehicle in order to provide impact protection, [sic]".

- V. In the impugned decision, the opposition division concentrated on the claimed method step of providing a thermoforming tool with a plurality of frusto-conical recesses defined therein. The PCT application as originally filed disclosed an article to be manufactured having a plurality of recesses with frusto-conical walls, while the thermoforming tool was generally disclosed as having a plurality of recesses. Even if the application as filed stated that the heated

plastic sheet was brought into contact with the thermoforming tool and that the heated plastic sheet was urged onto the tool in order to conform the former to the latter, there remained doubts regarding the exact relation of the shape of the manufactured article and the tool used, in particular in view of the thickness of the plastic sheet and the low temperature at which the thermoforming step was done. Thus, the disputed method step was not directly and unambiguously derivable from the application as filed.

VI. The appellant's arguments can be summarised as follows:

The published PCT application as originally filed provided not only a basis for the recesses in the finished product being frusto-conical, but also for the recesses in the tool being frusto-conical, because the product was made by the tool. Particular reference was made to page 11, lines 7 to 16, page 15, lines 9 and 10, as well as Figure 12, steps VI to XI. The opposition division's reasoning was based on a speculation about possible ways in which thermoforming might be imperfect. However, the original specification must be assessed on the basis of what it actually disclosed, not on the basis of some hypothetical possibility, especially when it was clear that such hypothetical possibility did not apply. For a skilled reader the disputed method step was directly and unambiguously disclosed in the application as filed.

VII. During the appeal proceedings, the respondent did not submit any observations.

Reasons for the Decision

1. *Added subject-matter*

1.1 It was common ground between the opposition division and the appellant that for a skilled reader the article to be manufactured by the claimed method is disclosed in the published PCT application as being provided with a plurality of recesses having frusto-conical walls, designated as "*second structure*" or "*structure (B)*" in the application as originally filed. Reference is made for example to page 4, lines 16 to 20: "*Structure (B) includes a plurality of cup-or other-shaped recesses, each having a floor and a frusto-conical wall defined within the base. The structure (B) is oriented such that the floor of each cup is substantially orthogonal to the impacting force. Its frusto-conical wall is substantially parallel to the impacting force in order to maximize energy-absorption by the wall over a given distance.*".

1.2 It was also common ground that, according to the PCT application as originally filed, when manufacturing the above article, a heated plastic sheet is brought into contact with a thermoforming tool and that the heated plastic sheet is urged onto the tool in order to conform the former to the latter. This is explicitly stated in claim 1 of the published PCT application, as well as in the description on page 11, lines 7 to 16.

Accordingly, based on the drawings of Figures 13(b) and 13(c) (cf. page 6, lines 7 and 8 as well as page 11, lines 1 and 2), which show the tool and the finished part with the "*second structure*" on the left-hand side, the flow chart in Figure 12 refers to the steps of

heating the plastic sheet beyond its distortion temperature (step VII), using vacuum to suck the plastic onto the tool to make the plastic conform to the tool shape (step IX), cooling the plastic while in contact with the thermoforming tool (step X), and ejecting the plastic which is now formed to shape from the tool (step XI).

- 1.3 Thus, the application as originally filed explicitly states that during the thermoforming process the plastic sheet must conform to, i.e. assume the shape of, the tool. Taking particular account of steps X and XI in Figure 12 and of description page 11, lines 14 to 16, which also apply to the "*second structure*", there is no doubt that the plastic part is intended to keep this shape after it has been cooled and ejected from the tool. Since the manufactured product is disclosed as having a plurality of cup-shaped recesses, each having a floor and a frusto-conical wall, the skilled reader will directly and unambiguously deduce from the application as originally filed that the corresponding thermoforming tool has a plurality of frusto-conical recesses.

In view of the literal support for the fact that the thermoforming sheet must assume and keep the shape of the thermoforming tool, resulting in a product having recesses with frusto-conical walls, the board does not share the opposition division's conclusion that the method step of providing a thermoforming tool with a plurality of frusto-conical recesses defined therein extends the subject-matter of independent claim 1 beyond the content of the PCT application as filed, Article 100(c) EPC 1973. Thus, the decision under appeal is to be set aside.

2. *Remittal to the department of first instance*

In the impugned decision, the opposition division only ruled on the question of added subject-matter regarding one particular feature. It has not yet decided on possible further issues of added subject-matter, or on sufficiency of disclosure, novelty and inventive step. Hence, the board considers it appropriate to exercise the power conferred on it by Article 111(1) EPC 1973 and remit the case to the opposition division for further prosecution.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance for further prosecution.

The Registrar:

The Chairman:



D. Meyfarth

M. Poock

Decision electronically authenticated