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Datasheet for the decision of 15 June 2012

Case Number: T 1094/09 - 3.2.01

Application Number: 02005069.6

Publication Number: 1238845

IPC: B60K 15/077, B60K 15/03

Language of the proceedings: EN

Title of invention:
Fuel tank and manufacturing method thereof

Patentee:
TOYODA GOSEI CO., LTD.

Opponent:
Kautex Textron GmbH & Co. KG

Headword:
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Relevant legal provisions:
-

Relevant legal provisions (EPC 1973):
EPC Art. 54(1)

Keyword:
"Novelty (no)"

Decisions cited:
-

Catchword:
-

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Case Number: T 1094/09 - 3.2.01

D E C I S I O N
of the Technical Board of Appeal 3.2.01
of 15 June 2012

Appellant: (Opponent)
Kautex Textron GmbH & Co. KG
Kautexstrasse 52
D-53229 Bonn (DE)

Representative:
Kierdorf, Theodor
polypatent
Fleischer, Godemeyer, Kierdorf & Partner
Postfach 10 04 11
D-51 404 Bergisch Gladbach (DE)

Respondent: (Patent Proprietor)
TOYODA GOSEI CO., LTD.
1, Nagahata,
Ochiai,
Haruhi-cho,
Nishikasugai-gun,
Aichi-ken 452-8564 (JP)

Representative:
Kramer - Barske - Schmidtchen
Landsberger Strasse 300
D-80687 München (DE)

Decision under appeal:
Interlocutory decision of the Opposition Division of the European Patent Office posted 13 March 2009 concerning maintenance of European patent No. 1238845 in amended form.

Composition of the Board:

Chairman: G. Pricolo
Members: W. Marx
S. Hoffmann

Summary of Facts and Submissions

I. On 15 May 2009 the Appellant (Opponent) lodged an appeal against the interlocutory decision of the Opposition Division posted on 13 March 2009 maintaining European patent No. 1 238 845 in amended form and simultaneously paid the appeal fee. The statement setting out the grounds of appeal was received by fax on 23 July 2009.

In its decision the Opposition Division held that the subject-matter of claim 1 of the third auxiliary request met the requirements of Article 54(1) and (2) EPC 1973 and Article 56 EPC 1973, having regard to the following documents:

E1: US-A-4 952 347;

E2: DE-A-1 946 737;

E3: US-A-6 135 306.

II. Oral proceedings were held before the Board on 15 June 2012.

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

Nobody appeared on behalf of the Respondent (Patent Proprietor), as announced by fax dated 21 May 2012.

The Respondent requested in writing that the appeal be dismissed or, in the alternative, that the patent be maintained in amended form in accordance with Auxiliary Request I filed with letter of 1 December 2009.

III. Claim 1 in the form allowed by the Opposition Division (Respondent's Main Request) reads as follows (numbering of features as used by the Opposition Division in the appealed decision and also by the Appellant):

"A manufacturing method of a fuel tank (10) which contains a support member (22) in which functional components (30) are integrally disposed in a tank body (12S), said manufacturing method characterized by the steps of:

(a) fixing said functional components (30) to a resin base body to produce said support member (22);

(b) disposing said support member (22) on an inner periphery side of a tube-like parison formed out of a resin in a semi-melted state;

(c) clamping said parison from an outer periphery side thereof so that said support member is clamped onto an inner peripheral surface of said parison;

(d) blowing said parison so as to be press-spread along a container mold; and

(e) cooling said parison to form said tank body;

characterized in that

(f) the support member is disposed on the inner periphery side of said parison in such a manner that a longitudinal direction of said support member is made substantially parallel to a radial direction of said tube-like parison; and

(g) the support member is clamped by a fitting portion of the parison forming the tank wall in the radial direction of the parison,

(h) such that the support member (22) is vertically clamped between top and bottom inner surfaces of the tank wall (12) by the fitting portion (12b)."

Claim 1 according to Auxiliary Request I comprises in addition the following features (the numbering of features added by the Board):

(i) the support member (22) is formed by assembling a tank partition with a coupling member; and

(j) further comprising the step of sealing an opening portion of said parison.

IV. The Appellant's arguments may be summarised as follows::

The support member 36 according to document E1 comprised the base plate 36A (reference 36a had been used erroneously in the written submissions) which had a plane-like structure spanned by two longitudinal axes, one of which was substantially parallel to a radial direction of the tube-like parison. The wording of claim 1 ("a longitudinal direction of said support member"), by the use of the indefinite article, implied that a support member could have more than one longitudinal direction. Therefore, feature (f) was known from E1. Moreover, the term "longitudinal direction" used in claim 1 had a broader meaning than the term "longitudinal axis", as it related to the extension of a body in three longitudinal directions, i.e. length, width and height. In particular, the longitudinal direction as claimed could not be restricted to the direction of maximum extension of the support member. The holding plate shown in E1 showed two longitudinal directions, corresponding to a longitudinal axis and a cross axis, and one of these directions was substantially parallel to the radial direction of the tube-like parison. As a consequence, E1 destroyed the novelty of claim 1 according to the Main Request.

E1 further showed that the structure 36 divided the fuel tank into two chambers. Furthermore, a holding pin denominated as "set portion 46" in E1 was provided at said tank partition. Said holding pin corresponded to a coupling member in the sense of the contested patent, namely a coupling member for supporting the support member within the parison, which could be formed integrally with the support member (see column 3, lines 14 to 20 of the contested patent), as shown in E1. Therefore, feature (i) of claim 1 according to Auxiliary Request I was known from E1. Figure 12 in E1 and the corresponding description showed sealed upper and lower ends of the parison according to feature (j), provided after performing mold tightening.

V. The Respondent argued as follows:

The base plate 36a in E1 had a longitudinal axis and a cross axis, and it was clear for the skilled person that the longer axis - perpendicular to the radial direction of the tube-like parison - was the longitudinal axis.

The pipe portions 36d, 36f, 36g were not fixed or clamped in the tank walls to support the support member, providing an airtight outlet and no load-bearing function. E1 disclosed explicitly that the support member was horizontally fixed to the lateral surface of the tank wall.

Therefore, the subject-matter of claim 1 according to the Main Request was new over E1.

As to claim 1 of Auxiliary Request I, the observations regarding claim 1 of the Main Request also held.

Reasons for the Decision

1. The appeal is admissible.

2. *Novelty*

E1 discloses a manufacturing method of a fuel tank comprising the steps as defined by features (a) to (e), which has not been contested by the Respondent. The Board notes that the submissions of the Respondent (see letter of 1 December 2009) with regard to feature (a) relate to document E2 only, since E1 discloses (see Figures 9 and 10) a support member (36) produced by fixing functional components (11, 12, 13) to a resin base body (column 5, lines 50 to 52) as defined by feature (a).

As can be seen in Figures 10 and 11 in E1, the holding plate 36 (corresponding to the claimed support member) disposed on the inner periphery side of the parison 58 has a plane-like rectangular shape. Contrary to the assertion of the Patent Proprietor, claim 1 defines a longitudinal direction (not a longitudinal axis) of the support member, which in the case of a three-dimensional object like the fuel tank in E1 might relate either to its length, width or height. A plane-like object such like holding plate 36 in E1 has an extension basically in two longitudinal directions perpendicular to each other. In particular, as long as no viewing direction is defined as a reference, it is impossible to distinguish e.g. between the length and width of an object, or between the longitudinal direction (in the viewing direction) and the cross direction (transverse to the viewing direction). After all, it cannot be accepted

that the term "longitudinal direction" relates to the longer axis of the plane-like holding plate 36 in E1. Therefore, when looking at the plane-like holding plate 36 depicted in Figure 11 in E1 in a direction perpendicular to the plane formed by sheet of Figure 11, the longitudinal direction of holding plate 36 is substantially parallel to the radial direction of the parison, as required by feature (f).

The holding plate 36 in E1 comprises a base plate 36A (see Figure 9) which is clamped by a fitting portion of the parison after mold tightening and blow molding (see column 7, lines 9 to 17; see also Figures 12 and 8) so that feature (g) is also known from E1. As a result, the holding plate 36 in E1 is vertically clamped between top and bottom inner surfaces of the tank wall by the fitting portion (see Figure 8) as required by feature (h). In fact, the Patent Proprietor conceded that the support member in E1 is horizontally fixed to the lateral surface of the tank wall.

The holding plate 36 in E1 establishes a tank partition (see column 7, lines 12 to 17) and is integrally formed with a set portion 46 (see column 6, lines 52 to 60 and Figure 10) for holding the holding plate 36 during blow molding. Said set portion 46 in E1 corresponds to the lower part of coupling member 24 in Figure 1 or 4 of the contested patent which holds support member 20 during blow molding and (see column 3, lines 14 to 20) may be formed integrally with the tank partition. Therefore, feature (i) is known from E1, in particular since the coupling member according to feature (i) is not further defined (cf. the wording of claim 1 according to Auxiliary Request I).

The step of sealing an opening portion of the parison according to feature (j) is disclosed in E1 when comparing Figure 12 after mold tightening with Figure 11 showing the open state of the mold. Moreover, it is explicitly stated in E1 (column 7, lines 12 to 17) that airtightness between the upper and lower chamber of the fuel tank is secured.

Therefore, E1 discloses a manufacturing method of a fuel tank comprising the features (a) to (j) in combination. As a consequence, the subject-matter of claim 1 according to both the Main Request and Auxiliary Request I is not new over E1 (Article 54(1) EPC 1973).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairman:

A. Vottner G. Pricolo