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**Datasheet for the decision  
of 24 January 2008**

**Case Number:** T 0082/05 - 3.2.07

**Application Number:** 96107997.7

**Publication Number:** 0743372

**IPC:** C22F 1/057

**Language of the proceedings:** EN

**Title of invention:**

Method and apparatus for simplified production of heat-treatable aluminum alloy

**Patentee:**

Tenedora Nemark, S.A. de C.V.

**Opponent:**

Montupet SA

**Headword:**

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**Relevant legal provisions:**

EPC Art. 123(2)

EPC R. 115(2)

RPBA Art. 15(3)

**Keyword:**

"Decision according to the state of the file"

"Amendments - extending beyond the content of the application as originally filed (all requests - yes)"

**Decisions cited:**

-

**Catchword:**

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Case Number: T 0082/05 - 3.2.07

**DECISION**  
of the Technical Board of Appeal 3.2.07  
of 24 January 2008

**Appellant:** Montupet SA  
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**Representative:** Le Forestier, Eric  
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**Respondent:** Tenedora Nemark, S.A. de C.V.  
(Patent Proprietor) Libramiento Arco Vial Km 3.5  
Garcia, N.L. 66000 (MX)

**Representative:** Goddar, Heinz J.  
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**Decision under appeal:** Interlocutory decision of the Opposition  
Division of the European Patent Office posted  
17 November 2004 concerning maintenance of  
European patent No. 0743372 in amended form.

**Composition of the Board:**

**Chairman:** H. Meinders  
**Members:** H. Hahn  
E. Dufrasne

## Summary of Facts and Submissions

I. Opponent II lodged an appeal against the decision of the Opposition Division to maintain European patent No. 0 743 372 in amended form. It requested that the decision be set aside and the patent be revoked.

II. Its opposition as well as one filed by opponent I had been filed against the patent as a whole under Article 100(a) EPC on the grounds of lack of novelty and inventive step.

The Opposition Division held that claims 1 to 14 of the single request as filed at the oral proceedings of 19 October 2004 met the requirements of Articles 123(2) and (3) EPC. The Opposition Division further considered that the subject-matter of claim 1 of the single request was novel and involved an inventive step.

III. With a communication annexed to the summons to oral proceedings dated 4 October 2007 the Board presented its preliminary opinion based on claims 1 to 14 of the main request (i.e. patent as maintained by the Opposition Division), and claims 1 of the auxiliary requests 1 to 5, all as filed by the respondent (patent proprietor) with letter dated 29 July 2005 in reply to the appeal grounds.

IV. Claim 1 of the main request reads as follows (amendments compared to the granted version are in bold, emphasis added by the Board):

"1. A method for production of a metal casting **of aluminum parts of automobile internal combustion**

**engines and aviation internal combustion engines** formed from a heat treatable aluminum alloy, comprised in the 300 series of the AAA classification, comprising the steps of cooling the liquid aluminum alloy to no less than 350°C to form a hot solidified metal casting, directly quench cooling said hot solidified metal casting **down to a temperature in the range between 65°C and 90°C**, and age hardening said quenched metal casting."

Claim 1 of auxiliary request 1 reads as follows (amendments compared to the main request are in bold, emphasis added by the Board):

"1. A method for production of a metal casting of aluminum parts of automobile internal combustion engines and aviation internal combustion engines formed from a heat treatable aluminum alloy, comprised in the 300 series of the AAA classification, **without addition of sodium, strontium and/or antimony**, comprising the steps of cooling the liquid aluminum alloy to no less than 350°C to form a hot solidified metal casting, directly quench cooling said hot solidified metal casting down to a temperature in the range between 65°C and 90°C, and age hardening said quenched metal casting."

Claim 1 of auxiliary request 2 reads as follows (amendments including deletions in brackets compared to the main request are in bold, emphasis added by the Board):

"1. A method for production of a metal casting of aluminum parts of automobile internal combustion

engines and aviation internal combustion engines formed from a heat treatable **A319** aluminum alloy [**comprised in the 300 series of the AAA classification**], comprising the steps of cooling the liquid aluminum alloy to no less than 350°C to form a hot solidified metal casting, directly quench cooling said hot solidified metal casting down to a temperature in the range between 65°C and 90°C, and age hardening said quenched metal casting."

Claim 1 of auxiliary request 3 reads as follows (amendments compared to the main request are in bold, emphasis added by the Board):

"1. A method for production of a metal casting of aluminum parts of automobile internal combustion engines and aviation internal combustion engines formed from a heat treatable aluminum alloy comprised in the 300 series of the AAA classification, **wherein said aluminum alloy contains 5,5 to 6,5% by weight of silicon**, comprising the steps of cooling the liquid aluminum alloy to no less than 350°C to form a hot solidified metal casting, directly quench cooling said hot solidified metal casting down to a temperature in the range between 65°C and 90°C, and age hardening said quenched metal casting."

Claim 1 of auxiliary request 4 reads as follows (amendments compared to auxiliary request 3 are in bold, emphasis added by the Board):

"1. A method for production of a metal casting of aluminum parts of automobile internal combustion engines and aviation internal combustion engines formed

from a heat treatable aluminum alloy comprised in the 300 series of the AAA classification, **without addition of sodium, strontium and/or antimony**, wherein said aluminum alloy contains 5,5 to 6,5% by weight of silicon, comprising the steps of cooling the liquid aluminum alloy to no less than 350°C to form a hot solidified metal casting, directly quench cooling said hot solidified metal casting down to a temperature in the range between 65°C and 90°C, and age hardening said quenched metal casting."

Claim 1 of auxiliary request 5 reads as follows (amendments including deletions in brackets compared to auxiliary request 3 are in bold, emphasis added by the Board):

"1. A method for production of a metal casting of aluminum parts of automobile internal combustion engines and aviation internal combustion engines formed from a heat treatable **A319** aluminum alloy [**comprised in the 300 series of the AAA classification**], without addition of sodium, strontium and/or antimony, wherein said aluminum alloy contains 5,5 to 6,5% by weight of silicon, comprising the steps of cooling the liquid aluminum alloy to no less than 350°C to form a hot solidified metal casting, directly quench cooling said hot solidified metal casting down to a temperature in the range between 65°C and 90°C, and age hardening said quenched metal casting."

V. On the objections made by the appellant, in its letter of 1 June 2006, in respect of the fulfilment of the requirements of Article 123(2) EPC the Board gave its preliminary opinion that the subject-matter of claim 1

of all six requests extended beyond the content of the application as originally filed.

It stated among others:

"2.1. Main request

The first amendment of claim 1 of the main request "**of aluminum parts of automobile internal combustion engines and aviation internal combustion engines**" appears to have a basis at page 1, lines 5-8 of the application as originally filed while the second one "directly quench cooling said hot solidified metal casting **down to a temperature in the range between 65°C and 90°C**" seems to have been taken only partially from claim 9 as originally filed which defined that "said quenching is initiated immediately after said extracting and is done with water to bring the casting down to a temperature in the range of between 65-90°C". Said original claim 9 referred back to dependent claim 8 (which referred back to independent claim 5) which defined "wherein the extracting is at a temperature in the range of about 490°C and 500°C"). Present claim 1 of the main request, however, defines "cooling the liquid aluminium alloy to no less than 350°C to form a hot solidified casting".

The description only reveals that the quenching while the alloy still has a surface temperature above 350°C is carried out "with liquid water at a temperature between 65°C and 95°C" (see page 12, lines 1-18 of the application as originally filed) or that according to the method a solidified casting is formed and "extracting said casting from said mold at a

temperature, **preferably** in the range between 490°C and 500°C, **optionally** maintaining the surface temperature of said casting in the range between 490°C and 400°C and at a temperature lower than and/or a time less than for a solution heat treatment thereof (such as less than 470°C and/or from zero to two hours), then immediately quenching said casting, **preferably** with water, to a temperature **generally** in the range between 65°C and 90°C, and without any heat treating step between said mold extraction and said quenching, and aging said casting" (see page 8, line 18 to page 9, line 8 of the application as originally filed).

Thus it seems that the different passages specify either the temperature of the quenched cast aluminium or of the water used to quench the same and in the context of different quench start temperatures. Therefore this issue needs to be discussed. Hence it seems that the requirements of Article 123(2) EPC are not met by claim 1 of the main request while those of Article 123(3) EPC appear to be met."

The parties were given the opportunity to file observations to the communication which should be filed well in advance, i.e. at least one month, before the date of the oral proceedings in order to give sufficient time to the Board to prepare for the oral proceedings.

- VI. With a letter dated 25 October 2007 opponent I withdrew its opposition.
  
- VII. With letter dated 18 December 2007 the respondent informed the Board that it would not attend the oral



proceedings and that it requested to decide on the basis of the argumentation brought forward as already on file.

VIII. Oral proceedings before the Board were held on 24 January 2008 in the absence of the respondent.

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

(b) The respondent had requested, in the written proceedings, that the appeal be dismissed, i.e. that the patent be maintained in amended form on the basis of the main request, or alternatively on the basis of auxiliary requests 1 to 5, all as filed with letter dated 29 July 2005.

At the end of the oral proceedings the Board announced its decision.

### **Reasons for the Decision**

1. As announced in its letter dated 18 December 2007, the respondent did not attend the oral proceedings. The respondent having been duly summoned, the oral proceedings were held in its absence according to Rule 115(2) EPC and Article 15(3) of the Rules of Procedure of the Boards of Appeal.
2. In the communication accompanying the summons for oral proceedings dated 4 October 2007 the Board raised objections under Article 123(2) EPC regarding claim 1 of the patent in suit as maintained, explaining why in the Board's opinion the subject-matter claimed therein,

i.e. claim 1 of the main request which comprised the feature "**cooling the liquid aluminium alloy to no less than 350°C to form a hot solidified metal casting, directly quench cooling said hot solidified metal casting down to a temperature in the range between 65°C and 90°C**", was held to extend beyond the content of the parent application as originally filed (see point V above).

This aforementioned feature of claim 1 of the main request is identically comprised in claim 1 of all auxiliary requests.

No amended claims have been filed since.

3. The respondent neither replied in substance to these objections nor did it attend the oral proceedings. Since the respondent does not refute or overcome the objections raised in the above communication, the Board sees no reason to depart from its preliminary opinion expressed therein.

The Board therefore concludes - for the reasons already set out in its preliminary opinion (see point V above) - that claim 1 as maintained by the impugned decision is not allowable, as it contravenes the requirements of Article 123(2) EPC.

The same conclusion applies *mutatis mutandis* to the claims 1 of auxiliary requests 1 to 5 which comprise the identical feature, the further amendments to these claims not overcoming this objection.

Consequently, none of the requests on file is allowable.

**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:

G. Nachtigall

H. Meinders