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Datasheet for the decision of 26 October 2018

Case Number: T 0591/15 - 3.2.03

Application Number: 05850981.1

Publication Number: 1963034

IPC: B21B1/46

Language of the proceedings: EN

Title of invention:
PROCESS AND RELATED PLANT FOR PRODUCING STEEL STRIPS WITH SOLUTION OF CONTINUITY

Patent Proprietor:
ARVEDI, Giovanni

Opponent:
SMS group GmbH

Headword:

Relevant legal provisions:
RPBA Art. 13(3)
EPC R. 80
EPC Art. 111(1)

Keyword:
Late-filed request - amendments after arrangement of oral proceedings
Appeal decision - remittal to the department of first instance (yes)
Amendment occasioned by ground for opposition - late-filed request (admitted)

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

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Case Number: T 0591/15 - 3.2.03

D E C I S I O N
of Technical Board of Appeal 3.2.03
of 26 October 2018

Appellant: (Opponent)	SMS group GmbH Eduard-Schloemann-Strasse 4 40237 Düsseldorf (DE)
Representative:	Klüppel, Walter Hemmerich & Kollegen Patentanwälte Hammerstraße 2 57072 Siegen (DE)
Respondent: (Patent Proprietor)	ARVEDI, Giovanni Via Mercatello, 26 I-26100 Cremona (IT)
Representative:	Concone, Emanuele Società Italiana Brevetti S.p.A. Via Carducci 8 20123 Milano (IT)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 23 January 2015 rejecting the opposition filed against European patent No. 1963034 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman	G. Ashley
Members:	C. Donnelly
	E. Kossonakou

Summary of Facts and Submissions

I. The appeal lies from the decision of the opposition division rejecting the opposition filed against European patent No. 1963034.

II. The opponent (hereinafter: the "appellant") lodged an appeal against this decision. In its grounds of appeal, it relied in particular on DE 694 08 595 T2 (E15) to support its request for revocation of the patent. E15 had not been admitted into the proceedings by the opposition division since it was filed after expiry of the opposition period and was not considered to be prima facie relevant.

III. The patent proprietor (hereinafter: the "respondent") replied to the grounds of appeal in letter of 9 October 2015.

IV. In a communication pursuant to Article 15(1) of the Rules of Procedure of the Boards of Appeal (RPBA) dated 17 July 2018, annexed to the summons to oral proceedings, the board informed the parties of its provisional opinion. In particular, the board indicated that it intended to admit E15 into the proceedings.

V. By letter of 26 September 2018, in reaction to the provisional opinion, the respondent submitted a new main request and three new auxiliary requests and stated that it "withdraws the (implicit) requests contained in the reply to the grounds of appeal".

By letter of 16 October 2018, the appellant replied to the respondent's submissions and raised objections under Articles 123(2) and 84 EPC against the respondent's new requests.

VI. Oral proceedings were held on 26 October 2018. At the end of the debate the parties confirmed the following requests:

The appellant requested that the decision under appeal be set aside and that the European patent No. 1963034 be revoked. Further, that the requests of the respondent filed with the letter of 26 September 2018 not be admitted into the proceedings. Finally, if those requests were admitted, that the case be remitted to the opposition division for further consideration.

The respondent requested that the patent be maintained on the basis of the main request or one of the first to third auxiliary requests filed with letter dated 26 September 2018.

VII. Independent claims 1 and 3 of the respondent's main request submitted with letter of 26 September read as follows (amendments with respect to claim 1 as granted are indicated in bold/strike through):

1. A process for the manufacturing of steel strips comprising a continuous casting step of thin slabs (22), having thickness comprised between 45 and 80 mm and high "mass flow", i.e. amount of steel passing in the time unit at the outlet of the continuous casting, with solution of continuity, a shearing step and subsequent heating being provided for, followed by a multiple stands rolling step, ~~characterized in that~~ at the inlet of the rolling said heating ~~is~~ **being** obtained, at least partially, by induction heating, **characterized in that**
said induction heating is performed with working frequency sufficiently low in order ~~to bring~~ **for** the heating action **to be performed in a nearly homogeneous**

way throughout the whole transverse cross-section of the slab to the slab core and to substantially maintain the same temperature difference between inside and outside of the slab when entering the rolling step, whereby the average product temperature in any transverse cross-section thereof is higher than the surface temperature, this being equal to or higher than about 1100°C, and that at the central inner zone or "core" of the slab the temperature is at least 100°C higher than the surface temperature.

3. A plant for the production of steel strips from thin slabs (22) having thickness comprised between 45 and 80 mm coming from continuous casting (21; 31), comprising at least one heating furnace (25, 35, 36) upstream of a multiple stand finishing rolling mill (29; 39), wherein said casting product enters with solution of continuity, after cutting into slabs (24; 34) by means of a shear (3), there being provided a descaler (8) between furnaces (25; 35, 36) and rolling mill (29; 39), ~~characterised in that~~ one of said at least one furnace ~~is~~ **being** an induction furnace (35), **characterized in that**
the working frequency of **said induction furnace (35)** ~~which~~ is chosen sufficiently low in order ~~to bring~~ **for** the heating action **to be performed in a nearly homogeneous way throughout the whole transverse cross-section of the slab** to the slab core and to substantially maintain the same temperature difference between inside and outside at the end of said furnace at the inlet of the first rolling stand of said finishing rolling mill (29; 39), whereby the slab average temperature is higher than the surface temperature and at the central inner zone or "core" is by at least 100 °C higher than said surface temperature, which is equal to or higher than 1100 °C,

the distance between the outlet of the continuous casting (21,31) and the inlet to the rolling mill (29; 39) being not greater than 100 m.

VIII. The appellant's submissions can be summarised as follows:

Consideration of E15

E15 should be admitted into the proceedings since the opposition division erred in coming to the conclusion that it was not prima facie relevant for the question of inventive step.

Admissibility of the respondent's requests filed with letter of 26 September 2018

The new requests should not be admitted into the proceedings since they could have been filed earlier with the response to the grounds.

The amendments to the subject-matter of the new requests raised new objections under Article 83, 84 and 123(2) EPC which had not been discussed at the opposition stage. Furthermore, in order to support its arguments on these issues, reference to prior art and technical background information not yet admitted into the proceedings was necessary.

IX. The submissions of the respondent can be summarised as follows:

Consideration of E15

E15 should not be taken into consideration since the opposition division had not admitted it into the

proceedings. The opposition division's assessment that E15 is not prima facie relevant and does not comprise more information than the other documents on file is correct. However, the board's provisional opinion, reasoning that the passage from page 13, line 23 to page 14, line 5 of E15 is pertinent, could not be ignored and necessitated a slight amendment to the claims. For this reason new requests were submitted with letter of 26 September 2018.

Admissibility of the respondent's requests filed with letter of 26 September 2018

The requests were filed as early as possible after receipt of the board's provisional opinion setting out the reasons why it intended to take E15 into account. The amendments do not fundamentally change the issues to be discussed, but are intended to distance still further the subject-matter of the independent claims from the disclosure of E15.

Reasons for the Decision

1. Consideration of E15

1.1 In coming to its conclusion that E15 was not "prima facie" relevant, the opposition division needed two full pages of analysis which it then followed with a further discussion of whether E15 was more relevant than the documents already on file (see section 14 of the decision). This is not a prima facie appraisal since in order to assess the opposition division's reasoning the board needed to consider the content of E15 in full detail. Thus, to all intents and purposes,

E15 was dealt with as if it had been admitted into the proceedings by the opposition division.

1.2 Furthermore, contrary to the view expressed by the opposition division, E15 discloses very relevant prior art since it relates to the use of induction heating employing various frequencies either to heat the core or the periphery of the slab as necessary.

1.3 In particular, the board considers that more discussion is required of the critical passage in E15 from page 13, line 23 to page 14, line 5. The board provisionally interprets this as indicating that, in the case when the tunnel-oven is used with an induction heater which heats both the surface and interior of the slab, it has the function of a temperature-maintaining oven. When working in this mode, the oven can be heated or just insulated in order to maintain the temperature of the slab at that with which it left the induction heater. There is no suggestion in this passage that the temperature of the slab is made uniform across the section.

1.4 On the contrary, since the tunnel-oven is only used in the temperature-maintaining mode when the induction heater is used to heat the slab core, the implication is that a non-uniform temperature profile with a high temperature core is intentionally maintained.

1.5 By submitting new sets of claim requests to replace those on file, the respondent implicitly accepted that E15 is relevant and requires further consideration. During the oral proceedings the respondent accepted this position also explicitly.

1.6 In conclusion, E15 is admitted into the proceedings.

2. Admissibility of the respondent's requests filed with letter of 26 September 2018, Article 13(3) RPBA, Rule 80 EPC

2.1 Claim 1 of the main request has been amended with respect to claim 1 as granted as shown below in bold/ strike-through:

"**characterized in that**
said induction heating is performed with working frequency sufficiently low in order ~~to bring~~ **for** the heating action **to be performed in a nearly homogeneous way throughout the whole transverse cross-section of the slab** to the slab core"

A similar amendment has been made to claim 3:

"**characterized in that**
the working frequency of **said induction furnace (35)** ~~which~~ is chosen sufficiently low in order ~~to bring~~ **for** the heating action **to be performed in a nearly homogeneous way throughout the whole transverse cross-section of the slab** to the slab core"

2.2 The amendments are based on the description of the application as published (WO2007/072515), page 6, lines 28 to 31, where it is stated:

"On the contrary, according to the present invention, the induction furnace 35 of the Fig 3 is used with a sufficiently low-working frequency so that the heating action, being performed in a nearly homogenous way throughout the whole transverse cross-section of the slab to the core, ...".

2.3 The board considers that the requests are a legitimate response to its provisional opinion indicating that it intended to admit E15 into the proceedings. In the independent claims of the new requests the heating action is not only merely required to reach the slab core, it is now also required that the heating action is performed in a nearly homogeneous way throughout the whole transverse cross-section of the slab.

2.4 The requirements of Rule 80 EPC are met since these amendments go beyond a mere cosmetic clarification and are a significant attempt to distance the subject-matter of the independent claims 1 and 3 from the disclosure of E15 by further qualifying the way the heating action is to be performed.

2.5 However, given the nature of the amendments, the board agrees with the appellant that new issues of intermediate generalisation (Articles 123(2) EPC), insufficiency of disclosure (Article 83 EPC) and clarity (Article 84 EPC) are potentially raised, which have not been considered by the opposition division. It is also accepted that the appellant may require to make reference to further prior art and technical background literature to support its case when pursuing these objections.

2.6 Thus, the board is faced with two options: either not to admit the new requests under Article 13(3) RPBA since they raise new issues (in which case the respondent would be limited to defending the decision under appeal against being overturned), or to admit the requests and remit the case to the opposition division for further prosecution on the basis of the new requests.

In the present case, since the situation principally arose out of an erroneous decision by the opposition division not to admit E15 into the proceedings, exceptionally the board considers it equitable not to apply Article 13(3) RPBA, but to admit the new requests into the proceedings and accede to the appellant's request that the case be remitted to the opposition division for further prosecution (Article 111(1) EPC).

Order

For these reasons it is decided that:

1. The claim requests filed with letter dated 26 September 2018 are admitted into the proceedings.
2. The decision under appeal is set aside and the case is remitted to the opposition division for further prosecution on the basis of these requests.

The Registrar: The Chairman:

C. Spira G. Ashley

Decision electronically authenticated