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Datasheet for the decision of 28 September 2010

Case Number: T 0155/09 - 3.2.06

Application Number: 00907970.8

Publication Number: 1193004

IPC: B21B 45/02

Language of the proceedings: EN

Title of invention:
Rolling oil supplying method for cold rolling

Patentee:
JFE Steel Corporation

Opponent:
SMS Demag AG

Headword:
-

Relevant legal provisions:
RPBA Art. 12(2)

Relevant legal provisions (EPC 1973):
EPC Art. 114(2)

Keyword:
"Late-filed document (not admitted)"

Decisions cited:
T 1002/92

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0155/09 **-** 3.2.06

D E C I S I O N
of the Technical Board of Appeal 3.2.06
of 28 September 2010

Appellant: (Opponent)
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Decision under appeal:
Decision of the Opposition Division of the European Patent Office posted 19 November 2008 rejecting the opposition filed against European patent No. 1193004 pursuant to Article 102(2) EPC.

Composition of the Board:

Chairman: P. Alting van Geusau
Members: G. Pricolo
K. Garnett

Summary of Facts and Submissions

I. The appeal is from the decision of the Opposition Division posted on 19 November 2008 to reject the opposition filed against European patent No. 1 193 004.

II. The independent claims 1 and 5 of the patent as granted read as follows:

"1. A method for supplying rolling oil for cold rolling, comprising the steps of: supplying emulsion rolling oil using a first rolling oil supply system supplying the emulsion rolling oil to a roll and a steel sheet being rolled in a recirculation mode and a second rolling oil supply system supplying the emulsion rolling oil to only the front and back surface of the steel sheet being rolled, wherein the emulsion rolling oil, which is added with an emulsifier of the same type and concentration with respect to the amount of oil as those of the emulsifier of the first rolling oil supply system and controlled so that the average particle diameter of emulsion is larger than that of emulsion of the first rolling oil supply system, is supplied from the second rolling oil supply system; and joining the emulsion of the second rolling oil supply system, which has not stuck onto the steel sheet being rolled, to the emulsion of the first rolling oil supply system."

"5. A method for supplying rolling oil for cold rolling, comprising the steps of: supplying emulsion rolling oil using a first rolling oil supply system supplying the emulsion rolling oil to a roll and a steel sheet being rolled in a recirculation mode and a second rolling oil supply system supplying the emulsion rolling oil to

only the front and back surface of the steel sheet being rolled, wherein the emulsion rolling oil, which is added with an emulsifier of the same type as that of the emulsifier of the first rolling oil supply system but of lower concentration with respect to the amount of oil than that of the emulsifier of the first rolling oil supply system and controlled so that the average particle diameter of emulsion is larger than that of emulsion of the first rolling oil supply system, is supplied from the second rolling oil supply system; recovering the emulsion of the second rolling oil supply system, which has not stuck onto the steel sheet being rolled, adding an emulsifier to the recovered emulsion so that the concentration with respect to the amount of oil of the emulsifier is equal to that of the emulsifier of the first rolling oil supply system, and agitating the emulsion mechanically; and joining the emulsion of the second rolling oil supply system, having been agitated mechanically, to the emulsion of the first rolling oil supply system."

III. In coming to its decision the Opposition Division held that the claimed subject-matter was novel and inventive over the available prior art including:

A3: EP-B-367 967.

IV. Against this decision, the opponent lodged an appeal, received at the EPO on 19 January 2009, and on the same day paid the appeal fee. With its statement setting out the grounds of appeal, received at the EPO on 30 March 2009, the appellant (opponent) filed the following new documents:

A6: US-A-4 475 369;

A7: P.Wehber, "Kühlschmiersysteme - Systems for Coolant Circulation during Cold Rolling of Steel", pages 1 to 19, paper presented at the Third International Colloquium "Lubricants in Metal machining", held at the Technische Akademie Esslingen, 12-14 January 1982, Ostfildern, Germany;

A8: "Cooling and lubricating systems in cold mills", pages 3 to 9, published in September 1986 by SMS Schloemann-Siemag AG, Düsseldorf, Germany.

The grounds of appeal included a general reference to the submissions made in the first instance proceedings, and further a reasoning that that the subject-matter of claims 1 and 5 did not involve an inventive step in the light of A3 and A6. In particular, the appellant referred to the disclosure in A3, which concerned a dispersing unit capable of producing a certain size of oil droplet and a uniform distribution of these droplets in the flow of water at the point where the desired properties of the emulsion were required for the rolling procedure. It was argued that this disclosure would prompt the skilled person to select, in the method according to A6, an average particle diameter of the emulsion of the second rolling oil supply system larger than that of the emulsion of the first rolling oil supply system, in order to optimize the lubricating and cooling effects, for instance as a result of tests carried out in accordance with Table 1 of A6. The appellant also referred to A7 in respect of the latter feature. Finally, the appellant referred to

document A8 in respect of the feature of claim 1 concerning the concentration of emulsifier.

V. With its reply to the statement of grounds of appeal, the respondent (patentee) requested that the newly filed documents A7 to A8 be not admitted into the proceedings. These documents were filed late and were not prima facie relevant. In particular, none of the cited documents, including A3, made obvious the feature of claims 1 and 5 concerning the different average particle diameter of the emulsion in the first and second rolling oil supply systems.

VI. In an annex to the summons for oral proceedings pursuant to Article 15(1) of the Rules of Procedure of the boards of appeal, the Board expressed its preliminary opinion according to which the general reference in the statement of grounds of appeal to the arguments of the opponent submitted in the proceedings before the department of first instance did not have the effect of incorporating these arguments into the appeal proceedings. As regards A6 to A8, the Board expressed the preliminary opinion that these documents were not ***prima facie*** sufficiently relevant for them to be admitted them into the proceedings, having regard to their late filing. There was indeed no indication in the prior art that would suggest the feature of claims 1 and 5 according to which the average particle diameter of the emulsion supplied by the second rolling oil supply system was larger than that for the emulsion supplied by the first rolling oil supply system.

VII. Oral proceedings, at the end of which the decision of the Board was announced, took place on 28 September 2010.

The appellant requested that the decision under appeal be set aside and that the European patent be revoked.

The respondent requested that the appeal be dismissed.

At the oral proceedings, the parties referred in substance to the arguments presented in writing. The appellant further referred to common general knowledge in respect of various individual features of the independent claims.

Reasons for the Decision

1. In its statement of grounds of appeal, the appellant relied exclusively on documents A3 and A6 to A8. It was not disputed by the appellant that documents A6 to A8 were to be considered as late filed since they were filed well after the nine month deadline of Article 99(1) EPC and had also not been mentioned in the notice of opposition.

According to the EPO case law, in proceedings before the boards of appeal, new facts, evidence and related arguments, which go beyond the "indication of facts, evidence and arguments" presented in the notice of opposition pursuant to Rule 76(c) EPC (former Rule 55(c) EPC 1973) in support of the grounds of opposition on which the opposition is based, should only very exceptionally be admitted into the proceedings in the

appropriate exercise of the board's discretion under Article 114 EPC, and only if such new material is prima facie highly relevant in the sense that it can reasonably be expected to change the eventual result and is thus highly likely to prejudice maintenance of the European patent (see e.g. point 2 of the headnote of T 1002/92, published in OJ EPO 1995, 605).

2. It is clear from the decision under appeal that the feature of claims 1 and 5 according to which the average particle diameter of the emulsion supplied by the second rolling oil supply system is larger than that of the emulsion supplied by the first rolling oil supply system plays a important role in the assessment of inventive step. When discussing the content of document A3, which was cited by the appellant in its statement of grounds of appeal, the Opposition Division affirmed (see the last paragraph on page 5 of the impugned decision) that "*though document A3 shows a separate dispergator for each of the two emulsion supply circuits, no information is given about the emulsifier(s) and no lead is given to control the average particle diameter of the emulsion of the first and second supply circuit so that the average particle diameter of the second supply circuit is larger than that of the first supply circuit*". As explained in paragraphs [0016] and [0017] of the patent in suit, this feature allows an increase of the sticking efficiency of the emulsion which is supplied to only the front and back surfaces of the steel sheet being rolled (according to the wording of claims 1 and 5, the second rolling oil supply supplies the emulsion rolling oil to only the front and back surfaces of the steel sheet being rolled).

The Board sees no reason to take a different view to that of the Opposition Division. The passage of A3 relied upon by the appellant (column 6, lines 52 - column 7, line 2) discloses that the means for preparing the emulsion (the dispersing units 31, 31') is capable of producing a certain size of oil droplet and a uniform distribution of these droplets in the flow of water at the point where the desired properties of the emulsion are required for the rolling procedure. This is however a general teaching, which gives no hint whatsoever to use a larger particle diameter for oil which is supplied only to the front and back surfaces of the steel sheet, as required by the wording of claims 1 and 5.

3. As mentioned in the communication annexed to the summons to oral proceedings, the newly filed documents A6 to A8 do not include any indication that would suggest the feature of claims 1 and 5 according to which the average particle diameter of the emulsion supplied by the second rolling oil supply system is larger than that for the emulsion supplied by the first rolling oil supply system. A6 discloses (see Fig. 1) using first and second emulsion supply means, one for the first four rolling stands and the other for the last rolling stand, for supplying emulsions with different oil concentrations (see col. 3, lines 7 to 14). A6 is, however, silent about the average particle diameter of the emulsion. A7, on page 5 (table 2), discloses that oil/water emulsions for cold rolling of steel behave as stable, semi-stable, or unstable, depending on the oil-drop diameter (i.e. depending on whether the diameter is in the range of 0.2-10, 0-50,

or >50 µm, respectively). However, nothing in A7 would suggest using emulsions with different oil-drop diameters in a same cold rolling line. This also applies to A8, which was relied upon by the appellant because it discloses an emulsion circulating system (see page 3) with a measuring and control system (2, see figure A) in the emulsion feed line.

Therefore, on a prima facie examination, the late-filed documents A6 to A8 do not add any further elements such as might convince the Board to adopt a different view as regards the obviousness of the feature of claims 1 and 5 according to which the average particle diameter of the emulsion supplied by the second rolling oil supply system is larger than that for the emulsion supplied by the first rolling oil supply system.

For the above reasons, the board decided at the oral proceedings not to admit documents A6 to A8 into the proceedings pursuant to Article 114(2) EPC.

4. Therefore, those parts of the statement of grounds devoted to lack of inventive step based on documents A6 to A8 are consequently deprived of any substance. What remains of the appeal grounds is thus only the general reference to the submissions made before the Opposition Division. However, as explained in the communication annexed to the summons to oral proceedings, such a general reference does not have the effect of incorporating these submissions into the appeal proceedings (Article 12(2) of the Rules of Procedure of the Boards of Appeal). Accordingly, nothing remains in the appeal grounds that could convince the Board of the obviousness of the above-mentioned feature.

5. Nor were the submissions made by the appellant during the oral proceedings based on common general knowledge convincing, if only for the reason that the appellant has not shown that the above-mentioned feature belongs to common general knowledge.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

M. Patin P. Alting van Geusau