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**Datasheet for the decision
of 14 January 2021**

Case Number: T 1950/16 - 3.2.03

Application Number: 07859801.8

Publication Number: 2098309

IPC: B21B1/22

Language of the proceedings: EN

Title of invention:

METHOD OF TEMPER ROLLING OF STEEL STRIP AND PROCESS FOR
MANUFACTURING HIGH TENSILE COLD ROLLED STEEL SHEET

Patent Proprietor:

JFE Steel Corporation

Opponents:

SMS group GmbH
ThyssenKrupp Rasselstein GmbH

Headword:

Relevant legal provisions:

EPC Art. 54(2), 123(2), 111, 113(1)
RPBA 2020 Art. 11

Keyword:

Prior art - availability to the public (yes)
Novelty - main request (no)
Amendments - auxiliary request I - added subject-matter (no)
Right to be heard - violation (no)
Remittal - (yes) - fundamental deficiency in first-instance proceedings (no)

Decisions cited:

T 0879/09, T 0201/83

Catchword:

An ISBN number is a unique identifier which usually indicates that a book has been made publicly available. A copyright notice usually indicates the year of publication. Both are typically found at the beginning of a book, at the copyright page (edition notice). Taken together, they usually indicate that a book has been made available to the public in a certain year (see point 3.1 of the Reasons).



Beschwerdekammern

Boards of Appeal

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Case Number: T 1950/16 - 3.2.03

D E C I S I O N
of Technical Board of Appeal 3.2.03
of 14 January 2021

Appellant:

(Patent Proprietor)

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Decision under appeal:

**Decision of the Opposition Division of the
European Patent Office posted on 15 June 2016
revoking European patent No. 2098309 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chairman G. Patton
Members: B. Miller
 N. Obrovski

Summary of Facts and Submissions

- I. European patent 2 098 309 B1 (in the following: the patent) relates to a method for performing temper rolling on a steel strip.
- II. Two oppositions were filed against the patent, based on the grounds of Article 100(a) EPC together with both Articles 54 and 56 EPC.
- III. The opposition division concluded that the ground of opposition pursuant to Article 100 (a) EPC in combination with Article 54 EPC prejudiced the maintenance of the patent as granted (the then main request) and that the amendments in claim 1 according to the then auxiliary requests 1 and 2 did not comply with the requirements of Article 123(2) EPC.

The division therefore decided to revoke the patent.

- IV. This decision was appealed by the patent proprietor (hereinafter: the appellant).

The appellant requested that the decision be set aside and the case be remitted to the opposition division for further prosecution on the basis of the patent as granted or on the basis of the patent in amended form according to one of auxiliary requests I to V as filed with the letter dated 15 September 2017.

The opponents 1 and 2 (hereinafter: the respondents 1 and 2) requested that the appeal be dismissed.

V. The independent claims of the claim sets, which form the basis of this decision, read as follows:
Claim 1 of the main request is directed to

"A method for performing temper rolling on a steel strip using a temper rolling mill which includes at least one roll stand (3) having work rolls (2), the center-line averaged roughness Ra of which being in the range of 3.0 to 10.0 μm , the method comprising performing temper rolling at an elongation percentage of 0.1% or more on a steel strip (1) having a yield strength of 340 MPa or more."

Claims 10 to 15 of the main request are directed to a method for manufacturing a high tensile-strength cold rolled steel strip including the step of temper rolling according to claims 1 to 4, 5, 6, 7, 8 or 9.

Claim 1 and 10 to 15 of auxiliary request I correspond to claims 1 and 10 to 15 of the main request wherein the minimum value for the yield strength as defined in claim 1 has been amended from 340 MPa to 490 MPa.

VI. State of the art

The following documents of the opposition proceedings are cited in the present decision:

- E1: Y. Hardy et al., "Characterisation and control of roughness transfer in temper rolling of HSS grades", European Commission, technical steel research, ISBN 92-79-00061-6, 2005;
- E3/D1: JP 2006-007233 A;
- E5: letter signed by Petra Svenson from the Stahlinstitut VDEh dated 18 May 2016;

E6: Hütte, "Die Grundlagen der Ingenieurwissenschaften", Springer-Verlag, Berlin, 1989, page D45.

The following further document was cited for the first time in the appeal proceedings by respondent 2:

D4: excerpt from the data base of the CORDIS Research and Development Information Service (http://cordis.europa.eu/publication/rcn/200618551_de.html).

- VII. With the summons to oral proceedings, the Board sent a communication pursuant to Articles 15(1) and 17(2) of the Rules of Procedure of the Boards of Appeal 2020 (RPBA 2020) indicating to the parties its preliminary opinion on the case. Inter alia the parties were informed that the case was likely to be remitted to the opposition division for further prosecution on the basis of auxiliary request I.
- VIII. With a letter dated 1 September 2020 the appellant commented on the communication of the Board.
- IX. Oral proceedings were held on 14 January 2021 in the form of a video conference with the consent of all parties.
- X. The appellant's arguments, as far as they are relevant for this decision, can be summarised as follows.

The opposition proceedings had been conducted in an unfair manner, since the appellant had been confronted with new documents and objections during the oral proceedings before the opposition division and had not been provided with an opportunity to file further

requests to deal with the new situations. This amounted to a substantial procedural violation justifying the reimbursement of the appeal fee.

The respondents did not demonstrate that E1 had been made publicly available before the priority date of the patent, since E1 did not contain a publication date. E5 and E6 had been filed too late and were moreover not *prima facie* relevant.

E1 did not define the meaning of the abbreviation R_p and did not disclose the percentage of elongation resulting from the temper rolling of the trials summarized in table 15.

The amendment to the claims according to auxiliary request I was supported by example 1 as originally filed.

XI. The respective arguments of both respondents can be summarised as follows.

The opposition proceedings had been conducted in a fair manner. The appellant had provoked the late filing of the further evidence E5 and E6, since it had repeatedly disputed commonly known facts.

E1 indicated on page 2 the ISBN number in combination with the copyright of 2005. Thus it had been made available in the year 2005. This fact was confirmed by E5 and D4.

The abbreviation R_p used in table 15 of E1 referred to the yield strength as commonly known by the skilled person and as confirmed by E6. The percentage of

elongation resulting from the temper rolling according to trials 7 and 8 was below 1.6 %.

Therefore claim 1 as granted lacked novelty with regard to E1 for the reasons indicated in the contested decision.

The amendment to claim 1 according to auxiliary request I extended beyond the subject-matter of the application as originally filed, since a method of temper rolling of steel having a yield strength of 490 MPa or more was not directly and unambiguously derivable from the application as originally filed. Example 1 as filed did not provide an adequate basis for the amendment, since the yield strength of the steel strip used therein was functionally linked to further parameters reported in the example such as the surface roughness and the thickness of the strip.

Reasons for the Decision

1. Applicable Rules of Procedure of the Boards of Appeal

The appeal was filed before the entry into force of the revised version of the Rules of Procedure of the Boards of Appeal (RPBA 2020) on 1 January 2020. In accordance with the transitional provisions laid down in Article 25 RPBA 2020, the RPBA 2020 are applicable to appeals already pending on the date of entry into force as well as to appeals filed thereafter (Article 25 (1) RPBA 2020).

2. Reimbursement of the appeal fee

2.1 The appellant requests the reimbursement of the appeal fee due to the following alleged substantial procedural violations by the opposition division during oral proceedings:

- a) admitting document E5 into the proceedings,
- b) admitting a novelty argument based on trial 7 in table 15 of document E1,
- c) admitting document E6 into the proceedings,
- d) admitting objections under Article 123(2) EPC against auxiliary requests I and II,
- e) not giving the patent proprietor an opportunity to react to the newly raised objections.

2.2 The Board holds that the arguments concerning a substantial procedural violation are unfounded for the following reasons and that the reimbursement of the appeal fee is thus not justified.

2.2.1 concerning a)

The letter E5 was submitted during oral proceedings before the opposition division to prove the public availability of E1, which had been repeatedly contested by the appellant.

Filing proof for a repeatedly disputed fact such as the publication date is an adequate reaction of a party and cannot come as a surprise to the party disputing the fact.

In this respect the Board cannot find any fault in the way the opposition division exercised its discretion when admitting E5 into the proceedings (Case Law of the

Boards of Appeal, 9th Edition, 2019, Chapter V.A.
3.5.1.b).

E5 contains a rather short statement and was discussed with the parties during the oral proceedings before the opposition division (see point 2.1 of the minutes). Therefore, the right to be heard under Article 113 (1) EPC of the appellant has not been violated.

2.2.2 concerning b)

The opposition division discussed in the annex to the summons examples 8 and 10 as summarised in table 15 of E1 and pointed out that the percentage of elongation is important. This parameter is presented in table 15 only for examples 7 and 8. In view of the preliminary opinion of the opposition division it was therefore to be expected that both of these very similar examples would become relevant during oral proceedings.

Moreover, the appellant was aware of example 7 of E1, since examples 7 and 8 had already been discussed on page 2, penultimate paragraph of its reply to the oppositions dated 22 June 2015. Furthermore, it had an opportunity at the oral proceedings to present all arguments concerning novelty with regard to E1 as indicated in point 2.2 of the minutes.

2.2.3 concerning c)

Document E6 is a copy of a single page of a standard handbook. It was submitted during oral proceedings before the opposition division to establish the meaning of the abbreviation R_p used in table 15 of E1.

Filing proof for a repeatedly disputed fact such as the meaning of an abbreviation is an adequate reaction of a party. Moreover, E6 was discussed with the parties during the oral proceedings before the opposition division which were, upon the appellant's request, even interrupted for 30 minutes to give time to the appellant for studying E6 (see point 2.2 of the minutes).

2.2.4 concerning d)

In point 6 of the annex to the summons the opposition division indicated that, if necessary, the allowability of the subject-matter of the auxiliary requests would be discussed during the oral proceedings.

It is a well established principle applying to all proceedings at the EPO that amendments to an application or patent have to fulfil the requirements of Article 123(2) EPC. No party to proceedings at the EPO can therefore be surprised when the allowability of amendments to claims is discussed during oral proceedings.

As is evident from points 3 and 4 of the minutes, the appellant had an opportunity to explain the basis for the amendments to the claims during the oral proceedings before the opposition division.

2.2.5 concerning e)

The oral proceedings before the opposition division were interrupted several times for giving time to the appellant and for deliberation of the division (see points 2.2, 2.4, 3 and 4 of the minutes). Before the

last interruption, the parties were even further informed that a final decision may be taken thereafter.

The appellant therefore had several opportunities to reconsider its requests on file and to react to the objections by filing further requests.

The above reflects the Board's preliminary opinion on the alleged substantial procedural violations as set out in the annex to the summons to oral proceedings, point 9. The appellant did not contest this preliminary opinion, neither in writing nor during the oral proceedings before the Board.

3. Article 100(a) EPC in combination with Article 54 EPC -
main request

3.1 Public availability of E1

An ISBN number is a unique identifier which usually indicates that a book has been made publicly available. A copyright notice usually indicates the year of publication. Both are typically found at the beginning of a book, at the copyright page (edition notice). Taken together, they usually indicate that a book has been made available to the public in a certain year.

E1 is a report of the European Commission and discloses on page 2 the ISBN number in combination with a copyright notice of 2005. The "Office for Official Publications of the European Communities" is indicated as publisher.

The appellant has not provided any evidence or verifiable facts why E1 was not publicly available in

the year indicated on page 2, contrary to general practice.

Rather, the contrary has been demonstrated by the further evidence provided by the respondents. Letter E5 confirms that E1 was made available to the library of the Stahlinstitut already in January 2006. E1 is clearly identified in E5 by an annexed copy of the cover page and the copyright page. A typing error in the letter concerning the "Signaturnummer" does not create any doubt which book was made available to the public in the library of the Stahlinstitut.

E5 therefore confirms the information already provided by the ISBN number and the copyright notice in E1, since it demonstrates that E1 was publicly available at least as of January 2006, when it arrived at the library of the Stahlinstitut. The Board is not convinced by the appellant's argument that the visitors of the Stahlinstitut library would not be part of the public as they would have to be members of the German Steel Organisation. Having to fulfil certain requirements, including paying fees, to gain access to a library does not make the visitors of that library bound by secrecy, as was also admitted by the appellant.

Therefore, no reason exists to deviate from the finding in point 3 of the reasons of the appealed decision that E1 was publicly available before the priority date of the patent of 18 December 2006.

3.2 Disclosure of E1

3.2.1 E1 discloses on page 45, table 15 an overview of various test trials. Trial 7 refers to a milling

process at the temper mill SSAB in Borlänge which is described in detail in chapter 4.3.4 on page 27. In this trial a steel strip having a R_p of 430 MPa is temper rolled using a work roll having a surface roughness R_a of 4.3 μm . The elongation percentage is up to 1.6 % (see table 15), in particular between about 0.6 and 1.6 as disclosed in figure 129 which shows a comparison between measured and calculated elongation percentages obtained by the temper rolling according to trial 7.

- 3.2.2 The appellant argues that E1 does not provide a definition of R_p and therefore does not disclose that the steel strip used in trial 7 has a yield strength of 340 MPa or more.

However, E1 leaves no doubt for the skilled person that the abbreviation R_p refers to the yield strength in view of the following statements. On page 15, last paragraph, E1 refers to "higher yield strength $R_{p0,2}$ ". On page 23, last paragraph, it reports that various steel grades have been used in the trials: "soft grades (R_p -value of 160 MPa) to some very high strength steel grades (R_p -value of ± 430 MPa)". Moreover, E1 describes in the first paragraph of chapter 4.3.4 on page 27 that for the SSAB trial one "coil of material grade 600DP (a high strength Dual Phase steel grade, R_p -value = 430 MPa" is used. Correspondingly, tables 2, 7, 8, 11 of E1 indicate that $R_{p0,2}$ refers to the offset yield strength.

In addition document E6, a commonly accepted handbook for engineers, further confirms on page D45, right hand column, that R_p in general refers to the yield strength ("Dehnungsgrenze").

3.2.3 The above reflects the Board's preliminary opinion on the disclosure of E1 as set out in the annex to the summons to oral proceedings, point 5. It has not been commented on nor has it been contested by the appellant during the appeal proceedings.

3.3 Hence, the appellant could not cast doubts concerning the reasoning in point 4 of the reasons of the appealed decision that the subject-matter of claim 1 as granted lacks novelty in regard to trial 7 of E1. The ground of opposition pursuant to Article 100 (a) in combination with Article 54 EPC therefore prejudices the maintenance of the patent as granted.

4. Auxiliary request I - Article 123(2) EPC

4.1 Claim 1 of auxiliary request I is based on claim 1 as originally filed whereby the limit for the yield strength has been amended from "340 MPa or more" to "490 MPa or more".

The amendment is based on an individual value disclosed in example 1 of the application as filed.

The amendment of a range on the basis of a value described in a specific example can be allowable, provided that the skilled person could have readily recognised that this value was not so closely associated with the other features of the example (see Case Law of the Boards of Appeal, *supra*, Chapter II.E. 1.5.2).

Therefore it has to be evaluated whether there is a close structural or functional relationship between the yield strength of the steel material and the remaining features of example 1 such as the thickness and the

roughness of the steel strip and specific values of the roughness of the work rolls.

In this context the Board observes, that the yield strength is a material property which is unrelated to the thickness and the roughness of the steel strip and specific values of the roughness of the work rolls indicated in example 1.

In the absence of a structural and functional relationship between the yield strength of the steel material and the remaining features of example 1 the amendment of a parametric range on the basis of the individual value disclosed in example 1 does not create a teaching which extends beyond the technical teaching as originally filed.

- 4.2 The respondents argued that the results to be achieved by the claimed method, i.e. the surface roughness of the steel strip and the elongation percentage (see page 7, line 9 to page 8, line 12 of the application as originally filed), depended not only on the yield strength but also on the further parameters indicated in example 1 such as the thickness of the steel strip and the rolling load. However, this is not convincing to the Board in view of the claimed method, since said results to be achieved are either not defined in claim 1 (surface roughness of the steel strip) or unambiguously achievable (elongation percentage) by the new low limit of the yield strength over the claimed range for the surface roughness of the work rolls, see examples 1 to 3 of the application as originally filed in which high yield strength steels are used with different surface roughnesses of the work rolls (see also page 8, lines 12 to 18).

In view of the above, the Board applies the usual principles in relation to an intermediate generalisation as in T 879/09, not published in EPO OJ, and T 201/83, EPO OJ 1984, 481, cited by the respondents during the oral proceedings.

It might be that for measuring the yield strength certain DIN norms exist, which define the exact conditions for its measurement such as the surface roughness and the thickness of the steel strip. However, no copy of any of these DIN-norms has been submitted in appeal proceedings. Moreover, the fact that certain parameters have to be observed during the measurement of a material property, such as the yield strength, does not necessarily imply that the yield strength, once it has been determined by a standard procedure, is closely associated with the other parameters presented in the example of the application as filed.

It follows that the limitation of the broad range of "340 MPa or more" as defined in claim 1 as originally filed to "490 MPa or more" limits the scope of protection but does not extend the technical teaching of the application as originally filed.

4.3 The amendments to claim 1 of auxiliary request I therefore fulfil the requirements of Article 123(2) EPC.

5. Remittal

Under Article 11 RPBA 2020 the Board may remit the case to the department whose decision was appealed if there are special reasons for doing so (Article 111(1) EPC).

The respondents did not contest that the subject-matter of claim 1 of auxiliary request I is novel with regard to E1, which forms the basis for the contested decision.

The opposition division has not yet decided upon all further issues arising from the ground of opposition pursuant to Article 100(a) EPC, namely novelty with regard to D1 and inventive step. Furthermore, the parties have not discussed these points in detail in their written submissions in appeal proceedings and they all agreed during the oral proceedings before the Board to remit the case to the opposition division for further prosecution. Therefore, special reasons present themselves for the remittal of the case.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the opposition division for further prosecution.
3. The request for reimbursement of the appeal fee is refused.

The Registrar:

The Chairman:



C. Spira

G. Patton

Decision electronically authenticated