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Datasheet for the decision of 29 April 2025

Case Number:	T 0025/24 - 3.3.05
Application Number:	18740258.1
Publication Number:	3658692
IPC:	C21D1/673, C21D8/00, C21D8/02, C21D9/46, C22C38/02, C22C38/04, C22C38/06, C22C38/22, C22C38/24, C22C38/26, C22C38/28, C22C38/42, C22C38/48, C22C38/50, C22C38/54, B21D22/02, C22C38/20, C22C38/12, C22C38/14, C21D9/00
Language of the proceedings:	EN

Title of invention:

STEEL STRIP, SHEET OR BLANK FOR PRODUCING A HOT FORMED PART, PART, AND METHOD FOR HOT FORMING A BLANK INTO A PART

Patent Proprietor:

Tata Steel IJmuiden B.V.

Opponent:

ArcelorMittal

Headword:

Steel strip for hot forming/Tata Steel

Relevant legal provisions:
EPC Art. 123(2)
RPBA 2020 Art. 13(2)

Keyword:
Amendments - allowable (no)
Amendment after summons - cogent reasons (no)

Decisions cited:
T 1621/16, T 0027/16, T 1482/17, T 1728/16, T 2237/10, T 1137/21, T 1133/21

Catchword:

Europäisches Patentamt
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Beschwerdekammern

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Case Number: T 0025/24 - 3.3.05

D E C I S I O N
of Technical Board of Appeal 3.3.05
of 29 April 2025

Appellant: (Opponent)	ArcelorMittal 24-26, Boulevard d'Avranches 1160 Luxembourg (LU)
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Respondent: (Patent Proprietor)	Tata Steel IJmuiden B.V. Wenckebachstraat 1 1951 JZ Velsen-Noord (NL)
Representative:	Group Intellectual Property Services c/o Tata Steel Nederland Technology B.V. P.O. Box 10000 - 3G.37 1970 CA IJmuiden (NL)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 20 November 2023 concerning maintenance of the European Patent No. 3658692 in amended form.**

Composition of the Board:

Chairman	E. Bendl
Members:	S. Besselmann
	P. Guntz

Summary of Facts and Submissions

I. The opponent's (appellant's) appeal is against the opposition division's interlocutory decision according to which European patent EP 3 658 692 B1 in amended form on the basis of the then auxiliary request 2 (filed on 24 October 2023) met the requirements of the EPC.

II. The patent in suit concerns a steel strip, a sheet or blank for producing a hot formed part, a part, and a method for hot forming a blank into a part.

III. Claim 1 according to the main request reads as follows:
"*Steel strip, sheet or blank for producing hot formed parts having the following composition in weight%:*
C: 0.03 - 0.17,
Mn: 1.2 - 2.50,
Cr: 0.2 - 2.0,
Ti: 0.01 - 0.10,
Nb : 0.02 - 0.07 ,
B : 0.0005 - 0.005,
N: ≤ 0.01,
wherein Ti/N ≥ 3.42,
and optionally one or more of the elements selected from :
Si: ≤ 0.1,
Mo: ≤ 0.1 ,
Al: ≤ 0.1,
Cu: ≤ 0.1,
P: :≤ 0.03,
S: ≤ 0.025,
O: ≤ 0.01,
V: ≤ 0.15,
Ni: ≤ 0.15

Ca: ≤ 0.15
the remainder being iron and unavoidable impurities."

Claim 1 of auxiliary request 1 differs from claim 1 of the main request in that the upper limit of Mn is specified to be 1.8 ("*Mn: 1.2 - 1.8*").

Claim 1 of auxiliary request 2 differs from claim 1 of auxiliary request 1 in that the upper limit of Ca is specified to be 0.01 ("*Ca: ≤ 0.01*").

Claim 1 of auxiliary request 3 differs from claim 1 of auxiliary request 1 in that the lower limit of Ti is specified to be 0.025 ("*Ti: 0.025 - 0.10*").

Claim 1 of auxiliary request 4 relates to a "*Hot formed part produced from a steel strip, sheet or blank for producing hot formed parts having the following composition in weight%:*", the composition in weight% being the same as in claim 1 of auxiliary request 3, followed by the additional definition "*wherein the sum of the amount of Mn and Cr is between 0.5 and 2.5, the part having a tensile strength of at least 750 MPa, preferably at least 800 MPa, more preferably at least 900 MPa, and further having a tensile strength of at most 1400 MPa, and the part having a microstructure comprising at most 50% bainite, the remainder being martensite.*"

Claim 1 of auxiliary request 5 relates to "*A method for hot-forming a steel blank or a pre-formed part into a part comprising the steps of:*
a. heating a blank for producing hot formed parts having the following composition in weight%:", the composition in weight% being the same as in claim 1 of auxiliary request 3, followed by the additional

definition

"*wherein the sum of the amount of Mn and Cr is between 0.5 and 2.5, or a preformed part produced from the blank, to a temperature T1 and holding the heated blank at T1 during a time period t1, wherein T1 is 50-100°C higher than the Ac3 temperature of the steel, and wherein t1 is at most 10 minutes;*
b. transferring the heated blank or pre-formed part to a hot-forming tool during a transport time t2 during which the temperature of the heated blank or preformed part decreases from temperature T1 to a temperature T2, wherein the transport time t2 is at most 20 seconds;
c. hot forming the heated blank or preformed part into a part; and
d. cooling the part in the hot-forming tool to a temperature below the Mf temperature of the steel with a cooling rate of at least 30 °C/s."

Claim 1 of auxiliary request 6 relates to a "*Steel strip, sheet or blank for producing hot formed parts having the following composition in weight%:*

C: 0.07 – 0.15,
Mn: 1.20 – 1.80,
Cr: 0.8 – 1.5,
Ti: 0.025 – 0.05,
Nb : 0.03 – 0.07,
B : 0.001 – 0.003,
N: 0.002 – 0.005,
wherein Ti/N ≥ 3.42,
wherein the sum of the amount of Mn and Cr is between 2.0 and 2.5, wherein Mn, Cr and B are used in such amounts that (B x 1000)/(Mn + Cr) is in the range of from 0.5 – 1.5, ",

the remainder of the claim starting with "*and optionally one or more of the elements selected from :*"

being the same as the corresponding part of claim 1 of the main request.

Claim 1 of auxiliary request 7 relates to a method for hot-forming a steel blank or a pre-formed part into a part. It recites the same weight ranges for the essential and optional elements as claim 1 of auxiliary request 6 and reads as follows:
"*A method for hot-forming a steel blank or a pre-formed part into a part comprising the steps of:*
a. heating a blank for producing hot formed parts having the following composition in weight%:
C: 0.07 – 0.15,
Mn: 1.20 – 1.80,
Cr: 0.8 – 1.5,
Ti: 0.025 – 0.05,
Nb : 0.03 – 0.07,
B : 0.001 – 0.003,
N: 0.002 – 0.005, wherein Ti/N ≥ 3.42,
wherein the sum of the amount of Mn and Cr is between 2.0 and 2.5,
and optionally one or more of the elements selected from :
Si: ≤ 0.1,
Mo: ≤ 0.1 ,
Al: ≤ 0.1,
Cu: ≤ 0.1,
P: :≤ 0.03,
S: ≤ 0.025,
O: ≤ 0.01,
V: ≤ 0.15,
Ni: ≤ 0.15
Ca: ≤ 0.15
the remainder being iron and unavoidable impurities, or a pre-formed part produced from the blank, to a temperature T1 and holding the heated

blank at T1 during a time period t1, wherein T1 is 50-100°C higher than the Ac3 temperature of the steel, and wherein t1 is at most 10 minutes;"

followed by the same steps b-d as in claim 1 of auxiliary request 5.

IV. The appellant was of the view that, *inter alia*, the claims allowed by the opposition division (now main request) did not comply with the requirements of Article 123(2) EPC. This was also true for the other requests on file. Auxiliary requests 6 and 7 should not be taken into account, pursuant to Article 13(2) RPBA.

V. The patent proprietor's (respondent's) arguments relevant to the present decision can be summarised as follows.

The claims in accordance with the main request met the requirements of Article 123(2) EPC. There was a literal basis for the amended ranges for Nb and Mn in claim 2 as filed. Narrowing the claimed ranges on this basis merely limited the scope of protection, without introducing new technical information.

The amendments were allowable in view of the criteria established in T 1621/16. The example constituted a pointer to the claimed combination of features. The amendments were also allowable in view of T 27/16, cited in T 1621/16, where a similar approach was taken. T 1482/17 likewise supported this conclusion. Decisions T 1728/16 and T 2237/10 also supported the amendments being allowable. T 1137/21 was irrelevant because it related to a different and more complex situation.

The same arguments applied to auxiliary requests 1-5.

Auxiliary requests 6 and 7 should be taken into account as a reaction to the board's preliminary opinion. In these requests, the most-preferred ranges of all the essential alloying elements had been inserted to overcome the Article 123(2) EPC objection. There was no need to additionally insert the preferred range for Ca because the latter was an optional element.

VI. The opponent (appellant) requests that the decision under appeal be set aside and the patent be revoked.

The patent proprietor (respondent) requests that the appeal be dismissed (main request) or, alternatively, that the patent be maintained on the basis of one of auxiliary requests 1 to 5 filed with the reply to the appeal, or of auxiliary requests 6 or 7 filed on 28 January 2025.

Reasons for the Decision

Main request

1. Article 123(2) EPC

1.1 Compared with claim 1 of the application as filed, another (higher) lower limit of the range of the Mn content and a narrower range of the Nb content have been specified in claim 1. In the application as filed, the disclosure on page 4, lines 11-21, in particular line 21, is relevant to the Mn content, and the disclosure on page 5, lines 3-9, in particular line 9, is relevant to the Nb content. The claimed Mn range is formed by the lower limit of the most-preferred range and the upper limit of the general range, and the claimed Nb range is based on the lower limit of the

preferred range and the upper limit of the most-preferred range. Moreover, dependent claim 2 as filed was cited as a basis for the amendments. This claim includes a list of the essential alloying elements, all linked by "and/or", and specifies the respective preferred and more-preferred content ranges. A corresponding disclosure is found starting on page 3, line 20 of the application as filed.

1.2 The respondent was of the view that there was a literal basis for the amended ranges for Nb and Mn in claim 2 as filed. It was common practice to narrow the ranges for alloying elements to restore novelty. This merely limited the scope of protection but did not present the skilled person with new technical information. In particular, it did not change the gist of the invention.

Still according to the respondent, the amendments were allowable in view of the criteria established in T 1621/16. They originated from lists of converging alternatives, which should not be treated as arbitrary selections because they did not lead to singling out an invention from among a plurality of distinct options, but simply to subject-matter based on a more restricted version of said features. The resulting subject-matter was not associated with an undisclosed technical contribution. Moreover, the example constituted a pointer to the claimed combination of features. The amendments were also allowable in view of T 27/16, cited in T 1621/16, where a similar approach was taken. T 1482/17 likewise allowed combinations of more or less-preferred options taken from lists of converging alternatives. A pointer could additionally be seen in that the narrower ranges were described as being preferred, in line with T 1728/16. Moreover, T 2237/10,

cited in T 1621/16, supported the view that the amendments were allowable because they derived from a dependent claim.

The respondent submitted that the present case could not be compared with T 1137/21, in which the number of degrees of freedom was considered as an additional criterion. That case related to a different and more complex situation with a greater number of possible choices concerning features of an entirely different nature.

1.3 These arguments are not convincing. The content ranges of the various alloying elements constitute an essential feature of the claimed invention, and amending the ranges of selected elements on the basis of ranges of different degrees of preference may well present the skilled person with new technical information, as outlined below.

The respondent relied in particular on T 1621/16 and related decisions to support their view that the amendments did not extend beyond the content of the application as filed.

However, according to T 1621/16 it cannot be concluded "*that amendments based on multiple selections from lists of converging alternatives necessarily meet the requirements of Article 123(2) EPC, because even when each individual selection used to amend the claim is as such regarded as a convergent restriction of the scope of protection, it needs to be assessed whether the specific combination resulting from the multiple selections is supported by the content of the application as filed*" (Reasons 1.7.3). The decision then mentions two conditions which *at least* [emphasis

added] should be met (ibid.). Consequently, T 1621/16 does not establish an automatism in the sense that any combination of features resulting from multiple selections would meet the requirements of Article 123(2) EPC in cases in which each individual selection could be regarded as a convergent restriction of the scope of protection, as long as the specified two conditions were met.

Indeed, the details of the case need to be taken into account to assess whether the subject-matter of the amended claim is directly and unambiguously derivable from the application as originally filed. This has been demonstrated, for example, in T 1137/21. Even though that decision was concerned with features of a different nature, it nevertheless shows that the number of "degrees of freedom" and the number of possible selections and combinations of features may play a part (Reasons 1.8.3).

That the assessment of whether the requirements of Article 123(2) EPC are met is very case-specific has also been stressed in T 1133/21. According to T 1133/21 (Reasons 2.11-2.16, in particular 2.15), the mere fact that features are described in the application as filed in terms of lists of more or less converging alternatives did not give the proprietor "carte blanche" to freely combine features selected from a first list with features selected from a second list disclosed in the application as filed. Any such amendment would only be allowable under Article 123(2) EPC if it complied with the "gold standard" defined in decision G 2/10.

Moreover, while an example may certainly serve as a pointer towards preferred selections, as held in

T 1621/16 and related decisions cited by the respondent (i.e. T 27/16 cited in T 1621/16, and T 1482/17 applying the approach of T 1621/16), it would be an oversimplification of these decisions and in particular of the second condition in T 1621/16 if the mere fact that an example remained within the scope of the amended claim was, as a rule, enough to conclude that the associated combination of selections was not arbitrary in such cases (i.e. in cases in which each individual selection could be regarded as a convergent restriction of the scope of protection).

1.4 In the present case, each of the limitations of Mn and Nb may individually be regarded as a converging alternative in that the corresponding numerical range has been limited towards a more-preferred sub-range. However, in the application as originally filed, the possible ranges of the other essential or optional alloying elements are discussed in the same manner as those relating to Mn and Nb, indicating ranges of different levels of preference for each, both in the indicated parts of the description and in dependent claim 2 of the application as originally filed. The latter specifies preferred and more-preferred ranges of the various alloying elements and expressly links them by "*and/or*", as indicated. The application as originally filed thus includes the possibility that any arbitrary one of the alloying elements, or, alternatively, any arbitrary combination of alloying elements meets the condition as to one of its respective - more or less-preferred - ranges. There is no preference, i.e. no pointer, to focus specifically on the contents of Nb and Mn. In particular, the example does not constitute such a pointer. In fact, the only example according to the invention (Example A) illustrates that *all* the essential alloying elements

are present in an amount within the respective most-preferred range.

On this basis, it is not directly derivable from the application as filed that the ranges of Mn and Nb should be limited, and this on the basis of different levels of preference, while the general ranges apply for the other elements. In contrast, it is even taught - as a further alternative option - that a certain sum of the amounts of Mn and Cr is to be respected (claim 3), or a certain ratio of the amount of B and the sum of the amounts of Mn and Cr (claim 4), demonstrating that the amounts of the individual alloying elements are in fact interdependent. There are again alternative ranges of these features with different degrees of preference.

In the circumstances of the present case, limiting specifically the amounts of Mn and Nb, and doing so on the basis of ranges of different levels of preference, while maintaining the general ranges of the other elements even though these are interdependent, thus involves a multiple arbitrary selection. This consequently presents the skilled person with new technical information, in contrast to the respondent's view.

1.5 The other decisions cited by the respondent do not change this conclusion. In T 1728/16, the fact that certain features were disclosed as being preferred was seen as a pointer to their combination with the generally disclosed percentage ranges (Reasons 2). In T 2237/10, one of the considerations in assessing compliance with Article 123(2) EPC was that the combination of features was foreseen by means of dependent claims in the application as filed (Reasons

4.5). However, as outlined above, the application as filed in the case at hand describes neither a preference nor a dependent claim that would point to the selections made.

1.6 For these reasons, the subject-matter of claim 1 is not directly and unambiguously derivable from the application as filed.

Auxiliary requests 1-5

2. Article 123(2) EPC

2.1 The auxiliary requests contain, *inter alia*, the following amendments:

In claim 1 of auxiliary request 1, the Mn content is limited to 1.2-1.8.

In claim 1 of auxiliary request 2, the Ca content is additionally limited to ≤0.01, compared with auxiliary request 1.

In claim 1 of auxiliary request 3, compared with claim 1 of auxiliary request 1, the lower limit of the Ti content has been changed to 0.025.

Claim 1 of auxiliary request 4 is based on claim 7 of the patent as granted. It relates to a hot formed part produced from a steel strip, sheet or blank and recites the same definition of the steel strip, sheet or blank as claim 1 in auxiliary request 3, with the additional feature that the sum of the amount of Mn and Cr is between 0.5 and 2.5, and with additional features of the part.

Claim 1 of auxiliary request 5 is based on claim 11 of the patent as granted. It relates to a method for hot-forming a steel blank or a pre-formed part and recites, *inter alia*, the composition of the blank or a pre-formed part which is the same as in claim 1 of auxiliary request 4.

2.2 As is readily apparent, none of the amendments addresses the objection under Article 123(2) EPC. The same consideration that the claimed subject-matter involves a multiple selection applies. The additional amendments in claim 1 in these requests even involve an additional arbitrary selection. This also applies to the feature specifying the sum of the amount of Mn and Cr in auxiliary requests 4 and 5, which feature is not even consistent with the respective ranges of Mn and Cr.

2.3 In summary, none of auxiliary requests 1-5 is allowable.

Auxiliary requests 6-7

3. Article 13(2) RPBA

3.1 Auxiliary requests 6-7 constitute an amendment to the respondent's case and were filed only after notification of the board's communication pursuant to Article 15(1) RPBA. They shall thus not be taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned.

3.2 The respondent submitted that they could not have expected that the board would deviate from the opposition division's view, because the latter had correctly applied the relevant case law and practice. In auxiliary requests 6 and 7, the most-preferred ranges of all the essential alloying elements were combined, based on claim 2 as filed. There was no need to additionally insert the preferred range for Ca because the latter was an optional element, with merely the upper limit but no lower limit defined.

3.3 However, it is established case law that no exceptional circumstances may be seen in the fact that the board, in its preliminary opinion, deviated from the opposition division's view. Each party to appeal proceedings must present its own case at the outset – if necessary, by responding to the case made by the opposing party immediately – rather than waiting to see whether the board later confronts it with an unfavourable opinion (see Case Law of the Boards of Appeal of the EPO, 10th edn., 2022, V.A.4.5.6 a and c). Moreover, it is *prima facie* questionable whether the proposed amendments overcome the Article 123(2) EPC objection at all, considering that all the preferred ranges specified in claim 2 as filed have been inserted in claim 1 except for the one relating to Ca. The preferred range for the Ca content also formed part of the list of ranges in the description as filed (page 3, line 20 - page 4, line 4), which corresponds to claim 2 as filed. Ca is an optional element in the sense that the corresponding range contains no lower limit, but this in the case at hand is not considered to justify omitting the preferred upper limit of Ca.

3.4 Auxiliary requests 6 and 7 are not taken into account.

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:

C. Vodz E. Bendl

Decision electronically authenticated