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**Datasheet for the decision  
of 23 October 2018**

**Case Number:** T 0660/15 - 3.2.08

**Application Number:** 05781434.5

**Publication Number:** 1784599

**IPC:** F16B33/02, F16L15/04,  
E21B17/042, F16L15/00

**Language of the proceedings:** EN

**Title of invention:**  
THREADED JOINT FOR STEEL PIPES

**Patent Proprietors:**  
Nippon Steel & Sumitomo Metal Corporation  
VALLOUREC OIL AND GAS FRANCE

**Opponent:**  
Tenaris Connections B.V.

**Headword:**

**Relevant legal provisions:**  
EPC Art. 100(b), 100(a), 56

**Keyword:**

Admissibility of opposition - transfer of opponent status  
(yes)

Grounds for opposition - insufficiency of disclosure (no)

Inventive step - (yes)

**Decisions cited:**

T 2357/12, G 0002/04, G 0004/88

**Catchword:**



**Beschwerdekammern**  
**Boards of Appeal**  
**Chambres de recours**

Boards of Appeal of the  
European Patent Office  
Richard-Reitzner-Allee 8  
85540 Haar  
GERMANY  
Tel. +49 (0)89 2399-0  
Fax +49 (0)89 2399-4465

Case Number: T 0660/15 - 3.2.08

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.08**  
**of 23 October 2018**

**Appellant:** Tenaris Connections B.V.  
(Opponent) Piet Heinkade 55  
1019GM Amsterdam

**Representative:** Boulton Wade Tennant LLP  
Verulam Gardens  
70 Gray's Inn Road  
London WC1X 8BT (GB)

**Respondents:** Nippon Steel & Sumitomo Metal Corporation  
(Patent Proprietor 1) 6-1, Marunouchi 2-chome  
Chiyoda-ku  
Tokyo 100-8071 (JP)

**Respondents:** VALLOUREC OIL AND GAS FRANCE  
(Patent Proprietor 2) 54 rue Anatole France  
59620 Aulnoye-Aymeries (FR)

**Representative:** J A Kemp  
14 South Square  
Gray's Inn  
London WC1R 5JJ (GB)

**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 19 January 2015  
rejecting the opposition filed against European  
patent No. 1784599 pursuant to Article 101(2)  
EPC.**

**Composition of the Board:**

**Chairwoman**            P. Acton  
**Members:**            M. Foulger  
                             P. Schmitz

## **Summary of Facts and Submissions**

- I. The appeal is directed against the decision of the opposition division posted on 19 January 2015. The opposition division decided that the grounds of opposition according to Articles 100(a) and (b) EPC did not prejudice the maintenance of the patent as granted and rejected the opposition.
- II. The appellant (opponent) filed an appeal against this decision.
- III. Oral proceedings took place before the Board on 23 October 2018.
- IV. The requests were as follows:

The appellant (opponent) requested that the opponent status be transferred from Tenaris Connections Limited (TCL) to Tenaris Connections BV (TCBV). They furthermore requested that the decision under appeal be set aside and that the patent be revoked.

The respondents (patent proprietors) requested that the transfer of opposition not be allowed and that the appeal be dismissed. Should the Board not be inclined to allow the main request, they requested that the case be remitted to the opposition division in order to examine the auxiliary requests 1 to 5 filed with letter of 6 October 2015, or auxiliary requests 6 to 11 filed with letter of 29 August 2018. Additionally, they requested that Mr Bollers's declaration filed by the appellant on 22 October 2018 not be admitted.

- V. Claim 1 of the patent as granted (main request) reads:  
"A threaded joint for a steel pipe having a pin member

(11) having a tapered male thread (12), a metal seal-forming portion (4), and a torque shoulder-forming portion (5), and a box member (21) having a tapered female thread (22), a metal seal-forming portion, and a torque shoulder-forming portion corresponding to those of the pin portion, **characterized in that (Feature A)** the threads which constitute the tapered male thread (12) and the tapered female thread (22) have a first trapezoidal thread portion which does not have simultaneous contact at the load flanks (16) and the stabbing flanks (17), and **(Feature B)** a second trapezoidal thread portion which has contact at the load flanks (16) and stabbing flanks (17) and which has gaps at the thread root surfaces (14) and the thread crest surfaces (18), **(Feature C)** wherein the first trapezoidal thread portion has contact at the load flanks (16) and the thread root surface (14), and gaps at the thread crest surface (18) and the stabbing flanks (17)."

(Feature references in bold added by the Board)

The other requests are not relevant for this decision.

VI. The following documents are referred to in this decision:

D1: GB 2 074 685 A

D2: US 6,174,000 B1

D9: US 5,829,797 A

Declaration of Mr Lev dated 9 August 2017

Declaration of Mr Ramos dated 9 August 2017

Declaration of Mr Bollers dated 12 April 2017

Declaration of Mr Bollers dated 19 October 2018

Form 17 Saint Vincent and the Grenadines - Articles of Continuance

List of European patents held by TCL (Exhibit C)  
Certificate of Dissolution from the Company Register of  
Saint Vincent and the Grenadines (Exhibit E)  
Request to Financial Services Authority of St. Vincent  
and the Grenadines from Mr Bollers dated 7 June 2017

VII. The appellant argued essentially the following:

a) Admission of Mr Bollers's declaration dated  
19 October 2018

This declaration had been submitted in response to the  
Board's communication dated 1 June 2018. As Mr Bollers  
required time to go back through his records this  
document could not have been produced earlier.

The document should therefore be admitted.

b) Transfer of opponent status

The opponent status had been transferred from TCL to  
TCBV (the current appellant).

TCL was a technology holding company and all of TCL's  
business assets were transferred to TCBV and to no  
other party so that TCBV had acquired the opponent  
status by way of universal succession. After the  
transfer of the business assets to TCBV, TCL had been  
dissolved.

Thus, the above proved that the opposition had been  
transferred by universal succession and consequently  
that TCBV was the rightful opponent.

c) Sufficiency of disclosure (Article 100(b) EPC)

A strict literal reading of the claim led to a contradiction within the claim. This is because the first thread portion comprises both female and male threads (feature A). Feature C, whereby gaps and contact were provided, was impossible to achieve because there cannot be both contact and a gap. Therefore, the invention, as defined by claim 1, could not be carried out.

d) Inventive step (Article 100(a) EPC in combination with Article 56 EPC)

The subject-matter of claim 1 differed from the threaded connection of D1 simply in that the second thread portion was trapezoidal.

The important aspect of the claimed invention was illustrated in Equations 1 and 2 of the patent (paragraph [0051]). These equations described the forces at the contacts between pin and box surfaces. These forces were the same as in D1 and thus the claimed thread connection did not provide any advantage over the prior art. Hence, the problem to be solved was merely to provide an alternative to the triangular thread of D1.

D2 presented in Fig. 1 an alternative to a triangular thread i.e. a trapezoidal thread. There was nothing that would have prevented the skilled person from applying this teaching to D1.

The same reasoning also applied to the combination of the teachings of documents D2 with D1 and D1 with D9.

Thus, the subject-matter of claim 1 did not involve an



inventive step.

VIII. The respondents argued essentially the following:

a) Admission of Mr Bollers's declaration dated 19 October 2018

This was lated filed - one day before the oral proceedings before the Board. The appellant could, and should, have filed this document earlier.

This declaration should not be admitted into the proceedings.

b) Transfer of opponent status

The transfer of the opponent status was not sufficiently proven. All of the evidence was available to the appellant and thus they should have proven their case beyond reasonable doubt.

In the present case, it had neither been proven that all assets had been transferred from TCL to TCBV nor that TCBV had taken over TCL's liabilities. Thus, the transfer of the opponent status had not been proven and consequently TCBV was not a party to the proceedings.

c) Sufficiency of disclosure (Article 100(b) EPC)

Although it was possible to misinterpret claim 1 such that it was contradictory, the skilled person would not do this. The skilled person would seek to make sense of the claim and come to a sensible interpretation. The only possible sensible interpretation was that feature C referred either to the pin member or to the box member but not to both simultaneously.

Thus, the invention was sufficiently disclosed.

d) Inventive step (Article 100(a) EPC in combination with Article 56 EPC)

D1 could be regarded as the closest prior art. At least the feature, whereby the second thread portion is trapezoidal, was not known from this document. Moreover, D1 did not disclose a metal seal forming portion because the threads alone could not be regarded as such a portion.

The problem to be solved was to provide increased resistance to compression.

The solution was not obvious from the cited prior art because the skilled person would not have separated isolated elements from the threads of the prior art but rather would have recognised that the thread as a totality needed to be used. D1 taught that a triangular thread should be used, see p. 1, l. 96 - 102. The skilled person would not have deviated from this teaching. Moreover, D2 (see col. 2, l. 19 - 22) concerned the problem of finishing the metal seal portion which was not relevant in D1.

The same reasoning also applied to the combination of the teachings of documents D2 with D1 and D1 with D9.

Therefore the skilled person would not have arrived at the subject-matter of claim 1 without the exercise of inventive activity.

## **Reasons for the Decision**

1. Admission of Mr Bollers's declaration dated 19 October 2018

Although this declaration was only filed one day before the oral proceedings, the Board admitted it into the proceedings because it did not raise any new issues but merely confirmed statements made earlier in the procedure. Thus, the respondents and the Board could be reasonably expected to deal with it without a postponement of the oral proceedings (Articles 13(1) and (3) RPBA).

2. Transfer of opposition

The status as an opponent cannot be freely transferred (G 2/04, OJ EPO 2005, 549). It can only be transferred in case of universal succession of the opponent, or when a relevant part of the opponent's business has been transferred (singular succession) (G 4/88, OJ EPO 1988, 480).

In order to accept that a transfer of opposition has taken place by way of universal succession, it must be sufficiently proven that all of TCL's business assets have been transferred to TCBV. Hereby, the principle of free evaluation of evidence applies. In decision T 2357/12 the Board stated that the concept of universal succession had to be interpreted autonomously, i.e. independently from national law. An essential point for accepting universal succession was that there was only one transferee possessing all the assets and the former opponent had ceased to exist, so

that no legal uncertainty could arise about who the opponent was.

From the declarations of Mr Lev and Mr Ramos, the former directors of TCL, it follows that TCL was a technology holding company and that TCL's business assets consisted of intangible assets including a worldwide patent portfolio, technical information, know how, trade and industrial secrets, licences and other agreements. In addition, TCL was only in the possession of some monetary assets to cover its costs and expenses. Due to a corporate restructuring, Tenaris had decided to transfer and assign the TCL business assets from TCL to TCBV and to liquidate and dissolve TCL. Prior to TCL's liquidation and dissolution, all of TCL's business assets were transferred to TCBV. This is corroborated by the declaration dated 12 April 2017 of Mr Bollers, a barrister at law and notary public, who acted as the liquidator and who stated therein, that all of TCL's intangible assets had been transferred and assigned to TCBV and not to any other legal entity. This was confirmed in his declaration of 19 October 2018.

The respondents argued that the European patents which had been transferred from TCL to TCBV, as exemplified by exhibit C, had already been transferred in June and July 2016 and thus before Mr Bollers had been appointed as liquidator in November 2016. At what point in time the European patents were transferred does not play a role in the present case. By this, the respondents seem to want to cast doubt on whether Mr Bollers was in a position to know what had happened before his appointment. However, even though the transfer had taken place before his appointment as liquidator, his role in this process was to make sure that the

requirements for the liquidation had been fulfilled and to confirm that all assets had been transferred, even before his appointment, so that the company could be deleted from the register.

The respondents submitted Form 17 filed by TCL with the authorities of Saint Vincent and the Grenadines and argued that this showed that the object of TCL was not only the holding of technology but also other business, like e.g. bulk trading and wholesaling and the provision of services relating thereto. In the respondent's view this showed that TCL also carried out activities other than applying for patents and licensing patents and thus that not all the assets of TCL had been transferred to TCBV. The appellant, however, convincingly explained that it was usual practice that a business was broadly described when a company was registered in order not to be limited and that it did not necessarily mean that it performed all of this business. TCL acted exclusively as a technology holding company and did not conduct any other business. As set out above, this is clear from the declarations of Mr Lev and Mr Ramos and the Board sees no reason to doubt it.

Furthermore, the respondents were of the view that universal successorship cannot be acknowledged as long as it has not been proven that also the liabilities were taken over by TCBV. However, from point 3 of Mr Bollers's declaration of 12 April 2017, it follows that TCL's intangible assets, including any related duties and obligations were transferred to TCBV. Moreover, in his request to the financial services authorities dated 7 June 2017 he stated that after an advertisement in the relevant Government Gazette he had not received any claims and accordingly the requirements for a

dissolution were complied with. This shows that there were no outstanding liabilities.

Thus, the appellant has convincingly demonstrated that all assets and liabilities were transferred from TCL to TCBV and not to anybody else. With effect from 7 June 2017, TCL was dissolved and ceased to exist, as is clear from the Certificate of Dissolution from the Company Register from Saint Vincent and the Grenadines (Exhibit E).

The respondents furthermore submitted that in case T 2357/12 the evidence presented was more conclusive and that the evidence in the present case was not as strong as the one in T 2357/12. However, each case has to be examined, and evidence has to be evaluated, on the basis of the facts of the particular case and therefore, reference to evidence in another case, which was based on different facts, is not useful.

Accordingly, the Board considers it as sufficiently proven that TCBV is the universal successor of TCL, and on this basis, the Board accepts that the opponent's status was transferred from TCL to TCBV and that the procedure is to be conducted with TCBV as the appellant.

3. Sufficiency of disclosure (Article 100(b) EPC)

It is common ground that a strict literal reading of the claim leads to a contradiction within the claim. This is because the first thread portion comprises both female and male threads (feature A). The feature C whereby gaps and contact are provided would therefore in a literal reading of the claim be impossible to achieve because there cannot be both contact and a gap

at one and the same place.

The skilled person reading the claim would rule out interpretations which are illogical or which do not make technical sense. They would try to arrive at an interpretation of the claim which is technically sensible and takes into account the whole disclosure of the patent (cf. Case Law of the Boards of Appeal, 8th Edition 2016, II.A.6.1).

In this particular case, the skilled person, as the literal wording does not make technical sense, would seek to make sense of the claim. The solution which is immediately apparent is that feature C refers either to the pin member or to the box member but not both simultaneously. This reading resolves the contradiction and makes technical sense. The skilled person could manufacture such a thread without difficulty.

The invention is thus disclosed in a manner sufficiently clear and complete for the skilled person to carry it out. The grounds of opposition according to Article 100(b) EPC do not prejudice the maintenance of the patent as granted.

4. Inventive step

D1 is the closest prior art and discloses a thread arrangement with rounded triangular shaped threads 3 and buttress threads 4, see p. 2, l. 62 - 64 and Figs. 1 and 2. The joint of D1 "derives its seal performance and strength from its threaded engagement and which takes positive advantage of the sealing mechanism (wedge effect) peculiar to the rounded triangular thread without reducing the strength of the joint" (see p. 2, l. 31 - 37).

It is common ground that the feature whereby the second thread portion is trapezoidal is not known from this document. Whether the threads can actually be regarded as a metal seal forming portion does not influence the outcome of this decision and may therefore be left aside.

Following the appellant's argumentation, the problem to be solved is to provide an alternative to the triangular thread known from D1.

It is correct that D2 shows a trapezoidal thread form, which could be considered as an alternative to the triangular thread. However, in D2 the drawbacks of the trapezoidal teeth are compensated by the additional use of a separate metal seal forming portion. D2 seeks to overcome the problems of finishing this metal seal portion with sufficient dimensional accuracy (see col. 2, l. 19 - 22).

The Board considers that the skilled person would not apply the teaching of D2 to D1. To do so would depart from the teaching of D1, which explicitly requires a triangular thread in order to provide a seal, see p. 1, l. 96 - 102 and p. 4, l. 130 - p. 2, l. 4. The skilled person would regard the joint of D1 as providing a compromise solution and to alter one of its components would endanger this compromise. Moreover, the problem identified in D2 (col. 2, l. 19 - 22) does not arise in D1 because there is no such separate seal portion.

The above reasoning applies to the combination of the teachings of documents D2 with D1 and D1 with D9.

Hence, the subject-matter of claim 1 involves an



inventive step.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairwoman:



C. Moser

P. Acton

Decision electronically authenticated