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**Datasheet for the decision
of 25 April 2023**

Case Number: T 3234/19 - 3.2.07

Application Number: 07824034.8

Publication Number: 2084444

IPC: F16L23/00

Language of the proceedings: EN

Title of invention:

TESTING AND VENTING PIPE ANNULUS

Patent Proprietor:

GE Oil & Gas UK Limited

Opponent:

National Oilwell Varco Denmark I/S

Headword:

Relevant legal provisions:

EPC Art. 54, 56

RPBA 2020 Art. 12(1)(a), 12(2), 15(1)

Keyword:

Novelty - (yes)

Inventive step - (yes)

Decisions cited:

T 0617/16, T 2603/18

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 3234/19 - 3.2.07

D E C I S I O N
of Technical Board of Appeal 3.2.07
of 25 April 2023

Appellant: GE Oil & Gas UK Limited
(Patent Proprietor) 2 High Street
Nailsea
Bristol BS48 1BS (GB)

Representative: HGF
HGF Limited
1 City Walk
Leeds LS11 9DX (GB)

Respondent: National Oilwell Varco Denmark I/S
(Opponent) Priorparken 480
2605 Brøndby (DK)

Representative: Plougmann Vingtoft a/s
Strandvejen 70
2900 Hellerup (DK)

Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
28 October 2019 concerning maintenance of the
European Patent No. 2084444 in amended form.**

Composition of the Board:

Chairman I. Beckedorf
Members: A. Pieracci
S. Watson

Summary of Facts and Submissions

- I. An appeal was filed by the patent proprietor and, originally, also by the opponent in the prescribed form and within the prescribed time limit against the interlocutory decision of the opposition division maintaining the European patent No. 2 084 444 in amended form according to auxiliary request 3.
- II. The opposition division found that the patent as granted and as amended according to auxiliary requests 1 and 2 did not fulfil the requirements of the EPC but that the patent as amended by auxiliary request 3 and the invention to which it relates met the requirements of the EPC.
- III. In preparation for oral proceedings, the Board gave its preliminary opinion in a communication pursuant to Article 15(1) RPBA 2020, to which the opponent responded on the merits with its submissions of 20 March 2023.
- IV. Oral proceedings before the Board took place on 25 April 2023. At the conclusion of the proceedings the opponent withdrew its appeal before the decision was announced. Further details of the oral proceedings can be found in the minutes.
- V. The following documents are mentioned in this decision:

D1: ISO 13628-2, 2nd ed., 15 July 2006, Petroleum and natural gas industries - Design and operation of subsea production systems - Part 2: Unbonded flexible pipe systems for subsea and marine applications;

D8: Annulus Testing for Condition Assessment and Monitoring of Flexible pipes, OMAE2004-51431, Proceedings of the 23rd International Conference on Offshore Mechanics and Arctic Engineering, 20-25 June, 2004.

VI. The final requests of the parties are as follows:

The patent proprietor (appellant), while withdrawing its main request and auxiliary request 1, requested:

that the decision under appeal be set aside, and that the patent be maintained in amended form on the basis of the set of claims according to auxiliary request 2 filed with the statement setting out the grounds of appeal, which corresponds to auxiliary request 2 of the opposition proceedings.

The opponent (respondent), after having withdrawn its appeal, requested:

that the appeal of the patent proprietor be dismissed.

VII. The arguments of the parties relevant for the decision are dealt with in detail in the reasons for the decision.

VIII. Independent claim 1 of the patent as amended according to auxiliary request 2 reads as follows:

"A method of testing integrity of a portion of flexible pipe body for transporting production fluids from a sub-sea location, prior to installation and use,

wherein the flexible pipe body (100) is suitable for forming a riser or flowline and is formed as a composite structure of layered materials, the layers including an internal polymer sheath (102), a pressure armour layer (103), and an inner sealing layer (104), comprising the steps of:
via at least one port (314) in an end fitting assembly (300) in which an end of a portion of flexible pipe body is terminated, introducing fluid under pressure at said port, and monitoring at least one parameter associated with an annulus region disposed between layers of said flexible pipe body, said annulus region being connected to said port by a connecting passageway".

Reasons for the Decision

1. Procedural issues

After the withdrawal of its own appeal at the oral proceedings the opponent gave up its status as appellant and became solely the respondent to the patent proprietor's appeal.

Due to the withdrawal of the patent proprietor's request to maintain the patent as granted or as amended according to auxiliary request 1, the present decision is taken only in respect of auxiliary request 2 and the objections raised against it by the opponent.

2. Admittance of document D8 and of auxiliary request 2 into the appeal proceedings.

2.1 The patent proprietor contested the admittance of D8 into the proceedings (see its statement setting out the grounds of appeal, page 2, penultimate paragraph - page

3, first paragraph) and the opponent contested the admittance of auxiliary request 2 into the proceedings (opponent's statement of grounds of appeal, point 3).

2.2 The Board notes that according to Article 12(1)(a) and (2) RPBA 2020 both auxiliary request 2 and document D8 form part of the appeal proceedings since they formed part of the opposition proceedings and cannot be excluded by the Board (see also T 617/16, point 1.1.1 of the reasons, T 2603/18, point 1 of the reasons, and also the Case Law of the Boards of Appeal (CLB), 10th edition, 2022, V.A.3.4.4).

As a consequence the above requests of the parties cannot be allowed.

3. Novelty of the subject-matter of claim 1 of auxiliary request 2 in view of D1 (Article 54 EPC)

3.1 The opponent contested the finding of the opposition division that the subject-matter of claim 1 of auxiliary request 2, identical to claim 1 of auxiliary request 1, is novel because D1 does not disclose a method for testing integrity of a portion of a flexible pipe body (see the impugned decision, page 9, second paragraph).

3.2 The opponent (see the reply to the appeal of the patent proprietor, page 7, last paragraph to page 8, eighth paragraph and letter dated 20 March 2023, page 6, second paragraph) argued that claim 1 did not specify to which pressure the integrity should be tested, so that even testing at a very low level of pressure constituted an integrity test and that therefore by performing the method of D1 the integrity of a portion of flexible pipe body would be tested. The integrity

test took place in D1 as an inevitable effect of testing the gas relief system.

- 3.3 The Board however, follows the reasoning of the opposition division and the arguments of the patent proprietor (see the impugned decision, page 9, second paragraph) that the purpose feature of claim 1 of "testing integrity" is a technical limitation of the method and that a person skilled in the art cannot directly and unambiguously derive from D1 that the pressure levels used and the procedure followed for relief pressure testing, are the same as those used for integrity testing. That the integrity testing is an inevitable result of the gas relief testing is thus a statement which remains unsubstantiated. Furthermore, it is not convincing that the application of any level of pressure would mean that an integrity test is carried out, because an integrity test implies that the integrity of the structure is then actively checked, not only that pressure is applied. This is not directly and unambiguously derivable from D1.
- 3.4 The Board is thus not convinced by the argument of the opponent that the opposition division erred in finding the subject-matter of claim 1 of auxiliary request 1 novel in view of D1.
4. In view of the above conclusion the issue of admittance into the proceedings of the objection of lack of novelty in view of D1, raised by the patent proprietor at the oral proceedings, does not need to be addressed.

5. Inventive step of the subject-matter of claim 1 of auxiliary request 2 (Article 56 EPC)

5.1 The Board concurs with the patent proprietor that the reasoning regarding lack of inventive step of the subject-matter of claim 1 given by the opposition division is not correct and is based on hindsight (see page 3, second to eighth paragraph of the patent proprietor's statement setting out the grounds of appeal).

5.2 The opposition division considered the subject-matter of claim 1 to be distinguished from the disclosure of D8 by feature F1 (see the reasons for the decision, page 13, third paragraph, second sentence), namely that the claimed method is:

"A method of testing integrity of a portion of flexible pipe body for transporting production fluids from a sub-sea location, prior to installation and use".

5.3 The opposition division found that (see the reasons for the decision, page 13, last two paragraphs):

"The problem to be solved based on F1 is therefore how to prevent the installation of a leaking flexible pipe.

The opposition division is of the opinion that the skilled person, already presented with the information in D8 that an integrity test can be performed while performing the annulus free volume test on a flexible pipe in use, does not require any inventive skills to realise that such a leak test can also form part of the factory testing program, in particular while performing the factory test of the annulus free volume."

5.4 The Board notes that the concluding statement of the reasoning of the opposition division, that "it does not require any inventive skill to realize that such a leak test can also form part of the factory testing program, in particular while performing the factory test of the annulus free volume", is a mere statement which remains unsubstantiated and therefore cannot be followed by the Board.

5.5 The opponent argued analogously to the opposition division at the oral proceedings, stating that given the information provided in D8, page 2, right-hand column, first paragraph, that during an offshore annulus free test

"a pressure decrease during stabilization indicates leak in the outer sheath",

the person skilled in the art would perform the same kind of test as an additional factory test as suggested by the sentence bridging pages 1 and 2, reading

"Later, annulus tests have been specified as an additional factory test prior to delivery in order to establish reference volumes for later in service testing",

so that the subject-matter of claim 1 would be not inventive in view of D8 alone.

The opponent argued that the person skilled in the art would perform the offshore annulus test as a factory test also in view of the teaching of D8 in combination with the common general knowledge.

5.6 The Board is not convinced by the arguments of the opponent.

An indication to perform the offshore annulus test as an additional factory test prior to delivery is not present in D8.

The first paragraph of the right-hand column of page 2 relates to offshore testing, which, as argued by the patent proprietor, takes place under different conditions and with different equipment than a factory test, so that this kind of test could not be directly used as a factory test without further modification. As further argued by the patent proprietor at the oral proceedings, the annulus test prior to delivery is made in order to establish reference volumes for later in service testing (see the paragraph bridging pages 1 and 2 of D8), while the test mentioned on the first paragraph of the right-hand column of page 2 of D8 is an offshore test, i.e. in service test, to reveal anomalies of the system while in operation. The two tests thus have different purposes. The Board shares the view of the patent proprietor that to perform the offshore annulus free volume test as an in factory test can only be the result of an ex-post facto analysis of D8, since the two tests have different aims.

5.7 The Board is therefore convinced by the arguments of the patent proprietor that the decision of the opposition division, that the subject-matter of claim 1 of auxiliary request 2 is obvious, is not correct.

6. Adaptation of the description

After discussion on the adaptation of the description the patent proprietor filed an amended version of the description to which neither the opponent nor the Board had any objections.

7. Conclusion

In view of the above and considering that no other objections have been submitted for claim 1 of auxiliary request 2, the decision should be set aside and the patent maintained as amended in that form.

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 with the order to maintain the patent as amended in the following version:

Claims:

Nos. 1 to 12 according to auxiliary request 2 re-filed with the statement of grounds of appeal on 28 February 2020

Description:

Pages 2 to 7 received during oral proceedings on 25 April 2023 at 12:34

Drawings:

Figures 1 to 8 of the patent specification.

3. The appeal fee paid by the opponent is reimbursed at 25%.

The Registrar:

The Chairman:



G. Nachtigall

I. Beckedorf

Decision electronically authenticated