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**Datasheet for the decision  
of 19 March 2021**

**Case Number:** T 2244/18 - 3.2.04

**Application Number:** 04797679.0

**Publication Number:** 1690010

**IPC:** F04D17/12, F04D29/62

**Language of the proceedings:** EN

**Title of invention:**  
MULTISTAGE CENTRIFUGAL COMPRESSOR

**Patent Proprietor:**  
Nuovo Pignone Holding S.P.A.

**Opponent:**  
Siemens Aktiengesellschaft

**Headword:**

**Relevant legal provisions:**  
EPC Art. 54

**Keyword:**  
Novelty - (no)

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**

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Case Number: T 2244/18 - 3.2.04

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.04**  
**of 19 March 2021**

**Appellant:** Nuovo Pignone Holding S.P.A.  
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**Representative:** Illingworth-Law, William Illingworth  
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**Respondent:** Siemens Aktiengesellschaft  
(Opponent) Werner-von-Siemens-Straße 1  
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**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 2 July 2018  
revoking European patent No. 1690010 pursuant to  
Article 101(3) (b) EPC.**

**Composition of the Board:**

**Chairman** A. de Vries  
**Members:** J. Wright  
W. Van der Eijk

## **Summary of Facts and Submissions**

I. The appeal was filed by the appellant patent proprietor against the decision of the opposition division to revoke the patent in suit.

II. The opposition division decided that the subject-matter of the claims as granted and as amended during the opposition proceedings was not novel.

III. The board duly summoned the parties to oral proceedings to take place on 28 April 2021. In a communication in preparation for the oral proceedings dated 13 November 2020 the Board made observations on the relevant issues and gave its provisional opinion that the appellant-proprietor's appeal should be dismissed.

With letter of 17 December 2020 the appellant-proprietor withdrew its request for oral proceedings.

Since the appellant-proprietor's request for oral proceedings was withdrawn, the Board has decided the case in written proceedings.

IV. The appellant-proprietor requests that the decision under appeal be set aside and that the patent be upheld as granted (that the opposition be rejected) or in the alternative that the patent be maintained in an amended form according to the auxiliary request 1, re-filed with its grounds of appeal.

The respondent-opponent requests that the appeal be dismissed, and that the case be remitted if matters beyond novelty over D14 need to be discussed.

V. Claim 1 of the main request reads as follows:

"A multistage centrifugal compressor comprising at least one stage (10) which, in turn, comprises a lower half-tank (11) and an upper half-tank (12) to contain the compressor stage (10), a series of lower half-diaphragms (16), a shaft (13) equipped with a series of rotors (14), a series of upper half-diaphragms (18), a lower suction half-diaphragm (51), and an upper suction half-diaphragm (52), wherein the lower suction half-diaphragm (51) and the upper suction half-diaphragm (52) include a portion (71) and a portion (72), respectively, suitable for being coupled with the lower half-diaphragms (16) and with the upper half-diaphragms (18), respectively, to form a first pile (41) of lower half-diaphragms (16) and a second pile (42) of upper half-diaphragms (18), respectively".

VI. Claim 1 of the auxiliary request differs from claim 1 of the main request in that it adds to the end of the claim the following feature:

"wherein the lower suction half-diaphragm (51) and the upper suction half-diaphragm (52) respectively include supporting feet to adapt the multistage centrifugal compressor to the configuration with a horizontal opening of the tank".

VII. In the present decision, reference is made to the following document:

D14 : JP 2001254697A (and its machine translation filed as D18 on 2 August 2013)

VIII. The appellant-proprietor's arguments can be summarised as follows:

The impugned decision was wrong to find that the subject matter of claim 1 of the main request lacked novelty over D14.

With regard to the auxiliary request, D14 cannot possibly disclose supporting feet as claim 1 requires.

IX. The respondent-opponent's arguments can be summarised as follows:

The subject matter of claim 1 of the main request and auxiliary request lacks novelty over D14.

### **Reasons for the Decision**

1. The appeal is admissible
2. Background

The patent relates to a multistage centrifugal compressor having a tank which can be opened horizontally (see published patent specification, paragraph [0001]).

3. In its communication in preparation for the oral proceedings, the Board gave its preliminary opinion on the appellant-proprietor's main and auxiliary requests and concluded that the appeal should be dismissed. In particular the Board stated the following:

*"2. Main request, claim 1, novelty with respect to document D14*

2.1 D14 (see abstract and figure 3) discloses a multistage centrifugal compressor comprising at least one stage in the sense of claim 1.

2.2 It is not in dispute that D14 (see for example figure 6) discloses a shaft with a series of rotors, nor that a pile of diaphragms (see for example reference 10 in figure 6) is associated with the rotors.

2.3 One feature in dispute is whether D14 discloses that the diaphragms are constructed as upper and lower half diaphragms with portions as claimed.

2.3.1 The opposition division found (see impugned decision reasons point 25.2) that the feature is disclosed in figure 6, which shows the upper half of a compressor stage. In particular, the division considered that the rib part 9 and diaphragms 10 form respective portions of an upper half diaphragm pile and it is implicit that there is a corresponding lower half. This appears to be what the division showed in its decision reasons (see pages 6 and 7): section 25.1.e and annotated figure 6 upper/lower suction half diaphragms. The division concluded that D14 disclosed upper and lower half diaphragms as claimed.

2.3.2 The Board sees no reason as to why this conclusion might be wrong from the figure itself, which shows just the upper half of a compressor stage. As the respondent-opponent has argued it would also appear impossible for the parts 9 and 10 not to be split, since the overlying part 9 is a continuous piece in the horizontal direction.

2.3.3 The appellant-proprietor has argued that the impugned decision was wrong in respect of this feature because paragraph [0003] of D14 discloses a different construction from that deduced by the opposition division from figure 6. However in this aspect the English of this passage is so poor as to be unintelligible.

2.3.4 The appellant-proprietor has also argued that D14 does not disclose upper and lower half-tanks as claimed. In the Board's view, figures 4 and 5 appear to show that the stage has a horizontally split housing and thus has upper and lower half-tanks as claimed. The abstract confirms that the casing is horizontally split. Furthermore, the reference to welding in the abstract appears to the Board to explain that the flanges are welded to respective half tanks so that these can be bolted together, rather than explain the half tanks to be welded together, see also paragraph [0003] of the translation ("connecting two horizontal flanges welded to each longitudinal side edge of plate 1 of this body, which is the structure of three side plates welded to each side").

Whether or not the casing arrangement of D14 might perform poorly with respect to leakage appears not to be relevant since leakage performance is not defined in the claim.

From all of the above, the Board is of the preliminary opinion that the arguments of the appellant-proprietor have not convinced the Board that the opposition division was wrong in finding the subject matter of claim 1 to lack novelty with regard to D14.



*3. Auxiliary request, claim 1, novelty with respect to document D14*

*The opposition division found (see impugned decision, reasons, 26.1) that the feature of supporting feet as claimed was disclosed in figure 6 of D14.*

*The appellant-proprietor's sole argument as to why the opposition division's analysis is wrong (appeal grounds, page 4) is that relative dimensions given in paragraph [0010] of D14 (D18) imply the provision of supporting feet to be impossible. Given that the patent provides no further detail of the feet, which could take any form, the Board is unable to see why support elements even in such constrained dimensions could not be considered to be "feet" in the broadest sense.*

*4. From the above, the Board is of the provisional opinion that the proprietor's appeal should be dismissed. [...]"*

4. With letter of 17 December 2020 the appellant-proprietor withdrew its request for oral proceedings. By the Board's previous communication, the appellant-proprietor was made aware of the reasons why the Board considered its appeal should be dismissed, so that it had sufficient opportunity to take a position thereon, which it did not. The board is thus satisfied that the requirements of Article 113(1) EPC have been met.
5. In the absence of any argument from the appellant-proprietor, the Board sees no reason to deviate from its opinion expressed in its communication that the appeal should be dismissed. As there is no need to discuss matters beyond novelty, the question of remittal is moot.

**Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:



G. Magouliotis

A. de Vries

Decision electronically authenticated