Internal distribution code:

(A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

Datasheet for the decision of 19 May 2017

Case Number: T 2600/12 - 3.2.04

Application Number: 06733596.8

Publication Number: 1888181

IPC: A62B35/00

Language of the proceedings: EN

Title of invention:
VACUUM ANCHOR

Patent Proprietor:
D B Industries, Inc.

Opponent:
Latchways PLC

Headword:

Relevant legal provisions:
EPC Art. 56, 123(2), 83, 84
RPBA Art. 13

Keyword:
Inventive step - main request (no) - auxiliary request (yes)
Late-filed request - adjournment of oral proceedings would have been required (yes)

Decisions cited:
G 0003/14

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern
Boards of Appeal
Chambres de recours

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 2600/12 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 19 May 2017

Appellant: (Opponent)	Latchways PLC Hopton Park Devizes Wiltshire SN10 2JP (GB)
Representative:	Jones, David Alan Urquhart-Dykes & Lord LLP 7th Floor Churchill House Churchill Way Cardiff CF10 2HH (GB)
Respondent: (Patent Proprietor)	D B Industries, Inc. 3833 Sala Way Red Wing MN 55066 (US)
Representative:	Vossius & Partner Patentanwälte Rechtsanwälte mbB P.O. Box 86 07 67 81634 München (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 30 October 2012 concerning maintenance of the European Patent No. 1888181 in amended form.**

Composition of the Board:

Chairman	A. de Vries
Members:	J. Wright
	C. Heath

Summary of Facts and Submissions

I. The appellant-opponent lodged an appeal, received 19 December 2012 against the interlocutory decision of the opposition division posted on 30 October 2012 concerning maintenance of the European Patent No. 1888181 in amended form. The appellant paid the appeal fee on the same day. Their statement setting out the grounds of appeal was filed on 8 March 2013.

II. Opposition was filed against the patent as a whole and based inter alia on Article 100(c) with Article 123(2) EPC, added subject matter, on Article 100(b) with Article 83 EPC, lack of sufficient disclosure and on Article 100(a) together with Articles 52(1) and 56 EPC for lack of inventive step.

III. The division held, inter alia, that a document D2 was prior art and that the patent as amended according to an auxiliary request met the requirements of the European Patent Convention, having regard to the following documents amongst others:

D1: DE20303294 U
D2: WINGRIP user manual, Rota limited, Dudley, United Kingdom, Rev 5 / 1 August 2003, filed with notice of opposition on 11 May 2011
D4 US6607054 B

The following documents supporting prior publication of D2, all filed with letter of 12 September 2012, were also considered:
- Affidavit of Andrew Beaman dated 10 September 2011
- Invoice of sale of Wingrip fall restraint system, Rota ltd, to Erren Protectie, Arnhem, The Netherlands, order number 2034004, dated 28 January 2004.

- Investigate financial express website, notice dated 5 April 2004 of aquisition by Latchways PLC of the Wingrip fall protection business from Rota.

IV. Oral proceedings were duly held before the Board on 19 May 2017 in the absence of the Appellant-opponent who, having been duly summoned, informed the Board in a letter dated 5 April 2017 that they would not attend.

V. The appellant-opponent requests that the decision under appeal be set aside and the patent be revoked in its entirety.

The respondent-proprietor requests that the decision under appeal be set aside and that the patent be maintained on the basis of claims of a main request filed with letter of 26 September 2013, or claims of one of auxiliary requests 1 or 2, both filed with letter of 19 April 2017.

VI. Claim 1 of the various requests reads as follows:

Main request:

"1. A vacuum anchor assembly for anchoring a fall protection system to a surface of an anchorage structure, comprising:

a) an anchor member (101, 108) having an air input connector (142), a venturi (122), a vacuum manifold (125) and a seal member (103, 110) all incorporated into the anchor member;

b) the air input connector configured and arranged to receive air from a pressurized air source (A);

c) the venturi in fluid communication with the air input connector configured and arranged to receive air and create a vacuum therefrom within the vacuum manifold;

d) the seal member in fluid communication with the venturi and the vacuum manifold and configured and arranged to receive the vacuum and resulting suction and create a seal between the anchor member and the surface of the anchorage structure sufficient to operatively connect the anchor member to the surface of the anchorage structure (178) with the vacuum and resulting suction created within the anchor member;

e) a check valve (123) and a control valve (129) incorporated into the anchor member between the venturi and the seal member to control the vacuum supplied to the seal member and allow for the anchor member to be released from the surface of the anchorage structure; and characterised by:

f) an auxiliary anchor member (160);

g) a vacuum outlet connector (158) configured and arranged to supply vacuum created within the anchor member to the auxiliary anchor member (160), the auxiliary anchor member (160) being in fluid communication with the vacuum created within the vacuum manifold;

h) a vacuum switch (128) operatively connected to an indicator, the vacuum switch opening if the vacuum level is greater than a predetermined vacuum level thereby preventing the indicator from providing an indication of low vacuum level and closing if the vacuum level is less than the predetermined vacuum

level thereby causing the indicator to provide an indication of low vacuum level, the vacuum switch (128) being in fluid communication with the vacuum manifold and reading both the anchor member (101,108) and the auxiliary anchor member (160)".

Auxiliary request 1 reads as the main request except that, at the end of the claim, after the wording "and the auxiliary anchor member (160)" the following wording is added:

"i) a compressed air cylinder mounted to the anchor member as a pressurized air source (A)".

Auxiliary request 2 reads as the main request except that, at the end of the claim, after the wording "and the auxiliary anchor member (160)", the following wording is added:

"i) the anchor member further comprising a pressure switch (118) operatively connected to an indicator (133), the pressure switch opening if the air pressure is greater than a predetermined air pressure thereby preventing the indicator from providing an indication of low air pressure and closing if the air pressure is less than the predetermined air pressure thereby causing the indicator to provide an indication of low air pressure".

VII. The appellant-opponent argued as follows:

The patent is insufficiently disclosed because there is only disclosure of an electrically operated indicator in the patent but this is not reflected in claim 1.

Claim 1 as amended has the vacuum produced in the manifold. Actually it is produced in the venturi, therefore this amendment adds subject matter and is unclear. It is also unclear what a vacuum switch is and what opening and closing of a switch means. An auxiliary anchor member is not claimed, only referred to, rendering the claim unclear.

Claim 1, inventive step

D2 is prior art, as its date shows. Wingrip units were sold in 2003 and 2004 so these would be delivered with document D2, as various invoices and the affidavit of Andrew Beaman prove.

Starting from D1, when combined with the teaching of D2 it would be obvious to arrive at the subject matter of claim 1 because D2 teaches the idea of supplying a vacuum from one anchor to another via a vacuum manifold. D2 also discloses a horn indicator for indicating low vacuum, the vacuum switch operating the horn as claimed, so the combination of D1 and D2 would lead to all the features of claim 1.

Claim 5

The subject matter of claim 5 lacks inventive step starting from D1 and combined with D2 or D4. D2 and D4 both disclose a pressure gauge to indicate if there is sufficient pressure in the anchor for it to be safe. If the skilled person were to seek an alert for a hazardous drop in vacuum in D1 they would be taught to use a pressure gauge by D4 and from D2 it is obvious to use a vacuum switch and the skilled person would replace this with a pressure switch as a matter of obviousness.

VIII. The respondent-proprietor argued as follows:

The patent is sufficiently disclosed, the skilled person knows how to produce indicators other than electrical indicators.

The vacuum is connected to the venturi, so a vacuum caused by the venturi will also be created in the manifold. Consequently the feature is clear and does not add subject matter. Any clarity issues arising from direct combinations of granted claims cannot be examined in opposition.

The version of claim 1 of the new main request claims an auxiliary anchor, so is clear in this respect.

D2 is not proven to be available to the public. Although Wingrip products were sold with manuals, D2 is a 5th revision of a document first published on 1 August 2003, so D2 could contain different information from the original version and might have been released after the priority date of the patent.

Main request

Starting from D1, when combined with the teaching of D2 it would not be obvious to arrive at the subject matter of claim 1. D1 is not a fall protection anchor, so D1 and D2 are from different technical fields so cannot be combined. Even if the skilled person did combine D1 and D2 they would not arrive at the claimed invention. The venturi of D1 would be too small to power more than one vacuum anchor. The teachings of D1 and D2 would lead to each anchor having its own venturi and a manifold for distributing compresssed air, not vacuum. The

combination would also result in a vacuum switch monitoring vacuum in each vacuum cup, not one connected to the vacuum manifold.

First auxiliary request

The request should be admitted as the amendment of claim 1 vis-à-vis the main request is mainly based on a granted claim.

Second auxiliary request

The second auxiliary request amends claim 1 of the main request with a direct combination of a granted claim, so should be admitted. There is no suggestion in D1, D2 or D4 to use a pressure switch as claimed.

Reasons for the Decision

1. The appeal is admissible.

2. Background

The patent concerns a vacuum anchor for fall protection (specification paragraph [0001]). It is know to generate a vacuum locally on the anchor using a venturi jet powered by a compressed air source (specification paragraph [0003]). The patent relates to such a vacuum anchor (claim 1 in all its versions). One aspect of the invention is to use two such anchors together. Using the vacuum generator in a first anchor to evacuate an auxiliary anchor obviates the need for a venturi in the auxiliary anchor, so necessitating fewer components (specification, paragraphs [0025] and [0026]).

3. Main request, inventive step

3.1 Status of D2 as prior art

3.1.1 In their communication in preparation for the oral proceedings, dated 3 April 2017 the Board gave a preliminary opinion regarding the status of D2 as being publicly available prior art. In particular they stated (see section 4.3):

"In the Board's opinion, D2 is prior art.

The Board notes that the manual D2 bears the reference Rev 5/ 1/08/03. The Board finds it implausible that this date should refer to the publication date of the first version of the document as the respondent-proprietor argues. The date printed on a document is normally not that of a different document. Nor does the Board see why the product manager [Andrew Beaman] responsible for the Wingrip product, thus someone heavily involved with the product, would not be able to identify the manual as being the one delivered with that product in 2003/2004. Nor does the Board see why his credibility might be questionable merely because he is an employee of the opponent, the maker of the product concerned.

Finally The company Rota (see Rota Logo emblazoned on D2) became "Latchways PLC", announced 5 April 2004 (see supporting evidence, last page and various invoices with company logos. The Board finds it unlikely that more than two years after this change (the priority is 2 June 2005), Latchways would be dispatching products with manuals bearing the old Rota logo. Therefore the Board is of the opinion that D2 is prior art".

3.1.2 As is apparent from the above, in the board's preliminary opinion, D2 is publicly available prior art. In summary, the Board reached this conclusion given the date on D2, the affidavit of Mr Andrew Beaman, the WINGRIP vacuum anchor product manager, stating that D2 was supplied to customers purchasing the WINGRIP product in 2003 and 2004, proof of sale of the WINGRIP vacuum system, for example in invoice of 28 January 2004, when the company was still Rota (cf. notification of change of name to Latchways PLC dated 5 April 2004). In their letter of 19 April 2017, and at the oral proceedings before the Board, the respondent-proprietor, though still contesting public availability, refrained from further comment.

3.1.3 Absent any further argument from the parties in this regard, the Board has no reason to deviate from their preliminary opinion. Therefore, in this respect, the Board concurs with the impugned decision (see reasons, point 3.1) and finds D2 to have been made publicly available prior to the priority date of the patent and therefore is valid prior art.

3.2 Claim 1 corresponds to claim 1 as upheld with the exception of the auxiliary anchor now being claimed, rather merely referred to. The appellant-opponent has argued lack of inventive step of claim 1 as upheld starting from D1 combined with D2.

3.2.1 D1 discloses a vacuum anchor member 10 with a seal member 12 (abstract). In the Board's view it is (suitable) for fall protection (see page 7) where, for example, the anchor member may be used for securing a window-cleaning working platform, so preventing the workers from falling.

D1 also discloses an air input connector 40 for supplying a venturi 42 with pressurised air, to generate a vacuum, with which the seal 12 is in fluid communication (figure 3, page 9, lines 1 to middle). Furthermore, D1 discloses a checkvalve 28 ("Rückschlagventil" page 4, penultimate paragraph, page 9, middle and figure 1) and a control valve 24 ("Kugelhahn" bottom of page 9 and figure 1).

3.2.2 However, D1 does not disclose an auxiliary anchor member (feature f). Whilst a plurality of fixing points ("Befestigungspunkten", plural) are mentioned (page 7), the Board does not see this as a direct and unambiguous disclosure of a system comprising multiple anchor members: the statement might also mean one anchor used in different positions. Nor does D1, with its single vacuum anchor (see figure 1), disclose a vacuum manifold or a vacuum switch. D1 is silent as to any safety warnings, let alone one related to vacuum or air pressure. Thus, D1 discloses the opening claim clause and features a) to e), with the exception of a vacuum manifold (in claim feature a).

3.2.3 In summary, the differences between claim 1 and D1 are: the claimed auxiliary anchor member, the vacuum manifold, the vacuum outlet connector for the anchor member for supplying vacuum to the auxiliary member, and the vacuum switch (see claim feature h) operatively connected to an indicator in fluid communication with the vacuum manifold and reading both the anchor and auxiliary anchor member.

3.2.4 In the Board's view, some of these features contribute to overall safety. Having two anchor members increases fall safety, since two anchor points are inherently safer than one. Having a vacuum switch operatively

connected to an indicator increases safety by warning of a low-vacuum.

3.2.5 Furthermore, the manifold and vacuum outlet on the (primary) anchor member allow it to power the auxiliary anchor member, so the auxiliary anchor member need have no venturi vacuum source (specification, column 9, lines 42 to 43). Likewise having the vacuum switch in fluid communication with the vacuum manifold enables a single vacuum switch to monitor the vacuum supply of both the principle and auxiliary anchor members (column 9, lines 53 to column 10, line 2). Thus, both these features are seen as contributing to the system having fewer components, that is reduced complexity.

3.2.6 Therefore, in the Board's opinion, the objective technical problem can be formulated as modifying the arrangement of D1 to provide improved safety, whilst minimising complexity.

3.2.7 Like D1, D2 discloses a fall protection arrangement (page 4, introduction) that uses a vacuum anchor. Therefore the skilled person would see the teachings of D1 and D2 as being compatible both in terms of their field of application and their functionality. Therefore the Board has no doubt that the skilled person would consider combining the teachings of D1 and D2.

3.2.8 D2 also discloses a system comprising a pair of vacuum anchors (page 40, "2x Wingrip vacuum pads" and figure, page 58). This vacuum pad has a vacuum manifold (T-shaped pipe with connectors 22 and 23, left-hand figure of page 53).

3.2.9 Furthermore, D2 discloses a low vacuum warning activated by a vacuum switch 22 (page 21, figure of

page 54) which is operatively connected to an indicator (warning horn 21).

The Board notes that, confusingly, D2 expresses the functional states of the switch 22 in terms of whether the passage through the switch is open or closed, that is using the usual terms for valve terminology, "open" being when the switch allows control air through the passage, and "closed" when the switch blocks passage of control air. However, the usual open/closed-state terms for a switch, as used in the claim, are the opposite. With this in mind, the Board considers that the switch 22 of D2 is exactly as claimed in feature h), (see D2, pages 21, and 22 points g, l and q)

In particular, if the vacuum level is greater than a predetermined level (a level at which anchorage is safe, -0.7 bar in D2) the vacuum switch blocks the passage of control signal air to the "horn control valve 28", and the horn produces no signal (page 21, point l), "off state" and page 22, point q). Put in usual switch terms, the switch is in an open state.

If however there is less than this level of vacuum, the switch 22 allows control signal air to valve 28, causing the horn to indicate a low (insufficient) vacuum level (page 22, point q, page 29, setting up the vacuum switch 22, point 4). In usual switch terminology again, the switch is closed.

Therefore the switch 22 is as in claim feature h).

3.2.10 In summary, D2 discloses all the differing claim features, albeit in a constellation in which the single vacuum supply that powers two anchor members is not mounted on an anchor member, but carried separately.

(Vacuum is supplied to the first anchor of D2 from a separate vacuum source, referred to variously as a vacuum module, control module or vacuum control module, see page 40, 1x vacuum control module complete with carrying bag, pages 21 to 22 and figure of page 54, where the dashed line shows the boundary of the vacuum control module, with its vacuum generator 6, and vacuum output port C10).

3.2.11 Tasked with the objective technical problem (modifying the arrangement of D1 to provide improved safety, whilst minimising complexity) it would be immediately evident to the skilled person that D2, with its two anchoring points, provides better safety than a single anchor point arrangement and that by having both anchors share a common vacuum generator, offers an intrinsically simple system. In essence, the skilled person sees that the simplicity of D2 lies in having a common vacuum source power two anchors, and does so by making one anchor a primary anchor, directly associated with the vacuum source (page 41, point 8), whilst the second is auxiliary thereto, getting its vacuum from the first anchor (page 41, point 12). In the Board's view, in order to improve safety of a D1 system, the skilled person will therefore, as a matter of obviousness, consider using the D1 system in combination with an auxiliary anchor as in D2, by adopting D2's common vacuum feed scheme.

According to D2 (see left-hand figure of page 53, T-shaped pipe with connectors 22 and 23, page 41, points 12 to 14 and 31) the manifold on the first vacuum anchor supplies a vacuum to the auxiliary vacuum anchor. In adopting the D2 common vacuum feed scheme the skilled person will then obviously include just such a manifold in the vacuum pad of D1. Furthermore,

with their mind focused on increasing safety, and knowing that the arrangement of D1 has no low-vacuum warning, the skilled person will likewise incorporate the low vacuum warning arrangement of D2, with its vacuum switch monitoring the vacuum supply at the manifold. Thus, as a matter of obviousness, they will arrive at a vacuum anchor assembly having all the features of claim 1.

3.2.12 When adapting the arrangement of D1 the skilled person would not abandon its on-board venturi vacuum source ("Ejektor") for an external source as in D2 as the respondent-proprietor has argued. That would go against D1's core teaching of achieving a compact unit (see page 3, third paragraph "kompakte Baueinheit"), powered simply from a single coupling for receiving compressed air (page 3, last five lines "Saugbefestigungsvorrichtung mit einer Versorgungsleitung, für ein Treiber-medium....").

3.2.13 Furthermore, whether the vacuum source of D1 is a "small" venturi compared to that of the separate vacuum module in D2, and whether the former could not power two vacuum anchors, is speculation: neither document gives any information about the size of the venturis or vacuum anchors. In any case, neither venturi nor anchor size is reflected in the claim, so it plays no role in the discussion of obviousness.

3.2.14 The Board is also not convinced that, faced with the above problem, the combination of D1 and D2 would rather lead the skilled person to provide the anchor of D1 with a manifold for distributing pressurised gas from an external source to an auxiliary anchor which likewise had its own venturi vacuum generator, rather than a manifold distributing vacuum as argued above.

Such an arrangement is neither disclosed nor hinted at in D2, which teaches to provide a vacuum manifold for distributing vacuum between anchors. Besides, distributing high-pressure gas via a first anchor, would require each anchor to have its own vacuum source, which would be contrary to minimising complexity.

3.2.15 The Board also does not consider that the skilled person would, when combining the teaching of D1 and D2, rather arrive at an arrangement that monitored the vacuum suction cup directly as the respondent-proprietor argues.

As explained above, whereas D1 discloses no low-vacuum warning, D2's arrangement of the vacuum switch 22 (figure of page 54, cf. left hand figure of page 53, manifold with vacuum ports 22, 23) monitors the vacuum manifold (part where vacuum port 10 branches off), rather than monitoring the vacuum in the vacuum cup of the anchor. Therefore, the direct combination of the teachings of D1 and D2 would result in a vacuum switch as claimed, not one that monitored the vacuum in the vacuum cup.

In any case, the skilled person, being focused on improving safety without complexity, would reject the latter arrangement, as being too complex: rather than only a single vacuum switch as D2 discloses, it would require a switch in the vacuum cup of each anchor.

3.2.16 For all these reasons the Board considers that claim 1 lacks inventive step vis-à-vis D1 with D2.

4. First and second auxiliary request, admissibility

Auxiliary requests 1 and 2 were filed on 19 April 2017 one month prior to the oral proceedings, well after filing of the grounds of appeal. The requests thus amount to an amendment to the Appellant's case in the sense of Article 13 of the Rules of Procedure of the Boards of Appeal (RPBA). Under paragraph (1) of that article the Board exercises discretion in admitting such amendments in view of, inter alia, the complexity of the subject-matter, the state of the proceedings and the need for procedural economy.

Furthermore, under Article 13(3) RPBA any amendments sought to be made after oral proceedings have been arranged, as is the case here, shall not be admitted if they raise issues which the Board or the parties cannot reasonably be expected to deal with without an adjournment.

4.1 First auxiliary request

This request combines claim 1 of the main request with granted claim 2 (compressed air cylinder) and a further amendment taken from the description, namely that the air source is integrally mounted on the vacuum anchor (see for example specification, paragraph [0019], first 7 lines, paragraph 17, first three lines, figure 2, air cylinder 115).

The Board notes that the added "on-board air cylinder" feature was never previously claimed and is only mentioned in the description as being one of alternatives for supplying air (specification, paragraph [0019] again), without explanation as to why it should be significant. It is therefore not a

prominent feature that might have warranted particular attention in search or examination proceedings, or by the division and parties in opposition proceedings. The above amendment was therefore not foreseeable by either the Board or the opposing party and extends the frame of discussion beyond that of the opposition and appeal proceedings hitherto. Moreover, the Board considers it unlikely that such a feature introduced from the description was already searched or implicitly examined in first instance proceedings. This request therefore raises new issues with which the Board could not be expected to deal without adjournment of the proceedings.

In accordance with Article 13(3) RPBA, the Board therefore decided not to admit the first auxiliary request.

4.2 Second auxiliary request

Claim 1 adds to claim 1 of the main request the subject matter of granted dependent claim 7 (claim 5 of the set of claims as held allowable by the opposition division, and of the present main request). In the Board's view, being based on a dependent claim, the amendment was foreseeable and will have been searched and examined. Indeed, in their grounds of appeal, the appellant-opponent has addressed inventive step of this subject matter (see letter of 08 March 2013, pages 5 and 6, sections 5 and 5.1).

The Board therefore considers it fair and reasonable for it (and indeed the appellant-opponent) to be able to deal with this request without adjournment of the proceedings. The Board therefore decided to admit the second auxiliary request into the proceedings.

5. Second auxiliary request, added subject matter, clarity, sufficiency of disclosure

5.1 In its communication in preparation for the oral proceedings of 3 April 2017 (see sections 2 and 3) the board gave the following preliminary opinion with respect to these matters for the then main request:

5.1.1 "Sufficiency of disclosure, Article 83 EPC

The appellant-opponent argues insufficiency because the claim does not specify the indicator is electrically operated. The Board notes that it is not in dispute that one way of carrying out the invention is disclosed (cf. specification paragraph [0020]). Furthermore the patent specification discloses both electrical (e.g. switch 128, column 7, line 51 to column 8, line 8, column 11, lines 3 to 8) and pneumatic vacuum switches (e.g. switch 120, column 7, lines 20 to 27 and column 10, line 57 to column 11, line 1). The Board is of the opinion that, whether or not the particular alarm indicator disclosed in the patent is electrical, the skilled person, reading the patent and with their general knowledge, could carry out the invention with differently powered indicators, such as electrical and pneumatic indicators. Therefore the Board considers claim 1 to be sufficiently disclosed."

5.1.2 "Added subject matter and clarity, Articles 123(2), 84 EPC

Claim feature of "vacuum created in the vacuum manifold". In the Board's opinion, if the manifold becomes evacuated, because the venturi removes air, then a vacuum is created in the manifold. Therefore the Board does not see that this feature is an extension of

subject matter. The feature h (vacuum switch reads anchor members and opens/closes under certain conditions) appears to have a basis in original claim 5, with the addition of the last three lines of the feature, taken from the description (page 10 lines 3 to 5). In accordance with G 3/14, in considering whether, for the purposes of Article 101(3) EPC, a patent as amended meets the requirements of the EPC, the claims of the patent may be examined for compliance with the requirements of Article 84 EPC only when, and then only to the extent that the amendment introduces non-compliance with Article 84 EPC (see reasons, point 85 and order).

In the present case the Board therefore only has the power to consider a lack of clarity arising from the last three lines of feature h. In this regard, the Board is of the opinion that a pressure valve in fluid communication with the manifold is clear. Furthermore, the Board considers that the concept of a vacuum switch reading the anchor members is also clear in the context of monitoring vacuum therein. Therefore the board considers that the claim feature is clear.

The last point made by the appellant-opponent (unclear whether or not the auxiliary anchor member is claimed) does not apply to the current main request because new feature f) specifies the auxiliary anchor member as part of the assembly".

5.2 The appellant-opponent made no further comment on these issues. In their subsequent letter of 5 April 2017, they merely stated their intention not to attend the scheduled oral proceedings. In the light of this, the Board sees no reason to deviate from their previous

preliminary opinions on these issues, as expressed above.

5.3 Furthermore, the appellant-opponent did not raise any of the above issues (added subject matter, clarity, sufficiency of disclosure) in regard to claim 5 of the set of claims as maintained, upon which claim 1 of the second auxiliary request is also based (addition of feature i, cf. granted claim 7). In their grounds of appeal (section 5, starting on page 5), the appellant-opponent only objected that this subject matter (claim 5 as upheld) lacked inventive step. Nor does the Board see any reason to raise further objections as a result of this amendment.

5.3.1 Firstly, feature i) concerns a switch for which the description gives a specific example of how the skilled person is to carry out the invention (see specification paragraph [0018]), so raises no new issues of insufficiency of disclosure.

5.3.2 With regard to clarity, as set out above, the Board does not have the power to examine clarity in respect of an amendment directly based on a granted claim. This applies in the present case because feature i) corresponds to granted claim 7.

5.3.3 Lastly, regarding added subject matter, feature i) has a direct basis in claim 7 as originally filed. Therefore, as such, this amendment does not add subject matter.

5.4 Inventive step, Articles 52(1), 56 EPC

5.4.1 In the Board's opinion, the subject matter of claim 1 involves an inventive step.

5.4.2 Claim 1 corresponds to a combination of claims 1 and 5 of the main request. Following on from the discussion of inventive step of claim 1 of the main request, the feature i) of claim 1 of the present request adds a pressure switch to provide an indication of low air pressure. Such an indication implicitly relates to the incoming air pressure of compressed gas supplied to the venturi, not to any vacuum pressure, since an indication, that is a warning, of low pressure would only make sense in the context of the incoming air pressure used to generate the vacuum, but not to "warn" of a vacuum having a low air pressure. This is indeed confirmed by the description (see paragraph [0018]), which states that the pressure switch 118 monitors the incoming air pressure to ensure it is high enough.

5.4.3 The appellant-opponent has objected lack of inventive step of what largely amounts to this subject matter (claims 1 and 5 of the claim set as maintained, see grounds of appeal, pages 5 and 6, section 5). They argued starting from D1 combined with D2 or D4.

However, none of these documents discloses the pressure switch feature.

D1 makes no mention of monitoring air pressure, let alone that of the incoming air. The only components up-stream of the venturi 14 are a ball-valve 16 ("Kugelhahn") and pressurised air supply line 18 ("Druckluftversorgungsleitung").

5.4.4 As discussed above, D2 discloses a vacuum switch 22 for indicating when the vacuum becomes unsafe, that air pressure in the evacuated area of the anchor becomes too high, but not a pressure switch arranged to

indicate when (incoming) air pressure is too low as claimed. Whether or not it would be obvious for the skilled person to replace this vacuum switch with an alternative pressure switch as the appellant-opponent has argued, at best this would only monitor air pressure in the evacuated parts of the anchor, not the pressure of incoming air, for indicating, that is warning, of a low pressure condition.

5.4.5 Likewise, D4, which the parties agree discloses the same vacuum anchor as D2, describes using a pressure gauge 31 for monitoring the pressure of the vacuum (column 3, lines 46 to 54 and figure 3). Such a gauge is an instrument for measuring, not a switch changing states at a predetermined pressure. Nor does it give an indication of pressure being below a predetermined safe level. Air pressure in the evacuated parts of a vacuum anchor should be low to be safe.

5.4.6 As none of the documents D1, D2 and D4 discloses the feature i), that is the pressure switch feature, the combination of their teachings (whether that combination is obvious or not) would not result in the vacuum anchor assembly as claimed. Furthermore, the Board holds that it would be outside the routine abilities of the skilled person to provide a the vacuum anchor assembly with a pressure switch operatively connected to an indicator for causing the indicator to indicate a low pressure as claimed, where no such pressure switch is disclosed in D1, D2 or D4.

6. In conclusion, the Board finds that the subject-matter of claim 1 of the second auxiliary request is sufficiently disclosed, Article 83 EPC, is clear, Article 84 EPC and does not comprise added subject matter, Article 123(2) EPC. Furthermore, the Board finds that it involves an inventive step over the cited prior art, Article 52(1) with 56 EPC.

7. Taking into account the amendments made to the patent according to the respondent-proprietor's second auxiliary request, including amendments made to the description during the oral proceedings of 19 May 2017, the Board finds that the patent and the invention to which it relates meet the requirements of the European Patent Convention, Article 101(3) a) EPC. Therefore the patent can be maintained according to the second auxiliary request.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance with the order to uphold the patent in the following version:

Claims:
1 – 8 in the version of Auxiliary Request 2 as filed with letter dated 19 April 2017.

Description:
pages 2 and 7 as filed during oral proceedings before the Board,
pages 1, 3 to 6 and 8 of the published patent specification.

Drawings:
Figures 1 – 16 of the published patent specification.

The Registrar: The Chairman:

G. Magouliotis A. de Vries

Decision electronically authenticated