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**Datasheet for the decision
of 3 July 2007**

Case Number: T 1129/04 - 3.2.05

Application Number: 96923137.2

Publication Number: 0957992

IPC: A62B 17/04

Language of the proceedings: EN

Title of invention:
Breathing equipment

Patentee:
INTERSPIRO AB

Opponents:
Schmidt, Martin
MSA AUER GmbH

Headword:
-

Relevant legal provisions:
EPC Art. 84

Keyword:
"Clarity (main and first auxiliary requests, no)"

Decisions cited:
-

Catchword:
-



Case Number: T 1129/04 - 3.2.05

D E C I S I O N
of the Technical Board of Appeal 3.2.05
of 3 July 2007

Appellant: INTERSPIRO AB
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Respondent II: MSA AUER GmbH
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Representative: Wablat, Wolfgang
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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
9 July 2004 concerning maintenance of European
patent No. 0957992 in amended form.

Composition of the Board:

Chairman: W. Zellhuber
Members: P. Michel
E. Lachacinski

Summary of Facts and Submissions

- I. The appellant (patent proprietor) lodged an appeal against the interlocutory decision of the Opposition Division maintaining European Patent No. 0 957 992 in amended form.

The Opposition Division considered claim 1 of a main request and of a second auxiliary request to be unclear, and claim 1 of a first auxiliary request to include matter not disclosed in the application as filed. The patent was maintained on the basis of a third auxiliary request.

- II. Oral proceedings were held before the Board of Appeal on 3 July 2007.

- III. The appellant requested that the decision under appeal be set aside and that the patent in suit be maintained on the basis of the following documents:

(i) Main request: claim 1 filed as main request on 9 November 2004 and claims 2 to 8 as granted; or

(ii) First auxiliary request: claim 1 filed as first auxiliary request on 9 November 2004 and claims 2 to 8 as granted

Respondent II (opponent 02) requested that the appeal be dismissed.

Respondent I (opponent 01) did not file any observations or requests in the appeal proceedings.

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

"1. Breathing equipment of the kind which includes a flexible breathing hood (1) intended to surround the wearer's head (2), an inner mask (3) which covers at least the wearer's mouth and nose, a conduit (4) delivering breathing gas to the hood (1), means (6, 7) which permit gas to pass from the hood (1) to the mask (3), and check valve means (5) for allowing gas to pass from the mask (3) to the surroundings when the overpressure in the mask has reached a given value, wherein said means (6, 7) which permit gas to pass from the hood (1) to the mask (3) allow gas to pass in both directions between hood (1) and mask (3), and wherein said means (6, 7) require a lower overpressure in the mask (3) for passage of gas from the mask to the hood than the pressure required for the check valve (5) to release gas from the mask to the surroundings, characterized in that said means (6, 7) allowing gas to pass in both directions between hood (1) and mask (3) present a smaller resistance to the exhalation gas than the check valve (5) such that, as the wearer of the breathing equipment inhales, the hood will flex inwardly towards the wearer's head when the volume of air inhaled is greater than the volume of gas delivered through the conduit (4) and, as the wearer exhales, the exhalation gas will initially pass to the interior of the hood (1) through said means (6, 7) allowing gas to pass in both directions and that, when the hood (1) has returned to its initial form as a result of the increase in pressure generated by the exhalation gas and the breathing gas delivered through the conduit (4) to the

hood (1), the pressure in the mask (3) will also increase to said given value at which the check valve (5) opens to the surroundings."

Claim 1 of the first auxiliary request differs from claim 1 of the main request in that the following feature is added:

"and in that said means is a flexible hose or an opening".

- V. The appellant argued substantially as follows in the written and oral procedure:

The characterising portion of claim 1 defines in functional terms the means which permit gas to pass between the mask and the hood. In particular, it is necessary that the means require a lower overpressure in the mask for passage of gas from the mask into the hood than the pressure required for the check valve to release gas from the mask into the surroundings, and that the means present a smaller resistance to the exhalation gas than the check valve.

The features which ensure that, when the hood has returned to its initial form as a result of the increase in pressure generated by the exhalation gas and the breathing gas delivered to the hood, the pressure in the mask will also increase to the value at which the check valve opens to the surroundings, are functionally specified in the claim. In particular, the person skilled in the art will be able to determine suitable dimensions for the gas passage between the mask and the hood.

The resistance to gas flow of the means which allow gas to pass in both directions between the flexible hood and the mask must be small in order that the hood is fully inflated, that is, returned to its initial form, through exhalation of the user and the supply of fresh breathing gas, before the check valve opens.

The dimensions of the opening forming the means which allow gas to pass between the hood and the mask are essential to determining the overpressure in the mask and hence the point at which the check valve opens. Claim 1 clearly defines a parameter for opening the check valve, and, in turn, a parameter for the dimensions of the opening.

The subject-matter of claim 1 is thus clear.

VI. Respondent II argued substantially as follows in the written and oral procedure:

The functional features specified in the characterising portion of claim 1 merely result from the structural features which are specified in the preamble of the claim and do not represent a teaching capable of being put into practice by a person skilled in the art.

During exhalation, it is inevitable that pressure will increase inside the hood and mask until the check valve is opened at a predetermined overpressure. The opening between the mask and hood must be sufficiently large that the user can breathe comfortably. The characterising portion of claim 1 is thus merely a description of functions which occur under certain

conditions, but does not constitute a technical teaching.

The subject-matter of claim 1 of both the main and first auxiliary requests is thus not clear.

Reasons for the Decision

1. *Main Request*

Clarity

The characterising portion of claim 1 specifies that the means which allow gas to pass in both directions between the flexible hood and the mask present a smaller resistance to the exhalation gas than the check valve.

It is further specified in the claim that this smaller resistance should be such that, as the wearer of the breathing equipment inhales, the hood will flex inwardly towards the wearer's head when the volume of air inhaled is greater than the volume of gas delivered through the conduit and, as the wearer exhales, the exhalation gas will initially pass to the interior of the hood through the means allowing gas to pass in both directions and that, when the hood has returned to its initial form as a result of the increase in pressure generated by the exhalation gas and the breathing gas delivered to the hood, the pressure in the mask will also increase to the given value at which the check valve opens to the surroundings.

These features of the operation of the breathing equipment do not, however, arise from the relative resistance to gas flow of the means which allow gas to pass in both directions between the flexible hood and the mask and the check valve.

During inhalation, the check valve remains closed and breathing gas is drawn from the hood into the mask. Whether or not this causes the hood to flex inwardly depends upon whether the user breathes at a faster rate than gas is supplied to the hood or not.

During a first period of exhalation, the overpressure in the mask is not sufficient to open the check valve and exhaled gas flows through the means which allow gas to pass in both directions between the flexible hood and the mask into the hood. If the hood has flexed inwardly, this will result in inflation of the hood.

During a second period of exhalation, the overpressure in the mask reaches the pressure required to open the check valve. Exhaled air now flows both through the check valve and the means which allow gas to pass in both directions between the flexible hood and the mask. The point in time at which the check valve opens depends upon the overpressure in the mask reaching the pressure required to open the check valve. This has nothing to do with the feature of whether or not the means which allow gas to pass in both directions between the flexible hood and the mask presents a smaller resistance to exhalation gas than the check valve, since the check valve remains closed during the first period of exhalation during which the pressure in the mask increases owing to exhalation. Rather, the

point at which the required overpressure for a particular exhalation is reached depends upon the absolute resistance to gas flow of the means which allow gas to pass between the flexible hood and the mask, and the ease with which the hood can be inflated. The resistance to exhalation gas of the check valve is irrelevant, since the check valve remains closed during the first phase of exhalation.

The subject-matter of claim 1 is thus not clear, and the requirements of Article 84 EPC are accordingly not satisfied.

2. *First Auxiliary Request*

Clarity

The amendment which distinguishes claim 1 of this request from claim 1 of the main request does not affect the arguments and conclusion as set out under point 1 above.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

D. Meyfarth

W. Zellhuber