

BESCHWERDEKAMMERN
DES EUROPÄISCHEN
PATENTAMTS

BOARDS OF APPEAL OF
THE EUROPEAN PATENT
OFFICE

CHAMBRES DE RECOURS
DE L'OFFICE EUROPEEN
DES BREVETS

Internal distribution code:

- (A) [] Publication in OJ
(B) [] To Chairmen and Members
(C) [X] To Chairmen

D E C I S I O N
of 26 April 1996

Case Number: T 0696/94 - 3.2.4

Application Number: 90910955.5

Publication Number: 0480991

IPC: F02M 35/024

Language of the proceedings: EN

Title of invention:

Filter device, particularly intake air filter device for
combustion engines

Applicant:

AB VOLVO

Opponent:

-

Headword:

-

Relevant legal provisions:

EPC Art. 123(2), 111(1)

Keyword:

"Extension of subject-matter (no)"
"Remittal to Examining Division"

Decisions cited:

-

Catchword:

-



Case Number: T 0696/94 - 3.2.4

D E C I S I O N
of the Technical Board of Appeal 3.2.4
of 26 April 1996

Appellant: AB VOLVO
Assar Gabrielssons väg
Torslanda
S-405 08 Göteborg (SE)

Representative: Hellbom, Lars Olof
H. Albihns Patentbyrå AB
Box 3137
S-103 62 Stockholm (SE)

Decision under appeal: Decision of the Examining Division of the European Patent Office posted 14 April 1994 refusing European patent application No. 90 910 955.5 pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: C. A. J. Andries
Members: M. G. Hatherly
J.-P. Seitz

Summary of Facts and Submissions

I. On 13 June 1994 the appellants (applicants) lodged an appeal against the decision of the examining division dispatched on 14 April 1994 to refuse European patent application No. 90 910 955.5 (International application No. PCT/SE90/00482, International publication No. WO-A-91/00425). The appeal fee was paid on 16 June 1994 and the statement of grounds of appeal received on 12 August 1994.

II. The appellants request that the decision under appeal be set aside and a patent be granted on the basis of:

Main request: claims 1 to 5 filed with the letter of 21 September 1992;

description pages 1 to 5 as originally filed; and

drawings sheets 1/3 to 3/3 as originally filed

Alternative request: claims 1 to 5 filed with the statement of grounds of appeal of 12 August 1994.

Oral proceedings are requested if neither set of claims is found allowable.

III. The reason for refusal given in the decision is that claim 1 of 21 September 1992 (ie the claim 1 of the present main request) extends the subject-matter of the application beyond that as filed (Article 123(2) EPC).

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

"Filter installation comprising a gas conduit (20) and a filter device (1) for filtering a gaseous medium, said device comprising a housing (5) with an inlet (7) and an outlet (6) for the medium and a replaceable filter element (2) arranged in the housing between the inlet and the outlet and having a pipe stub (11) which is solidly joined to the filter element, protrudes through the housing outlet and is connected to the gas conduit so that, when the filter element is removed from the housing, the pipe stub is removed at the same time, characterized in that the gas conduit (20) has an end facing the housing (11) which is located at such a distance from the housing outlet (6) that, when the filter element (2) is removed from the housing, the pipe stub (11) is leaving an open space between the housing outlet and said conduit end which allows gaseous medium outside the filter housing to be sucked into the conduit, so as to prevent particles (25) inside the housing from being sucked into the conduit."

Reasons for the Decision

1. The appeal is admissible.
2. The board interprets the wording "when the filter element (2) is removed from the housing, the pipe stub (11) is leaving an open space between the housing outlet and said conduit end" in lines 13 to 15 of claim 1 of the main request as meaning that the removal of the filter element from the housing causes also the removal of the pipe stub, the removal of the latter leaving an open space between the housing outlet and the conduit

end. This implies that the housing 1 and the conduit 20 are located and remain located in a fixed position with respect to each other.

3. *Article 123(2) EPC - claim 1 of the main request*

3.1 All the features of the originally filed claim 1 are present in claim 1 of the main request.

3.2 All the features of the precharacterising portion of claim 1 of the main request are to be found in the originally filed claim 1. This was agreed by the examining division in section 1.1 of its communication of 19 July 1993.

3.3 The characterising portion of claim 1 of the main request can be split up as follows:

- (a) the gas conduit (20) has an end facing the housing (1),
- (b) the end of the gas conduit 20 is located at a distance from the housing outlet (6),
- (c) the distance is such that, when the filter element (2) with its pipe stub (11) is removed from the housing, there is an open space between the housing outlet and said conduit end which allows gaseous medium outside the filter housing to be sucked into the conduit (in the application it is made clear that this happens if the engine is started),
- (d) so as to prevent particles (25) inside the housing from being sucked into the conduit (again if the engine is started).

3.4 The features (a) and (b) are shown by Figure 2. Although the Figure is schematic it is clear that, for the air to enter the intake conduit 20 from the surrounding air instead of from the filter housing (see the arrow on Figure 2 and the originally filed description, page 2, lines 29 to 32), the intake conduit end must be located at a distance from the housing outlet.

The statement (c) follows from the feature (b). Even if the distance (ie gap) were extremely small there would still be an open space between the housing outlet and said conduit end which would allow gaseous medium outside the filter housing to be sucked into the conduit.

Moreover in section 1.1 of its communication of 19 July 1993 the examining division accepted that statements (a) to (c) were to be found in the originally filed application.

3.5 The statement (d) can be derived from various places in the originally filed application:

- "preventing dirt in the filter housing from being able to be sucked into the engine" - page 2, lines 14 and 15;
- "with the filter removed, air will not be sucked from the filter housing but rather directly from the surrounding air into the intake conduit" - page 2, lines 29 to 32;
- "surrounding air and not air in the filter housing will be sucked into the engine" - page 5, lines 5 and 6; and
- Figure 2.

3.6 Thus if statement (d) is taken on its own without considering its relationship with the other parts of the claim, as a requirement to be fulfilled in some way or other, as a further restriction on the construction specified by the precharacterising portion and statements (a) to (c), then the statement (d) would not be objectionable under Article 123(2) EPC.

The whole of claim 1 of the main request would then have a basis in the originally filed application.

However, the board considers that statement (d) belongs to statement (c). Indeed in so far as statement (d) sets out the result to be obtained by the features of statement (c) it is clear from the whole content of the application as originally filed that statement (d) is not only a result of the distance but also a result of the open space created by that distance. If there was no open space (eg if there was a tube around the opening and end) then particles would be sucked from the housing. Statement (d) is also a result of the sucking of gaseous medium from outside the filter housing because then the air entering the conduit has not originated from the filter housing and so no particles could have been dragged from the filter housing. The whole content of the application as originally filed leaves no room for another technical interpretation than the normal one which results from the combined statements (c) and (d).

3.7 A person skilled in the art reading the application as originally filed will unequivocally find

- firstly that there must be a distance, and
- secondly that this distance has a certain purpose (see section 3.5 above).

- 3.7.1 The whole content of the application as originally filed implies that the filter housing 1 and the gas conduit 20 are located and remain located in a fixed relationship one to the other and at a certain distance from each other (see Figure 2). The fixed position of one to the other is not changed when the filter element 2 is removed from the housing. Moreover it is only the filter element (including the pipe stub 11) which is removed, without removing the housing. Therefore a constant distance is implied.
- 3.7.2 The examining division agrees in section 4.1 of its decision that without inventive skill the person skilled in the art can easily determine the appropriate distance for each individual installation but argues that no suggestion was given him that he needed to make such a choice.

The examining division and the applicants write of needing to choose a distance between the intake conduit end and the filter housing outlet opening. However it is not a specific distance, x cm, which needs to be chosen but any distance above a minimum distance, ie x cm to infinity, a range of distances which theoretically has an open upper end but which in practice would be chosen to be at least the minimum but small enough to achieve compactness in terms of physical overall dimensions and flow path lengths, while still satisfying the requirement set out in section 3.5 above.

The lower end of the range (ie the minimum distance) will of course depend on various parameters such as the suction force in the intake conduit. However these parameters are fixed for any installation of engine, turbocompressor and filter. With the information in the originally filed application that air and thus dirt must not be sucked from the filter housing into the intake

conduit, the skilled person is not only able without any difficulty to determine roughly the minimum distance and to choose a practical distance in the theoretical open-ended range, but also is taught to do so in each specific filter installation and engine combination.

Once given that information (see section 3.5 above) it is common sense that if the end is very far from the opening then particles in the housing cannot be sucked into the conduit. Further, Figure 1 teaches that if the conduit end abuts the housing opening then particles may be sucked into the conduit. That the distance between the opening and the end governs whether particles are in danger of being drawn into the conduit must be realised by the skilled person and in any case is implicit from the whole content of the application.

- 3.7.3 Since the whole content of the application, in particular Figure 2, explicitly discloses that there is a distance between the housing opening and the conduit end, and furthermore teaches that it is the surrounding atmospheric air which is sucked into the conduit rather than air from the filter housing, the skilled person is given enough information to enable him to construct a filter housing, removable filter and conduit, and to fulfil the requirement set out in statement (d).

Although adding obvious things or alternative things to a patent application usually means that one is impermissibly adding subject-matter, the significance of the distance is self-evident in the extreme so that drawing attention in claim 1 of the main request to this distance and its required effect cannot be considered as impermissibly adding subject-matter.

3.8 The board therefore finds that claim 1 of the main request has a basis in the originally filed application so that there is no objection to it under Article 123(2) EPC.

4. Thus the board cannot accept the only reason for refusal given in the decision. However it is still necessary to examine whether the other requirements of the EPC are satisfied and so the board remits the case in accordance with Article 111(1) EPC to the examining division for further prosecution on the basis of the application text for the main request. It is thus unnecessary for the board to consider the alternative request.

While remittal means that the application is not yet to be granted, it also means that the decision under appeal is being set aside and that the application is not being refused. There is therefore no need to appoint the oral proceedings requested if neither set of claims was found allowable, see decision T 222/87, section 5, not published.

It is pointed out that this conditional request for oral proceedings is a request in the present appeal proceedings and will have no effect in the further proceedings before the Examining Division.

5. The following non-exhaustive list of points should be considered during the further prosecution. The Board's comments are not intended to bind the examining division in any way.

5.1 The examining division made a novelty objection using the citation DE-A-3 518 076 in section 2 of the examining division's communication of 19 July 1993. The board notes that, in contrast to the present simple filter changing operation, merely the removal part of

the operation of changing the filter as described on the page numbered by hand 8 of the citation involves undoing the bolts 3, removing the upper half 1 of the housing from the lower half 2, releasing the connecting pipe 23 from the connecting seal 9 and removing the filter holder 7 and filter element 8 with the connecting seal 9. While at this stage air from the surroundings could enter the connecting pipe 23 if the engine were started, there is no gap between the housing outlet and the end of the connecting pipe 23 in the sense of the present application (see section 3.7.1 above) because half the housing has been removed and, in doing so, it would seem that the connecting pipe 23 and/or the air conduit 6 must also have been moved.

5.2 Line 25 of page 2 of the description states that the engine intake conduit 20 is removed from the pipe stub 11. If this meant moving the conduit 20 away from the stub 11 then the statement would be inconsistent with lines 1 and 2 of page 5 and inconsistent with Figure 2 which implies that it is the pipe stub which is moved away from the conduit. It seems that the word "removed" has to be interpreted in the sense of "released" or "uncoupled".

5.3 The reference numerals in the claims require some corrections. For example, numeral 1 denotes the filter device in claim 1 and the filter housing in claim 2. Numeral 5 denotes the housing in claim 1, the end plate in the description and an open end in claim 5. Numeral 11 denotes both the housing and the pipe stub in claim 1.

Order

For these reasons it is decided that:

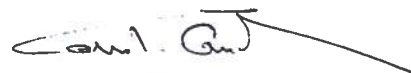
1. The decision under appeal is set aside.
2. The case is remitted to the first instance for further prosecution on the basis of the application documents for the main request, namely
 - claims 1 to 5 filed with the letter of 21 September 1992;
 - description pages 1 to 5 as originally filed; and
 - drawings sheets 1/3 to 3/3 as originally filed.

The Registrar:



N. Maslin

The Chairman:



C. Andries