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Datasheet for the decision of 28 April 2014

Case Number: T 1579/10 - 3.2.04

Application Number: 00986398.6

Publication Number: 1238193

IPC: F02M25/07

Language of the proceedings: EN

Title of invention:
INTEGRATED EGR VALVE AND COOLER

Patent Proprietor:
Cooper-Standard Automotive, Inc.

Opponent:
PIERBURG GMBH

Headword:

Relevant legal provisions:
EPC Art. 100(c), 123(2)

Keyword:
Amendments - added subject-
matter main and auxiliary requests (yes)

Decisions cited:

Catchword:

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Case Number: T 1579/10 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 28 April 2014

Appellant: (Opponent)	PIERBURG GMBH Alfred-Pierburg-Str. 1 D-41460 Neuss (DE)
Representative:	Patentanwälte ter Smitten Eberlein Rütten Partnerschaftsgesellschaft Postfach 27 03 63 40526 Düsseldorf (DE)
Respondent: (Patent Proprietor)	Cooper-Standard Automotive, Inc. 701 Lima Avenue Findlay, Ohio 45840 (US)
Representative:	Gray, James Withers & Rogers LLP 4 More London Riverside London SE1 2AU (GB)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 29 June 2010 concerning maintenance of the European Patent No. 1238193 in amended form.**

Composition of the Board:

Chairman A. de Vries
Members: E. Frank
T. Bokor

Summary of Facts and Submissions

I. The appeal lies from the decision of the opposition division, dated 8 June 2010 and posted on 29 June 2010, to maintain the European patent No. 1 238 193 in amended form according to the sole request received on 10 May 2010.

Opposition was filed against the patent as a whole based inter alia on Article 100(c) EPC (added subject-matter).

The opposition division in its decision held among others that the amendments made to the claims of the sole request addressed the ground of added subject-matter, and that the patent as amended met the requirements of Article 123(2) EPC.

II. The appellant (opponent) filed a notice of appeal together with its statement of grounds of appeal on 16 July 2010. The appeal fee was paid on 29 July 2010.

III. A communication pursuant to Article 15(1) RPBA dated 21 February 2014 was issued after a summons to attend oral proceedings. The parties were inter alia notified that at the oral proceedings the issue of whether or not a newly added feature of claim 1, viz. "a valve chamber surrounding a portion of the valve", had been originally disclosed, would need to be discussed.

With its letter of 12 March 2014 the respondent (proprietor) subsequently filed a new second auxiliary request, and new auxiliary requests four to seven.

The oral proceedings were duly held on 28 April 2014. As announced by letter dated 12 March 2014 no one was present on behalf of the respondent.

IV. The appellant requests that the decision under appeal be set aside and that the patent be revoked.

The respondent requests that the appeal be dismissed, i.e. the patent be maintained in an amended form as held allowable by the opposition division. Alternatively, he requests that the decision under appeal be set aside and the patent be maintained on the basis of the claims of any of the first and third auxiliary requests filed with letter dated 19 January 2011, or second and fourth to seventh auxiliary requests filed with letter dated 12 March 2014.

V. The wording of claim 1 reads as follows:

Main request (as maintained by the opposition division with claim 1 as granted):

"An exhaust gas recirculation system (10) comprising:
a valve (14) to control a flow of an exhaust entering said system;
at least one tube (20) in fluid communication with said valve (14) to carry said exhaust from said valve (14) and out of said system (10);
a valve chamber (36) surrounding a portion of said valve (14) to reduce heat transfer to said valve (14); and
a shell portion (18) defining a cooler chamber in fluid communication with said valve chamber (36) surrounding said at least one tube (20) to remove heat from said exhaust and including a cooling fluid outlet (24) to convey said cooling fluid from said system (10),

characterised in that the valve chamber (36) includes a cooling fluid inlet (32) to allow entry of a cooling fluid into said system (10).”

First to seventh auxiliary requests:

Claim 1 of these requests have been variously amended, but all include the following feature as in claim 1 of the main request:
“... a valve chamber (36) surrounding a portion of said valve (14) to reduce heat transfer to said valve (14) ...”.

VI. The appellant submitted the following arguments as regards the issue of added subject-matter:

As to the feature of the valve of the exhaust gas recirculation system added to claim 1 of the main request, a valve chamber “surrounding a portion of said valve” is not originally disclosed. “Surrounding” means that something lies 360 degrees around something else. However, the description on page 2 and 4 of the application refers to the cooling fluid “circulating around the valve in the first chamber”. This does not necessarily mean that the chamber is formed completely around the valve component, i.e. surrounds it. In so far as the indication on page 4 of the original description that the cooling fluid circulates around the diaphragm, the diaphragm plate and the spring plate in the first chamber the valve stem is relied on as basis, this is not "any portion” of the valve. This amendment to claim 1 during examination adds subject-matter extending beyond the original content of the application. The amendments to claim 1 of the auxiliary requests to not remedy this deficiency, which applies to claim 1 of the auxiliary requests mutatis mutandis.

As regards the issue of added subject-matter, the respondent argued as follows:

The basis for the amendment is to be found on page 2, lines 16 and 17, and page 4, line 12. The valve chamber surrounds a portion of some of the components as shown in figure 2.

Reasons for the Decision

1. The appeal is admissible.

2. *Amendments - main request*

2.1 Claim 1 as granted according to the main request is directed to an exhaust gas recirculation system which comprises a valve in order to control a flow of the exhaust entering the system. As opposed to the valve arrangement of claim 1 as filed, claim 1 as granted now defines “a valve chamber surrounding a portion of said valve”.

2.2 The Board shares the appellant’s and opposition division’s view (cf. impugned decision, point 3) that the wording “surround” in a reasonable reading should be given its usual, normal meaning as "enclose" or "shut in on all sides", which implies that something lies around something else by an angle of substantially 360 degrees.

2.3 The impugned decision, page 3, third paragraph, appears to cite page 2, lines 15 to 17 of the application as published as basis for the newly added feature in claim 1. This passage states that the "invention allows the

cooling fluid to circulate around the valve in the first chamber". The passage goes on to indicate that after reducing the amount of heat transfer from the hot fluid (i.e. the exhaust gas) to the valve components, the cooling fluid flows into the second chamber, cf. page 2, lines 17 and 18 (as published).

According to page 4, lines 11 to 13, of the application as published, the invention furthermore allows "the cooling fluid to circulate around the valve stem 26, the diaphragm plate 29, and the spring 30 in the first chamber 36". Similarly, this passage then concludes by stating that the cooling fluid (after reducing the amount of heat transfer from the hot fluid to the valve components) "next ... flows into the second chamber 38 of the valve 14", cf. page 4, line 13 to 15 as published.

Neither of these passages that might serve as basis allow of a direct and unambiguous disclosure as to the arrangement of the first chamber with respect to the valve or valve portions. The term "circulates around" is to be understood in a broad sense as denoting the continuous flow through or past something rather than implying a rotational flow of 360° or more. This is illustrated in figure 2. Assuming that the circulating fluid enters the upper part of the valve (which houses the spring 30, diaphragm 38 and plate 29) from the first chamber 36 it will clearly not flow *around* the diaphragm 28 or diaphragm plate 29. Rather it flows *past* their inwardly exposed surfaces. Similarly, the cooling liquid entering at inlet 32 most likely flows either side, and not all the way round the valve stem, to be reunited somewhere in the 2nd chamber 38.

2.4 Nor is it immediately apparent from the cross-sectional view of the valve 14 in the two figures of the application as published how the first chamber is arranged with respect to the valve or valve portions. Both figures are cut-away views that expose the valve and which fail to show how the structure continues in the section cut away. This is in particular so as the structure, due to shape of the hot inlet 34, must have a rather complex three dimensional shape. The figures thus do not allow of any solid conclusion that the first chamber 36 is completely formed around, or surrounds, the valve.

2.5 At the date of filing the skilled person might thus glean from the description and drawings that the cooling fluid "circulates around" in the first valve chamber, that is it continuously flows through the first valve chamber and past the valve components. However, in the view of the Board, no direct and unambiguous disclosure of a valve chamber surrounding a valve component, i.e. being formed such it is arranged completely around the valve component, can be derived from the application as filed.

2.6 Finally, as also advanced by the appellant, it is nowhere disclosed in the application that *any* component or portion of the valve can be located within the first valve chamber. Rather, as set out under point 2.4 above, the published application on page 4, lines 11 to 13, specifically lists the valve components around which the cooling fluid circulates in the first valve chamber. These components are the valve stem, the diaphragm, the diaphragm plate, and the spring. Merely indicating that "a portion of said valve" is surrounded results in a generalization in respect of the original more specific disclosure (intermediate generalisation).

2.7 In the light of the above, the Board concludes that the subject-matter of claim 1 as granted, which corresponds to claim 1 of the main request, extends beyond the content of the application as filed, contrary to the requirements of Articles 100(c) and 123(2) EPC.

3. *Amendments - auxiliary requests*

Claim 1 of all of the auxiliary requests retains the pre-grant amendment of a valve chamber "surrounding a portion" of the valve. For the reasons given above the Board finds that these requests are thus also unallowable, Article 123(2) EPC.

Order

For these reasons it is decided that:

The patent is revoked.

The Registrar: The Chairman:

G. Magouliotis A. de Vries

Decision electronically authenticated