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Datasheet for the decision of 18 September 2007

Case Number:	T 0842/05 - 3.2.03		
Application Number:	97113901.9		
Publication Number:	0825404		
IPC:	F28D 1/04		
Language of the proceedings:	EN		
Title of invention: Integral-type heat exchanger			
Patentee: Calsonic Kansei Corporation			
Opponent: Behr GmbH & Co.			
Headword:			
Relevant legal provisions: EPC R. 55c EPC Art. 87(1), 54, 100(c), 123(2), 84			
<pre>Keyword: "Priority not valid" "Fresh ground of opposition not admitted - no patentee approval" "Clarity - not ground for opposition" "Novelty - yes" "Inventive step - yes"</pre>			
Decisions cited: G 0002/98			

Catchword:

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Beschwerdekammern

Boards of Appeal

Chambres de recours

Case Number: T 0842/05 - 3.2.03

DECISION of the Technical Board of Appeal 3.2.03 of 18 September 2007

Appellant:	Behr GmbH & Co.	
(Opponent)	Mauserstraße 3	
	D-70469 Stuttgart (DE)	

Representative:

Wallinger, Michael Wallinger Ricker Schlotter Foerstl Patent- und Rechtsanwälte Zweibrückenstraße 2 D-80331 München (DE)

Appellant: (Patent Proprietor) Calsonic Kansei Corporation 24-15, Minami-dai 5-chome, Nakano-ku Tokyo (JP)

Representative:

Grünecker, Kinkeldey, Stockmair & Schwanhäusser Anwaltssozietät Maximilianstraße 58 D-80538 München (DE)

Decision under appeal:

Interlocutory decision of the Opposition Division of the European Patent Office posted 25 April 2005 concerning maintenance of European patent No. 0825404 in amended form.

Composition of the Board:

Chairman:	U.	Krause
Members:	С.	Donnelly
	к.	Garnett

Summary of Facts and Submissions

- I. European Patent No. 825404 was granted on the basis of European Patent application No. 97113901.9 filed on 12 August 1997 and claims multiple priority dates of 12 August 1996 from JP 212412/96 (P1), 19 November 1996 from JP 307655/96 (P2), 3 December 1996 from JP 322676/96 (P3) and 25 December 1996 from JP 345235/96 (P4).
- II. The appeals lie from the interlocutory decision of the opposition division, dispatched by post on 25 April 2005, to maintain the European patent No. 825404 in amended form.

The notices of appeal, together with the appropriate fee, were filed by the patent proprietor (Appellant I) on 1 July 2005 and by the opponent (Appellant II) on 5 July 2005. The parties filed their grounds of appeal on 1 September 2005 and 5 September respectively. Appellant I made further submissions with letters dated 24 January 2006 and 29 December 2006. Appellant II responded with letters dated 23 January 2006 and 8 May 2006.

III. State of the art

In the grounds of appeal appellant II cited the following documents:

D23: EP-A-0 890 811 (Art. 54(3) if P1 to P4 invalid); D24: FR-A-2 681 419 (family member of D2); D25: JP-A-05 001 896, D26: JP-A-07 318 288;

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- D27: JP-A-08 094 285;
- D28: JP 61-121 389;
- D29: JP 3-56061;
- D30: JP 2-28979;
- D31: JP 2-14582;

and referred to the following documents from the opposition procedure:

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D2: DE-U-9 111 412;
D8: JP-A-01 247 990;
D10: US-A-5 046 554;
D20: EP-B-0 838 651 (Art. 54(3) if P1 invalid);
D22: EP-A-0 869 325 (Art. 54(3) if P1 to P4 invalid);
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In letter of 23 January 2006 (in response to the grounds of appeal filed by appellant I) , appellant II cited the following further documents:

D13: US-A-5 000 257 (from the opposition procedure); D32: EP-A-773 419 (Art. 54(3) EPC); D33: EP-A-856 717 (Art. 54(3) EPC if P1 to P4 invalid); D34: EP-B-677 716 .

IV. On 29 March 2007 the Board issued a communication pursuant to Article 11(1) RPBA annexed to the summons to oral proceedings, in which the positions of the parties expressed in the above correspondence (which had often crossed in the post) were summarised and a provisional opinion on all the relevant issues given.

> Appellant I responded with letter of 18 July 2007 and, in addition to the main request for the decision under

appeal to be set aside and the patent maintained as granted, filed auxiliary requests 1 to 10.

- V. Oral proceedings were held on 18 September 2007. At the beginning of the proceedings appellant I withdrew the objection that the opposition was inadmissible. After hearing the parties in the matter, the Board delivered an intermediate decision to the effect that the claimed priority dates were not valid. As a consequence the parties made the following requests:
 - Appellant I (patent proprietor): for the decision under appeal to be set aside and the patent maintained on the basis of the amended set of claims filed during the oral proceedings.
 - Appellant II (opponent): for the decision under appeal to be set aside and the European Patent No. 825404 be revoked.
- VI. Claim 1 according to the sole request of Appellant I filed during the oral proceedings of 18 September 2007 reads as follows:

"An integral-type heat exchanger for an automobile, comprising: a first heat exchanger (21) including: a pair of first tanks (25,27), each first tank (25,27) having a first surface (41,43) in which a plurality of first tube insertion holes (49,51) are formed; and a plurality of first tubes (29) to be inserted into said first tube insertion holes (49,51) so as to connect said pair of first tanks (25,27); and a second heat exchanger (23) including: a pair of second tanks (31,33), each second tank (31,33) having a substantially circular cross section and having a plurality of second tube insertion holes (53,55); and a plurality of second tubes (35) to be inserted into said second tube insertion holes (53,55) so as to connect said pair of second tanks (31,33), wherein the first tanks (25,27) are adjacent to the respective second tanks (31,33) and the axes (49a,53a) of said first and second tube insertion holes (49,51,53,55) are in parallel with each other; and a plurality of fins (37) disposed between a plurality of said first tubes (29) and between a plurality of said second tubes (35);

and a width of said first tube insertion hole is (49,51) substantially the same as or slightly larger than a width of said first tube (29), wherein each first tank (25,27) has a rectangular cross section and a first plane section (39) perpendicular to the first surface (41,43) and facing the respective second tank (31,33) and said first plane section (39) of said first tank (25,27) is brought into contact with, or is close to said second tank (31,33), and a distance between longitudinal central axes (49a,53a) of said first and second tube insertion holes (49,51) is less than a distance between central axes of said first and second tank (25,31), and

said first tube insertion holes (49,51) are formed close to said second heat exchanger (23) in said first surface (41,43), and an inserted portion of said first tube (29) is brought into contact with a rising wall (74) rising from the first surface (41,43) of said first tank (25,27) or very adjacent to said rising wall (74) of said first tank (25,27), wherein a gap between end portions (72,73) of the first tube insertion holes (49,51) and the rising wall (74) is less than 0.5 mm."

- VII. The arguments put forward by the parties on each of the contentious issues are summarised below.
 - (a) Priority

Appellant II argued that the independent claims of all the requests filed during the appeal proceedings did not comprise features claimed in the independent claims of the priority documents. Furthermore, there is no indication in the description or figures of the priority documents that these features could be deleted; hence, the requirements of Article 87(1) EPC for claiming priority, as elucidated in G 2/98, are not met because the invention as now claimed is not the same invention as in any of the priority documents.

Appellant I replied that it was not necessary for the features of the independent claim in the patent to correspond to those of the priority documents. The specific features concerning the distance between the longitudinal central axis of the first and second tube insertion holes, corresponding to claim 25 as granted, as well as the combination of the features of the independent claim according to all the requests, were disclosed in the figures in the priority documents.

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(b) Admissibility of documents filed after expiry of the opposition period.

Appellant I maintained that documents D20 and D22 to D34 should not be admitted into the proceedings since they were filed after expiry of the opposition period without any adequate justification by appellant II and were not, in any case, prima facie pertinent.

Appellant II explained that documents D25 to D31 were filed to show that an offset positioning of the tube insert in rectangular tanks is conventional. The significance of this parameter only became apparent during the oral proceedings before the opposition division. Thus, the above documents were filed at the earliest possible opportunity with the grounds of appeal and should be admitted.

Admittedly, documents D32 to D34 were filed after the grounds of appeal. However, if the priority is invalid, then D33 at least is prima facie extremely relevant as it contains almost identical figures to those of the contested patent and should be admitted.

The opposition division only refused to admit documents D1,D5,D8,D9,D13 and D17 to D22 since no reasoning as to their pertinence had been provided. This reasoning has now been provided in the grounds of appeal or in the letter of 23 January 2006 for D13,D20 and D22.

(c) Clarity (Article 84 EPC)

Appellant II was of the view that the expressions, "close", "adjacent" and "very adjacent to" as still used in claim 1 have no clear meaning in contravention of Article 84 EPC. Further, it was entirely unclear which figures of the contested patent now fell within claim 1 according to the sole request. Consequently, the claim should be rejected.

Appellant I was of the opinion that the expressions objected to were already present in the granted claims. It is therefore not possible to raise an objection under Article 84 EPC since this is not a ground for opposition. Further, the skilled person would have no difficulty interpreting such expressions in the sense of the overall disclosure of contested patent.

(d) Extended subject-matter - Article 123(2) EPC

Appellant II objected that the feature:

"a distance between longitudinal central axes of said first and second tube insertion holes is less than a distance between central axes of said first and second tank"

is not originally disclosed since the expression: "central axes" does not appear in the original text.

Appellant I countered that this objection should be rejected since it is effectively against claim 25 as granted and, as such, is a new ground of opposition because it could have been raised at the opposition stage under Article 100(c) EPC. Appellant I expressly refused approval to introduce the objection (see letter of 29 December 2006, paragraph 3.1). (e) Interpretation of claim 1

Appellant II argued that the distances referred to in the feature:

"a distance between longitudinal central axes of said first and second tube insertion holes is less than a distance between central axes of said first and second tank"

did not necessarily mean the horizontal distances between the vertical planes running through the respective axes and could, just as well, mean the direct straight line distance between the axes themselves.

Appellant I was of the view that it only made technical sense to measure the horizontal distance between the planes running through the central axes. This much is also clear from the figures of the contested patent where the planes are shown.

(f) Novelty

The novelty of the subject-matter of claim 1 was not contested by appellant II. In particular, both parties agreed that D33 which, following the decision not to allow priority, is prior art according to Article 54(3) EPC, did not disclose the feature wherein a gap between end portions of the first tube insertion holes and the rising wall is less than 0.5 mm. (g) Inventive step

Appellant II

The subject-matter of claim 1 is not inventive in view of documents D10 and D2.

D10 describes the nearest prior art and the subjectmatter of claim 1 differs therefrom in that:

(a) -the first and second connection holes are insertion holes into which the plurality of first and second tubes are inserted respectively;(b) -the distance between longitudinal central axes of said first and second tube insertion holes is less than the distance between central axes of said first and second tank , and

(c) -said first tube insertion holes are formed close to said second heat exchanger in said first surface, and an inserted portion of said first tube is brought into contact with a rising wall rising from the first surface of said first tank or very adjacent to said rising wall of said first tank, wherein a gap between end portions of the first tube insertion holes and the rising wall is less than 0.5 mm.

Although D10 does not explicitly disclose the nature of the tube connection holes in the first and second tanks, they must be provided with some kind of hole such that the fluid can flow from one to the other along the connecting tubes. A "tube insertion hole" would be the conventional way of doing this. Thus, feature (a) makes no contribution to inventive step. Feature (c) merely specifies the details of the conventional way of forming the insertion holes. If the skilled person needed any teachings as to how this should be done, the necessary details are given in D8. Thus, this feature also makes no contribution to an inventive step.

Feature (b) is disclosed in figure 1 of D2 from which it is apparent that the tube 13 displaced from the centre-line of the upper-tank 15 towards the adjacent tube 14. Faced with the problem of reducing the volume occupied by the heat-exchanger, which is always of a fundamental concern in automobile air-conditioning design, the skilled person would naturally think of moving the tubes connecting the rectangular tank as close as possible to the round tank, even without the suggestion from D2.

Thus, claim 1 according to the sole request does not involve an inventive step.

Appellant I

Concurred that the subject-matter of claim 1 differs from that of D10 by features (a),(b) and (c) above.

However, there is no teaching or hint in the prior art to offset the tubes joining the rectangular tank. Appellant II's suggestion that it would be obvious for the skilled person, faced with the problem of reducing the heat-exchanger space requirements, to offset the tubes is based on hind-sight. Figure 1 of D2 is schematic and does not show any offset of the tubes. Thus, on the basis of feature (b) alone an inventive step is to be acknowledged.

Reasons for the Decision

1. Clarity (Article 84 EPC)

The expressions objected to by appellant II are present in granted claims 18 and 19. The Board therefore agrees with appellant I that, since the context within which these expressions have been used has not changed, it is not possible to raise an objection under Article 84 EPC as this is not a ground for opposition. Consequently, these expressions must be interpreted as best can be in the light of the overall disclosure of the contested patent and in consideration of the relevant prior art.

2. Interpretation of claim 1

The Board considers that the feature:

"a distance between longitudinal central axes of said first and second tube insertion holes is less than a distance between central axes of said first and second tank" (taken from granted claim 25)

can only mean the horizontal distances between the vertical planes running through the respective axes and, in the case of the first and second tank, does not mean the direct straight line distance between the axes themselves. The Board comes to this conclusion because this feature is a comparison of two distances. There is no doubt that the distance between the insertion holes must be the horizontal distance denoted as Lb in figures 1 and 4 and referred to as "tube pitch" at column 7, line 43 and column 8, line 22 of the contested patent. To obtain a meaningful comparison with the second distance in terms of the technical problem dealt with by the contested patent (i.e. reduction of the core thickness Wb - see paragraph 0046), the skilled person would expect, unless instructed otherwise, that this also referred to a measurement in a horizontal direction.

3. Extended subject-matter - Article 123(2) EPC

Appellant I is correct in that this objection is effectively against claim 25 as granted. Thus, it constitutes a fresh ground of opposition since it could have been raised at the opposition stage under Article 100(c) EPC. This being so, the objection is not admissible in the appeal proceedings because the patentee (appellant I) has not consented (see G 10/91, Headnote point 3). However, the Board would also point out that the disputed subject-matter seems to be disclosed in the application documents as originally filed at page 15, line 24 to page 16, line 3 (or column 8, lines 27 to 33 of the published application) in combination with figures 2 and 4.

Essentially, claim 1 of the sole request is a combination of claims 1, 18, 19 and 25 together with paragraph 0040 of the patent as granted. Claim 18 corresponds to claim 22 as filed but claim 19 is based on the paragraph bridging page 12, line 21 to page 7, line 14 of the description as filed (which corresponds to paragraph 0040 as granted). Thus, the requirements of Article 123(2) are met.

However, this original basis for claim 19 is of importance when interpreting what is meant by the feature of "rising wall 74" which is discussed in connection with assessing inventive step below.

4. Priority

During the oral proceedings the Board delivered an intermediate decision concerning the question of whether the priority was valid for the main request and auxiliary requests 1 to 10 as then on file. Although appellant I subsequently withdrew all these requests and replaced them with a sole request based on former auxiliary request 9, the Board considers it necessary to provide some reasoning as to why the right to priority was denied since this had considerable bearing on the rest of the proceedings.

The situation with regard to the priority documents is the following:

P1: (12.08.1996) claims and describes an arrangement for connecting the inflow and outflow pipes of the heat-exchangers so as to reduce the clearance "C" with the radiator (support) panel which normally would have to be blocked up with filler (corresponding to claim 13 of the contested patent as granted).

P2: (19.11.1996) relates to "joints 45" for connecting the heat-exchangers together to prevent damage in the

event of a collision (corresponding to claim 16 of the contested patent as granted).

P3: (03.12.1996) describes a system using mounting sections which are formed outside of the tank end plates, for mounting the heat-exchangers to the car to prevent damage in the event of a collision (corresponding to claim 7 of the contested patent as granted).

P4: (25.12.1996) describes a way of reducing heattransfer between the tanks of the heat-exchanger when the vehicle is at standstill (no airflow conditions) by placing a hole in the web which joins them (corresponding to granted claim 24 of the contested patent).

In the Board's view there is no basis in any of the priority documents for deleting features of the inventions presented in those documents and in particular as specified in the respective independent claims. Further, even though it can be accepted that the figures of all the priority documents allow the specific features relating to the distance between the longitudinal central axes of the first and second tube insertion holes to be derived, there is no hint or suggestion to the skilled person that this characteristic may be isolated from the combination of features which go to make up any of the inventions of the priority documents and then combined with other features to specify another entity.

Consequently, the requirement, given in G 2/98, for claiming priority of the "same invention" referred to

in Article 87(1) EPC, cannot be acknowledged because the skilled person cannot derive the subject-matter of the independent claim of each request directly and unambiguously, using common general knowledge, from the previous application as a whole.

5. Admission of documents filed after expiry of the opposition period

The Board is of the view that appellant II was not in a position to have filed all the relevant documents before expiry of the opposition period.

In particular, the emphasis placed by appellant I (patent proprietor) on the significance of the offset positioning of the tube insert in rectangular tanks for the question of inventive step only became apparent during the oral proceedings before the opposition division. In view of the fact that documents D25 to D31 were filed with the grounds of appeal to support appellant II's view that this feature is conventional, the Board has no difficulty admitting them into the proceedings.

On the other hand, document D23 is prima facie no more relevant than D20 or D22 and D24 provides no more information than D2. These documents need not therefore be admitted.

Documents D32 to D34 were filed after the grounds of appeal. However, since the claimed priorities are not valid (see above), D33, which comprises similar figures to that of the contested patent, is prima facie extremely relevant and should be admitted. On the other hand D32 and D34 do not appear to be prima facie of any particular relevance.

The Board is of the opinion that D13, D20 and D22 can be admitted since the relevant reasoning as to their pertinence is given in the grounds of appeal or in letter of 23 January 2006 filed by appellant II.

6. Novelty

The novelty of the subject-matter of claim 1 is not contested by appellant II. The Board is also of the view that D33 does not disclose the feature wherein a gap between end portions of the first tube insertion holes and the rising wall is less than 0.5 mm.

The same considerations apply to documents D20 and D22.

Hence, the subject-matter of claim 1 meets the requirements of Article 54 EPC.

7. Inventive step

The Board agrees with appellant II that D10 is the most relevant prior art. This document describes:

an integral-type heat exchanger (40) for an automobile (see col. 8, line 4 to 5), comprising: a first heat exchanger (43) including:

a pair of first tanks (70,74), each first tank (70,74) having a first surface in which a plurality of first tube connection holes are formed (see figures 4 and 6); and a plurality of first tubes (78,107a,107b) to be connected to said first tube connection holes so as to connect said pair of first tanks (70,74); and

a second heat exchanger (44)including:

a pair of second tanks (90,93), each second tank (90,93) having a substantially circular cross section (see figure 3) and having a plurality of second tube connection holes (see figure 4); and a plurality of second tubes (95,107c,107d) to be connected to said second tube connection holes so as to connect said pair of second tanks (90,93), wherein the first tanks (70,74) are adjacent to the respective second tanks (90,93) and the axes of said first and second tube connection holes are in parallel with each other (see figure 7 and col. 7, lines 55-56) ; and

a plurality of fins (see col. 7, line 68 to col. 8, line 3) disposed between a plurality of said first tubes and between a plurality of said second tubes ; and wherein

each first tank (70,74) has a rectangular cross section and a first plane section perpendicular to the first surface and facing the respective second tank (90,93) (see figure 4) and said first plane section of said first tank (70,74) is brought close to said second tank (90,93)(see col. 8, lines 42-44).

Hence, as agreed by the parties, the subject-matter of claim 1 differs therefrom in that:

(a) -the first and second connection holes areinsertion holes into which the plurality of first andsecond tubes are inserted respectively;

(b) -the distance between longitudinal central axes of said first and second tube insertion holes is less than the distance between central axes of said first and second tank , and

(c)- said first tube insertion holes are formed close to said second heat exchanger in said first surface, and an inserted portion of said first tube is brought into contact with a rising wall rising from the first surface of said first tank or very adjacent to said rising wall of said first tank, wherein a gap between end portions of the first tube insertion holes and the rising wall is less than 0.5 mm.

D10 does not explicitly disclose the nature of the tube connection holes in the first and second tanks. However, appellant II is right in pointing out that the tanks of D10 must be provided with some kind of hole such that the fluid can flow from one to the other along the connecting tubes. A "tube insertion hole" would be the conventional way of doing this as explained by the opposition division in its decision at paragraph 2.2(ii). Faced with the problem of deciding how to connect the tubes to the tanks, the Board is of the view that the skilled person would not require any inventive skill to select this conventional method of connection.

Feature (b) effectively defines that one set of tubes is offset from the centre-line of its respective tank. This has the technical effect of reducing the width of the heat-exchanger in the area between the tanks.

As regards feature (c), it must first be decided what kind of geometry is defined and in particular what is meant by the characteristic of the "rising wall". Only figures 18,19 and 20 of the contested patent, together with paragraphs 40, 41 and 42 of the description (which are also present in the original disclosure -see Article 123(2) EPC above), are specifically intended to illustrate the exact nature of the tube insertion holes. These indicate that the uplifted parallel sides 71a, 71b of the tube insertion holes are formed by burring out from the bottom surface side 41 of the tank. However, figure 18 shows that the uplifted wall portions 71a,71b thus formed do not extend around the end portions 72,73 of the insertion hole. Figure 19 shows that the uplifted burred portion 71a is angled away from the end portions 72,73. Further, the text at column 6, line 52 to column 7, line 15, states that the end portions of the insertion holes are located "adjacent" or "just inside" the rising wall of the tank 74 in order to ensure reliable brazing. The claim removes any uncertainty that might be engendered by these expressions (see "Clarity" above) by specifying that this distance should not exceed 0.5 mm. In conclusion, it can only be understood that, in the preferred embodiment, the tube insertion hole 49 is surrounded by a vertical boundary comprising two types of wall portion i.e. on the longer parallel sides by the burring up 71a,71b of the tank bottom surface (see figure 20) and at the end portions 72,73 by the (already existing) rising wall 74 of the tank (see figure 19).

In claim 1 the burred sides are not specified and only one end portion is required to be within 0.5 mm of the rising wall. However, it is clear that this rising wall must be part of the external envelope forming the tank and not a vertical portion burred up from the bottom surface - the latter interpretation would be in breach of Article 123(2) EPC.

By using the existing rising wall of the tank effectively to delimit at least one of the end portions on the narrow ends of the insertion hole, it can be appreciated that the burring operation is simplified, since the higher stresses and risks of tearing associated with trying to form an upturned vertical portion around the narrow end portion are avoided.

In the Board's view there is also synergy between features (b) and (c) since when offsetting the tubes according to feature (b), feature (c) specifies how the tube insertion manufacture and consequent brazing operation may be simplified when pushing the offset to a maximum.

Together these features solve the problem of minimising the space occupied by the heat-exchanger and simplifying the manufacturing process.

None of the cited prior art documents describe or suggest these features either in combination or in isolation.

Appellant II has argued that the tube 13 in figure 1 of D2 is displaced from the centre-line of the upper-tank

15 towards the adjacent tube 14. However, this displacement is not clear to the Board. Accordingly this reasoning is not convincing.

Figure 3 of D8 shows an insertion hole (59) formed in the circular tank 35 possessing a wall portion projecting inwardly into the tank. There is no hint of any offsetting or proximity of the tubes to the insertion hole wall portions, nor of how the wall portion is formed.

As regards documents D25 to D31, filed by appellant II to show that an offset positioning of the tube insert in rectangular tanks is a conventional measure, D25 to D29 deal with a single heat exchanger comprising a set of tubes in a U-configuration to join the inlet and outlet manifolds that are placed side-by-side. The problem of reducing the size of such a heat-exchanger cannot be directly compared with that of the dual heatexchanger of the contested patent. Figure 2 of D30 appears to show some kind of offset arrangement, but it is unclear exactly what type of exchanger is under consideration, and appellant II has provided neither a translation nor a detailed explanation of the document. None of the figures of D31 show an offset.

Appellant II has also argued that offsetting the tube insertion holes in the rectangular tank of a dual heatexchanger, such as described in D10, would be an obvious measure that the skilled person would take, without any prompting from the prior art, in order to solve the problem of reducing the space occupied by the heat-exchanger since this problem is a fundamental design consideration in automotive engineering. Hence, the decision to move the tubes closer together by offsetting the insertion holes would be taken by the skilled person as a function of engine layout and other design restrictions.

The Board agrees with appellant II to the extent that heat-exchanger envelope reduction is a fundamental design consideration. However, there is more than one way this can be achieved. The particular combination of features specified in claim 1 allows one of those choices to be fully optimised without complicating the manufacturing process.

Therefore, subject-matter of claim 1 involves an inventive step and meets the requirements of Article 56 EPC.

Appellant II has also indicated that because of the vagueness of the expressions "close" and "very adjacent to" employed in claim 1, it is not clear which figures of the contested patent still fall within its scope. In particular, appellant II requested that figures 4,5,27,28,33 and 36 be deleted.

The Board sees no need to delete any of the figures. All of the contested figures show that the two tanks are close and adjacent to each other. They also show that the first tube insertion holes are formed "close" to said second heat-exchanger since they are not centrally disposed but clearly displaced in that sense. As explained above the expression "very adjacent to" has been narrowly defined in the claim as meaning less than 0.5 mm. The figures referred to by appellant II are highly schematic and not intended to illustrate the detail of the insertion holes at this scale. Only figures 18,19 and 20 are intended to do this. Accordingly, the Board sees no reason to delete the figures objected to.

Order

For these reasons it is decided that:

- 1. The decision under appeal is set aside.
- 2. The case is remitted to the Opposition Division with the order to maintain the patent on the basis of:
 - (a) claims 1 to 23 as filed during the oral proceedings,
 - (b) the description consisting of page 2 with insertion A as filed during the oral proceedings and pages 3 to 12 as granted, and
 - (c) figures 1 to 45 as granted.

Registrar

Chairman

A. Counillon

U. Krause