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**Datasheet for the decision  
of 19 June 2008**

**Case Number:** T 0264/06 - 3.2.01

**Application Number:** 00401582.2

**Publication Number:** 1059180

**IPC:** B60H 1/00

**Language of the proceedings:** EN

**Title of invention:**  
Vehicular air conditioner

**Applicant:**  
MITSUBISHI HEAVY INDUSTRIES, LTD., et al

**Opponent:**  
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**Headword:**  
-

**Relevant legal provisions:**  
EPC Art. 123(2)

**Relevant legal provisions (EPC 1973):**  
EPC Art. 56

**Keyword:**  
"Amendments - added subject-matter (yes)"  
"Inventive step (no)"

**Decisions cited:**  
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**Catchword:**  
-



Case Number: T 0264/06 - 3.2.01

**D E C I S I O N**  
of the Technical Board of Appeal 3.2.01  
of 19 June 2008

**Appellant:** MITSUBISHI HEAVY INDUSTRIES, LTD.  
5-1, Marunouchi 2-chome  
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Toyko 100-0005 (JP)

**Representative:** Ilgart, Jean-Christophe  
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**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 10 August 2005  
refusing European application No. 00401582.2  
pursuant to Article 97(1) EPC 1973.

**Composition of the Board:**

**Chairman:** S. Crane  
**Members:** J. Osborne  
T. Karamanli

## Summary of Facts and Submissions

I. The appeal is directed against the decision posted 10 August 2005 to refuse European patent application No. 00 40 1582.2 (EP-A-1 059 180) on the ground of lack of inventive step (Article 56 EPC 1973).

II. The following state of the art documents played a role during the appeal proceedings:

D1: US-A-2 667 336

D2: US-A-4 102 391

D3: US-A-5 507 154

D4: EP-A-0 503 987

D5: US-A-4 324 286

D6: FR-A-2 761 305

D11: JP-A-60 219114

D12: US-A-2 294 036.

III. In a communication the board raised objections not only in respect of inventive step but also in accordance with *inter alia* Article 123(2) EPC 1973. In reply the appellant with a letter dated 7 January 2008 filed an amended set of claims and requested oral proceedings in the event that the board considered the claims not to be allowable.

IV. The board summoned the appellant to oral proceedings to be held on 19 June 2008. In an annex to the summons it indicated that not all of the objections raised in the earlier communication had been overcome.

V. With a letter dated 9 June 2008 the representative of the appellant advised the board that he had received instructions not to take part in the oral proceedings. Nobody was present on behalf of the appellant at the oral proceedings which took place in accordance with Article 15(3) RPBA. The appellant had requested that the decision under appeal be set aside and that a patent be granted on the basis of claims 1 to 6 filed with the letter of 7 January 2008.

VI. Claim 1 as filed with the letter of 7 January 2008 reads:

"A vehicular air conditioner mounted in a vehicle (1) having a drive source (3, 6) for a compressor (12) comprising:

said compressor arranged in a rear part of the vehicle;  
an air intake unit (15a) comprising an inside air intake (21) for drawing in air from an interior of a vehicle cabin, an outside air intake (22) for drawing in air from outside of the vehicle cabin, an inside air/outside air changeover damper (30) for selectively determining from which of either the inside air intake or the outside air intake air is to be drawn in, and a blower means (31) disposed on a downstream side of the inside air/outside air changeover damper;  
an air conditioning unit (15b) into which air is introduced from said air intake unit, provided along an introduced air distribution path with a cooling

apparatus heat exchanger (33) for exchanging heat between the introduced air and a refrigerant which exchanges heat with air outside the vehicle cabin through a heat exchanger (13) and an engine heat exchanger (35) for exchanging heat between the introduced air and a refrigerant from an engine (3) of the vehicle; and a duct (16) into which air is introduced from said air conditioning unit for distributing the introduced air from the rear part of the vehicle

body to the front part thereof, provided with air outlets (17, 18) for discharging the introduced air into the vehicle cabin, and characterized in that said air intake unit and said air conditioning unit are integrated as a heat pump ventilating unit (15), and said cooling apparatus heat exchanger (33), being connected to said heat exchanger (13) by a refrigerant path (45) comprising a compressor unit (12) in which a changeover valve (43) is provided, thereby said cooling apparatus heat exchanger (33) operates as an evaporator and also operates as a condenser in order to act as a heater when ho (*sic*) heating effect is obtained from he (*sic*) engine heat exchanger (35);

said duct (16) is located under a rear seat of the vehicle, and at a widthwise center of the vehicle; and said air outlets are located in the front part of the vehicle and between a front seat and the rear seat of the vehicle, and air outlet opening dampers (75, 77, 78) for controlling outflow of conditioned air from said air outlets are located in said air outlets."

## Reasons for the Decision

1. The following objections of extension of subject-matter raised by the board in its communication have not been satisfactorily resolved. Since the appellant failed to address these outstanding matters in its correspondence with the board no counter arguments can be considered.
- 1.1 Claim 1 has been amended *inter alia* to include the feature that "said cooling apparatus heat exchanger, being connected to said heat exchanger by a refrigerant path comprising a compressor unit in which a changeover valve is provided, thereby said cooling apparatus heat exchanger operates as an evaporator and also operates as a condenser in order to act as a heater" when no heating effect is obtained from the engine heat exchanger. This feature was originally disclosed only in the description in which the dual operation was the result achieved by a system including a four way valve and a throttling resistance. Since those features have not been introduced into the claim there has been an intermediate generalisation of the content of the application as originally filed (Article 123(2) EPC).
- 1.2 Claim 1 has also been amended to indicate that the heat exchanger 35 transfers heat between the air and a refrigerant from an engine. However, in accordance with the original disclosure the heat exchanger 35 transferred heat between air and the engine coolant, which also would be the normal understanding of the system by the skilled person. It follows that also in this respect the claim has been amended to include subject-matter which extends beyond the content of the application as originally filed (Article 123(2) EPC).

2. As a result of the foregoing the present claims cannot form the basis for grant of a patent. However, even if the claims were formally in order, the appellant still would not have overcome the lack of inventive step objection for which the application was refused and which is treated below for the sake of completeness.
  
3. The closest state of the art for consideration of inventive step is known from D12. D12 proposes a self-contained air conditioning unit mounted in the rear of a passenger car. The appellant has not contested that D12, particularly in the embodiment of figure 7, discloses all features of claim 1 except:
  - (a) the inside air/outside air changeover damper;
  
  - (b) the integration of the air intake unit and air conditioning unit as a heat pump ventilating unit wherein the cooling apparatus heat exchanger operates as an evaporator and as a compressor in order to act as a heater when no heating effect is obtained from the engine heat exchanger; and
  
  - (c) air outlet opening dampers for controlling outflow of conditioned air from said air outlets located in said air outlets.

3.1 Feature (a) may be used to increase the rate of temperature increase in the vehicle interior when the outside air temperature is low. As set out in the wording of claim 1, feature (b) may be used to provide heat when insufficient is available from the engine. Feature (c) permits control of the distribution of

conditioned air within the vehicle. It follows that the features (a), (b) and (c) are merely juxtaposed and so are to be considered separately for their contribution to inventive step.

3.1.1 Feature (a) is widely known and is disclosed in both D1 (column 6, lines 8 to 28) and D5 (column 3, lines 59 to 65). Its inclusion in the system according to D12 would fall within the normal activity of the skilled person.

3.1.2 Feature (b) is known within the same technical field from D11. This feature would be compatible with the system according to D12 and their combination would be evident in order to provide the benefits mentioned in D11. The result "in order to act ..." in feature (b) is not a technical feature of the claimed subject-matter but merely an achievable advantage which implicitly is present also in the system according to D11.

3.1.3 Feature (c) is commonly provided in the technical field in combination with various air outlets and is disclosed in D6 (see particularly page 10, lines 10 to 15 and 27 to 31). It would be an obvious measure for the skilled person to provide feature (c) to complement the teaching of D12.

3.2 The only counter argument filed by the appellant in respect of inventive step of the present claim was that feature (c) was not present in any of D1 to D4, D11 and D12 which previously had been relied upon in respect of inventive step. However, the appellant filed no counter argument subsequent to the board's reasoning that the feature would be obvious in the light of D6.



3.3 On the basis of the foregoing the board finds that the subject-matter of claim 1 does not involve an inventive step (Article 56 EPC 1973).

## **Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:

A. Vottner

S. Crane