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**Datasheet for the decision
of 1 February 2012**

Case Number: T 1058/09 - 3.2.01

Application Number: 01903825.6

Publication Number: 1250256

IPC: B63H 5/125, B63H 20/12,
B63H 21/17

Language of the proceedings: EN

Title of invention:
Motor unit for a ship

Patentee:
ABB Oy

Opponents:
Rolls-Royce Aktiebolag
SIEMENS AKTIENGESELLSCHAFT

Headword:
-

Relevant legal provisions:
RPBA Art. 13(1)

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

Keyword:
"Admission of main request (yes)"
"Inventive step (no)"

Decisions cited:
G 0010/91, G 0001/95, T 0367/96, T 0070/04, T 1273/04

Catchword:
-



Case Number: T 1058/09 - 3.2.01

DECISION
of the Technical Board of Appeal 3.2.01
of 1 February 2012

Appellant: ABB Oy
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Representative: -

Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 16 March 2009
revoking European patent No. 1250256 pursuant
to Article 101(3)(b) EPC.

Composition of the Board:

Chairman: G. Pricolo
Members: C. Narcisi
T. Karamanli

Summary of Facts and Submissions

- I. The European patent No. 1 250 256 was revoked by the decision of the Opposition Division posted on 16 March 2009. Against this decision an appeal was filed by the Patentee on 12 May 2009 and at the same time the appeal fee was paid. The statement of grounds of appeal was filed on 15 July 2009.
- II. Oral proceedings were held on 1 February 2012. The Appellant (Patentee) requested that the decision under appeal be set aside and that the patent be maintained in amended form on the basis of the claims according to the sole request, filed during the oral proceedings. The Respondents I and II (Opponents O1 and O2) requested that the appeal be dismissed.

Claim 1 reads as follows:

"A propulsion unit arrangement for a ship, the arrangement comprising a motor unit (1) located in the water (6), said motor unit (1) including an electric motor (2) and any associated control devices as well as a propeller (4) arranged at the motor's shaft (3), characterized in that the motor unit (1) includes a casing structure (5) which structurally and functionally constitutes a part of the motor (2) so that the electric motor (2) as such along a whole circumferential surface thereof is directly exposed to the water outside the motor unit (1) whereby the cooling of the electric motor (2) is effected at said circumferential surface through said casing structure (5) directly to the water (6) outside the motor unit (1), in that an assembly that supports the motor unit

(1) is adapted to be rotatable around a vertical axis (A-A) so that it is attached to the ship (12) through the ship's essentially horizontal bottom, whereby the upper end of the pivoting assembly (9) comprises a turning gear (14) for turning the assembly especially in connection with steering the ship (12), as well as slip-ring or the like means for supplying power to the motor and/or for controlling it and/or for effecting similar functions to one or more motor units (1) arranged at the assembly (9), and in that the assembly (9) comprises an essentially vertical central body (9a) having suitable circular portions (19,20) which support the motor unit (1), which portions enclose part of the motor unit (1) so that there remains a free opening (21) between a central portion of said motor unit (1) and said assembly (9) so that said medium (6) which is located around said unit and which is surrounding said motor (2) will be in contact with heat emitting parts (5,7) of the motor (2) at least at the longitudinal central portion of the motor (2)".

III. The Appellant's arguments may be summarized as follows:

Claim 1 as filed during the oral proceedings should be admitted to the appeal proceedings since it consists of the combination of granted claims 1, 7 and 9 and thus does not give rise to objections under Article 123(2) and (3) EPC and Article 84 EPC. Even though, as compared to granted claim 9, the word "preferably" has been deleted in granted claim 1, this does not change the fact that the claimed combination of features was present as such in the claims of the patent as granted.

The subject-matter of claim 1 is inventive in view of prior art D6 (DE-C-877 254) and D12 (EP-A1-590 867) or the general knowledge of a person skilled in the art. In effect, even on the assumption that the skilled person would combine D6 with D12 in an obvious manner, the subject-matter of claim 1 would not be obtained as a result. In particular, the structural element 6 in figure 1 of D6 cannot be regarded as being equivalent to the "casing structure (5)" of claim 1, for the structural element 6 of D1 is not "directly exposed to the water outside the motor unit" as required by claim 1, the casing 1 being actually interposed between said structural element 6 and the water outside the motor unit according to figure 1 of D6. Vice versa, said casing 1 does not represent, according to figure 1 of D6, "a casing structure, which structurally and functionally constitutes a part of the motor" as stated in present claim 1, the casing 1 being evidently spaced and distinct from the motor unit, which is instead in direct contact with structural element 6, enclosing the motor. For these reasons the subject-matter of claim 1 involves an inventive step in view of D6 and D12 or in view of D6 and the general knowledge of the skilled person.

IV. The Respondent's I arguments may be summarized as follows:

Claim 1 is to be considered as inadmissible on the grounds that the combination of granted claims 1, 7 and 9 leads to an unclear subject-matter, due to the presence of the wordings "water outside the motor unit" and "said medium which is located around said unit", casting doubts on whether or not only one medium

(water) is actually implied by the claim. This ambiguity stems from the fact that granted claim 7, although formally dependent from any of claims 1 to 6, is necessarily dependent on claim 3, as the latter includes the definition of the term "said medium" recited in claim 7. Consequently, the omission of the features of claim 3 in present claim 1 leads to a contravention of Article 123(2) EPC. Also Article 123(3) EPC is infringed, since a broadened scope of protection results from the omission of the features of claim 3.

The subject-matter of claim 1 is not inventive over D6 in view of D12 or the general knowledge of the skilled person. In particular, D6 discloses (see figure 1) a casing 6 having circular portions (including the elements 8) supporting the motor unit, such that outside water may enter a free opening 9 between a central portion of said motor unit and the outer assembly 1 (D6, page 3, lines 120-126), thus cooling the motor. The assembly 1 is fixed to the ship's bottom in D1, but it would be obvious for the skilled person to provide turning gears at the upper end of the assembly 1 for turning the assembly in order to allow steering of the ship, as well as to provide a slip ring or similar means for supplying power to the motor. These technical measures are generally known to the skilled person as is acknowledged for instance in the specification of the contested patent (see published patent specification, hereinafter designated as EP-B, paragraphs [0003] and [0004]) and they are disclosed in particular in D12 (column 7, lines 1-11). Hence the subject-matter of claim 1 lacks an inventive step.

V. The Respondent's II arguments may be summarized as follows:

Claim 1 should not be admitted to the appeal proceedings since the deletion of the term "preferably" in granted claim 9, which has been combined with granted claims 1 and 7, determines a major shift in the subject-matter the Appellant is seeking protection for, both with respect to the search carried out during the examination proceedings and to the subject-matter of the claims previously on file. This shift was not motivated by any procedural reason and the Respondents cannot be reasonably expected to deal with this new subject-matter filed at short notice during the oral proceedings. Claim 1 is therefore deemed to be inadmissible (see T 70/04; T 1273/04).

The subject-matter of claim 1 is not inventive over D4 (US-A-3 593 050), disclosing the features of granted claim 1, in view of further documents D12 and D6. The features of granted claims 7 and 9 provide respective solutions to different technical problems and these features are known *per se* from D12 and D6 respectively. The skilled person would obviously turn to D12 in order to provide an assembly which supports the motor unit in a way such as to permit steering of the ship and would obviously turn to D6 in order to improve the cooling of the motor unit. Thus the combination of granted claims 1, 7 and 9 amounts to a mere juxtaposition of features which cannot involve an inventive step with regard to D4, D12 and D6.

Reasons for the Decision

1. The appeal is admissible.
2. The Board decided, exercising its discretion under Article 13(1) RPBA (Rules of Procedure of the Boards of Appeal, OJ EPO 2007, 536), to admit claim 1 of the Appellant's sole request to the appeal proceedings.

Firstly, claim 1 clearly does not give rise to any objections under Article 84 EPC 1973 or Article 123(2) and (3) EPC, contrary to the Respondents' opinion. Claim 1 is a combination of claims 1, 7 and 9 as granted, with the term "preferably" recited in claim 9 being deleted. By the deletion of this term, claim 1 is directed to a specific alternative of the combination of granted claims, which was already included in these claims. Accordingly, any lack of clarity of present claim 1 was already present in the granted claims and does not arise out of the amendments made at the appeal stage. It is established case law (see e.g. T 367/96) that since an objection of lack of clarity under Article 84 EPC 1973 is not a ground of opposition, an objection of lack of clarity cannot be raised if the lack of clarity already existed, as here, in the granted claims, and has not been introduced by amendment. An objection of lack of clarity under Article 84 EPC 1973 against claim 1 of the sole request thus cannot be considered in these appeal proceedings.

Moreover, the Respondents' objection under Article 123(2) EPC based on the fact that claim 1 does not include the features of granted claim 3 fails, because it amounts to an objection under Article 100(c)

EPC 1973, i.e. a fresh ground for opposition, since the combination of features of present claim 1 is claimed as such in the patent as granted without necessarily including the features of granted claim 3. Since the Appellant did not give its agreement to the introduction of the new ground for opposition under Article 100(c) EPC 1973, the Board has no power to examine it (G 1/95, OJ EPO 1996, 615; G 10/91, OJ EPO 1993, 420). Furthermore, claim 1 is more limited in scope than claim 1 as granted and thus also the objection under Article 123(3) fails.

Finally the Board considers that the decisions T 70/04 and T 1273/04 cited by Respondent II do not apply in the present case, given that the subject-matter introduced into claim 1 by the combination of granted claims 1, 7 and 9 does not represent any significant shift or divergence as compared to the Appellant's case filed with the statement of grounds of appeal.

3. The subject-matter of claim 1, however, does not involve an inventive step over D6 and D12. D6 discloses a propulsion unit arrangement for a ship comprising a motor unit located in the water (see figure 1), including an electric motor and any associated control devices as well as a propeller arranged at the motor's shaft 11, wherein the motor unit includes a casing structure 6 which structurally and functionally constitutes a part of the motor unit (see figure 1). Further, as is evident from figure 1 and from the description (D6, page 3, lines 120-126), the casing 6 is directly exposed along a whole circumferential surface thereof to the water outside the motor unit which flows into the space 9 located between the casing

6 and the outermost casing 1. Furthermore, D6 likewise discloses an assembly 1,2,8 that supports the motor unit, the assembly comprising an essentially vertical body 2 having suitable circular portions including the ring elements 8 and the portions 1 of the assembly 1,2 situated in the proximity of said vertical body 2 and of the ring elements 8. The space or free opening 9 located between a central portion of the motor unit and the assembly 1,2 is flooded with water which is in contact with the heat emitting parts of the motor (D6, page 3, lines 120-126).

Therefore, the only remaining features of claim 1 which are not known from D6 stem from granted claim 7, namely the features according to which "an assembly that supports the motor unit (1) is adapted to be rotatable around a vertical axis (A-A) so that it is attached to the ship (12) through the ship's essentially horizontal bottom, whereby the upper end of the pivoting assembly (9) comprises a turning gear (14) for turning the assembly especially in connection with steering the ship (12), as well as slip-ring or the like means for supplying power to the motor and/or for controlling it and/or for effecting similar functions to one or more motor units (1) arranged at the assembly (9)". These features are needed in order to be able to steer the ship by means of said assembly and to supply power to the electric motor. Propulsion units of this kind, comprising a rotatable assembly apt for steering the ship, are generally known in the art (see EP-B, paragraphs [0003] and [0004]) and for instance from D12, which discloses (see figures 1 to 7) such a propulsion unit including gears for turning the assembly (reference signs 19, 20 in figure 3; column 7,

lines 1-11) and a slip ring (reference sign 17; figure 3) to supply power to the motor unit. The skilled person would combine D6 and D12 in an obvious manner in order to obtain a rotatable propulsion unit apt for steering the ship and to provide means supplying power to the electric motor. Thus the skilled person would include the above mentioned distinguishing features as known from D12 in the propulsion unit according to D6 thereby arriving at the subject-matter of claim 1 without exercising an inventive step. Since the requirements of Article 56 EPC 1973 are not met, the Appellant's sole request must fail.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

A. Vottner

G. Pricolo