

Internal distribution code:

- (A) [] Publication in OJ
(B) [X] To Chairmen and Members
(C) [] To Chairmen
(D) [] No distribution

**Datasheet for the decision
of 11 November 2009**

Case Number: T 0911/06 - 3.5.02

Application Number: 97954466.5

Publication Number: 0947042

IPC: H02J 9/06

Language of the proceedings: EN

Title of invention:

Hybrid generator apparatus

Patentee:

Da Ponte, Manuel Dos Santos

Opponent:

Cummins Inc.

Headword:

Order of the requests/DA PONTE

Relevant legal provisions:

EPC Art. 83, 100(b), 107, 111(1), 113(2), 123(2)

EPC R. 99(2)

RPBA Art. 13(1), 15(1)

Relevant legal provisions (EPC 1973):

-

Keyword:

"Patent as granted, patent as maintained - insufficiency of disclosure (yes)"

"Main and first auxiliary requests - added subject-matter (yes)"

"Third auxiliary request - remitted to the first instance"

Decisions cited:

G 0002/91, G 0008/91, G 0009/91, T 0488/94, T 0169/96,
T 0345/98, T 1058/04

Catchword:

When, as in the present case, it is clear from the statement of grounds of appeal that the appellant proprietor contests a decision that the patent cannot be maintained as granted, and when the appellant proprietor finally requests the maintenance of the patent as granted as an auxiliary request which is subordinate to a main or auxiliary request for maintenance of the patent in a new amended form that was filed during the appeal, the correctness of the decision refusing the maintenance of the patent as granted has to be examined first, before examining the new amended claims (see point 3.7 of the reasons).

Since in the present case it is clear from the statement of grounds of appeal that the appellant opponent contests a decision maintaining the patent in a particular amended form, and since, in the appellant proprietor's final requests, the maintenance of the patent in that particular amended form is the subject of an auxiliary request that is subordinate to one or more requests for maintenance of the patent in some other amended form, the Board decides, after examining the correctness of the decision refusing the maintenance of the patent as granted, to examine the correctness of the decision maintaining the patent in the particular amended form that was the subject of the appealed decision before examining, and deciding upon, the patent in any other amended form finally requested (see point 3.11 of the reasons).

See also point 12 of the reasons (remittal).



Case Number: T 0911/06 - 3.5.02

D E C I S I O N
of the Technical Board of Appeal 3.5.02
of 11 November 2009

Appellant: Da Ponte, Manuel Dos Santos
(Patent Proprietor) 282 Pleiades Avenue
Waterkloof Ridge
0181 Pretoria (ZA)

Representative: Skone James, Robert Edmund
Gill Jennings & Every LLP
Broadgate House
7 Eldon Street
London EC2M 7LH (GB)

Appellant: Cummins Inc.
(Opponent) 500 Jackson Street
Mail Code 60701
Columbus
Indiana 47201 (US)

Representative: Williams, Michael Ian
Cleveland
40-43 Chancery Lane
London WC2A 1JQ (GB)

Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
31 March 2006 concerning maintenance of
European patent No. 0947042 in amended form.

Composition of the Board:

Chairman: J.-M. Cannard
Members: G. Flyng
E. Lachacinski

Summary of Facts and Submissions

- I. European patent no. 0 947 042 was granted on the basis of European patent application number 97 954 466.5 to Manuel Dos Santos Da Ponte (the "proprietor").
- II. An opposition was filed against the grant of the patent by Cummins Inc. (the "opponent").

The opposition division issued an interlocutory decision that, account being taken of the amendments made by the patent proprietor during the opposition proceedings, the European patent no. 0 947 042 and the invention to which it relates were found to meet the requirements of the EPC. The decision was taken on the basis of an amended set of claims 1 to 12 filed as a first auxiliary request during oral proceedings before the opposition division.

- III. Both the proprietor and the opponent filed notices of appeal against the interlocutory decision and subsequent written statements setting out their grounds for appeal.

In the opponent's statement of grounds of appeal, filed with a letter dated 27 July 2006, the following document was cited as prior art for the first time in the procedure:

D8: "Variable speed diesel power generation design issues" by Anthony L. Rogers, UMI Number 9639021, Copyright 1996

With a letter dated 3 August 2006 setting out his grounds of appeal, the proprietor submitted a main request that the decision under appeal be set aside and the patent be maintained as granted, or on the basis of one of the first to fourth auxiliary requests filed with the letter.

The proprietor responded to the opponent's grounds of appeal in a letter dated 12 February 2007 and the opponent responded to the proprietor's grounds of appeal with a letter dated 19 February 2007.

IV. The Board summoned the parties to oral proceedings. In an annex to the summons the Board made observations *inter alia* on the public availability of document D8, the interpretation of granted claim 1, sufficiency of disclosure and the allowability of the amendments to the granted claims.

The opponent responded to the summons in a letter dated 9 October 2009.

With a letter also dated 9 October 2009, the proprietor responded to the summons to oral proceedings and submitted new requests, comprising a main request and first to seventh auxiliary requests. The proprietor enclosed seven sets of replacement pages representing the new main request, the new first auxiliary request, the second auxiliary request, corresponding to the first auxiliary request maintained by the opposition division, and the new third auxiliary request, together with copies of the previous first, second and third auxiliary requests filed with the statement of grounds of appeal, which had been renumbered as the fifth,

sixth and seventh requests respectively. The fourth auxiliary request corresponded to the patent as granted and as such no copy of this was enclosed.

In a letter dated 30 October 2009 the opponent responded to the proprietor's letter of 9 October 2009, *inter alia* requesting that the new requests of the proprietor be not admitted into the procedure, or if they were, that the case be remitted to the department of first instance for further prosecution.

In a further letter dated the 30 October 2009 the proprietor advised *inter alia* that he would not be attending the oral proceedings and would not be represented.

- V. Oral proceedings before the Board were held in the proprietor's absence on 11 November 2009.

The appellant proprietor had requested in writing that the decision under appeal be set aside and a patent be maintained on the basis of the main request, or alternatively, on the basis of the first to seventh auxiliary requests filed with the letter of 9 October 2009.

The appellant opponent requested that the decision under appeal be set aside and the patent be revoked in its entirety.

In the course of the oral proceedings the opponent withdrew his request for remittal.

VI. The independent claims of the main and first to seventh auxiliary requests read as follows:

Claim 1 of the main request

Note: struck-out and bold text is maintained as indicated by the proprietor.

"1. Power supply apparatus comprising:

at least one controllable source arranged to provide a variable voltage and/or current electrical output;

decoupling converter means for generating an intermediate DC output from the variable voltage and/or current electrical output of said at least one controllable source which is substantially independent of variations in the electrical output of the source;

output means for generating an AC or DC output to supply a time varying load from the intermediate DC output; sensor means for monitoring the ~~voltage and/or~~ current of said at least one controllable source and **for monitoring the voltage** of the intermediate DC output and for generating output signals corresponding thereto; and

control means responsive to the output signals to control the operation of said at least one controllable source **by limiting the current drawn from the source and by increasing or by decreasing the voltage output of the source**, to dynamically vary the power output of the source and thereby to supply the power required by the time varying load."

Claim 1 of the first auxiliary request

Note: struck-out and bold text is maintained as indicated by the proprietor.

"1. Power supply apparatus comprising:

at least one controllable source arranged to provide a variable voltage and/or current electrical output;

decoupling converter means for generating an intermediate DC output from the variable voltage and/or current electrical output of said at least one controllable source which is substantially independent of variations in the electrical output of the source;

output means for generating an AC or DC output to supply a time varying load from the intermediate DC output; sensor means for monitoring the ~~voltage and/or~~ current of said at least one controllable source and **for monitoring the voltage** of the intermediate DC output and for generating output signals corresponding thereto; and

control means responsive to the output signals to control the operation of said at least one controllable source **by limiting the current drawn from the source according to a reference current characteristic curve and by increasing or by decreasing the voltage output of the source**, to dynamically vary the power output of the source and thereby to supply the power required by the time varying load."

**Claims 1 and 2 of the second auxiliary request,
corresponding to claims 1 and 2 of the patent as
maintained in the contested decision**

"1. Power supply apparatus comprising:

at least one controllable source (10) arranged to provide a variable voltage and/or current electrical output;

decoupling converter means (12) for generating an intermediate DC output from the variable voltage and/or current electrical output of said at least one controllable source (10) which is substantially independent of variations in the electrical output of the source (10), wherein the controllable source (10) comprises an engine (70) and a generator (72) which provides a variable voltage output to the decoupling converter means (12);

output means (14) for generating an AC or DC output to supply a time varying load from the intermediate DC output;

sensor means (18, 20, 22) for monitoring the voltage and/or current of said at least one controllable source and the intermediate DC output and for generating output signals corresponding thereto; and

control means (24, 26, 16) responsive to the output signals to control the operation of said at least one controllable source (10), to dynamically vary the power output of the source (10) and thereby to supply the power required by the time varying load, wherein the

control means (24, 26, 16) operates to maintain the current drawn from the controllable source (10) at a predetermined level or within a predetermined range, the sensor means (18, 22) comprising a voltage sensor (18) arranged to monitor the output voltage at the intermediate DC output of the converter means (12), and to increase the speed of the engine (70) to increase the power supplied to the converter means (12) when the voltage of the intermediate DC output drops below a first voltage threshold."

"2. Power supply apparatus comprising:

at least one controllable source (10) arranged to provide a variable voltage and/or current electrical output;

decoupling converter means (12) for generating an intermediate DC output from the variable voltage and/or current electrical output of said at least one controllable source (10) which is substantially independent of variations in the electrical output of the source (10), wherein the controllable source (10) comprises an engine (70) and a generator (72) which provides a variable voltage output to the decoupling converter means (12);

output means (14) for generating an AC or DC output to supply a time varying load from the intermediate DC output;

sensor means (18, 20, 22) for monitoring the voltage and/or current of said at least one controllable source

(10) and the intermediate DC output and for generating output signals corresponding thereto; and

control means (24, 26, 16) responsive to the output signals to control the operation of said at least one controllable source (10), to dynamically vary the power output of the source (10) and thereby to supply the power required by the time varying load, wherein the control means (24, 26, 16) operates to maintain the voltage of the intermediate DC output substantially constant, the sensor means (18, 22) comprising a current sensor (22) arranged to monitor the current drawn from the controllable source (10) and to increase the speed of the engine (70) to increase the power supplied to the converter means (12) when the current drawn from the controllable source (10) exceeds a first current threshold."

Claim 1 of the third auxiliary request

Note: struck-out and bold text is maintained as indicated by the proprietor.

"1. Power supply apparatus comprising:

at least one controllable source (10) arranged to provide a variable voltage and/or current electrical output;

decoupling converter means (12) for generating an intermediate DC output from the variable voltage and/or current electrical output of said at least one controllable source (10) which is substantially independent of variations in the electrical output of

the source (10); wherein the controllable source (10) comprises an engine (70) and a generator (72) which provides a variable voltage output to the decoupling converter means (12); wherein the generator is an AC generator which provides a variable voltage, variable frequency AC output to the decoupling converter means;

rectifier means for rectifying the AC output of the generator and the decoupling converter means comprising a DC to DC converter for converting the rectified AC output to an intermediate DC output;

output means (14) for generating an AC or DC output to supply a time varying load from the intermediate DC output;

sensor means (18, 20, 22) for monitoring the ~~voltage and/or~~ current of said at least one controllable source and **for monitoring the voltage of** the intermediate DC output and for generating output signals corresponding thereto; and

control means (24, 26, 16) responsive to the output signals to control the operation of said at least one controllable source (10), to dynamically vary the power output of the source (10) and thereby to supply the power required by the time varying load, wherein the control means (24, 26, 16) **control the current drawn from the generator according to a reference current characteristic curve so that there is a reserve power for acceleration between the minimum and maximum speed operating points of the engine**, the sensor means (18, 22) comprising a voltage sensor (18) arranged to monitor the output voltage at the intermediate DC

output of the converter means (12), and to increase the speed of the engine (70) to increase the power supplied to the converter means (12) when the voltage of the intermediate DC output drops below a first voltage threshold."

Claim 1 of the fourth auxiliary request, corresponding to claim 1 of the patent as granted

"1. Power supply apparatus comprising:

at least one controllable source arranged to provide a variable voltage and/or current electrical output;

decoupling converter means for generating an intermediate DC output from the variable voltage and/or current electrical output of said at least one controllable source which is substantially independent of variations in the electrical output of the source;

output means for generating an AC or DC output to supply a time varying load from the intermediate DC output;

sensor means for monitoring the voltage and/or current of said at least one controllable source and the intermediate DC output and for generating output signals corresponding thereto; and

control means responsive to the output signals to control the operation of said at least one controllable source, to dynamically vary the power output of the source and thereby to supply the power required by the time varying load."

Claim 1 of the fifth auxiliary request

Claim 1 of the fifth auxiliary request differs from claim 1 as granted by the following addition (indicated in bold text) to the decoupling converter means feature:

"decoupling converter means for generating an intermediate DC output from the variable voltage and/or current electrical output of said at least one controllable source which is substantially independent of variations in the electrical output of the source **and for isolating the source from variations in the load**".

Claims 1 and 2 of the sixth auxiliary request

Claims 1 and 2 of the sixth auxiliary request differ from claims 1 and 2 of the second auxiliary request (corresponding to claims 1 and 2 of the patent as maintained in the contested decision) by the omission of the feature:

"wherein the controllable source (10) comprises an engine (70) and a generator (72) which provides a variable voltage output to the decoupling converter means (12)",

and by the replacement of the feature "to increase the speed of the engine (70)" with the feature "to control the source".

Claims 1 and 2 of the seventh auxiliary request

Claims 1 and 2 of the seventh auxiliary request differ from claims 1 and 2 of the sixth auxiliary request by the following additions (indicated in bold text) to the control means feature:

"wherein the control means (24, 26, 16) **includes sensor means arranged to monitor the loading of the intermediate DC output of the converter means (12) and/or the controllable source (10) and** operates to maintain ... , and to control the source (10) to increase the power ...",

and furthermore by the replacement of the feature "when the **voltage of the intermediate DC output drops below a first voltage threshold**" of claim 1 and the feature "when the **current drawn from the controllable source (10) exceeds a first current threshold**" of claim 2, with the feature "when the **loading exceeds a predetermined value**".

VII. The opponent's arguments relevant to the present decision may be summarised as follows:

The proprietor's requests, filed with the letter of 9 October 2009 were late filed. No justification was given for the late filing and the requests were not prima facia allowable, so they should not be admitted to the proceedings.

In claim 1 of the main request, the feature "by limiting the current drawn from the source and by increasing or by decreasing the voltage output of the

source" was inserted between existing features of the claim and changes their meaning. In particular, the new wording covered the possibility that one of the recited output signals was used to dynamically vary the power output of the source and the other one of the recited output signals was used to limit the current drawn from the source. This extended the scope of protection, Article 123(3) EPC, and described a combination of features that was not originally disclosed, Article 123(2) EPC. Nowhere in the application as filed was it disclosed that the output signals which were used to dynamically vary the power output of the source were also used to limit the current drawn from the source. Similar considerations applied to the first auxiliary request.

The patent did not provide a disclosure sufficiently clear and complete for the skilled person to carry out all embodiments falling under the wording "voltage and/or current of said at least one controllable source and the intermediate DC output" in the proprietor's second and fourth auxiliary requests, Article 83 EPC. Within this wording there existed nine different possible ways for the signals to be monitored (i.e. the voltage or the current or the voltage and the current of each signal could be monitored, in each case in combination with the voltage or the current or the voltage and the current of the other signal). The disclosure of the patent was not sufficient to enable the skilled person to carry out these nine different ways. Furthermore, in the embodiments where the type of controllable source was unspecified (figures 1 to 6, 10 and 11), the measurement and control circuit 16 merely controlled the decoupling converter 12 and had no

influence on the operation of the controllable source. The operation of the controllable source was controlled solely by the control loop 24 and control system 26 and these were responsive only to either the voltage of the intermediate DC output (figures 1 and 3 to 6, 10 and 11) or the current of the controllable source (figure 2). Furthermore, even if the measurement and control circuit 16 were considered to control the operation of the controllable source in some way, the patent still did not disclose how to control the operation of the controllable source with control means responsive to output signals corresponding only to the voltage and not the current of the controllable source, or responsive to output signals corresponding to the current of the intermediate DC output.

The proprietor had not demonstrated a basis in the original disclosure for the amendments made according to the third auxiliary request. The wording of the amendment did not appear in paragraph [0075] of the patent as alleged by the proprietor. The third auxiliary request was not admissible and not allowable (Article 123(2) EPC). Claim 1 of the third auxiliary request took part of granted claim 6, but omitted the feature "operates to maintain the current drawn from the controllable source at a predetermined level or within a predetermined range", in contravention of Article 123(2) EPC.

The late filing of Document D8 was justified in view of requests filed late in the opposition procedure by the proprietor. The publication date of D8 had been established beyond reasonable doubt as 22 November

1996. Document D8 was highly relevant for novelty and inventive step.

VIII. The proprietor's arguments relevant to the present decision may be summarised as follows:

The opponent's allegation that the patent contravened Article 83 EPC relied entirely on the opponent's incorrect interpretation of the claims, an interpretation that excluded the majority of the embodiments described. The claims simply stated that that the control means responded to the output signals from the sensors to control the operation of the source. There was no requirement for the control means to be a unitary element and controlling the operation of the controllable source, as claimed, covered controlling the input side as well as controlling the output side of the source. Consequently, limiting the current drawn from the source was within the scope of controlling the operation of the source. Thus, the patent disclosed the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

Claim 1 of the main request and the first and third auxiliary requests recited sensor means for monitoring the current of the at least one controllable source and for monitoring the voltage of the intermediate DC output, which was in line with the disclosures of figures 1, 2, 7a and 15.

In claim 1 of the main request, the added feature "by limiting the current drawn from the source and by increasing or by decreasing the voltage output of the

source" was disclosed in the application, in particular in figures 1, 2, 7a and 15, page 5, lines 25 to 29 and 55 to 56, page 8, lines 9 to 11 and page 11, lines 19 to 23. The further addition ("according to a reference current characteristic curve") in the first auxiliary request was explicitly disclosed, in particular in figures 7a, 8 and 15 together with the above passages.

The claims of the second auxiliary request corresponded to those considered allowable by the opposition division.

The amendments to claim 1 according to the third auxiliary request referred to control of the output current of an engine as disclosed in figures 8 and 9 and on page 9, paragraph [0075] of the patent.

Document D8 should not be admitted into the proceedings. It was late filed and not prima facie highly relevant and there were unresolved issues regarding the date of its availability to the public.

Reasons for the Decision

Admissibility of the appeals

1. Both parties were adversely affected by the decision of the opposition division to maintain the patent in an amended form. The appeals of the proprietor and the opponent are therefore admissible (Article 107 EPC).

Procedural matters

2. With a letter dated 9 October 2009, one month before the date set for the oral proceedings, the proprietor filed new main, first and third auxiliary requests and submitted his final requests, according to which:
 - the patent be maintained in amended form according to the main, or the first to third auxiliary requests (the second auxiliary request corresponding to the first auxiliary request as maintained by the opposition division); or then
 - the patent be **maintained unamended, as granted, according to a fourth auxiliary request** (emphasis added by the Board); or then
 - the patent be maintained in amended form according to fifth to seven auxiliary requests, which corresponded to the first to third auxiliary requests filed with the statement of grounds of appeal, respectively.
3. The Board is faced with the problem of deciding in which order the various requests should be addressed.
 - 3.1 The Board is aware of an *ex parte* appeal case (T 1058/04) in which the Board considered it

appropriate to treat the appellant's requests in their numerical order and refused a request to modify their order (see point 1.1 of the reasons).

3.2 According to the decision of the Enlarged Board G9/91 (OJ 1993, 408, point 18 of the reasons), "The purpose of the appeal procedure inter partes is mainly to give the losing party the possibility of challenging the decision of the Opposition Division on its merits". The purpose of the appeal procedure is thus to give a decision upon the correctness of a decision of a department of first instance. Similar considerations as to the purpose of the appeal procedure are derivable from Rule 99(2) EPC which specifies "In the statement of grounds of appeal the appellant shall indicate the reasons for setting aside the decision impugned, or the extent to which it is to be amended, and the facts and evidence on which the appeal is based". According to the principles governing the admissibility of appeals, there is no justification for examining first a main request containing new claims amended during the appeal procedure, before examining the correctness of the decision refusing the patent as granted when, as in the present case, the correctness of that decision is still contested in a lower-ranking auxiliary request.

3.3 The Board is mindful of the fact that the appeal procedure is to be considered as a judicial procedure and that general principles of court procedure, such as the principle of party disposition (see G 8/91, OJ 1993, 346, point 11.1 of the reasons), apply to the appeals. This principle was also applied in the decision G2/91 (OJ 1992, 206, point 8 of the reasons), which held that "Any party to first-instance

proceedings who is adversely affected by a decision has the right to file an appeal with his own request and submissions and his own statement of grounds and thus to determine the further course of the proceedings". In the present case, applying this principle to the order of the requests of the appellant proprietor might be inconsistent with the purpose of the appeal procedure *inter partes* as expressed in the decision G9/91. Moreover, examining new requests in appeal, when the appellant proprietor also requests examination of the correctness of the first instance decision as a lower-ranking request, would effectively reduce the appeal procedure to a simple continuation of the first instance proceedings, although it is apparent from the general logic of the EPC, that the appeal proceedings are wholly separate and independent from the proceedings at first instance.

- 3.4 In accordance with Article 113(2) EPC, the EPO shall examine, and decide upon, the European patent only in the text submitted to it, or agreed, by the proprietor of the patent. It has been established in Legal Advice from the EPO No. 15/05 (rev.2), OJ 2005, 357 (see points 1.4 and 2.3) as well as in several decisions of the Boards that in the case of main and auxiliary requests from the applicant or proprietor in first instance examination and opposition proceedings, the EPO is bound to the order of these requests (see e.g. T488/94, T169/96 and T345/98). However, this principle does not necessarily apply to second instance proceedings before the Boards of Appeal. In view of the foregoing, the Board considers that it is in line with the purpose of the appeal to firstly examine whether the department of first instance correctly assessed the

substance of the requests presented to it, and thereafter to examine any other requests filed by the proprietor during the appeal procedure.

- 3.5 If the Board were to follow the generally established approach of merely considering the requests of the appellant proprietor in sequence, it is foreseeable that this could lead to a situation in which the Board, finding that a higher-ranking request (i.e. one of the main or first to third auxiliary requests) is not unallowable, would decide to grant or remit that higher-order request, without having considered the findings of the opposition division in respect of the patent as granted, i.e. without having considered the matter underlying the proprietor's appeal. This does not appear to be consistent with the spirit of the appeal procedure under the EPC. Moreover, it could deprive the opponent and third parties of their right to have firstly a decision on the findings of the opposition division for reasons of legal security.
- 3.6 The amendments made by the proprietor to his requests in the letter of 9 October 2009 result inter alia in a new order of his requests which is neither consistent with the logic of the EPC, nor compatible with the purpose of the appeal procedure in the EPO. The proprietor did not attend the oral proceedings, and so could not be informed of the deficiencies in the presented order of his requests. Following Article 15(3) of the rules of procedure of the Boards of Appeal (RPBA), "The Board shall not be obliged to delay any step in the proceedings, including its decision, by reason only of the absence at the oral proceedings of any party duly summoned who may then be treated as

relying only on its written case." However, Article 13(1) of the RPBA gives a Board some discretion when **considering any amendment** to a party's case after the grounds of appeal or reply have been filed. The discretion shall be exercised in view of inter alia the current state of the proceedings and the need for procedural economy. In view of the foregoing, the Board has decided to consider the requests of the appellant proprietor in the order which is compatible with the general logic of the EPC and the purpose of the appeal procedure.

3.7 When, as in the present case, it is clear from the statement of grounds of appeal that the appellant proprietor contests a decision that the patent cannot be maintained as granted, and when the appellant proprietor finally requests the maintenance of the patent as granted as an auxiliary request which is subordinate to a main or auxiliary request for maintenance of the patent in a new amended form that was filed during the appeal, the correctness of the decision refusing the maintenance of the patent as granted has to be examined first, before examining the new amended claims.

3.8 In the decision G2/91 (loc. cit.), the Enlarged Board further held that "A person who is entitled to appeal cannot be deprived of this right because someone else has already filed an appeal before him". The course of the appeal proceedings should thus not deprive the appellant opponent of the right to have his own request and submissions treated in an equitable manner and to so determine the course of the proceedings.

- 3.9 In the present case, however, merely following the order of the requests presented by the proprietor could deprive the opponent of the right to have his appeal examined before a possible remittal, because the subject of the opponent's appeal, namely the amended form of the patent as maintained by the opposition division, is presented by the proprietor only as a second auxiliary request. This would not be equitable.
- 3.10 Nevertheless, as long as it has not been decided whether the patent can be maintained as granted, the decision to grant a patent in the amended form appealed by the opponent depends on the outcome of the appeal against the decision to refuse the maintenance of the patent as granted. Moreover, the proprietor is the owner of a legal title that was contested by the opponent, in whose favour the opposition division decided. This decision was challenged by the proprietor, who can then expect to have his challenge considered with the highest priority. Accordingly, in accordance with the principle of economy of procedure, the Board decides to treat the requests of the appellant opponent, insofar as they concern the maintenance of the patent by the opposition division, after having decided whether the patent as granted could be maintained unamended.
- 3.11 Since in the present case it is clear from the statement of grounds of appeal that the appellant opponent contests a decision maintaining the patent in a particular amended form, and since, in the appellant proprietor's final requests, the maintenance of the patent in that particular amended form is the subject of an auxiliary request that is subordinate to one or

more requests for maintenance of the patent in some other amended form, the Board decides, after examining the correctness of the decision refusing the maintenance of the patent as granted, to examine the correctness of the decision maintaining the patent in the particular amended form that was the subject of the appealed decision before examining, and deciding upon, the patent in any other amended form finally requested.

Decision of the opposition division that the patent as granted cannot be maintained unamended

4. Sufficiency of disclosure, Article 83 EPC

4.1 According to claim 1 of the patent as granted, the apparatus comprises;

- "sensor means for monitoring the voltage and/or current of said at least one controllable source and the intermediate DC output and for generating output signals corresponding thereto"; and
- "control means responsive to the output signals to control the operation of said at least one controllable source ..."

The term "voltage and/or current" is such that these features cover the alternative that the control means are adapted to control the operation of the controllable source in response to output signals generated by the sensor means and corresponding to **only the monitored voltage of the controllable source, and not its current**. For the reasons set out below, the Board considers that the European patent does not disclose this alternative embodiment of the invention in a manner sufficiently clear and complete for them to

be carried out by a person skilled in the art,
Article 83 EPC.

4.2 In the embodiments of figures 1, 2, 3, 5, 6, 10 and 11 of the patent, the **voltage** and **current** of the controllable source 10 are monitored respectively by a voltage sensor 20 and a current sensor 22, CS2. Signals V_2 and I_2 corresponding to the monitored voltage and current are fed into the measurement and control circuit 16 (see the patent as published, EP 0 947 042 B1, paragraph [0026] and the cited figures). According to the patent, the measurement and control circuit 16 controls the decoupling converter means 12 (see paragraph [0024]) and, at least in one mode of operation, the converter 12 controls the current which it passes so that the source 10 is optimally loaded (see paragraph [0030]).

4.3 In the embodiment of figure 7a of the patent, the output of the controllable source (generator 72, rectifier 78 and LC filter 80) is fed to and controlled by a DC to DC converter 82, which is controlled by a current/voltage converter control circuit 92. The control circuit 92 is fed inter alia with an input signal Va5 which is derived from the magnitude of the current supplied from the controllable source to the converter (see paragraph [0057] of the patent). The voltage of the controllable source is not sensed and hence is not used to control the operation of the controllable source.

4.4 The patent does not, however, disclose an embodiment, in which the operation of the source is controlled, either directly or indirectly (i.e. via the converter),

in response to output signals that correspond **only to the voltage, and not the current** of the source. Neither would such a control strategy and the means to carry it out be evident to the person skilled in the art, either from the other disclosures of the patent, or from common general knowledge.

- 4.5 According to established case law, sufficiency of disclosure presupposes that the skilled person is able to obtain substantially all embodiments falling under the ambit of the claims (see case law of the Boards of Appeal, 5th edition, 2006, II.A.3, page 175, last paragraph). For the reasons set out above, the Board finds that this requirement is not met for the claims of the patent as granted.

Decision of the opposition division to maintain the patent in amended form

5. Independent claims 1 and 2 as put forward by the opposition division for maintenance of the patent in amended form include the feature "sensor means for monitoring the voltage and/or current of said at least one controllable source". The Board finds insufficiency of disclosure of the invention set out in these claims for the same reasons as given above for the patent as granted, Article 83 EPC.

Admissibility of the proprietor's new requests filed with the letter of 9 October 2009

6. According to Article 13(1) of the Rules of Procedure of the Boards of Appeal, the Board has discretion to admit amendments to a party's case.

6.1 In the present case, the new requests submitted with the proprietor's letter of 9 October 2009 were filed within the deadline set by the Board in the summons to oral proceedings. In the Board's view, they may be considered as a response to the opponent's filing of document D8 (which was cited in the statement of grounds of appeal and therefore forms part of the appeal proceedings) and to the observations made by the Board, in particular the questions of sufficiency of disclosure raised in the annex to the summons. For these reasons the proprietor's amended requests of 9 October 2009 were admitted to the proceedings.

Main request

7. Allowability of amendments, Article 123(2) EPC

7.1 Note: The text of the patent as granted (see EP 0 947 042) is identical to that of the application as filed (see WO 98/28832) except for the deletion of claim 16 as filed. With that in mind, and in view of the convenience of the paragraph numbering in the published patent, all references in this decision to the text of the application as filed will be made using the paragraph numbering of the published patent, it being understood that the same disclosures exist in the application as filed.

7.2 According to claim 1 of the main request, the control means is "responsive to the output signals to control the operation of said at least one controllable source **by limiting the current drawn from the source and by increasing or by decreasing the voltage output of the**

source, to dynamically vary the power output of the source and thereby to supply the power required by the time varying load" (amendment emphasised). This additional feature was not disclosed *expressis verbis* in the application as filed.

7.3 In the original filing, none of the claims mention **limiting** the current drawn from the source. The only claim that mentions the control means having some influence on the current drawn from the controllable source is claim 6, which states that "the control means operates to **maintain** the current drawn from the controllable source **at a predetermined level or within a predetermined range**, the sensor means comprising a voltage sensor arranged to monitor the output voltage at the intermediate DC output of the converter means, and to **increase the speed of the engine to increase the power supplied to the converter means when the voltage of the intermediate DC output drops below a first voltage threshold**" (emphasis added).

7.4 Claim 1 of the main request is more general than claim 6 as filed at least in that it does not specify that the control means operates to increase the speed of the engine to increase the power supplied to the converter means **when the voltage of the intermediate DC output drops below a first voltage threshold**.

Claim 1 of the main request thus defines an intermediate generalisation between what was disclosed in claim 6 as filed and what was disclosed in claim 1 as filed. For this intermediate generalisation to be allowable under Article 123(2) EPC, it must be

derivable, directly and unambiguously, from the application as filed.

- 7.5 Considering the omission from claim 1 of the main request of the feature that the power supplied to the converter means is increased when the voltage of the intermediate DC output drops below a first voltage threshold, the Board notes the following.

In the embodiment of figure 1, the main voltage control scheme operates as follows. A first voltage sensor 18 monitors the value of the intermediate DC output VDC and the output V₁ of the voltage sensor is applied to a control loop 24 which has a reference voltage V_{ref1} applied thereto, and which generates an electrical output signal which is applied to a control system 26 of the source 10 (paragraphs [0026] and [0027]). When the value of VDC as detected by the first voltage sensor 18 falls below a first voltage threshold, the resultant input signal V₁ applied to the control loop 24 and the control system 26 controls the source 10 to increase its power output (see paragraph [0031]).

Thus, the condition disclosed for controlling the source to increase its power output in the embodiment of figure 1 is the same as that specified in claim 6 as filed, namely that the voltage of the intermediate DC output drops below a first voltage threshold.

In the embodiment of figure 2, the same voltage control scheme is used when operating with the current limiting function.

The remaining embodiments of the invention in which the controllable source is not of a specified type (i.e. figures 3 to 6, 10 and 11) are based on the apparatus of figure 1 and use the same voltage control scheme.

Thus, the condition that the voltage of the intermediate DC output drops below a first voltage threshold is consistently presented in the application as originally filed as the condition to be used for controlling the source to increase its power output when the current drawn from the source is being limited. The Board concludes that the omission of this feature in the intermediate generalisation defined by claim 1 of the main request adds subject-matter that extends beyond the content of the application as filed, contrary to Article 123(2) EPC. The proprietor's main request is therefore not allowable.

First auxiliary request

8. As with the main request, claim 1 of the first auxiliary request specifies varying the power output of the source by increasing or by decreasing the voltage output of the source but leaves out the feature that the power supplied to the converter means is increased when the voltage of the intermediate DC output drops below a first voltage threshold. For the same reason as given above for the main request, this amendment adds subject-matter that extends beyond the content of the application as filed, contrary to Article 123(2) EPC. Therefore proprietor's first auxiliary request is not allowable.

Second auxiliary request

9. Independent claims 1 and 2 of the second auxiliary request are identical to claims 1 and 2 as put forward for maintenance of the patent in amended form in the contested decision and include the feature "sensor means for monitoring the voltage and/or current of said at least one controllable source". The Board finds insufficiency of disclosure of the invention set out in these claims for the same reasons as given above for the patent as granted.

Third auxiliary request

10. Allowability of amendments, Article 123(2) EPC
- 10.1 Claim 1 of the third auxiliary request is based on the following claims of the application as filed:
- claim 1, albeit with the sensor means feature amended to read "for monitoring the current of said at least one controllable source and for monitoring the voltage of the intermediate DC output";
 - claim 3;
 - claim 4, albeit with the omission of the feature that the intermediate DC output has "a voltage which is controlled with respect to a reference voltage";
 - claim 6, albeit with the feature that the control means "operates to maintain the current drawn from the controllable source at a predetermined level or within a predetermined range" replaced with the feature that the control means "control the current drawn from the generator according to a

reference current characteristic curve so that there is a reserve power for acceleration between the minimum and maximum speed operating points of the engine".

10.2 As discussed above, it is disclosed in the embodiments that the current of the controllable source and the voltage of the intermediate DC output are monitored by the sensor means. The limitations to the sensor means feature of claim 1 (third auxiliary request) are therefore directly and unambiguously derivable from the application as filed.

10.3 The feature of claim 1 (third auxiliary request), taken from original claim 6, that the speed of the engine is increased, to increase the power supplied to the converter means, when the voltage of the intermediate DC output drops below a first voltage threshold, is considered to be more restricted in scope than the omitted feature that the intermediate DC output has "a voltage which is controlled with respect to a reference voltage". For this reason, the omission of this feature does not introduce fresh subject-matter.

10.4 The feature that the control means "control the current drawn from the generator according to a reference current characteristic curve" is directly and unambiguously derivable from paragraph [0075] and [0076], page 9, lines 57 and 58. According to paragraph [0075], the reference current characteristic curve can be calculated to produce a load power which would match the desired power curve between points 1 and 2 in Figure 8a. These points 1 and 2 correspond to the maximum and minimum speed operating

points A and B (see figures 8a to 8c). As stated in paragraph [0073], the desired load power curve is always below the engine's maximum power curve so that there is reserve power for acceleration at any given moment. Thus, the added feature that the control means "control the current drawn from the generator according to a reference current characteristic curve so that there is a reserve power for acceleration between the minimum and maximum speed operating points of the engine" is derivable, directly and unambiguously from the application as filed.

10.5 Considering the "predetermined level" referred to in original claim 6, the Board notes that there is no disclosure in the application of a single, fixed predetermined current level. With this in mind, the Board understands the "predetermined level" as referring to the dynamically varying current level that is referred to in the description as the desired reference current characteristic curve (see paragraph [0075]). The feature that the control means "control the current drawn from the generator according to a reference current characteristic curve" is therefore considered to be more specific and restricted in scope than the omitted feature that the control means "operates to maintain the current drawn from the controllable source at a predetermined level or within a predetermined range". Thus, the omission of the latter does not introduce fresh subject-matter.

10.6 For these reasons the Board concludes that the amendments according to claim 1 of the third auxiliary request do not introduce subject-matter that extends

beyond the content of the application as filed,
Article 123(2) EPC.

11. Sufficiency of disclosure, Article 83 EPC

In claim 1 of the third auxiliary request, the sensor means feature has been amended to read "for monitoring the current of said at least one controllable source and for monitoring the voltage of the intermediate DC output". With this amendment, the scope of the claim is restricted in such a way that the insufficiency of disclosure identified above in respect of claim 1 as granted no longer exists in claim 1 of the third auxiliary request.

12. Remittal to the first instance for further prosecution

12.1 With the substantial amendments that have been made according to claim 1 of the third auxiliary request, and with the opponent seeking to introduce document D8 into the proceedings, an entirely new situation has been created, that was not considered in the contested decision.

12.2 Moreover, in the letter of 30 October 2009, the opponent requested that the new requests filed by the proprietor in response to the communication of the Board be not admitted into the proceedings, or if they are admitted that the case be remitted to the department of first instance.

12.3 The filing of these new requests, in particular the third auxiliary request, could be justified as being an attempt to react to the introduction, at the beginning

of the appeal proceedings, of the new document D8. The parties could therefore have expected, following the case law of the Boards of Appeal, that these requests would be admitted and that the case would be remitted to the department of first instance, so that the opponent would have enough time to react to the further amendment, taken from the description, to the case of the proprietor and so that neither party would be deprived of the right to have their case considered before two instances.

- 12.4 In the course of the oral proceedings, the opponent reconsidered his request for remittal and asked that the third auxiliary request be treated by the Board without remittal. This further change in the request of the opponent could surprise the absent proprietor, who would then be deprived of any opportunity to reply when assessing novelty and inventive step. For these reasons, the Board considers it appropriate to make use of its discretion under Article 111(1) EPC to remit the case to the department of first instance for further prosecution.

Order

For the above reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance for further prosecution.

The Registrar:

The Chairman:

U. Bultmann

J.-M. Cannard