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**D E C I S I O N**  
**of 30 July 1999**

**Case Number:** T 0316/95 - 3.4.1

**Application Number:** 90307445.8

**Publication Number:** 0407227

**IPC:** G01R 33/38

**Language of the proceedings:** EN

**Title of invention:**

Magnetic field generating device for MRI

**Applicant:**

Sumitomo Special Metal Co., Ltd.

**Opponent:**

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**Headword:**

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**Relevant legal provisions:**

EPC Art. 113(1)

EPC R. 067

**Keyword:**

"Rejection based on new claims - substantial procedural violation"

"Remittal to the first instance (yes)"

"Reimbursement of the appeal fee (yes)"

**Decisions cited:**

-

**Catchword:**

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Boards of Appeal

Chambres de recours

**Case Number:** T 0316/95 - 3.4.1

**D E C I S I O N**  
**of the Technical Board of Appeal 3.4.1**  
**of 30 July 1999**

**Appellant:** Sumitomo Special Metal Co., Ltd.  
7-19, 4-chome, Kitahama  
Chuo-ku  
Osaka City  
Osaka (JP)

**Representative:** Livsey, Gilbert Charlesworth Norris  
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**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 18 November 1994  
refusing European patent application  
No. 90 307 445.8 pursuant to Article 97(1) EPC.

**Composition of the Board:**

**Chairman:** G. Davies  
**Members:** M. G. L. Rognoni  
U. G. O. Himmler

## Summary of Facts and Submissions

- I. The appellant (applicant) lodged an appeal, received on 11 January 1995, against the decision of the Examining Division, dispatched on 18 November 1994, refusing the application No. 90 307 445.8 (publication No. 0 407 227). The fee for the appeal was paid on 12 January 1995 and the statement setting out the grounds of appeal was received on 15 March 1995.
- II. The application as originally filed comprised claims 1 to 17 directed to a "magnetic field generating device for MRI", whereby claims 1, 6 and 12 were independent, and claims 2 to 5, 7 to 11 and 13 to 17 were directly or indirectly dependent on claims 1, 6 and 12, respectively.
- III. In a first communication dated 13 July 1993, the Examining Division objected to the patentability of claims 1 to 17 of the application as originally filed, inter alia, on the ground that the subject-matters of claim 1 to 17 lacked novelty within the meaning of Article 54 EPC or did not involve an inventive step within the meaning of Article 56 EPC
- IV. In reply to the first communication of the Examining Division, the appellant filed a set of claims 1 to 13 with a letter dated 11 January 1994. Claim 1 and its dependent claims 2 to 13 were directed to "a magnetic field generating device for MRI having a pair of permanent magnet assemblies".
- V. In a second communication dated 9 March 1994, the Examining Division, inter alia, informed the appellant

that the subject-matters of claims 1 to 13 filed with the letter dated 11 January 1994 lacked an inventive step and that the expression "magnetic field intensity modifier" used throughout the new set of claims had no basis in the application as originally filed (Article 123(2) EPC).

- VI. With a letter dated 25 August 1994, the appellant filed new claims 1 to 17 relating to "a magnetic field generating device for MRI", and, for the first time in the procedure before the Examining Division, claims 18 to 24 directed to "a method of adjusting the field intensity existing in the working gap of a magnetic field generating device for MRI".

The independent claims 1 and 18 read as follows:

"1. A magnetic field generating device for MRI having a pair of permanent magnet assemblies (1) disposed opposite one another to form a gap (7) therebetween, yokes (6) for magnetically linking said pair of assemblies and magnetic pole pieces (2) fixed to air gap confronting surfaces of said assemblies to generate magnetic fields within said gap (7), said opposed pole pieces being circular and in symmetry on either side of the gap (7),

and including a plurality of magnetic field intensity modifiers comprising per se known magnetic material segments (8) or permanent magnet segments (9, 9') which may be recessed in grooves (11), each capable of influencing the magnetic field intensity in the gap (7), placed at locations on the surface of one or both of the pole pieces (2) for the purpose of making more uniform the magnetic field intensity in a notional

sphere situated symmetrically between the pole pieces (2) within the gap (7) and having a polar axis (Z) extending normally between the pole pieces (2);

characterized in that selected said field intensity modifiers (8,; 9, 9'; 11) are placed at selected locations on the opposed surfaces of said pair of pole pieces, as a result of measurements taken at a set of measuring locations at the edge of a single plane traversing of said notional sphere normally of said polar axis (Z), to determine the lack of uniformity of magnetic field intensity at such measuring locations,

and said field intensity modifiers (8,; 9, 9'; 11) being selected and placed at selected locations on said opposed surfaces of said pole pieces (2) in a circle or circles concentric with said polar axis, said selection and location being calculated to reduce said lack of uniformity of magnetic field intensity in accordance with said set of measurements determined at said measuring locations."

"18. A method of adjusting the field intensity existing in the working gap of a magnetic field generating device for MRI having a pair of permanent magnet assemblies (1) disposed opposite one another to form the gap (7) therebetween, yokes (6) for magnetically linking said pair of assemblies and magnetic pole pieces (2) fixed to air gap confronting surfaces of said assemblies to generate magnetic fields within said gap (7), said pole pieces being circular and in symmetry on either side of said gap (7),

and wherein a plurality of magnetic field intensity modifiers comprising per se known magnetic material segments (8) or permanent magnet segments (9,

9') which may be recessed in grooves (11), each capable of influencing the magnetic field intensity in the gap (7), are selected and placed at locations on the surface of each of the magnetic pole pieces (2) for the purpose of making more uniform the magnetic field intensity in a notional sphere situated symmetrically between the pole pieces (2) within the gap (7) and having a polar axis (Z) extending normally between the opposed pole pieces (2);

characterized in that selected said field intensity modifiers (8,; 9, 9'; 11) are placed at selected locations on the opposed surfaces of said pair of pole pieces, as a result of measurements taken at a set of measuring locations at the edge of a single plane traversing said notional sphere normally of said polar axis (Z), said measurements being taken to determine the lack of uniformity of magnetic field intensity at such measuring locations,

and said field intensity modifiers (8,; 9, 9'; 11) being selected and placed at selected locations on said opposed surfaces of said pole pieces (2) in a circle or circles concentric with said axis (Z) said selection and location being calculated to reduce said lack of uniformity of magnetic field intensity in accordance with said set of measurements determined at said measuring locations."

Furthermore, the appellant pointed out that, whereas in the previous attempts to formulate the claims the measurement locations were described en masse, the new device claim 1 and the method claim 18 were directed mainly to the organized system of measurement and adjustment of the invention, which consisted in making separate, discrete, sets of measurements, the

measurements of each set being all in a single latitudinal plane. As to the expression "magnetic field intensity modifiers", it did not offend Article 123(2) EPC because such modifiers were per se known, as it appeared from the acknowledgments of prior literature.

VII. In the contested decision, which was issued without any further communication, the Examining Division held, inter alia, that claims 1 and 18 were not admissible under Article 123(2) EPC on the ground that:

- the alternative of placing field intensity modifiers on the surface of only **one** of the pole pieces, and
- measurements of the field homogeneity made **only** on a single plane

were not directly and unambiguously derivable from the application documents as originally filed.

Furthermore, the Examining Division considered that claim 2, though formally dependent on claim 1, had, in fact, to be regarded as independent. As its subject-matter essentially coincided with that of claim 1 filed with the letter dated 11 January 1994, the same objections with respect to inventive step applied.

VIII. With the statement of grounds of appeal, the appellant filed a new set of claims 1 to 15 and submitted, inter alia, that the patentability of the method claims had been considered for the first time in the contested decision so that the appellant had been given no opportunity to reply to the Examining Division's



arguments, although the letter dated 25 August 1994 concluded with an indication of readiness to make further amendments after consultation with the examiner. Furthermore, the objections under Article 123(2) EPC related not only to new claims but also to features which had not appeared in the previously filed claims.

- IX. The appellant requested that the decision under appeal be set aside and the case remitted to the first instance for further prosecution.

### **Reasons for the Decision**

1. The appeal is admissible.
  
- 2.1 As shown in the statement of facts set out above, the contested decision is based on claims which present substantial differences with respect to the claims considered by the Examining Division in its first and second communications. In particular, the former cover not only a device but also a method, and define sets of measuring locations with respect to certain planes, as pointed out by the appellant in the letter dated 25 August 1994.
  
- 2.2 Under Article 113(1) EPC, decisions of the EPO may only be based on grounds on which the party concerned has had an opportunity to comment. As the appellant had not been afforded any such opportunity in relation to the objections raised against the claims referred to in the contested decision, an essential procedural requirement of the EPC was not complied with in the course of the

examination proceedings. On this ground alone, the decision under appeal must be set aside, and the matter referred back to the Examining Division.

3. As a failure to comply with the procedural requirements of Article 113 EPC is clearly a substantial procedural irregularity within the meaning of Rule 67 EPC, the Board considers that reimbursement of the appeal fee is equitable in the present circumstances.

## **Order**

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

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order that the substantive examination be continued on the basis of claims 1 to 15 filed by the appellant with the statement of the grounds of appeal dated 15 March 1995.
3. Reimbursement of the appeal fee is ordered.

The Registrar:

The Chairman:

M. Beer

G. Davies