METHOD AND APPARATUS FOR ELECTROMAGNETIC NAVIGATION OF A SURGICAL PROBE NEAR A METAL OBJECT

A method and apparatus for electromagnetic navigation of a surgical probe (20) near a metal object. The electromagnetic navigation system includes a transmitter coil array (12) and a shield (54). The coil transmitter coil array (12) has a plurality of transmitter coils (62) and is operable to generate the electromagnetic field to navigate the probe. The shield is positioned adjacent the metal object and is operable to shield the metal object from the electromagnetic field generated by the transmitter coil array, such that the shield (54) substantially reduces distortion of the electromagnetic field by the metal object.
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to applicant’s entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AI, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LL, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

— of inventorship (Rule 4.17(iv)) for US only

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IPC(7) : A61B 5/05
US CL : 600/424; 324/318, 207.12
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
U.S. : 600/424; 324/318,318.12

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched 600/410; 128/889; 234/207.12-207.17

Electronic data base consulted during the international search (name of data base and, where practically, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<td>US 6,201,987 B1 (DUMOULIN) 13 March 2001 (13.03.2001), SEE ENTIRE DOCUMENT.</td>
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<tr>
<td>A</td>
<td>US 5,913,820 A (BLADEN ET AL) 22 June 1999 (22.06.1999), SEE FIGURE 1.</td>
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Further documents are listed in the continuation of Box C.

See patent family annex.

Date of the actual completion of the international search

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