



(51) International Patent Classification: Not classified

(21) International Application Number:

PCT/BR2013/000221

(22) International Filing Date:

20 June 2013 (20.06.2013)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

BR1020120160900 28 June 2012 (28.06.2012) BR

(71) Applicant: **WHIRLPOOL S.A.** [BR/BR]; Avenida das Nações, n° 12 995, 32° andar, Brooklin Novo, CEP-04578-000 São Paulo, SP (BR).

(72) Inventors: **VOLLRATH, Ingwald**; Rua Olavo Bilac, 85, Pirabeiraba, CEP-89239-100 Joinville, SC (BR). **BORTOLI, Marcos Giovanni Dropa de**; Rua Ex-Combatentes, 125, casa 4, quadra E, Condomínio dos Lagos, CEP-89221-100 Joinville (BR). **FELDMANN, Alberto Bruno**; Rua Cabral, 392, CEP-89221-570 Joinville, SC (BR). **FEUSER,**

Maikol; Rua Porto Alegre, 382, CEP-89207-680 Joinville, SC (BR).

(74) Agents: **RODRIGUES, Carina, S.** et al.; Rua Joaquim, Floriano, 413, 3 ° andar, Itaim Bibi, CEP-04534-011 São Paulo, SP (BR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,

[Continued on next page]

(54) Title: DEVICE AND PROCESS FOR MOUNTING PERMANENT MAGNETS IN AN ELECTRIC MOTOR ROTOR

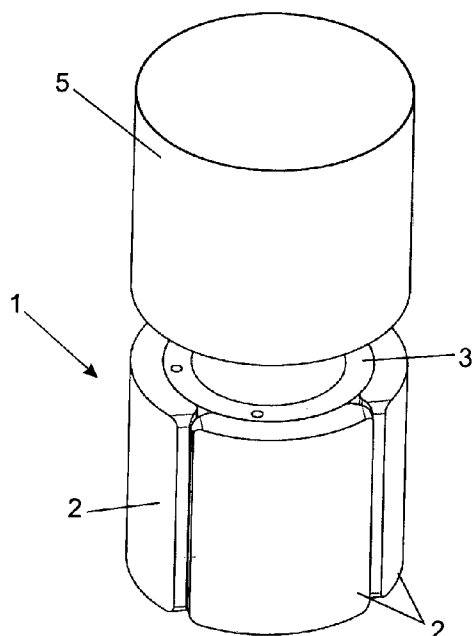


FIG. 2.1

(57) Abstract: The present invention refers to a process for mounting permanent magnets in electric motor rotors and is destined, more specifically, to hermetic motor-compressor, which was conceived and developed to provide greater reliability to the assembly, since it is a technical solution capable of absorbing, more appropriately, the dimensional variations of the components involved and allows the use of high speed motor. Said process comprises the following steps: to construct a helical elastic element (6) with a diameter smaller than the outer diameter of the magnet (3) assembly positioned on the outer surface of the metal core (2); to elastically expand the helical elastic element (6); and to engage the helical elastic element (6) around the magnet (3) assembly to enable that the elastic force of the a helical elastic element (6) causes the latter be rigidly molded to the outer diameter of the magnet assembly (3).



EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, **Published:**

LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK,

SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,

GW, KM, ML, MR, NE, SN, TD, TG).

— *without international search report and to be republished
upon receipt of that report (Rule 48.2(g))*