



(51) International Patent Classification:

F04B 35/04 (2006.01) *F04B 39/12* (2006.01)
F04B 39/00 (2006.01) *F16F 3/06* (2006.01)

(21) International Application Number:

PCT/BR2012/000472

(22) International Filing Date:

23 November 2012 (23.11.2012)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

PI1105017-9 25 November 2011 (25.11.2011) BR

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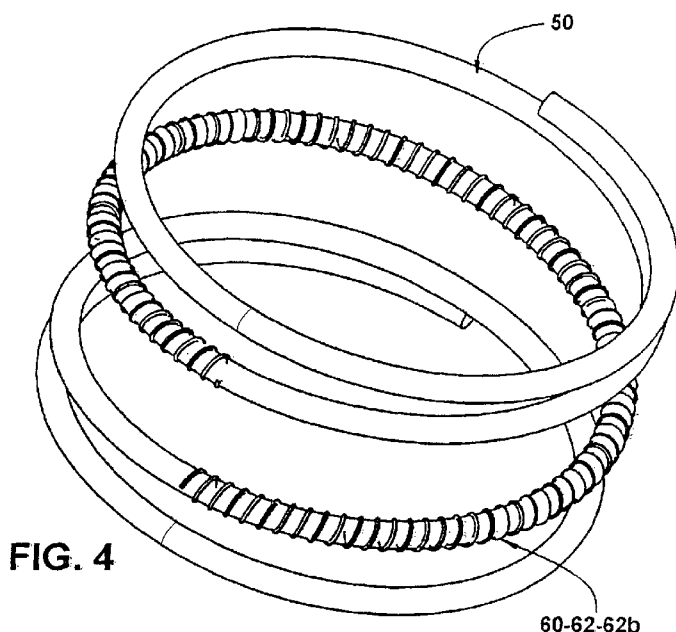
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, 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, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, 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, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: LINEAR DRIVING UNIT WITH A RESONANT SPRING AND A DEFORMATION CONTROL DEVICE



(57) Abstract: The present device is applied to a linear driving unit which comprises: a linear electric motor (M) formed by a motor housing (C) which is electrically excited and affixed to a fixed structure (1), and by a magnetic armature (A) which is displaced in a reciprocating axial movement; and a helical resonant spring (50) having an end coupled to the fixed structure (1) and an opposite end coupled to the magnetic armature (A). The deformation control device (60) is mounted to contact a surface extension of the resonant spring (50), which is elastically and radially deformed, and to generate friction with said surface extension and/or an elastic deformation in the deformation control device (60), absorbing energy in a value sufficient to at least minimize said radial elastic deformation of the resonant spring (50).