



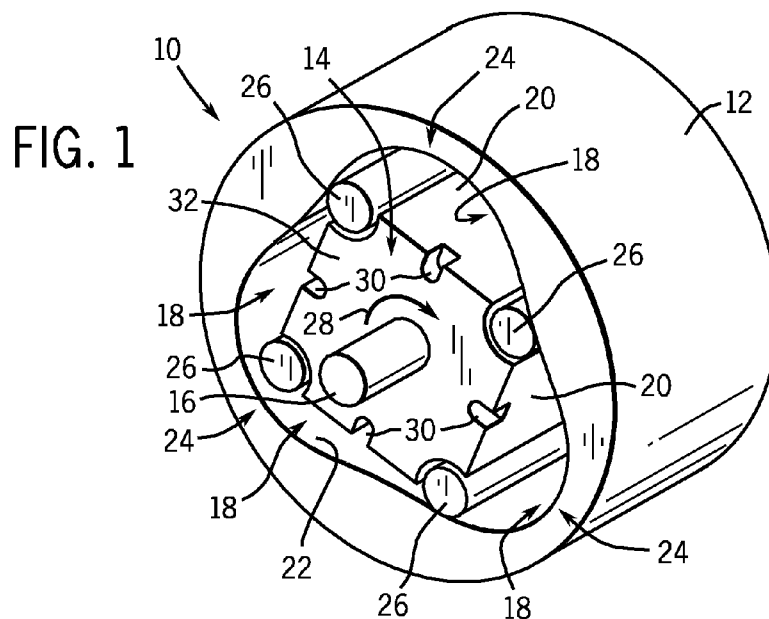
- (51) International Patent Classification:
F04C 2/22 (2006.01)
- (21) International Application Number:
PCT/US2013/065997
- (22) International Filing Date:
21 October 2013 (21.10.2013)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
13/674,922 12 November 2012 (12.11.2012) US
- (71) Applicant: CAMERON INTERNATIONAL CORPORATION [US/US]; 1333 West Loop South, Suite 1700, Houston, Texas 77027 (US).
- (72) Inventors: KABIR, Omar M.; 16250 Port Northwest Drive, Houston, Texas 77041 (US). PATTERSON, Mark Andrew; 21215 Colton Cove Drive, Houston, Texas 77095 (US). WEBB, Ronald Wayne; 6650 Bingle Road, Houston, Texas 77092 (US).
- (74) Agents: SWANSON, Tait R. et al.; P.O. Box 692289, Houston, Texas 77269 (US).

(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, IR, 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, SA, 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, KM, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: TROCHOIDAL ROTARY DEVICE



(57) Abstract: Embodiments of the present disclosure are directed toward a system including a trochoidal rotary device. The trochoidal rotary device includes a housing comprising an inner surface, a rotor having at least one bearing recess, a shaft eccentrically mounted to the rotor, wherein the shaft and the rotor are integrated with one another, and at least one bearing disposed between the bearing recess of the rotor and the inner surface of the hollow housing, wherein at least one of the inner surface of the hollow housing, the bearing recess of the rotor, and the at least one bearing comprise a bearing interface comprises a surface treatment.

**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

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