

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
26 July 2007 (26.07.2007)

PCT

(10) International Publication Number
WO 2007/084310 A3

- (51) **International Patent Classification:**
F04D 29/053 (2006.01) *F16D 41/18* (2006.01)
- (21) **International Application Number:**
PCT/US2007/000669
- (22) **International Filing Date:** 11 January 2007 (11.01.2007)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
11/333,570 17 January 2006 (17.01.2006) US
- (71) **Applicant (for all designated States except US):**
CAMERON INTERNATIONAL CORPORATION
[US/US]; 1333 West Loop South, Suite 1700, Houston,
TX 77027-9109 (US).
- (72) **Inventors; and**
- (75) **Inventors/Applicants (for US only):** **KABIR, Omar, M.**
[US/US]; 33721 Rochen Road, Waller, TX 77484 (US).
CZECHOWSKI, Edward, S. [US/US]; 7900 Michael
Road, Orchard Park, NY 14127 (US).
- (74) **Agent:** **VYAS, Manish;** Cameron International Corpora-
tion, P.O. Box 1212, Houston, TX 77251-1212 (US).
- (81) **Designated States (unless otherwise indicated, for every
kind of national protection available):** AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, 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, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY,
MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS,
RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT,
RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

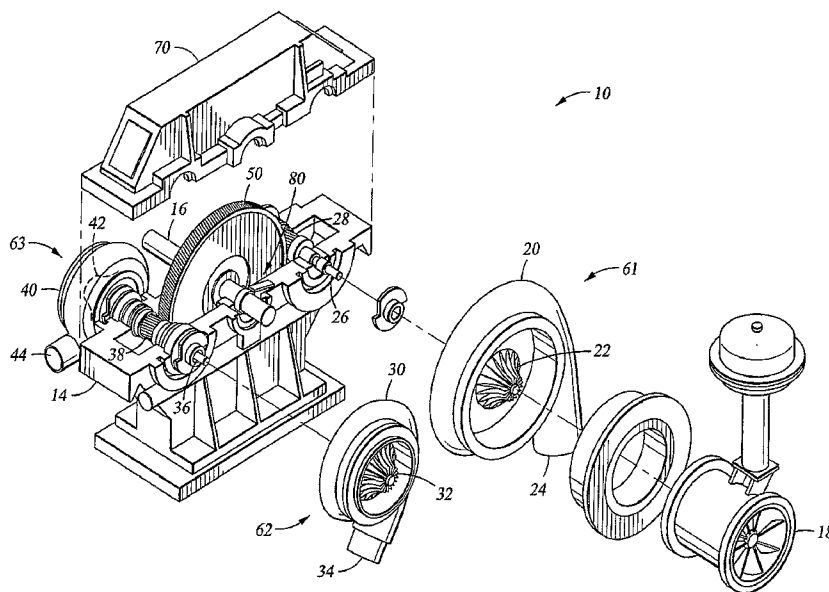
Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

- (88) **Date of publication of the international search report:**
31 January 2008

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) **Title:** REVERSE ROTATION PREVENTION DEVICE



- (57) **Abstract:** Apparatus and methods to prevent the rotation of a shaft in one direction using a device comprising a collar disposed around the shaft, a locking arm with an unlocked position and a locked position, and an actuator capable of moving the locking-arm between the unlocked and locked position. When the locking arm is in the unlocked position, the collar and shaft are allowed to rotate in a first direction. However, when the locking arm is in the locked position, the collar and shaft are prevented from rotating in a second direction. This device can also be used to prevent the reverse rotation of a rotating compressor.

WO 2007/084310 A3