

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
20 October 2005 (20.10.2005)

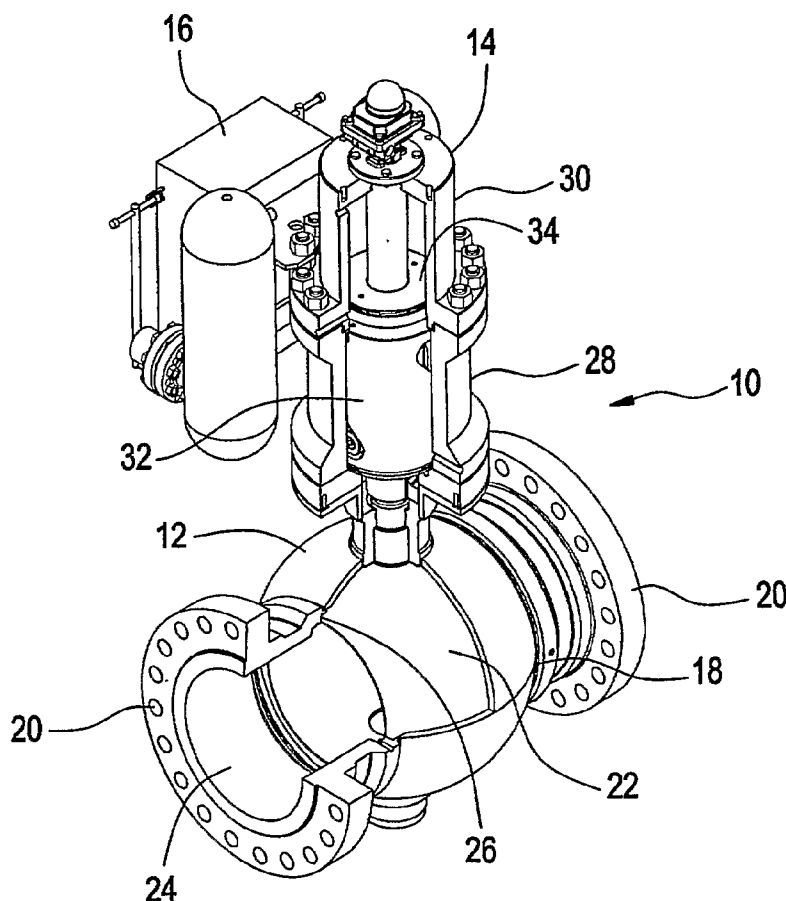
PCT

(10) International Publication Number
WO 2005/098297 A3

- (51) International Patent Classification⁷: **F16K 31/12**, 31/44, 5/06, F15B 11/08, F16D 31/02
- (21) International Application Number: PCT/US2005/010455
- (22) International Filing Date: 28 March 2005 (28.03.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 10/814,461 31 March 2004 (31.03.2004) US
- (71) Applicant (for all designated States except US): **COOPER CAMERON CORPORATION** [US/US]; 1333 West Loop South, Suite 1700, Houston, TX 77027 (US).
- (72) Inventors: **DAVIS, Albert, S.**; 5403 Holly Valley, Richmond, TX 77469 (US). **SALDIVAR, John, M.**; 6934 Harper, Richmond, TX 77469 (US). **MEFFORD, David, R.**; 11 Stormwood Place, The Woodlands, TX 77381 (US). **ARRIENS, Frank, J.**; 10226 Piermain Drive, Houston, TX 77035 (US). **ARD, Daryl, L.**; 631 Bay Oaks Drive, Kemah, TX 77565 (US).
- (74) Agents: **FORINASH, Derek, V.** et al.; CONLEY ROSE, P.C., P.O. Box 3267, Houston, TX 77253-3267 (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, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, 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, 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).

[Continued on next page]

(54) Title: VALVE, ACTUATOR AND CONTROL SYSTEM THEREFOR



(57) Abstract: A valve, actuator and control system that allows minimizing the size of the actuator and operation of the control system in a manual mode that automatically prevents accidental operation by pipeline pressure is disclosed. The actuator uses gas pressure from the pipeline to power the actuator. In the event gas pressure is unavailable, a pair of manual hand pumps are incorporated to allow operation of the actuator and valve.



Published:

— with international search report

(88) Date of publication of the international search report:

4 May 2006

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.