

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
2 November 2006 (02.11.2006)

PCT

(10) International Publication Number
WO 2006/116647 A3

(51) International Patent Classification:

F16D 31/02 (2006.01)

(21) International Application Number:

PCT/US2006/016130

(22) International Filing Date: 27 April 2006 (27.04.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

20 2005 006 719.9 27 April 2005 (27.04.2005) DE

(71) Applicant (for all designated States except US): **COOPER CAMERON CORPORATION** [US/US]; 1333 West South Loop South, Suite 1700, Houston, Texas 77027 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **BIESTER, Klaus** [DE/DE]; Am Maschsee 2, 29342 Wienhausen (DE).

(74) Agent: **VYAS, Manish**; Cooper Cameron Corporation, P.O.Box 1212, Houston, Texas 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, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, 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.

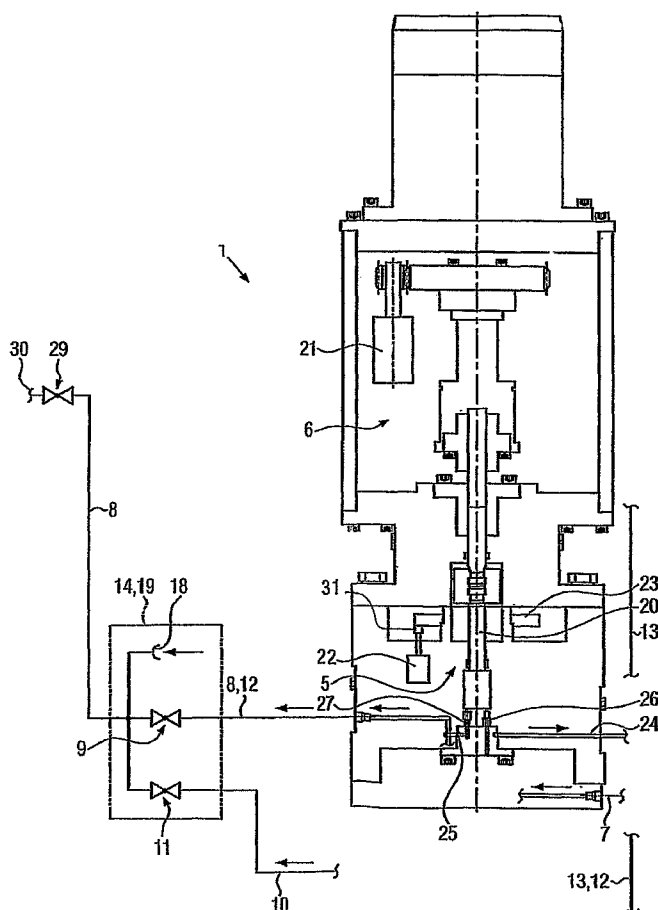
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, 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

[Continued on next page]

(54) Title: HYDRAULIC ACTUATION ASSEMBLY



(57) Abstract: An assembly for the hydraulic actuation of safety equipment includes a hydraulic actuator disposed between a fluid feed line and a supply line in fluid communication with the safety equipment. A pump valve in the supply line downstream of the hydraulic actuator is adjustable between open and closed positions for providing hydraulic fluid to supply line. A fluid source communicates with a bypass line in fluid communication with the supply line. A bypass valve is disposed between the fluid source and the supply line and is lockable between open and closed positions for providing other hydraulic fluid to supply line.

WO 2006/116647 A3



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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.

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

5 April 2007