

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
18 March 2004 (18.03.2004)

PCT

(10) International Publication Number
WO 2004/022902 A3

(51) International Patent Classification⁷: **F16L 19/00**

(74) Agent: **BRYSON, Alan, C.**; Browning Bushman, P.C.,
5718 Westheimer, Suite 1800, Houston, TX 77057 (US).

(21) International Application Number:
PCT/US2003/028324

(22) International Filing Date:
9 September 2003 (09.09.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/409,092 9 September 2002 (09.09.2002) US

(71) Applicant (for all designated States except US): **DRILL-QUIP, INC.** [US/US]; 13550 Hempstead Highway, Houston, TX 77040 (US).

(72) Inventor; and

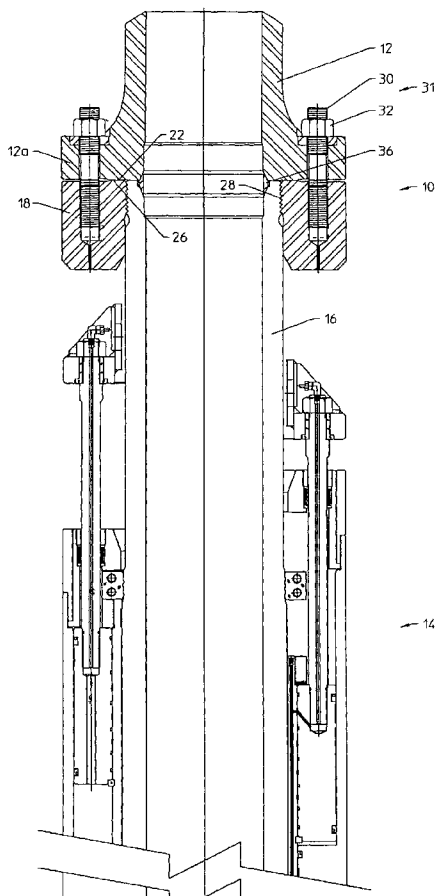
(75) Inventor/Applicant (for US only): **MILBERGER, Lionel, J.** [US/US]; 8911 Rocky Lane, Houston, TX 77040 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, 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, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: TIE-BACK CONNECTION FOR SUBSEA WELL



(57) Abstract: A connection structure is disclosed for connecting a riser to a subsea wellhead assembly. The connection structure allows components of the tie-back connector (16) to be assembled over the tie-back connector before the tie-back connector is secured to a long stress joint, to avoid the need to maneuver the components over the long stress joint. High strength materials are used in the construction of the stress joint to minimize the effects of stresses in the wellhead connector. The connection fixture provides electrical insulation (34) between the engagement points of the stress joint and the tie-back connector to minimize corrosive galvanic action. The connection structure provides an upwardly facing flange (18) that may be threaded or otherwise connected to the top of the tie-back connector and is adapted to mate with and secure to a downwardly facing flange (12a) carried at the bottom of the stress joint (12).



Published:

- *with international search report*
- *with amended claims*

Date of publication of the amended claims:

16 September 2004

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

12 August 2004

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.