

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
13 September 2018 (13.09.2018)



(10) International Publication Number
WO 2018/164679 A1

- (51) **International Patent Classification:**
E21B 17/18 (2006.01) *E21B 23/04* (2006.01)
- (21) **International Application Number:**
PCT/US2017/021317
- (22) **International Filing Date:**
08 March 2017 (08.03.2017)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (71) **Applicant:** HALLIBURTON ENERGY SERVICES, INC. [US/US]; 3000 N. Sam Houston Parkway E., Houston, Texas 77032 (US).
- (72) **Inventors:** GRECI, Stephen Michael; 3113 Luminara Drive, Little Elm, Texas 75068 (US). FROSELL, Thomas Jules; 7409 Bradford Pear Drive, Irving, Texas 75063 (US). FRIPP, Michael Linley; 3826 Cemetery Hill Road, Carrollton, Texas 75007 (US). GEOFFROY, Gary John; 4136 Eldorado Drive, Plano, Texas 75093 (US).
- (74) **Agent:** RUSSELL, Dean W. et al.; Kilpatrick Townsend & Stockton LLP, 1100 Peachtree Street, Suite 2800, Atlanta, Georgia 30309 (US).

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, ST, 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).

Declarations under Rule 4.17:

- of inventorship (Rule 4.17(iv))

Published:

- with international search report (Art. 21(3))

- (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, DJ, 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, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, 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,

- (54) **Title:** TUBING ASSEMBLY FOR HYDRAULIC SHIFTING OF SLEEVE WITHOUT TOOL MOVEMENT

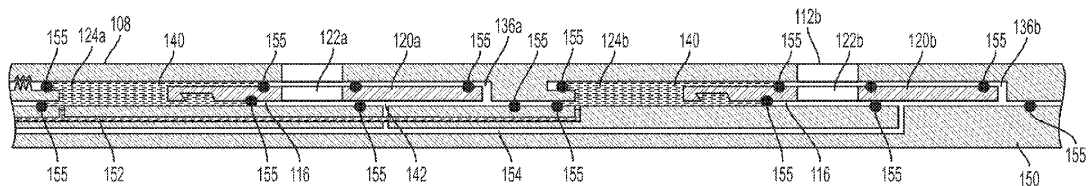


FIG. 4

- (57) **Abstract:** A completion string can have an outer surface and an inner surface, a first fluid passageway being defined between the outer surface and the inner surface. The inner surface can define an inner region of the completion string and can have a recess that is sized to receive a sleeve that is moveable between an open position and a closed position. The inner region can be sized to receive a work string at a position at which a surface of the work string cooperates with the sleeve and the inner surface of the completion string to define a first chamber on a side of the sleeve, the first chamber being hydraulically sealed by a plurality of sealing elements. The work string can define a second fluid passageway to provide fluid communication with the first chamber.



WO 2018/164679 A1