

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
16 April 2020 (16.04.2020)



(10) International Publication Number
WO 2020/076972 A3

(51) International Patent Classification:

E21B 19/00 (2006.01) **F15B 11/072** (2006.01)
E21B 41/00 (2006.01) **F15B 15/14** (2006.01)

(21) International Application Number:

PCT/US2019/055429

(22) International Filing Date:

09 October 2019 (09.10.2019)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/743,899 10 October 2018 (10.10.2018) US

(71) Applicant: **DRIL-QUIP, INC.** [US/US]; 6401 N. Eldridge Parkway, Houston, TX 77041 (US).

(72) Inventors: **PRASAD, Neil, B.**; c/o Dril-Quip, Inc., 6401 N. Eldridge Parkway, Houston, TX 77041 (US). **HAFERNIK, Steven, M.**; 8930 San Patricio Court, Houston, TX 77064 (US).

(74) Agent: **CATE, Avery** et al.; Baker Botts LLP, 910 Louisiana Street, Houston, TX 77002 (US).

(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, JO, 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, 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).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(54) Title: HYDRO-PNEUMATIC CYLINDER WITH ANNULUS FLUID BYPASS

(57) Abstract: Systems and methods for pressure communication within a hydro-pneumatic cylinder are provided. The hydro-pneumatic cylinder generally includes a rod, a barrel coaxial to the rod, and a piston assembly disposed within the barrel and connected to the rod. The barrel is hollow to define a chamber, and the piston assembly is axially movable within the chamber to stroke the rod relative to the barrel. The hydro-pneumatic cylinder includes: a flow path formed axially through the rod of the cylinder. This flow path may allow for pressure communication between a low-pressure side of the cylinder and a pressure energized lower pin located at a distal end of the rod. The lower pin may be actuated, via this pressure communication to secure the end of the cylinder to a tension ring on a riser.

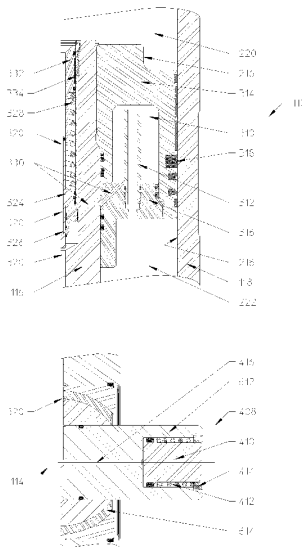


FIGURE 7

WO 2020/076972 A3

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(88) Date of publication of the international search report:
27 August 2020 (27.08.2020)