



(51) International Patent Classification:

F16L 55/162 (2006.01) *F16L 55/128* (2006.01)
F16L 55/105 (2006.01) *F16L 55/18* (2006.01)
F16L 55/124 (2006.01)

(21) International Application Number:

PCT/US2021/014797

(22) International Filing Date:

22 January 2021 (22.01.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/965,386 24 January 2020 (24.01.2020) US
17/145,102 08 January 2021 (08.01.2021) US

(71) Applicant: **TRINITY BAY EQUIPMENT HOLDINGS, LLC** [US/US]; 910 Louisiana Street, Suite 4400, Houston, Texas 77002 (US).

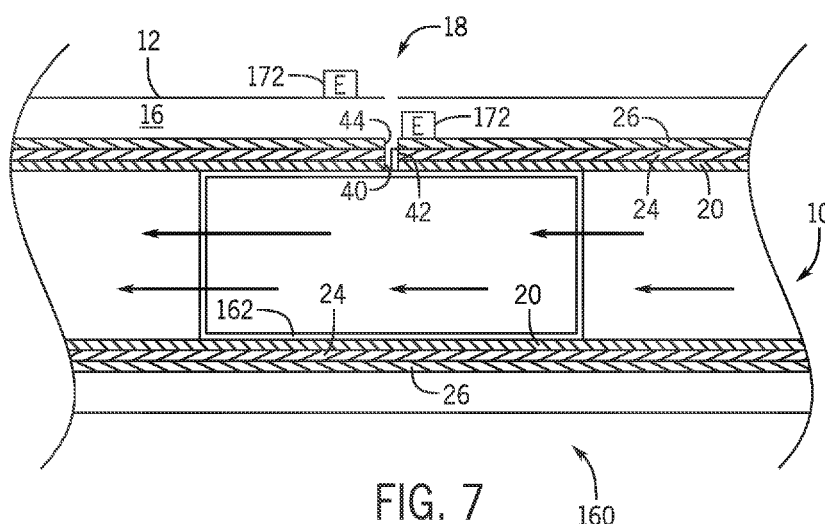
(72) Inventor: **FRANCIS, Kirk Spencer**; 910 Louisiana Street, Suite 4400, Houston, Texas 77002 (US).

(74) Agent: **OSTERHAUS, Matthew G.** et al.; P.O. Box 692289, Houston, Texas 77269 (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, IT, 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, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, 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).

(54) Title: SEAL SYSTEM AND METHOD



(57) Abstract: A seal system for sealing a hole in a conduit. The seal system includes an expandable seal that transitions from a contracted state to an expanded state. In the expanded state the expandable seal contacts an interior surface of the conduit around a hole. An expander is inserted into the expandable seal to transition the expandable seal from the contracted state to the expanded state. A sensor emits a first signal indicative of the hole in the conduit. A controller couples to the sensor and detects a location of the hole in response to the first signal emitted by the sensor.

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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))*