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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
07 July 2022 (07.07.2022)

WIPO | PCT

(10) International Publication Number
WO 2022/146538 A1

(51) International Patent Classification:
*F16K 1/46* (2006.01) *F16K 27/02* (2006.01)
*F16K 1/18* (2006.01) *F16K 25/00* (2006.01)

(21) International Application Number:
PCT/US2021/056767

(22) International Filing Date:
27 October 2021 (27.10.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/131,201 28 December 2020 (28.12.2020) US
17/511,757 27 October 2021 (27.10.2021) US

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(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,

(54) Title: SUBSURFACE SAFETY VALVE WITH UNIFORM LOADING

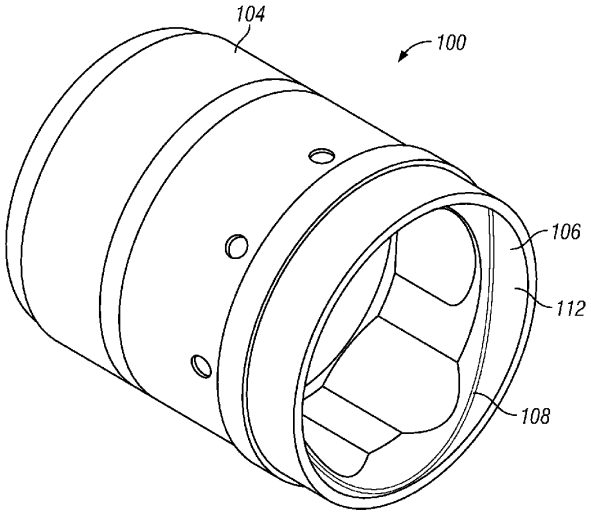



FIG. 1

(57) Abstract: A subsurface safety valve assembly that includes a valve housing comprising a valve seat with a circumference and a seat seal surface. The valve assembly also includes a flapper rotatably connected to the valve housing and comprising a flapper seal surface. The flapper is rotatable into sealing engagement with the seat seal surface in a closed position to form a circumferential surface-to-surface seal. The valve assembly also includes a dovetail groove cut into the seat seal surface or the flapper seal surface and a seal ring held within the dovetail groove and positioned to form a seal against the seal ring when the flapper is in the closed position. The seat seal surface, the flapper seal surface, the dovetail groove, and the seal ring are shaped such that the load on the seal ring is uniform around the seal ring when the flapper is in the closed position.

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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).

**Declarations under Rule 4.17:**

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

**Published:**

— *with international search report (Art. 21(3))*