

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
23 December 2021 (23.12.2021)



(10) International Publication Number
WO 2021/257882 A1

(51) International Patent Classification:

F16K 1/22 (2006.01) *F16K 29/00* (2006.01)
F16K 31/04 (2006.01) *A62C 35/68* (2006.01)
F16K 37/00 (2006.01) *A62C 37/50* (2006.01)

(21) International Application Number:

PCT/US2021/037905

(22) International Filing Date:

17 June 2021 (17.06.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/041,448 19 June 2020 (19.06.2020) US
PCT/US2020/057678
28 October 2020 (28.10.2020) US

(71) Applicant: **HALE PRODUCTS, INC.**, [US/US]; 607 NW
27th Avenue, Ocala, FL 34475 (US).

(72) Inventors: **LASKARIS, Michael, A.**; 3791 Stoughton
Road, Collegeville, PA 19426 (US). **CERRANO, Jason**;
321 Hampton Ridge Drive, Wentzville, MO 63385 (US).

(74) Agent: **ELIAS, Ragi, A. I.** et al.; Panitch Schwarze Belis-
ario & Nadel LLP, Two Commerce Square, 2001 Market
Street, Suite 2800, Philadelphia, PA 19103 (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,

(54) Title: FIRE TRUCK VALVE CHECKER SYSTEM AND METHOD

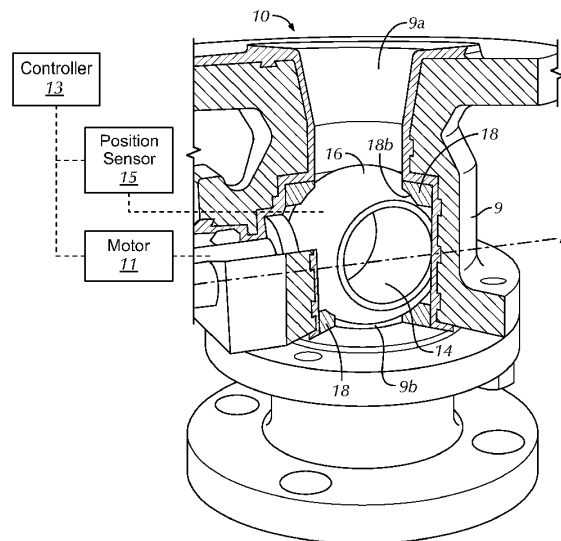


FIG. 3

(57) Abstract: A valve checker system includes a valve having a valve housing with an inlet side, an outlet side, and a valve element therebetween. The valve element is selectively and repeatably rotatable between a first closed position, wherein a seal is formed between the valve element and the valve housing, thereby substantially preventing fluid flow between the inlet and outlet sides, and an open position, wherein the seal is broken such that fluid flow is permissible between the inlet and outlet sides. The valve element is also selectively and repeatably rotatable within a discrete angle in a direction toward the open position, from the first closed position into a second closed position in which the seal is maintained between the valve element and the valve housing. A controller is operatively coupled to the valve element and configured to rotate the valve element between the first and second closed positions.

[Continued on next page]

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).

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))*