

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
19 November 2020 (19.11.2020)



(10) International Publication Number
WO 2020/229811 A1

(51) International Patent Classification:

F04D 19/04 (2006.01) *F16K 15/06* (2006.01)
F04C 25/02 (2006.01) *F16K 27/02* (2006.01)
F04D 27/02 (2006.01)

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(21) International Application Number:

PCT/GB2020/051154

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(22) International Filing Date:

12 May 2020 (12.05.2020)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

1906844.4 15 May 2019 (15.05.2019) GB

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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, 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,

(54) Title: A VACUUM PUMP COMPRISING A RELIEF VALVE AND A METHOD OF ASSEMBLY OF THE RELIEF VALVE

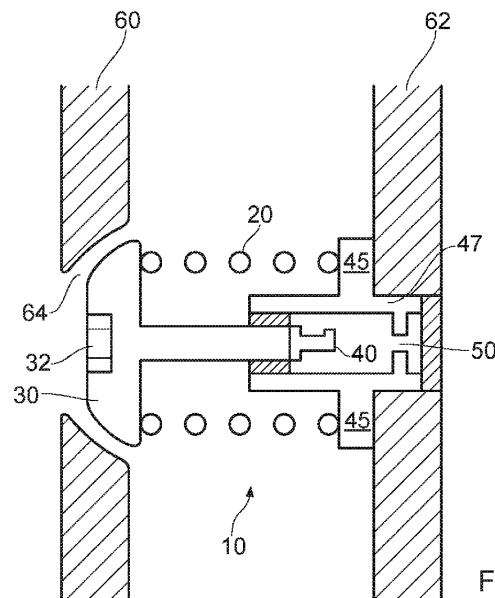


FIG. 1

(57) Abstract: A multiple stage rotary vacuum pump comprising: a stator comprising multiple pumping stages; at least one inter-stage divider separating two adjacent pumping stages; the at least one inter-stage divider comprising two walls defining a cavity therebetween, an upstream wall bounding an upstream pumping stage and a downstream wall bounding a downstream pumping stage of the two adjacent pumping stages. The cavity comprising at least a portion of a pressure relief fluid flow path, the pressure relief fluid flow path providing a path from an outlet portion of the upstream stage towards an inlet portion of the upstream stage or towards an exhaust, the pressure relief fluid flow path comprising an orifice, the orifice comprising a valve seat; and a pressure relief valve configured to move between a compressed and an elongated state, the pressure relief valve sealing the orifice when in the elongated state and being configured to move to the compressed state such that the orifice is not obstructed, in response to pressure in the upstream stage rising

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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))