

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
28 March 2024 (28.03.2024)



(10) International Publication Number
WO 2024/062215 A1

(51) International Patent Classification:

F01C 21/10 (2006.01) F04C 27/00 (2006.01)
F04C 25/02 (2006.01)

(21) International Application Number:

PCT/GB2023/052235

(22) International Filing Date:

30 August 2023 (30.08.2023)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2213812.7 22 September 2022 (22.09.2022) GB
2308577.2 08 June 2023 (08.06.2023) GB

(71) Applicant: **EDWARDS LIMITED** [GB/GB]; Innovation Drive, Burgess Hill Sussex RH15 9TW (GB).

(72) Inventors: **HOCKLEY, Robin**; Edwards Limited, Innovation Drive, Burgess Hill Sussex RH15 9TW (GB). **HOLBROOK, Alan Ernest Kinnaird**; Edwards Limited, Innovation Drive, Burgess Hill Sussex RH15 9TW (GB).

(74) Agent: **FORD, Alexander**; Edwards Limited, Innovation Drive, Burgess Hill Sussex RH15 9TW (GB).

(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, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, 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, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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, ME, 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))

(54) Title: SHELL STATOR FOR A VACUUM PUMP

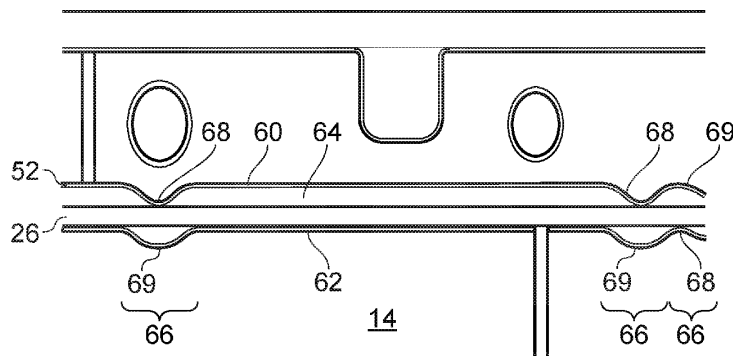


FIG. 6

(57) Abstract: A vacuum pump shell stator (12, 14) comprising: a seal groove (50, 52) formed in a surface of the shell stator (12, 14), the seal groove (50, 52) being defined by a first side wall (60), a second side wall (62) opposite to the first side wall (60), and a bottom surface (64) disposed between the first side wall (60) and the second side wall (62), the bottom surface (64) being opposite to an opening of the seal groove (50, 52); wherein the seal groove (50, 52) comprises: a protrusion (68) formed in the first side wall (60) and extending towards the second side wall (62); and an indentation (69) formed in the second side wall (62) opposite to the protrusion (68).



WO 2024/062215 A1