

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
22 June 2023 (22.06.2023)



(10) International Publication Number
WO 2023/112023 A1

(51) International Patent Classification:
B64D 39/06 (2006.01) *F16L 37/23* (2006.01)
B64D 39/04 (2006.01)

(21) International Application Number:
PCT/IL2022/051311

(22) International Filing Date:
12 December 2022 (12.12.2022)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
289097 16 December 2021 (16.12.2021) IL

(71) Applicant: **ISRAEL AEROSPACE INDUSTRIES LTD.**
[IL/IL]; Ben-Gurion International Airport, 7010000 Lod (IL).

(72) Inventors: **BARSHESHET, Moshe**; C/o Israel Aerospace Industries Ltd., Ben-Gurion International Airport, 7010000 Lod (IL). **YEGER, Lidor**; C/o Israel Aerospace Industries Ltd., Ben-Gurion International Airport, 7010000 Lod (IL). **FRIDMAN, Jacob**; C/O ISRAEL AEROSPACE INDUSTRIES LTD., Ben-Gurion International Airport, 7010000 Lod (IL).

(74) Agent: **SERUYA, Yehuda**; Reinhold Cohn & Partners, POB 13239, 6113102 Tel-Aviv (IL).

(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, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS,

(54) Title: BOOM MEMBER FOR REFUELING AIR VEHICLES

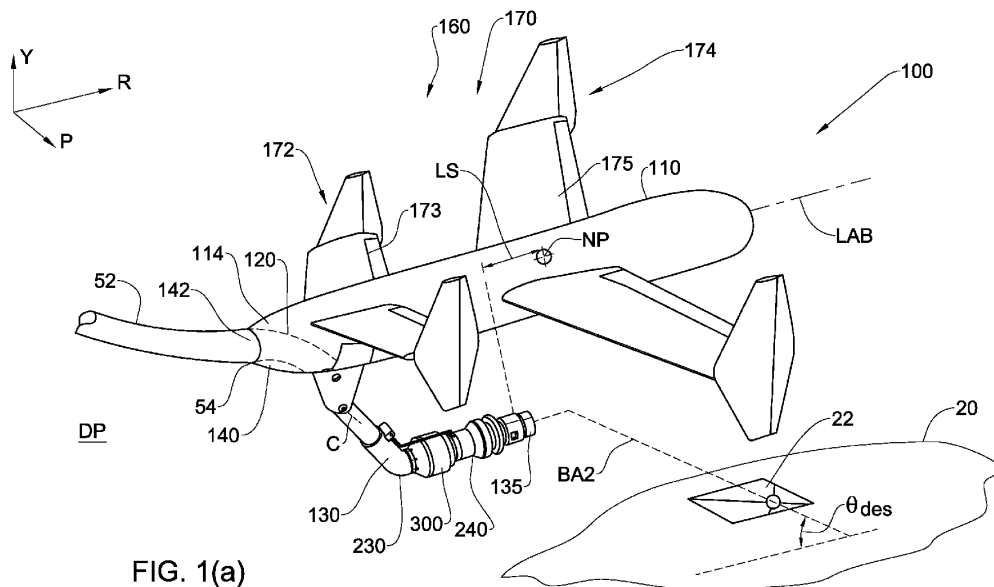


FIG. 1(a)

(57) Abstract: A boom member for in-flight refueling includes a first boom member portion, a second boom member portion, and a connect/disconnect mechanism. The first boom member portion includes a first boom lumen, a first boom axis, and a fuel receiving end. The second boom member portion includes a second boom lumen, a second boom axis, and a fuel delivery end including a fuel delivery nozzle. The connect/ disconnect mechanism is configured for: selectively enabling the first boom member portion to be connected with respect to the second boom member portion to provide a connected configuration; and, for selectively enabling actively disconnecting the first boom member portion with respect to the second boom member portion to provide a disconnected configuration responsive to receiving a disconnection activation signal.

[Continued on next page]

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, 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))