



- (51) International Patent Classification:
B63B 1/38 (2006.01)
- (21) International Application Number:
PCT/EP2024/056863
- (22) International Filing Date:
14 March 2024 (14.03.2024)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
20230277 15 March 2023 (15.03.2023) NO
- (71) Applicant: **KONGSBERG MARITIME FINLAND OY**
[FI/FI]; Lemminkäisenkatu 32, FI-20520 Turku (FI).
- (72) Inventor: **LEVANDER, Oskar**; c/o Kongsberg Maritime
Finland Oy, Lemminkäisenkatu 32, FI-20520 Turku (FI).
- (74) Agent: **AWA NORWAY AS**; Drammensveien 151, P.O.
Box 1052 Hoff, N-0218 Oslo (NO).

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).

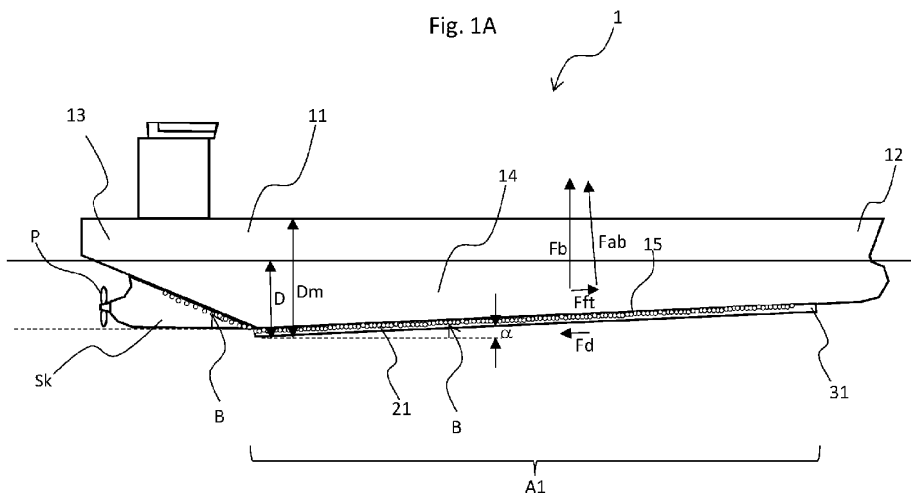
Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a
patent (Rule 4.17(ii))
- of inventorship (Rule 4.17(iv))

- (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,

- (54) Title: AIR LUBRICATION SYSTEM FOR A SHIP HULL

Fig. 1A



- (57) Abstract: A displacement vessel, comprising a hull where the design draught of the hull increases from the bow to the stern of the hull, air outlets arranged in a bottom surface of the hull. The air outlets are in fluid communication with one or more compressors configured to release air bubbles on the bottom surface of the hull. The vessel further comprises at least two bubble guiding surfaces, arranged symmetrically on opposing sides of a centre line of the hull on a bottom surface of the hull and extending along a portion of the length of the hull. The bubble guiding surfaces are protruding away from the bottom surface of the hull. The bubble guiding surfaces and the air outlets define an air bubble distribution region on the bottom surface of the hull.

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))*
- *in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE*

(88) Date of publication of the international search report:

12 June 2025 (12.06.2025)