

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
07 July 2022 (07.07.2022)



(10) International Publication Number
WO 2022/146142 A1

(51) International Patent Classification:

B63B 39/00 (2006.01) *B63B 35/44* (2006.01)
B63B 43/04 (2006.01) *E02D 27/52* (2006.01)
B63B 39/04 (2006.01) *F03D 13/25* (2016.01)

(21) International Application Number:

PCT/NO2021/050277

(22) International Filing Date:

21 December 2021 (21.12.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

20210005 04 January 2021 (04.01.2021) NO

(71) Applicant: **NORTH INNOVATION AS** [NO/NO];
Gardsvegen 250, 4540 Åsral (NO).

(72) Inventor: **REIERSDAL, Cay**; Hamkollvegen 210, 4540
Åsral (NO).

(74) Agent: **HÅMSØ PATENTBYRÅ AS**; P.O. Box 9, 4068
Stavanger (NO).

(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,
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))

(54) Title: A SYSTEM FOR MOTION DAMPING OF A FLOATING MARINE STRUCTURE, AN ARRANGEMENT, A METHOD
AND USE OF SUCH SYSTEM

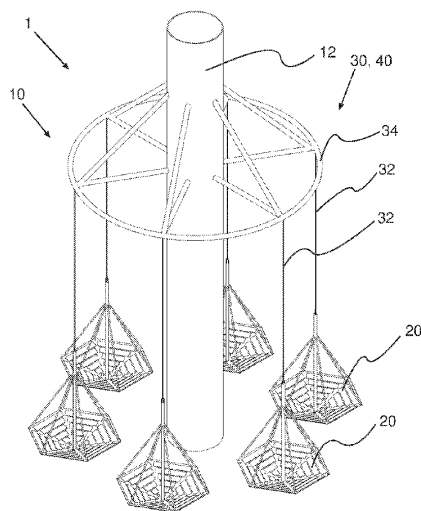


Fig. 1a

(57) Abstract: A system (10), an arrangement (1) and a method, all for motion damping of a floating marine structure (12). Also disclosed is a use of the system. The system comprises at least one dampening device (20) configured to dampen a movement in one direction and allowing a movement in the opposite direction, and a suspension arrangement (30) comprising a respective wire (32) configured to suspend the at least one dampening device hanging at a suspended depth in the water from the marine structure and with the dampening device (20) oriented so that a dampening force induced by the dampening device is subjected in the extension of the wire. Also, each dampening device (20) is a passive damping device comprising a valve structure (62) configured to dampen a movement in one direction and allowing a movement in the opposite direction essentially without damping interaction.

WO 2022/146142 A1