

CORRECTED VERSION

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
15 November 2012 (15.11.2012)



(10) International Publication Number
WO 2012/153169 A8

(51) International Patent Classification:

E02F 3/90 (2006.01) *E02F 5/00* (2006.01)
E02F 3/92 (2006.01) *E02F 3/88* (2006.01)
E21C 45/00 (2006.01) *E21C 50/00* (2006.01)
F04D 29/70 (2006.01) *F04D 13/08* (2006.01)
F04D 7/04 (2006.01)

(21) International Application Number:

PCT/IB2012/000092

(22) International Filing Date:

23 January 2012 (23.01.2012)

(25) Filing Language:

Italian

(26) Publication Language:

English

(30) Priority Data:

MI2011A000061 21 January 2011 (21.01.2011) IT

(71) Applicant (for all designated States except US): **DE-COMAR S.P.A.** [IT/IT]; Via R. Mattioli 1, I-56025 Pontedera (Pisa) (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BENEDETTI, Davide** [IT/IT]; Via Pradaccio 85, I-54100 Massa (IT). **BENEDETTI, Marco** [IT/IT]; Via Poggioletto 14, I-54100 Massa (IT).

(74) Agents: **BOTTERO, Claudio** et al.; Porta, Checcacci & Associati S.p.A., Via Trebbia, 20, I-20135 Milano (IT).

(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, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(48) Date of publication of this corrected version:

12 September 2013

(15) Information about Correction:

see Notice of 12 September 2013

(54) Title: APPARATUS AND METHOD FOR THE DREDGING OF SEDIMENTS FROM THE SEABED

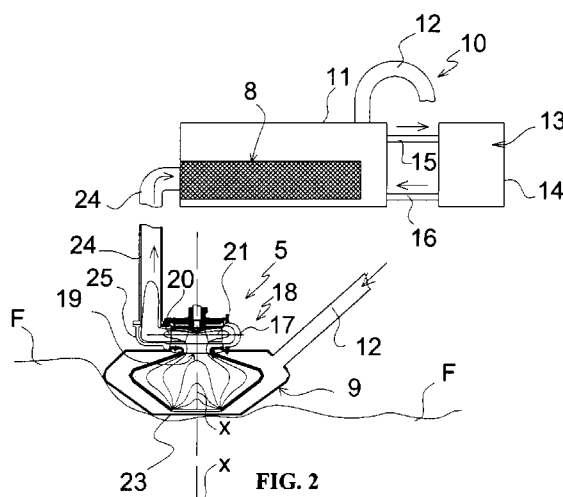


FIG. 2

(57) Abstract: A dredging apparatus (1) is described for removing sediments from a bed (F) of an expanse of water (S), comprising: a suction apparatus (5) including a) a submersible pump (18) including: a housing body (17) provided with an inlet mouth (19) and with a discharge opening (20) and an impeller (21) rotatably supported in the body (17) between the inlet mouth (19) and the discharge opening (20) and rotatably driven by a respective driving device (22); and b) a suction head (9) associated to the inlet mouth (19) of the housing body (17) of the pump (18) and provided at the bottom with a suction opening (23) of the sediments; wherein the suction opening (23) of the head (9) has a value of the cross-section area dimensioned to achieve in the working range of the pump (18) a suction speed capable of removing the sediments by means of the fluid dynamics removal action carried out by the water sucked into the head (9). The invention also describes a dredging method which may be carried out by means of such an apparatus.