PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : F03B 13/18

A1

(11) International Publication Number: WO 99/28622

(43) International Publication Date: 10 June 1999 (10.06.99)

(21) International Application Number: PCT/IE98/00099

(22) International Filing Date: 1 December 1998 (01.12.98)

(30) Priority Data:
S970850 1 December 1997 (01.12.97) IE

(71) Applicant *(for all designated States except US)*: HYDAM TECHNOLOGY LIMITED [IE/IE]; Danesfort House, Loreto Road, Killarney, County Kerry (IE).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: MURTAGH, Joseph [IE/IE]; 'Ath Dara', Maynooth Road, Celbridge, County Kildare (IE).

(74) Agent: MACLACHLAN & DONALDSON; 47 Merrion Square, Dublin 2 (IE).

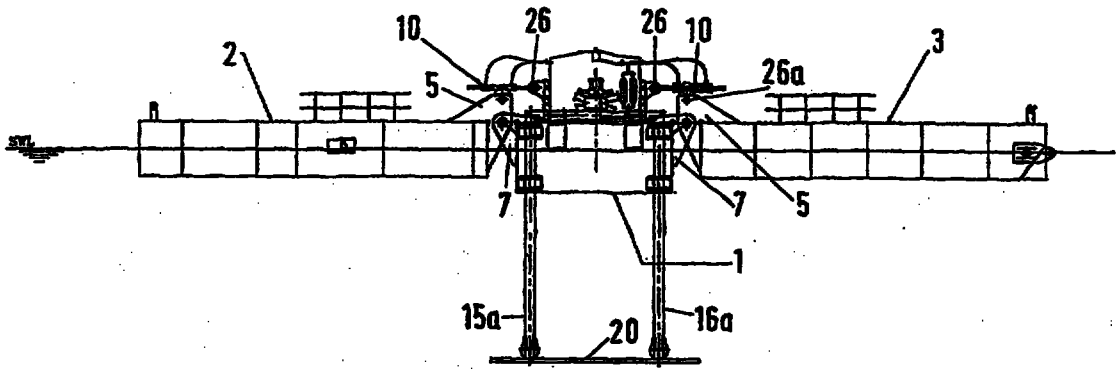
(81) Designated States: AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), EE, EE (Utility model), ES, FI, FI (Utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: WAVE-POWERED PRIME MOVER



(57) Abstract

A wave–powered prime mover comprises a pair of pontoons (2, 3) connected to a central inertial barge (1), each pontoon (2, 3) being pivotally movable by ocean swell or waves relative to the barge (1). A pump (10) connected between each pontoon (2, 3) and the barge (1) converts the motion of the pontoon (2, 3) into water pressure energy. An improved power take–off and damping mechanism is provided for transforming incoming power, oscillating at a low frequency, into a higher frequency oscillating form for use in a generator, turbine, reverse osmosis plant or the like. A hydraulic circuit (10, 32, 34, 35, 37, 39) is used to rectify the incoming power into a uni–directional form for delivery as a continuous flow of pressurised water for doing work such as that described above.