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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
20 December 2001 (20.12.2001)

PCT

(10) International Publication Number
WO 01/96026 A3

(51) International Patent Classification[7]: B03D 1/16, B03B 13/00, C02F 1/24, B01D 17/02

(21) International Application Number: PCT/US01/18336

(22) International Filing Date: 7 June 2001 (07.06.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/210,692 9 June 2000 (09.06.2000) US

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(81) Designated States *(national)*: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

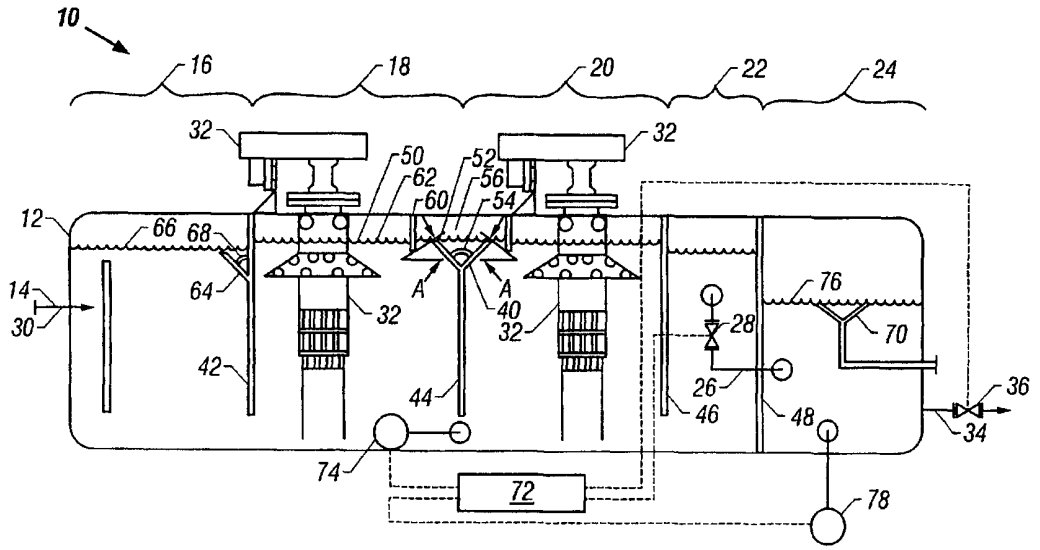
(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

(88) Date of publication of the international search report:
13 June 2002

[Continued on next page]

(54) Title: DUAL-CELL MECHANICAL FLOTATION SYSTEM



(57) Abstract: It has been discovered that a mechanical flotation system having only two cells can be nearly as efficient as one having more cells, yet provide an apparatus with a considerably smaller footprint, significantly reduced capital and operating costs, as well as be resistant to floating oil recovery platform wave effects. The dual-cell mechanical flotation (10) system has, in sequential order, an inlet chamber (16) and two gasification chambers or cells (18, 20), each with at least one gas ingestion and mixing mechanism (32), and a discharge chamber (24). A common primary skim collection channel (40) atop the partition (44) dividing the gasification chambers (18, 20) efficiently channels away the bulk of the floating collected matter. At least one baffle (60) depending from the top of the vessel (12) near the primary skim collection channel (40) helps dampen the action of the fluid containing the suspended matter when the vessel (12) is affected by wave motion against the floating oil production platform.

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 01/18336

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B03D1/16 B03B13/00 C02F1/24 B01D17/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B03D B03B C02F B01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4 990 246 A (BLAZEJCZAK ET AL) 5 February 1991 (1991-02-05) abstract column 1, line 36 - line 39 column 3, line 46 -column 4, line 9 column 4, line 26 - line 55 column 5, line 23 -column 7, line 5; figures	1,3,4,6, 9,11,12

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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
11 December 2001	18/12/2001

Name and mailing address of the ISA	Authorized officer
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INTERNATIONAL SEARCH REPORT

Int ational Application No
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A	US 4 564 457 A (CAIRO, JR. ET AL) 14 January 1986 (1986-01-14) cited in the application abstract column 1, line 7 - line 16 column 3, line 29 -column 4, line 8 column 4, line 61 -column 5, line 41; figures	1,3,6,9, 11
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