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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
29 December 2010 (29.12.2010)

PCT

(10) International Publication Number
WO 2010/150020 A2

(51) International Patent Classification:
B07B 1/46 (2006.01)

(21) International Application Number:
PCT/GB2010/051050

(22) International Filing Date:
24 June 2010 (24.06.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
12/490,492 24 June 2009 (24.06.2009) US

(71) Applicant *(for all designated States except US)*: **NATIONAL OILWELL VARCO, L.P.** [—/US]; 7909 Parkwood Circle Drive, Houston, TX 77036 (US).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **BURNETT, George Alexander** [GB/GB]; Heath Cottage, Ruthrieston Road, Aberdeen, Aberdeenshire AB10 7JR (GB).

(74) Agent: **LUCAS, Phillip Brian**; Lucas & Co., 135 Westhall Road, Warlingham, Surrey CR6 9HJ (GB).

(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, RO, RS, RU, 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, 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, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *of inventorship (Rule 4.17(iv))*

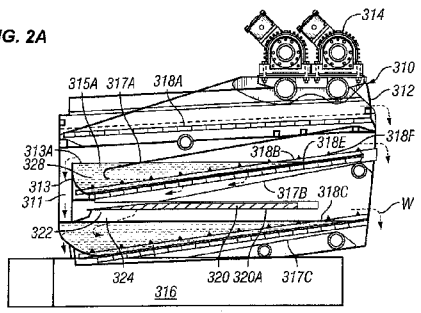
Published:

— *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*

WO 2010/150020 A2

(54) **Title**: APPARATUS FOR SEPARATING SOLIDS FROM A SOLIDS LADEN DRILLING FLUID

FIG. 2A



(57) **Abstract**: An apparatus and method for separating solids from solids laden drilling fluid and selectively sizing the solids, the apparatus comprising a basket (312), a vibratory mechanism (314), a first screen deck (318b) and a second screen deck (318c) mounted below said first screen deck and a directing device for selecting a parallel or series mode of operation in which flow of solids laden drilling fluid is divided between the first deck and the second deck and a series mode of operation in which solids laden drilling fluid is directed on to the first screen deck and then drilling fluid screened thereby is directed on to said second screen deck wherein the apparatus further comprises a moveable diverter tray (320), moveable plate (390, 439) or duct (391, 441) for selecting parallel or series mode of operation.