

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

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 October 2003 (23.10.2003)

PCT

(10) International Publication Number
WO 03/087535 A1

- (51) International Patent Classification⁷: **E21B 43/36**, B01D 21/24, 21/26, 17/032, 17/038, 19/00
- (21) International Application Number: PCT/GB03/01254
- (22) International Filing Date: 24 March 2003 (24.03.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
02252503.4 8 April 2002 (08.04.2002) EP
- (71) Applicant (for all designated States except US): **COOPER CAMERON CORPORATION** [US/US]; 1333 West Loop South, Suite 1700, Houston, TX 77027-9109 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **HOPPER, Hans, Paul** [GB/GB]; Hillhouse, Whiterashers, Aberdeenshire AB21 0QL (GB).
- (74) Agent: **GILL JENNINGS & EVERY**; Broadgate House, 7 Eldon Street, London EC2M 7LH (GB).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, 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, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: SUBSEA PROCESS ASSEMBLY

(57) **Abstract:** A subsea process assembly for separating a multiphase flow, the assembly comprising: an inlet for a multiphase medium; a pressure reducing means for reducing the pressure of the multiphase flow from the inlet and creating a source of energy; a multiphase separator for separating the multiphase input into individual phases; and a pumping system for, in use, pumping at least one of the desired individual phases to a delivery point by utilising at least some of the energy from the source of energy.

WO 03/087535 A1