



(51) International Patent Classification:

B04B 1/20 (2006.01) **B04B 7/12** (2006.01)
B04B 7/08 (2006.01) **B04B 11/02** (2006.01)

(21) International Application Number:

PCT/DK2010/050137

(22) International Filing Date:

11 June 2010 (11.06.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

PA 2009 70026 12 June 2009 (12.06.2009) DK

(71) Applicant (for all designated States except US): **ALFA LAVAL CORPORATE AB** [SE/SE]; Box 73, S-22100 Lund (SE).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **KJÆR, Allan Otto** [DK/DK]; Torstensvej 52, DK-2650 Hvidovre (DK).

(74) Agents: **JØRGENSEN, Bjørn, Barker** et al.; Awapatent A/S, Rigersgade 11, DK-1316 København K (DK).

(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:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

Published:

— with international search report (Art. 21(3))
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(54) Title: A CENTRIFUGAL SEPARATOR

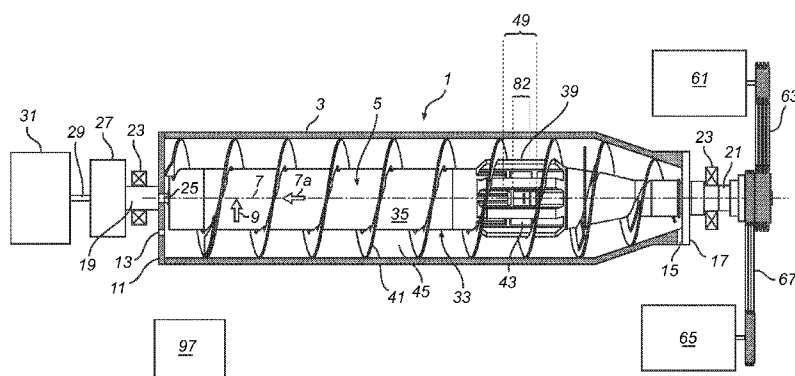


Fig. 1

(57) Abstract: The centrifugal separator has a rotating bowl (3) and a rotating conveyor (5) with an acceleration chamber (43) arranged coaxially within the bowl (3). The centrifugal separator further has a separation chamber (45), which is radially limited by the bowl (3) and the conveyor (5), respectively, and the acceleration chamber is provided with feed ports for inlet of feed material into the separation chamber (45). A feed accelerator is arranged coaxially within the acceleration chamber (43) and is rotating in use around a common axis of rotation relative to the conveyor at a lower speed than the conveyor. The feed accelerator has a discharge outlet for discharge of feed material into the acceleration chamber (43) of the conveyor. The feed ports extend a first axial area (49) and the discharge outlet extends a second axial area (82), whereby the first and the second axial area are overlapping.

