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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
30 June 2011 (30.06.2011)

PCT

(10) International Publication Number
WO 2011/075831 A2

(51) International Patent Classification: Not classified

(21) International Application Number:
PCT/CA2010/002016

(22) International Filing Date:
22 December 2010 (22.12.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/289,050 22 December 2009 (22.12.2009) US

(72) Inventors; and
(71) Applicants : **PHILLIPS, William, Lash** [CA/CA]; c/o Tech Sonic Services LP, Bay #2 - 2139 10 Avenue SW, Medicine Hat, Alberta T1A 8B7 (CA). **SMITH, Shawn** [CA/CA]; c/o Tech Sonic Services LP, 8308 Fraser Avenue, Fort McMurray, Alberta T9H 1X1 (CA). **KIESER, Byron** [CA/CA]; 17 Centre Street North, Apt. 3, Beeton, Ontario L0G 1A0 (CA).

(74) Agent: **THOMPSON, Douglas, B.**; 200 - 10328 81 Avenue, Edmonton, Alberta T6E 1X2 (CA).

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

[Continued on next page]

(54) Title: APPARATUS FOR CLEANING INDUSTRIAL COMPONENTS

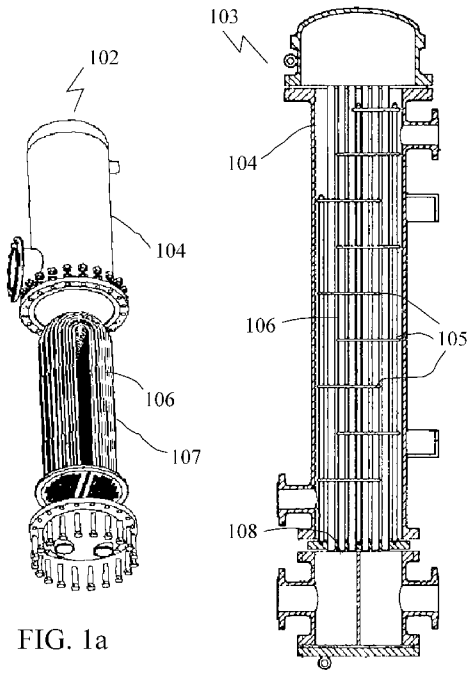


FIG. 1a

FIG. 1b

(57) Abstract: An apparatus for cleaning industrial components has a liquid container defining a liquid enclosure for containing a cleaning liquid and ultrasonic transducers having an operating frequency and a wavelength in the cleaning liquid and secured to at least a portion of the liquid container at a spacing of between 2 and 10 wavelengths. In operation, the transducers generate a larger power density in the component-receiving area of the liquid container than an average power density of the liquid container.

WO 2011/075831 A2

Published:

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