

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
6 December 2007 (06.12.2007)

PCT

(10) International Publication Number
WO 2007/139674 A3

(51) International Patent Classification:
B65D 88/38 (2006.01) **B65D 88/40** (2006.01)

(21) International Application Number:
PCT/US2007/011274

(22) International Filing Date: 10 May 2007 (10.05.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/439,471 23 May 2006 (23.05.2006) US

(71) Applicant (for all designated States except US):
CHICAGO BRIDGE & IRON COMPANY [US/US];
14105 S. Route 59, Plainfield, IL 60544-8984 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **HINER, Larry, Clifford** [US/US]; 3424 Lawrence Drive, Naperville, IL 60564-4109 (US).

(74) Agent: **LABARGE, Richard, M.**; Marshall, Gerstein & Borun LLP, 233 S. Wacker Drive, Suite 6300, Sears Tower, Chicago, IL 60606-6357 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, 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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

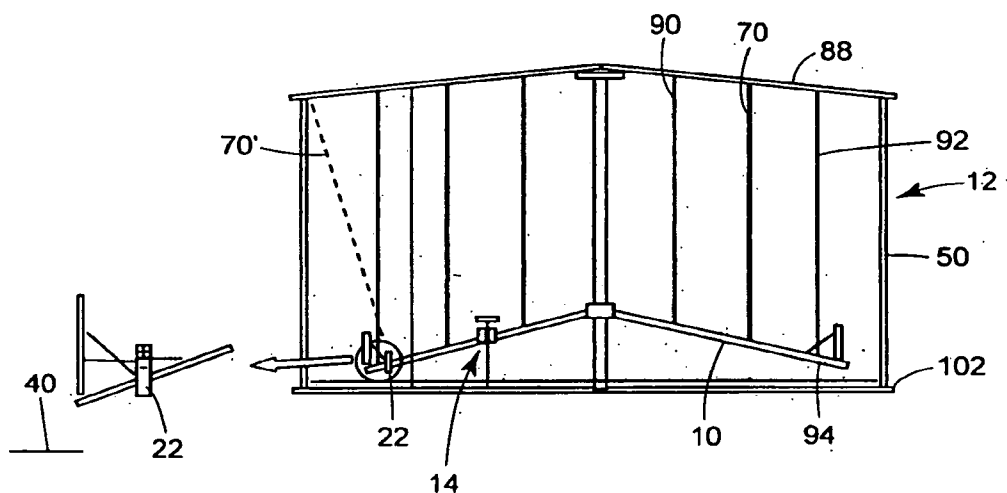
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(88) Date of publication of the international search report:
6 March 2008

(54) Title: STORAGE TANK WITH SELF-DRAINING FULL-CONTACT FLOATING ROOF



(57) Abstract: A storage tank with a full-contact floating roof (10) is provided with automatic drains (22) that have drain openings (56) that are elevated above the top surface (16) of the deck (14) of the roof. Tilting mechanisms are used to tilt the deck toward the drains, causing liquid on the deck surface to pool at the drains, rising to the level of the drain openings. Cables (70) connected to elevated portions of the tank can be used to tilt the deck from above, and landing supports (100) can be used to tilt the deck from below.

WO 2007/139674 A3