

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
21 December 2007 (21.12.2007)

PCT

(10) International Publication Number
WO 2007/143828 A1

(51) International Patent Classification:
G01M 3/26 (2006.01) **G01M 3/28** (2006.01)

(21) International Application Number:
PCT/CA2007/001034

(22) International Filing Date: 12 June 2007 (12.06.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/804,530 12 June 2006 (12.06.2006) US

(71) Applicant (for all designated States except US):
CAR-BER INVESTMENTS INC. [CA/CA]; 911
Michigan Avenue, Point Edward, ON N7Z 1H2 (CA).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **CARSON, Glenn**
[CA/CA]; 1510 Venetian Boulevard, Unit M33, Point
Edward, ON N7T 7X8 (CA).

(74) Agents: **CHARI, Santosh, K.** et al.; Blake, Cassels &
Graydon LLP, Commerce Court West, 199 Bay Street,
Suite 2800, Box 25, Toronto, ON M5L 1A9 (CA).

(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, 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, 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.

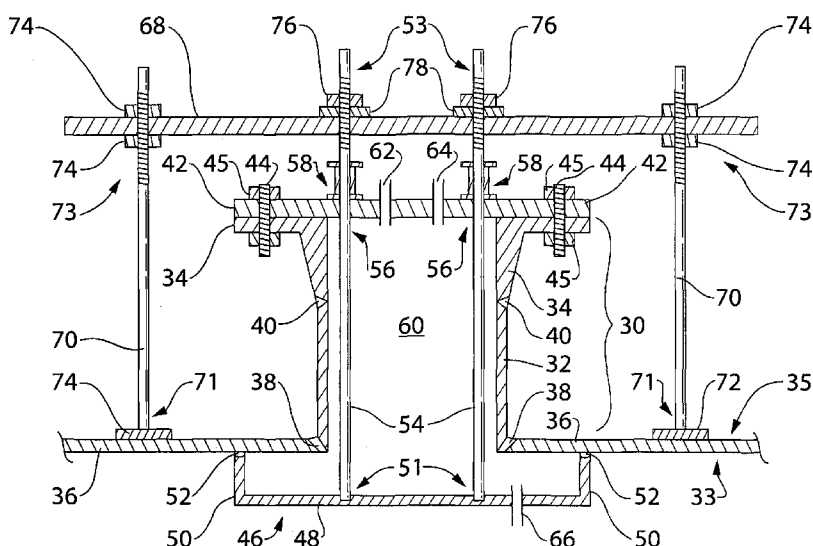
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, 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
- with amended claims

Date of publication of the amended claims: 14 February 2008

(54) Title: NOZZLE TESTING APPARATUS AND METHOD



(57) **Abstract:** A method for testing the integrity of welds used to secure a nozzle to a vessel and the like comprises forming a sealed space within the nozzle by providing a blind against the flange and a sealing plate within the vessel and filling the space with a pressurizing fluid. The sealing plate is not biased against the flange. As such, the method of the invention simulates normally occurring axial expansion stresses within the nozzle thereby providing a more accurate test. The apparatus of the invention comprises a blind flange for sealing the flange face and a back plate for positioning against the inner surface of the vessel. The apparatus includes a biasing means for urging the back plate against the vessel wall. In one embodiment, the biasing means includes a front plate located outside of the vessel and connected to the back plate. In another embodiment, the biasing means comprises a plurality of magnets for engaging the vessel wall.