

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
28 February 2008 (28.02.2008)

PCT

(10) International Publication Number
WO 2008/024339 A3

(51) International Patent Classification:
G01G 19/10 (2006.01) **B60G 17/017** (2006.01)

(21) International Application Number:
PCT/US2007/018473

(22) International Filing Date: 22 August 2007 (22.08.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/507,487 22 August 2006 (22.08.2006) US

(71) Applicant (for all designated States except US): **PRAX-AIR TECHNOLOGY, INC.** [US/US]; 39 Old Ridgebury Road, Danbury, CT 06810-5113 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ELLIOTT, Kenny, Jay** [US/US]; 2416 17th Street South East, E. Canton, OH 44730 (US). **EBERHARDT, William, Edward** [US/US]; 350 Ayer Road, Williamsville, NY 14221 (US).

(74) Agents: **ROSENBLUM, David, M.** et al.; Praxair, Inc., Law Department, M1, 39 Old Ridgebury Road, Danbury, CT 06810 (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, 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, 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).

Declarations under Rule 4.17:

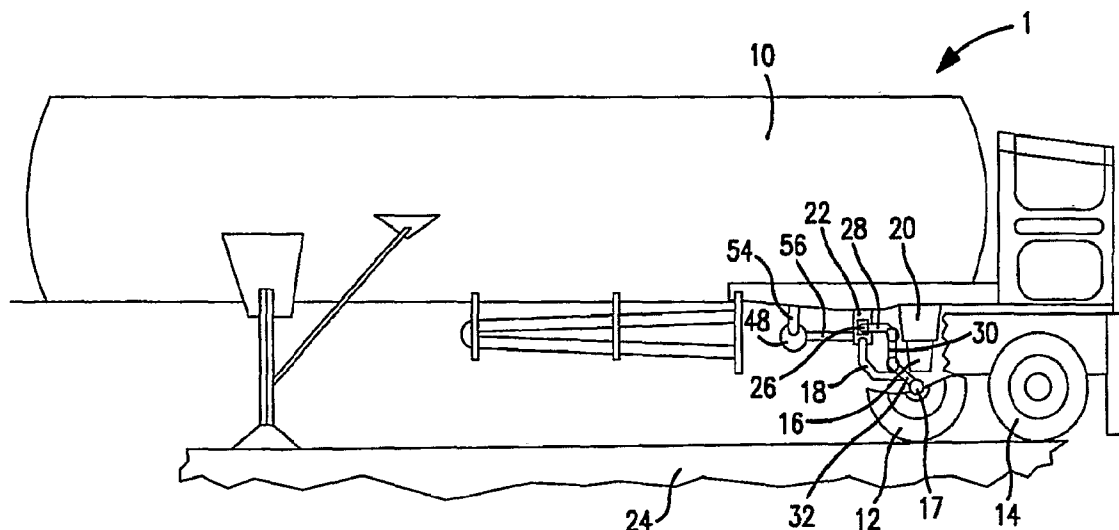
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

- with international search report

(88) Date of publication of the international search report:
10 April 2008

(54) Title: METHOD OF MEASURING THE WEIGHT OF BULK LIQUID MATERIAL WITHIN A TRAILER



(57) Abstract: Method of measuring the weight of bulk liquid material within a container of a tractor-trailer combination (1) in which air bag (16) pressure of a pneumatic suspension system is sensed (60) and correlated with the weight of the bulk liquid material within the container. In accordance with the method, the tractor engine (36) is turned off and supplemental pressurized air is introduced into a pneumatic circuit (2) feeding compressed air to the air bags (16) and while not applying the brakes of the trailer.

WO 2008/024339 A3

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2007/018473

A. CLASSIFICATION OF SUBJECT MATTER
INV. G01G19/10 B60G17/017

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
G01G B60G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 832 141 A (PERINI RICHARD L [US] ET AL) 23 May 1989 (1989-05-23) cited in the application abstract column 2, line 17 - line 31; figure 1 -----	1-7
A	US 5 929 388 A (UEHARA KAZUYASU [JP] ET AL) 27 July 1999 (1999-07-27) abstract -----	1-7
A	GB 1 485 752 A (SCIDS LTD) 14 September 1977 (1977-09-14) page 3, line 1 - line 17; figure 2 -----	1-7
A	US 3 331 458 A (RADEN FREDERICK F VAN ET AL) 18 July 1967 (1967-07-18) figure 2 -----	1-7

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

4 December 2007

Date of mailing of the international search report

27/12/2007

Name and mailing address of the ISA/
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Ganci, Paolo

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2007/018473

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4832141	A	23-05-1989	NONE
US 5929388	A	27-07-1999	DE 19722807 A1 11-12-1997 JP 3246334 B2 15-01-2002 JP 9325065 A 16-12-1997
GB 1485752	A	14-09-1977	NONE
US 3331458	A	18-07-1967	NONE