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(71) Applicant and

(72) Inventor: AMAN, James, A. [US/US]; 802 Wexford Way,
Telford, PA 18969 (US).

(72) Inventors: AMAN, Delbert, Jerard; 63348 East Whispering Tree Lane, Tucson, AZ 85739 (US). BENNETT, Paul, M.; 31 Saratoga Lane, Garleysville, PA 19438 (US).

(74) Agent: MCLLVAIN, Walter; 901 Muirfield Road, Bryn Mawr, PA 19010 (US).

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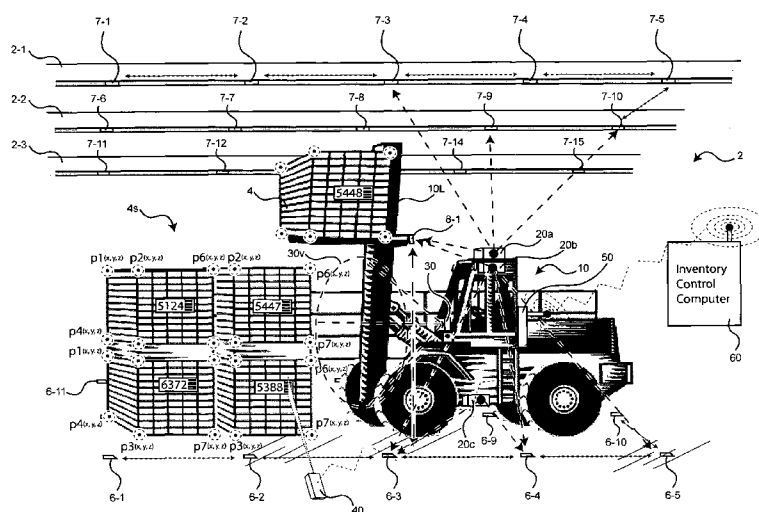
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(54) Title: LOAD TRACKING SYSTEM BASED ON SELF- TRACKING FORKLIFT



(57) Abstract: Self-tracking forklift (10) employs various onboard technologies including either machine vision (102), RF tag reader (104), or accelerometers with RF reset (106) to perform less costly "inside-out" self-tracking verses "outside-in" tracking such as GPS, RF triangulation or UWB cell network with onboard transponders. Forklift (10) further employs load dimension sensor (30), implemented as stereoscopic cameras (108), 2d cameras with laser line generators (110), or 3d area sensors (112) in order to constantly scan for loads (4) being either engaged, lifted, lowered or disengaged by fork lift arms (10L). In addition to times of load (4) engagement and disengagement, sensor (30) also captures outer dimensions of load (4) along with its image. Onboard computer (50) records times of load (4) engagement and disengagement along with load (4) outer dimensions, image and identity (input by asset tag reader (114)) to be combined with the current location and orientation of lift (10) for creating a virtual warehouse database (102).



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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G01S 13/74 (2008.04)

USPC - 705/22

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)

IPC(8) - G01S 13/74 (2008.04)

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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 practicable, search terms used)

Patbase, Google Patent

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X — Y	US 2005/0052281 A1 (BANN) 10 March 2005 (10.03.2005) entire document	1-4, 8-11 ----- 5-7, 12-19
Y	US 2006/0184013 (EMANUEL et al) 17 August 2006 (17.08.2006) entire document	5-7, 12-14
Y	US 2006/0043174 A1 (BANAVER et al) 02 March 2006 (02.03.2006) entire document	15-19

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Authorized officer:

Blaine R. Copenheaver

PCT Helpdesk: 571-272-4300

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