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(54) Title: METHODS AND APPARATUS PROCESSING CONTAINER IMAGES AND/OR IDENTIFYING CODES FOR FRONT END LOADERS OR CONTAINER HANDLERS SERVICING RAIL CARS

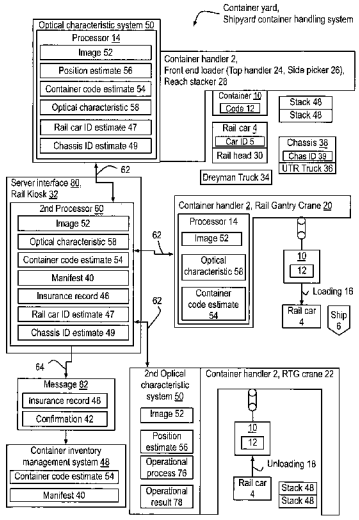


Fig. 1

(57) Abstract: An optical characteristic system configured to couple to a container handler for transferring a container to/from a rail car. A server interface configured to receive from at least one container handler. An optical characteristic system configured to couple to a front end loader. A container handler configured to transfer at least one container to/from a rail car and to report its container image, optical characteristic, container code estimate of the container, a rail car identifier estimate and/or a container chassis identifier estimate. A rail kiosk configured to receive the container image, etc from at least one container handler to create the optical characteristic, the container code estimate, manifest for the rail car, confirmation of the manifest and/or an insurance record for the container. A method operating at least one of the server interface, the rail kiosk and a container inventory management system and the products of those operations.

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INTERNATIONAL SEARCH REPORT

International application No.
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A. CLASSIFICATION OF SUBJECT MATTER

G06K 9/60(2006.01)i, H04N 5/225(2006.01)i

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 : G06K

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

Korean Utility models and applications for Utility models since 1975

Japanese Utility models and applications for Utility models since 1975

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

eKIPASS(KIPO Internal)

"Keywords: container, code, optical, interface, estimation, crane, record, rail, processor, manifest "

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6768931 B2 (TORU TAKEHARA et al.) 27 July 2004 See column 7, line 38-column 10, line 51 and figures 4-6	1, 7, 13, 19
A		2-6, 8-12, 14-18, 20-24
Y	JP 2005-280940 A (MITSUI SHIPBUILDING ENG) 13 October 2005 See claims 1-3 and figures 1-8	1, 7, 13, 19
A		2-6, 8-12, 14-18, 20-24
A	JP 2007-153488 A (NIPPON KANKYO PROJECT KK et al.) 21 June 2007 See abstract, claims 1-2 and figure 1	1-24
A	US 6847906 B2 (TAMOTSU OZAWA) 25 January 2005 See abstract and figures 7-8	1-24

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

☒ See patent family annex.

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"&" document member of the same patent family

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