(54) Title: HOPPER RAILCAR WITH AUTOMATIC INDIVIDUAL DOOR SYSTEM

(57) Abstract: The door operating system of the present invention can be applied to new railcar or retrofitted to existing railcar designs. The hopper railcar will have a pair of doors on opposed sides of the center sill which are connected through a door spreader. The pneumatic, individual door operating system is connected to the door spreader through an adjustable spreader fulcrum in which the sliding adjustment may add in a proper connection force or tension between the door operating system and the individual doors.

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

Published:

— with international search report

Published: (88) Date of publication of the international search report:

30 October 2008
INTERNATIONAL SEARCH REPORT

International application No. PCT/US07/60978

A. CLASSIFICATION OF SUBJECT MATTER
IPC: B61D 17/04 (2006.0), 17/00 (2006.01), 3/00 (2006.01)

USPC: 105/238, 1,239,247,248,280,286,288
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)
U.S. : 105/238,1, 239, 247, 248, 280, 286, 288

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>US 4,741,274 A (Ferris et al) 3 May 1988 (03.05.1988) whole document.</td>
<td>1-19</td>
</tr>
</tbody>
</table>

Further documents are listed in the continuation of Box C. See patent family annex.

Date of the actual completion of the international search 02 June 2008 (02.06.2008)
Date of mailing of the international search report 12 SEP 2008 (26.01.2008)
Authorized on
S. Joseph Morano
Telephone No. (571) 272-3600

Form PCT/ISA/210 (second sheet) (April 2007)