

CONTAINER CELL GUIDE

Technical Field

5 The invention relates to field of container cell guides and of a method of manufacturing cell guides for container ships.

Background Art

10 Referring to Figure 1 virtually all all-container ships 101 are provided with cell guides 102 with vertical guide rails as a means for securing containers 103 in ships holds. The containers 103 are guided by these rails of the cell guides 102 during loading and unloading. Generally, the upper ends of the cell guide 102 take the form of insertion guides. The greatest stress containers loaded in container ship comes from
15 stack pressure. Since the containers 103 are not connected together vertically, lateral stress is transmitted by each individual container 103 to the cell guides 102. When positioned in such cell guides 102, individual containers 103 are not usually able to shift and so risk of damage to containers in adjacent stacks is kept within tight limits.

20 Each cell guide 102 is vertically installed in a hold of a ship 101 at a distance from an adjacent cell guide 102. Typically four cell guides.103 are used for each container 103 stack, one at each corner of the container, less cell guides may be used if multiple stacks are contained within cell guides 102. The magnitude of separation corresponds to the size of a standard container. A conventional cell guide 201
25 generally consists of steel plates 202 as shown in Figure 2. The steel plates 202 are connected to ribs at intervals along the length of the plates to form the cell guide. The ribs also aid in joining the steel plates to a wall of a ship's 101 hold.

30 There is a need in industry to have cell guides with improved structural rigidity.

 It is an objective of the invention is to improve the structural rigidity of the cell guide, or at least to provide industry or the public with a useful choice.

Summary of the Invention

Accordingly in a first embodiment the invention consists in a vertical guide for
5 containers in ships holds comprising:

a T shaped member, having included back to back corners, said leg of said T
being hollow,

wherein said vertical guide is manufactured in one piece so that no welding in
the manufacturer of said vertical guide is required.

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Preferably said guide is manufactured of mild steel.

Preferably said guide is manufactured of aluminium.

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Preferably said guide is extruded.

Preferably said guide is drawn.

20 Accordingly in a second embodiment the invention consists in a container
guiding system for guiding and securing containers in or on a ship comprising a
plurality of said vertical guides described, the guides being spaced apart so that said
included corners of said vertical guides support a corner of at least one container.

25 Brief Description of Drawings

A cell guide in accordance with the invention will now be described by way of
example with reference to the remaining accompanying drawings in which:

30 **Figure 1** is an end view of a container ship, having cell guides installed;

Figure 2 is a perspective view of a known cell guide.

Figure 3 is a perspective view of a cell guide in accordance with an embodiment of the present invention, and

Figure 4 is a cross section of a cell guide in accordance with an embodiment of the present invention.

Detailed Description of Invention

With reference to Figure 3 and 4, the T shaped cell guide 301 of the present invention has a unitary construction. The cell guide 301 has two members. The first is an alignment member 310 and a support member 302. In use the cell guide 301 is vertically orientated. The top end of the cell guide 301 is free to engage a container 103. The top end of the cell guide is tapered as is known in the art. The bottom end of the cell guide 301 is mounted to a floor 306 of a ship's hold. The guide is typically welded to the ship 101, alternatively the guide 301 may be secured by bolts or rivets.

The alignment member 310 comprises a front wall 320 and a first sidewall 330 and a second sidewall 340. The angles between the first sidewall 330 with front wall 320 and second sidewall 340 with front wall 320 is generally 90 degrees. It will be understood to the skilled person that the angles may be varied. The alignment member 310 is generally of a u-shaped configuration so that the leg of the "T" is hollow.

The support member 302 is joined to the first sidewall 330 and second sidewall 340 of the alignment member 310. The support member 302 is generally flat and wider than the alignment member 310. The support member 302 is attached to a wall of a ship's hold or to ribs of the ship 101. The attachment is typically by welding although rivets or bolts or any other suitable attachment means or method may be used.

The cell guide 301 has included 380 back-to-back corners allowing a single guide 301 to support two containers 102.

The cell guide 301 of the present invention is extruded, or alternatively may be drawn. The cell guide 301 may be made from mild steel or aluminium.

Being of one-piece construction provides an advantage in that the guide is stronger than it otherwise would be and is easier and cheaper to install. Not having to weld vertical plates together provides a significant advantage both in strength and ease of installation.

The foregoing describes the invention including preferred forms thereof. Alterations and modifications as will be obvious to those skilled in the art are intended to be incorporated in the scope hereof as defined by the accompanying claims.

What is claimed is:

1. A vertical guide for containers in ships holds comprising:
a T shaped member, having included back to back corners, said leg of said T
5 being hollow,
wherein said vertical guide is manufactured in one piece so that no welding in
the manufacturer of said vertical guide is required.
2. A guide for containers in ships holds as claimed in claim 1 wherein said guide
10 is manufactured of mild steel.
3. A guide for containers in ships holds as claimed in claim 1 wherein said guide
is manufactured of aluminium.
- 15 4. A method of manufacturing a cell as claimed in any one of claims 1 to 3
wherein said guide is extruded.
5. A method of manufacturing a cell as claimed in any one of claims 1 to 3
wherein said guide is drawn.
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6. A container guiding system for guiding and securing containers in or on a ship
comprising a plurality of said vertical guides of any one of claims 1 to 4 spaced apart
so that said included corners of said vertical guides support a corner of at least one
container.

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