

6 May 2016

Developments concerning container weighing and the packing of containers

Container weighing

Members are advised that from 1 July 2016, amendments to the Safety of Life at Sea Convention (SOLAS), requires that a packed container's gross mass is verified prior to stowage on board. The shipper is made responsible for the verification of the gross mass of a container carrying cargo and for declaring the verified gross mass (VGM) sufficiently in advance to be used by the ship's master or his representative and the terminal representative in the preparation of the stowage plan.

If the shipper fails to provide the VGM of the container, then the container should not be loaded on board the ship.

SOLAS regulations prescribe two methods by which the shipper can determine the VGM of a packed container:

Method 1: The container is packed, sealed and weighed by the shipper or a third party. For this method weighing equipment used must meet national certification and calibration standards and requirements.

Method 2 : The shipper, or a third party arranged by the shipper, may weigh all packages and cargo items, dunnage and securing material and add to the tare mass of the container using a certified method. Any third party who has performed some or all of the weighing should inform the shipper in order to facilitate the shipper's verification of the gross mass.



This method should be approved by a competent authority of the state in which the container packing is completed.

Documentation

- The VGM must be provided to the carrier in either paper or EDI format and should be in the carrier's possession so that the stowage planning process can be carried out in sufficient time
- The carrier must state the deadline by which time the VGM has to be supplied
- To ensure that in practice a container is not erroneously loaded on board a ship without the declared VGM, container operators may need to make some changes to their booking systems.

The amendments are designed to prevent mis-declared containers being placed on board ships. Mis-declared container weights were identified as a contributory factor in the MSC Napoli casualty in 2007. Anecdotally masters have reported the difference between calculated and actual sailing conditions of as much as 4,000 tonnes on 8,000 TEU container ships. This undeclared mass on board will be distributed randomly throughout the cargo stow.



The rationale for the amendment to SOLAS and the requirement for the VGM originates from the Lashing@sea project which was undertaken by participants representing flag states, classification societies, ship owners and lashing equipment manufacturers, as well as crew from nearly 160 ships and was sponsored by the Dutch government. The project was led by the Maritime Research Institute of the Netherlands (MARIN) and produced

the MARIN report. The report concluded that incorrect shippers declarations of container and cargo weights were a major contributory factor in container losses.

Accurate container weights are essential in order to:

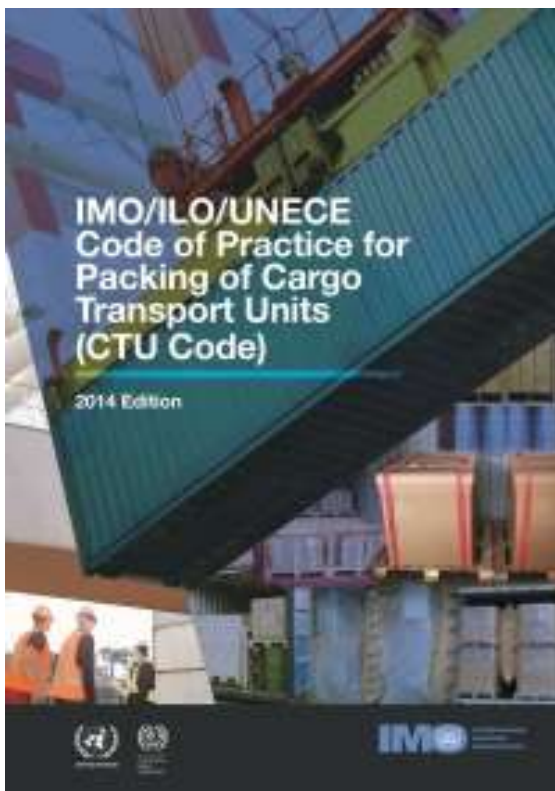
- Calculate the ship's metacentric height (GM) to avoid stability issues for the ship
- Ensure the tank top and hatch covers are not overloaded
- Confirm that the mass distribution of containers on deck is as set out in the ship's cargo securing manual. Thus ensuring that the container deck stack weights do not exceed the limits set for the maximum accelerations of the ship caused by rolling, pitching and heaving in a seaway.

The World Shipping Council has issued a FAQ on container weighting which can be found on the following link:

http://www.worldshipping.org/industry-issues/safety/faqs/SOLAS_VGM_Industry_FAQs_Dec_2015_US_letter_WEB.pdf

Packing of containers

The MARIN report also concluded that incorrectly packed containers and insufficient securing within the container had also contributed to containership stowage incidents. Container packing was also a concern for some national authorities, who considered cargo shifting had led to incidents of container truck roll over while under road transport. This led to the development and publication of the IMO/ILO/UNECE Code of Practice for the Packing of Cargo Transport Units (CTU Code). This Code was published in 2014, and is primarily directed at shippers and packers of freight containers, however there is much within the Code that can be usefully utilised by container carriers.



Promotion of the CTU Code to shippers and packers is critical. A suitable method to achieve this would be to state on the booking acceptance “cargo to be secured in line with the IMO/ILO/UNECE Code of Practice for the Packing of Cargo Transport Units (CTU Code)” and provide an internet link to the Code.

The Code can be accessed at the following link:

<http://www.unece.org/trans/wp24/guidelinespackingctus/intro.html>