

Container Weight Verification

Background

1. The requirement to verify the Gross Mass of a loaded container (VGM) prior to loading will become legally binding on 1 July 2016. This regulation is designed to improve safety at sea, because wrongly declared container weights have contributed to a number of maritime incidents. The requirement is implemented through the SOLAS Convention (International Convention for the Safety of Life at Sea).
2. The responsibility for providing the VGM is the shipper. In complex logistics chains it is not always clear who constitutes the shipper. For guidance on this issue please see GSF Guide “Who is the Shipper” (<http://www.globalshippersforum.com>)
3. Shippers must make a formal declaration confirming the VGM of the loaded container to the carrier. The VGM can be made via a paper declaration confirming the actual weight or electronically.
4. There are two alternative methods for verifying the weight of a loaded container, explained below:
 - **Method 1** – weighing the packed container using calibrated and certified equipment
 - **Method 2** – calculated method.
5. Irrespective of the weighing method used a container packed with cargo should not be loaded on to a ship to which the SOLAS regulations apply (which in practice is almost all container ships) unless its actual weight has been verified and communicated to the carrier or terminal operator in advance of vessel loading.

Method 1: How it works

6. Method 1 involves weighing each loaded container individually. There are a number of options for this. Weighbridges may be used provided they are approved by the appropriate competent authority. If using this approach the shipper should ensure the container number, trading standard or weighbridge validating stamp/mark and the gross mass of the container appear on the weight “ticket” issued by the weighbridge operator. The location of the weighbridge would be freely chosen by the shipper and, ideally, in the locality where the container was packed.
7. Alternatively, weighing facilities may be available at or near the port of loading. Several major container ports have announced that they will offer VGM weighing services, either on-site or nearby, and shippers are strongly advised to check with their forwarder and/or ports contacts about weighing services and charges. Whichever approach is adopted, the VGM should be given in good time to the carrier as it is required in advance to assist in the ship’s stowage plan.

Method 2: How it works

8. Method 2 involves weighing all packages and cargo items, including the mass of pallets, dunnage and other securing material to be packed in the container and adding the tare mass of the container to the sum of the single masses, using a certified method approved by the competent authority of the State in which packing of the container was completed. Calculation of the gross weight of the packed container under Method 2 should follow the process as set out below.

Step 1 – weight of the cargo: The weight of the cargo items to be shipped is to be obtained by adding the weight of the individual items together. In the case of suitable bulk products the weight may be obtained from the production process, by metering through calibrated filling devices or by weighing the product.

Step 2 – weight of the packaging: The weight of the packaging is either obtained from the manufacturer of the packaging material or based on shippers’ / forwarders’ data, as verified and captured using Enterprise Resource Planning (ERP) or similar auditable system.

Step 3 – weight of pallets, securing materials and dunnage: The weight of pallets, packing materials, securing devices such as shoring poles and dunnage is obtained either from the manufacturer or based on shippers' / forwarders' data, preferably verified and captured in the ERP (or similar) system.

Step 4 – tare weight of the empty container: The carrier should provide the correct tare weight of the empty container timely for the shipper to be able to include this in the gross weight calculation of a container. In the absence of this information, the shipper should use the tare weight indicated on the container or any specific information provided by the carrier. Tare weights of different container types can be obtained by contacting the carrier (see links below).

Step 5 – gross weight of the packed container: The weights obtained in steps 1 to 4 above are then added to obtain the gross mass of the packed container

Who should use Method 2?

9. Method 2 is best suited to regular shippers of equivalent and/or homogenous goods with a known weight per pallet (or other transport unit).
10. These shippers should, subject to the enforcement regime adopted by the competent authority, be able to use existing quality management systems to comply with the new verification requirements for example SAP (Systems Applications Products); or some similar trustworthy and proven system.
11. In addition it should be possible for businesses already certified to ISO standards 9001 or 28000, or national and regional standards, to use these Quality Audit Systems to comply with Method 2 requirements. Please note that these points are for guidance only, and all businesses need to make an individual enquiry to their competent authority to clarify the requirements.

Method 2 may not be suitable for all shippers

12. Certain types of (mainly bulk) cargo such as unbagged grain, electronic waste and scrap metal which do not lend themselves to individual weighing would not be permitted to use Method 2. In this case Method 1 would have to be used instead.
13. Companies which only occasionally make shipments should consider whether they are able to comply with the requirements for Method 2. For such shippers it may be more attractive to enter into agreement with a freight forwarder to carry out the weighing process as part of the shipping services they offer. The shipper is however responsible for providing the VGM irrespective of who packs the container (see link to "Who is the shipper?" guidance document).

Documentation requirements and information flow

14. Documentation relating to the verification of container weights under either Method 1 or Method 2 should be communicated from the shipper or carrier by any method agreed between the parties including:
 - Shipper's invoice
 - Packing list
 - Freight forwarder's booking-in slip
 - Standard Shipping Note
 - Vehicle/load manifest
 - Electronic booking/weight confirmation to the carrier.
15. All the above may be required to have a hard copy signature or "e-signature" depending on how the document is transmitted and the agreement between the parties. The Method 1 declaration or Method 2 company name identifier must be appended to one of the above paper or electronic documents.
16. Issues such as discrepancies in the container weight, overweight containers and the management of empty containers are set out in the [Implementing Guidelines issued by IMO](#) (MSC.1/Circ. 1475 – see links page). Containers received without a verified gross mass may not be loaded on to a ship and it is up to the carrier and port operator to determine the process of dealing with such incidents, as at present.
17. The practicalities of how freight information is communicated between the shipper and carrier, and between the carrier and the port/terminal are of a commercial nature. However it is the shipper that has the responsibility to

make an accurate weight declaration irrespective of who actually packs the container, and may recover the costs for doing so by including a provision in the price of the goods.

Enforcement and Penalties for non-compliance

18. The penalties for non-compliance with the above verification process may be both legal and commercial. Legally it is clear that the shipper must provide a verified weight for the container and failure to do so may invoke fines, possibly even imprisonment for the worst, persistent cases; or other sanctions as decreed by the national maritime authority.
19. Implications for a shipper commercially could include rejection of the container by the terminal operator, re-weighing or demurrage charges imposed by the port, return of the container (incurring costly haulage charges) to the original shipper; repacking and problems with clients including possible claims for breach of contract.

Links

"Who is the Shipper?" information on FTA member consultancy service and other useful guidance documents	http://www.globalshippersforum.com
The Implementing Guidelines issued by International Maritime Organisation (MSC.1/Circ. 1475). This document deals with detailed issues including definitions, core principles and responsibilities of the parties; how to deal with weight discrepancies and lack of accompanying documentation.	http://www.worldshipping.org/industry-issues/safety/MSC_1-Circ_1475_-_Guidelines_Regarding_The_Verified_Gross_Mass_Of_A_Container_Carrying_Cargo_-_Secretariat-.pdf
FAQ document produced by the World Shipping Council (WSC), the TT Club, the International Cargo Handling Coordination Association (ICHCA), and the Global Shippers' Forum (GSF)	http://www.globalshippersforum.com/export/sites/gsf/.content/galleries/downloads/SOLAS_VGM_x_Industry_FAQs_Dec_2015_A4_WEB.pdf

Tare weight of a container

Please note: This list is indicative only – please check the actual weight of each container with the carrier. A selection of links to carrier information tables is below.

APL	http://www.shippingcontainers24.com/dimensions/company/apl/
China Shipping	http://www.chinashipping.com.my/eg/content.asp?higherID=0&zoneid=4&categoryid=13
CMA-CGM	http://www.cma-cgm.com/products-services/containers
Cosco	http://www.coscon.com/ourservice/equipment.do?selectI=4
Evergreen	http://www.evergreen-marine.com/tei1/jsp/TEI1_Containers.jsp
Hamburg-Sud	http://www.hamburgsud-line.com/hsdg/en/hsdg/servicesproducts/container_1/containeroverview.jsp
Hanjin Shipping	http://www.hanjin.com/hanjin/CUP_HOM_1160.do?sessLocale=en
Hapag Lloyd	http://www.hapag-loyd.com/downloads/press_and_media/publications/Brochure_Container_Specification_en.pdf
K-Line	http://www.kline.com/KAMContainers/Container-Specifications-Dimensions-and-Measurements.asp
Maersk	http://my.maerskline.com/globalfile/?path=/pdf/containerDimensions
MOL	http://www.molhk.com/pages/dry-cargo-containers
MSC	http://www.msccgva.ch/containers_specifications.html
NYK	https://www2.nykline.com/liner/container_specifications/index.html
OOCL	http://www.oocl.com/eng/ourservices/containers/Pages/default.aspx
UASC	http://www.uasc.net/our-containers