Bundesministerium
für Verkehr und
digitale Infrastruktur

Verified gross mass of a container carrying cargo in sea transport
National Implementation of SOLAS VI/2

Conference
on 3 June 2015 in Bonn
- Exchange of Information, how to verify gross mass of sea containers -

Introduction

MR Jan Reche
Head of Maritime Safety Unit

Identified problems

- In the stowage plans of container ships,
  the stated gross masses of containers are often incorrect
- The draft surveys of container ships often show deadloads
  of more than 1000 tons
- If a container is heavier than declared,
  the permitted stack load could be exceeded
- On deck of a ship, the lashing devices could be overstressed,
  when heavy containers are stowed in upper tiers
- The intact stability of the ship could be compromised
  when the real centre of gravity is much higher than calculated

Verification of gross masses needed

- Legally required by SOLAS VI reg. 2
- Container traffic is intermodal:
  consequences are not limited to the sea mode
- A railcar (with 2 or 3 containers) could be overloaded when the mass of one container is misdeclared
- A semitrailer (with 2 containers) could be overloaded when the mass of one container is misdeclared
- Therefore, the mass verification is needed before the intermodal transport commences, not when the container arrives in the port.

Questions (1)

- what, in general, is the basis for the planning of ship loading?
  - estimated masses declared at the time of booking?
  - confirmed masses after completion of container packing?
- are there clear grounds to suppose
  that shippers frequently declare wrong masses
  in B/L and customs declarations?
- are the masses correctly declared
  to the road carrier or to the railway?
- if these masses are correct, are they available to the carrier?
- if not, why not?
- why should containers be weighed in the port,
  if correct details could be obtained from the shipper
  after the packing of the container is completed?

Flow of information

- freight forwarder sends booking request to carrier
  and declares an estimated gross mass
- booking is accepted,
  estimated gross mass is inserted into the carrier's booking system
- empty container is forwarded to the shipper for packing
- the loading of the ship is planned
  based upon the details in the booking system
- the container is packed, the cargo details are forwarded
  by the shipper to the carrier (via the freight forwarder)
  by means of B/L instructions
- the B/L is issued by the carrier

Questions (2)

- Is the booking request an appropriate shipping document according to SOLAS VI regulation 2 ?

  As nobody can confirm the gross mass of a container before the container is packed, obviously not !

- Are the B/L instructions submitted by or on behalf of the shipper an appropriate shipping document according to SOLAS VI regulation 2 ?

  As these instructions are not submitted sufficiently in advance of loading, obviously not !

  Furthermore, the B/L instructions declare the mass of the cargo, **excluding** cargo securing material and container tare mass !

Conclusion: clarification in SOLAS

- SOLAS now clarifies that
  the shipper shall submit
  and
  the carrier shall request
  a cargo information in writing, stating the gross mass of the unit
  after the containers have been packed
  and
  before the loading of the ship is planned

- SOLAS now clarifies that
  the gross mass of a cargo transport unit is
  - the mass of the cargo, and
  - the mass of the securing material used, and
  - the tare mass of the unit

How to determine the gross mass

- Weighing of container on a scale. Problems arise
  - when the container packer has no scale
  - when at the scale the container cannot be offloaded from a trailer
  - when no scale is available near shipper's premises
- Further questions:
  must the shipper weigh every container even if the cargo in all his containers is always the same, e.g. 16 IBC with 1620 kg each?
- Answer: exact calculation has to be permitted as alternative
- Calculation method. Requirements:
  - the exact mass of each cargo item must be known
  - mass of pallets + securing material to be determined and added
  - tare mass of container to be added
  - gross mass to be declared to carrier immediately after packing

Guidelines in MSC.1/Circ.1475

- Scope of application
  - containers to which the CSC Convention applies
  - includes containers on chassis
    (except on ro-ro ships on short international voyages)
- Main principles
  - the shipper shall declare the verified gross mass to the carrier
  - no loading onto a ship when the gross mass is not verified
- Methods of verification
  - shipper weighs or has arranged that a third party weighs the packed container on a calibrated scale or weighbridge
  - shipper weighs all cargo items including pallets, dunnage and other securing material and adds the tare mass of the container
  - the calculation method has to be certified by the competent authority in the State where the container is packed

Documentation

- The verified gross mass has to be declared by the shipper in a signed document
- The document may be transmitted by EDI or EDP, where the signature is replaced by the name of the person authorized to sign
- The document shall be submitted sufficiently in advance (as advised by the carrier) to be used in the preparation of the ships stowage plan
- The document shall specify whether the gross mass was determined
  - by weighing the container in shippers premises
  - by weighing the container in a weigh station on the route
  - by calculation referring to a certified method
- The carrier shall submit the verified gross mass to the port terminal

Weighing containers on chassis

- The tare mass of the chassis must be known and be subtracted from the weighing result, to obtain the gross mass of container
- It is recommended to disconnect the tractor; otherwise the tare mass of the tractor including fuel in its tank must also be subtracted
- This method is not appropriate for two containers on one chassis unless these containers carry the identical type and quantity of cargo

Verification by calculation

- The calculation method requires certification by the competent authority in the State where the container is packed
- How the certification is done is determined by the State
- Certification could pertain either to the party using the method or to a specified method published in an official journal of that State
- The document stating the verified gross mass should refer to the applied certification
- The calculation method is inappropriate for bulk cargoes unless the bulk cargo itself is weighed before packing into the container

Containers without verified gross mass

- Containers delivered to the port terminal without verified gross mass shall not be loaded onto a ship
- The carrier is responsible to inform the terminal when a container without verified gross mass is delivered
- The terminal may obtain the verified gross mass by weighing the container in the terminal or elsewhere on behalf of the shipper
- For verification calibrated equipment is to be used
- In case of transhipment containers which are offloaded from a ship which is subject to SOLAS, the declared gross mass in the cargo documents can be taken as verified

Enforcement

- According to SOLAS the shipper is responsible to declare the verified gross mass
- Contracting Governments should enact the necessary legal provisions to enforce theses shippers obligations
- Appropriate elements of enforcement are
  - random checks in ports by appointed inspection bodies
  - control weighing of selected containers
  - sanctions against shippers who declare incorrect gross masses

Issues to be clarified

- Nomination of competent authority
- Methods to carry out control weighing without impeding port operations too much
- Expenses for control weighing when the declared gross mass proved to be correct
- Legislation for sanctions against shippers who declare incorrect gross masses

Thank you for your attention

Ministry of Infrastructure and the Environment

Implementation Amendment SOLAS Determination Mass Containers

Bob Oudshoorn
Directorate for Maritime Affairs
unit Maritime Shipping and Security

3 June 2015

Summary

- History and context
- Studies and accuracies
- Existing obligations, responsibilities
- Stakeholder consultation
- Future

Required accuracy: IMO

IMO agreement circular 1475:

- 2.1.2 *Calibrated and certified* equipment means
  - a scale, weighbridge, lifting equipment or any other device, capable of determining the actual gross mass of a packed container or of packages and cargo items, pallets, dunnage and other packing and securing material, that meets the accuracy standards and requirements of the State in which the equipment is being used.

- EU directive 2009/23 (non-automatic weighing instruments)
  - Depending on the criteria and the type: the accuracy of calibration a 60 tons weighbridge is about 50 kg.
  - Railway: 1%

Existing (auditable - punishable) obligations

- **Customs:**
  - Import: Require correct information for customs due and taxes
  - Export: check on cargo

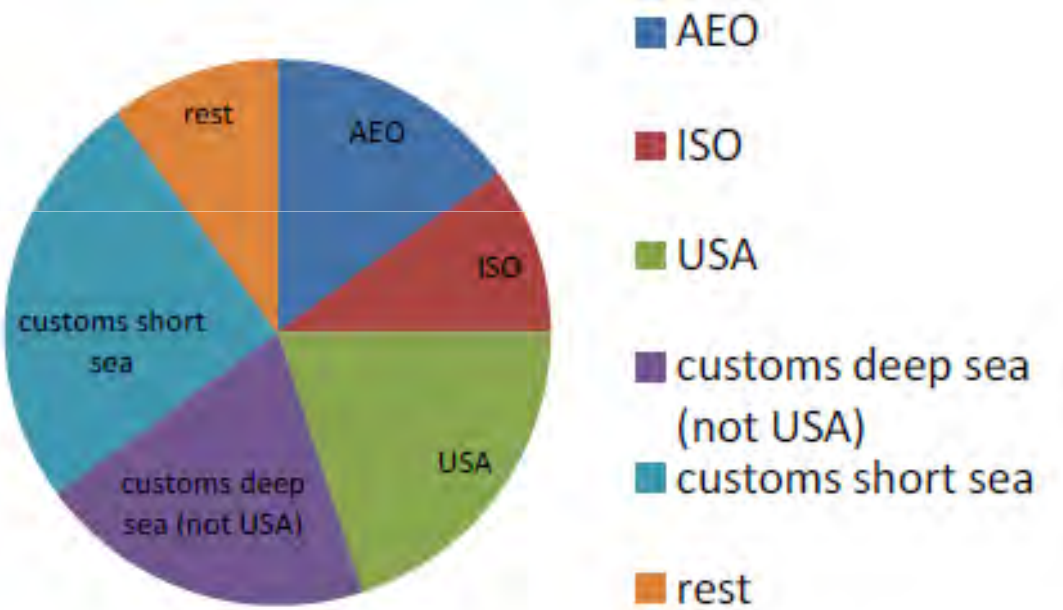
- **AEO and ISO**
  - Part of the audit

- **US customs and border protection**
  - Requires cargo declaration including mass before departure to US

- **Others:**
  - Insurances - way bill – CMR

Existing (auditable - punishable) obligations

Obligations of determination of the mass.



INDICATIVE – NOT ON SCALE – DEPENDS ON PORT

Inaccuracies – infringements – existing tools

- **Uncertainties:**
  - determine mass with wind and snow

- **Road transport**
  - total 5% or 200 kg per axle
  - EU Regulation 1071/2009: very serious infringement: 20%
  - *Proposal* revision EU directive 96/53: limits of 5%, 10% or 20%
  - Ecocombi / modular concept (NL): axle weight tolerance ± 100 kg

- **Weigh bridge**:
  - Calibration system up to 50 kg (EU Directive 2009-23)
  - In practice about 5%

Responsibilities

- **Transport contract between shipper and ship owner**
  - Each party in the transport chain has its own responsibilities
- **Responsibility of**
  - Shipper freight forwarder: to provide the correct data on the container weight to ship-owner
  - Terminal / ship owner: to prepare the stowage plan and load the vessel in conformity the final data provided
  - Ship owner: to provide the correct tare mass of the container to the shipper / freight forwarder and to transport the container based on the most recent information
  - The Government
    - To check the procedures
    - To certify the methods used
    - **Not** to check each individual container

Decisions not to load and liability

- **<u>Decision not to load the container on the vessel</u>**
  - Incorrect weight: if the actual container weight deviates more than the agreed margin and is not caused by the tare mass of the container
  - Late submission of verified data to be included in stowage plan

- **<u>Liability</u>**
  - Shipper / freight forwarder (incorrect information)
  - Transport operator
  - Terminal operator (stowage plan)
  - Shipping company (loss of container)

Future

- **Target**
  - 1st of July 2015 decision further procedure
    - Accuracy
    - Procedure implementation

- **Level playing field** between
    - Countries and Hinterland
    - Shippers
    - Terminals
    - Ship owners

Thank you for your attention!

Maritime & Coastguard Agency

Verification of Container Gross Mass (Weight)

Keith Bradley

Hazardous Cargoes Adviser

Maritime & Coastguard Agency

Roles and responsibilities

- Regulator – in the UK it is the Maritime and Coastguard Agency (MCA)
- Our parent ministry is the Department for Transport but we represent the UK at IMO and enforce maritime Regulations primarily on ships but our powers extend to the load point shore side to prevent non-compliant cargo being loaded
- Our role is both one of enforcing Regulations and facilitating UK maritime trade

Maritime & Coastguard Agency

The Development Process

- In the UK various accreditation systems in place, e.g. ISO 9000, AEO and Enterprise Resource Planning (ERP) systems etc., we believed that it's better to make use of existing systems than to re-invent a completely new system
- Ports (terminals) did not have weighing equipment or wish to invest in such equipment but may need to consider implications of "unverified" containers arriving at the port

Maritime & Coastguard Agency

The Development Process

- Industry wished to have Regulator involvement through assignment of an accreditation number to approved shippers
- The UK guidance should mirror IMO Guidance MSC.1/ Circ. 1475 Guidelines regarding the verified gross mass of a container carrying cargo, but reflects UK industry requirements

Maritime & Coastguard Agency

The Development Process

- Some of the issues raised were of a commercial nature e.g. carrier-port interface however both the carrier and port must ensure only verified weight containers are loaded
- It was felt that such elements should be highlighted in the guidance for the parties to consider but it is not the Regulators role to stipulate how they should be resolved

Maritime & Coastguard Agency

The Development Process

- The subject of tolerance was discussed in the context of enforcement and industry wished to have a single value as UK road enforcement uses 5%, a value ±5% was chosen.
- This does not derogate the shipper from accurately verifying the gross mass

ZDS Zentralverband der deutschen Seehafenbetriebe e.V.




Implementation of SOLAS Chapter IV Regulation 2 MSC.1 / Circular 1475

Ports as partners

Bonn, 3. Juni 2015

Contents

1. Information flow regarding the provision of a verified gross mass (VGM)

The responsibility for obtaining and documenting the VGM lies with the shipper.

The contract of carriage is between shipper and carrier, therefore the information flow has to be:
shipper – carrier – terminal operator

Container terminals are one important part in the process of information flow.

Information of the VGM shall be provided to all parties in the process as early as possible.

No „way back“ and no bypass of information: Only information from the carrier is relevant for the terminal operator.

2. Proposal for Communication of VGM

- Container Terminals communicate with their customers in an reliable and efficient way via **EDI** (**Electronic Data Interchange**)

- It must be the intention to use the **existing EDI Messages** also for the purpose of providing the terminal with the VGM (recommendations for EDI messages to be used for the transmission of VGM are currently elaborated by the SMDG). E.g. load instruction: Terminal operators assume, that solely containers with VGM are listed

3. Early information about VGM

- Interest of terminal operators: effective preparation of the stowage plan

- If VGM is received before the container arrives at the terminal it is possible to stow the container in the best way for optimal loading of the vessel, information should come with the booking information

- Recommendation to the carrier in order to avoid additional costs (additional handling on the terminal)

4. Discrepancies / containers without VGM

- Existing discrepancy regarding the VGM as declared or provided vs. container without a VGM:
  Agreement between the parties of the supply chain for solving these discrepancies

- German terminal operators are in the decision-making process if weighing equipment should be available on container terminals.

- **Possible solution**:
  Terminal Operator as service provider (weighing order) for the principal and reports the VGM back to the ordering party (follow the defined information flow)

5. Controlling proceedings of national authority

- Determination of the responsible authority
- Standard Regulations for all container terminals at North- and Baltic Sea
- Cooperation between authority and terminal operators
- Only spot checks (pre-selection, limitation based on other available information e.g. paper documents)
- Regulatory action, no terminal obligation on own responsibility

6. Summary

- SOLAS Regulations have to be implemented and interpreted consistently in the various European regions. Implementation has to be neutral in terms of effect on competition.

- Terminal Operators need legal and planning reliability to be able to schedule the necessary processes for coping with VGM.

- Standard international approval processes, requirements of precision and fault tolerances with relation to the weighing procedures.

Many thanks for your attention!