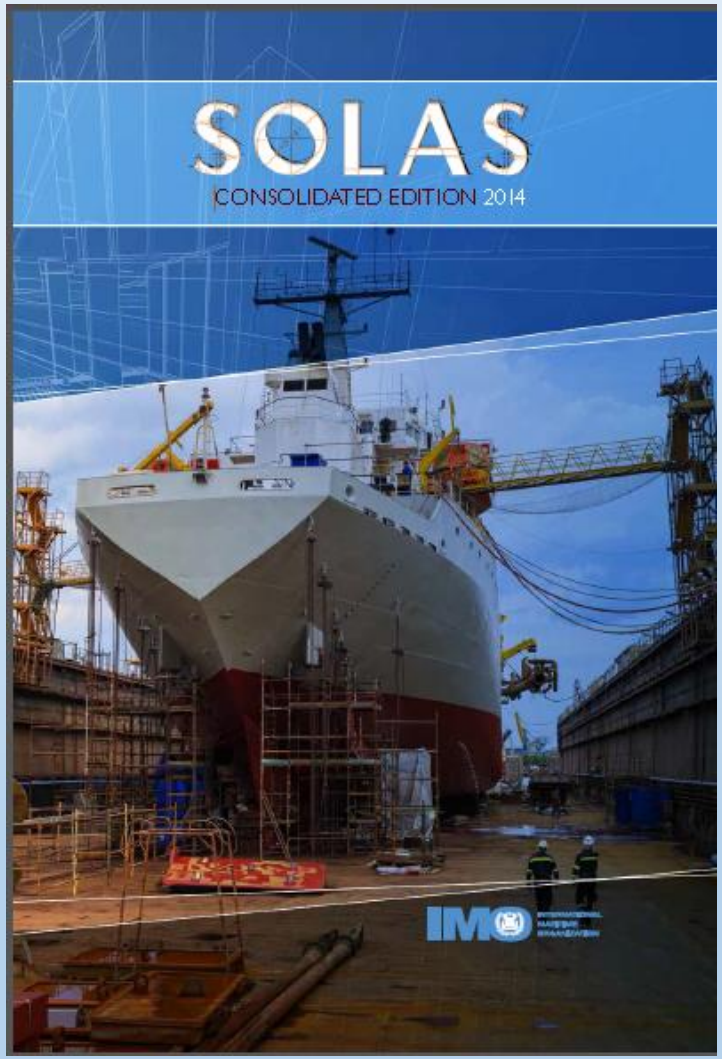
Container weighing is imminent are you ready?

Keith Bradley

Background

- The sinking of the *Titanic* was the catalyst for the adoption in 1914 of the first International Convention for the Safety of Life at Sea (SOLAS).
- SOLAS regulates all maritime transport matters



Amendment to SOLAS VI convention text 1st July 2016

- The current SOLAS text, adopted in 1991, requires the shipper to declare weight of container
- So what has changed?
- As of 1st July the shipper has declare to carrier, in advance of loading, the Verified Gross Mass (VGM) of the packed container using one of two Methods
- Method 1 – Weighing the packed container using calibrated and certified weighing equipment
- Method 2 – 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 method approved by the UK Competent Authority, that is the Maritime and Coastguard Agency (MCA).
- Estimation of the gross mass is not an option

Background

Container collapses

Loss of containers

Size of container ships

- MSC Napoli –motor bikes on beach –
  2007 4,419 TEU
- CMA CGM Marco Polo
  2012 16,000 TEU
- Maersk Mc-Kinney Moller
  2013 18,000 T.E.U
- MSC Oscar 19200 T.E.U 2016
- Potential financial losses
- Estimated cost of total loss
  Cargo $30,000 x 18,000 =
  approx. $540,000,000

  Hull (18,000 TEU)
  $190,000,000
  Salvage Costs $750,000,000

CMA CGM Marco Polo

Incidents

For some years there was extensive consideration and debate on the matter of container collapses/losses as, generally, an accident is not as a result of single event

Brief recap

- In 2012, the UN body responsible for SOLAS, the International Maritime Organisation, (IMO), started work on the Development of Measures to Prevent Loss of Containers and in parallel work was also being undertaken revising the IMO/ILO/UNECE Guidelines on packing Cargo Transport Units (CTU)
- Four elements to the IMO work item:

1. Revision of ISO 3874 (Freight containers – handling and securing)
2. Revision of CSC Convention and Lashing equipment
3. IMO/ILO/UNECE CTU Code (published January 2015)
4. Container weight verification being one element of that work

Brief recap

- Prior to any IMO meeting, in this case DSC17 in 2012, the UK consults with the appropriate stakeholders, in this case shippers, carriers and ports/terminal at the meeting
- Everyone supported the concept of the provision of a VGM
- However, concerns were expressed surrounding the implementation of such provisions

DSC 17 - Container weight verification

- Some countries and the shipping industry advocated one option - weighing.
- However, IMO succeeded in reaching consensus on a compromise proposal with two routes for obtaining a verified gross mass of the packed container prior to loading
- Method 1 – weigh container
- Method 2 – use method **approved** by the competent authority based on weight of component elements

Container weight verification

- It was agreed that the SOLAS amendment would not apply to containers which are “driven” on to a Ro-Ro ship, short international voyages.
- The verified weight (gross mass) is the one declared on the signed shipping document prior to loading on a ship after the container is packed/filled and the “doors closed”
- Offshore containers are not included but all other types, for example; freight container, tankcontainer, flat rack etc., are included

Container weight verification

- Following the CCC1 meeting at IMO, at the request of industry, work started in late 2014 on determining how the UK would implement the new SOLAS provisions
- The first meeting reinforced the UK view that there would be many operational practicalities to overcome in its implementation.

UK Regulations and Guidance

- In the UK, the new SOLAS amendment is given force of law through Merchant Shipping (Carriage of Cargoes) Regulations 1999, these regulations already put a duty on the shipper to declare mass of cargo
- The output of the industry working/MCA group, was the publication of a Marine Guidance Note (MGN534) to assist in implementation the new SOLAS provisions

Container weight verification

- Essentially 4 named parties involved: Regulator (competent authority), Shippers, Ports (terminal) and Shipping lines (carriers)
- Other parties and other government bodies e.g. Weighing Equipment Regulators and manufacturers, Customs, Hauliers – road and rail do not have responsibilities under SOLAS but were part of the UK VGM working group

Roles and responsibilities

- Shipper to provide verified weight to carrier of container with whom shipper has commercial contract to carry their goods
- Carrier not to load the container unless it has a verified weight
- Port (terminal) not to load container unless received a verified gross mass but its contract is with carrier not shipper
- Competent authority / Regulator

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
- Until late 2015, ports (terminals) expressed the view that they did not have weighing equipment, nor wish to invest in such equipment, but had to consider implications of "unverified" containers arriving at the port

Types of port handling equipment

Reach stacker

Straddle carrier

Rubber Tyred Gantry Crane (RTF)

Port handling equipment

- Using the same load cell technology that is currently used in weighbridges which are designed to be a weighing machine
- In this application port lifting equipment is converted to be a weighing machine
- Load cells can be
  (a) inserted in the twist lock
  (b) attached to the twist lock
  (c) in the hanging arrangement
- Such equipment is classified as Automatic Weighing Instruments
- Port weighing services: http://www.portskillsandsafety.co.uk/news/2016/05/uk_ports_offering_verified_gross_mass_services_to_shippers

Weighbridge issues

- A weighbridge is classified a Non-automatic weighing instrument
- Factors to consider
- When and how container is weighed
- If loaded container and lorry weighed together a calculation is required
- Variables to consider given on the next slide

Weighbridge factors

Weight of lorry and trailer	Variable	
	Cab (Tractor unit)	
	Trailer	
	Driver	
	Fuel	
	Water	
	Ancillary equipment both drivers and part of lorry e.g. lifting	
	Number of Axles	
	Passengers	
Tare weight of container		

Legislation covering weighing equipment

- There are EC Directives on non-automatic weighing instruments and automatic weighing instrument
- Further information is given in the MCA National FAQ document.
- The UK Regulator for weighing equipment is the NMRO (National Measurement and Regulation Office)
- Local Trading Standards may have an interest

The Development Process
Commitment to a level playing field

- Industry wished to have Regulator involvement through assignment of an accreditation number to approved shippers to create a “level playing field”
- MGN534 largely mirrors the IMO Guidance MSC.1/ Circ. 1475 Guidelines regarding the verified gross mass of a container carrying cargo, but reflects UK industry requirements

The Development Process
Chain of communication

- Throughout the implementation of VGM, some of the issues raised were of a commercial nature e.g. carrier-port interface however both the carrier and port must ensure only VGM containers are loaded
- MGN534 highlights commercial elements for the parties to consider but it is not the Regulator's role to stipulate how they should be resolved
- The IMO CTU Code circular on carrying out due diligence checks of suppliers may be of assistance, a copy can be obtained from the TT Club
- http://www.ttclub.com/fileadmin/uploads/tt-club/Documents/CCC_2-15_Due_Diligence_checklist_for_CTU_services.pdf

The Development Process

- As new parties joined the development process: trade body seminars etc., they generally asked similar or variations of questions to those raised earlier during the development process
- It was recognised that MGN534 would need to be supplemented by a FAQ document
- The UK, through working with industry, and informally with other Administrations at CCC2, a draft FAQ document was produced to foster uniformity in implementation

FAQs

- National
  e.g. UK practicalities of implementing method 2
- International
  e.g. how to respond where the tare weight of a container is missing
- Commercial
  e.g. cut-off times for delivery of containers to the port prior to loading on to the ship)
- Industry, WSC, ICHCA, GSF & TT Club further developed and published the FAQ document in December 2015 and it is available either from the MCA or above organisation's websites

Industry FAQ document and National FAQs

- National FAQs

https://www.gov.uk/government/publications/verification-of-the-gross-mass-of-packed-containers-by-sea

- This also addresses issues such as:
- Certification of weighing equipment and methods
- Acceptable tolerances for weighing equipment
- Communicating the VGM

June 2016 update

- IMO have issued MSC.1/Circ.1548 advice to Administrations, Port State Control authorities, Companies, Port terminals and Masters regarding the SOLAS requirements for verified gross mass of packed containers, this circular clarifies arrangements for containers in the supply chain pre 1st July 2016.
- This Circular is intended to promote and facilitate a smooth entry in to force of these provisions, it does not alter the date of implementation for the revised SOLAS VI Regulation 2 which remains 1st July 2016.

Thank you for listening