CONTAINER WEIGHT VERIFICATION
AN INTRODUCTION

or put more simply ..
where are we now and where do we need to go?
In May 2014 the 93rd session of the IMO Maritime Safety Committee (MSC) approved changes to the Safety of Life at Sea (SOLAS) Convention requiring mandatory weight verification of containers by shippers. This will come into effect on 01 July 2016.

As a signatory to SOLAS Australia is bound to apply this, but it should be noted ….
What are the changes? …. 

… irrespective of obligations; if we do not put measures in place this may impact exports as containers with out weight verification should be rejected.

Why .. Because the need for accurate weight declarations is considered a critical safety issue
The changes adopted by the IMO provide for two methods of weight verification:

Method 1 – Weigh the loaded container; or
Method 2 – Weigh all contents of the container and add it to the tare weight.

Estimations are not permitted and the weight under the guidelines (MSC.1/Circ.1475) with SOLAS requiring use of “calibrated and certified equipment” for this purpose.
The shipper is required to provide a signed “verified gross mass’ of the container to the master of the ship (or their representative) and the terminal in advance of the container being loaded.

This timing is important as it allows the load the be planned to ensure

• the ship is stable;
• hull strength and stack weighs are not exceed; and
• lashing arrangements are effective
What are the changes? ....

Regulation 2 – Cargo information

The following new paragraphs 4 to 6 are added after existing paragraph 3:

"4 In the case of cargo carried in a container*, except for containers carried on a chassis or a trailer when such containers are driven on or off a ro-ro ship engaged in short international voyages as defined in regulation III/3, the gross mass according to paragraph 2.1 of this regulation shall be verified by the shipper, either by:

- weighing the packed container using calibrated and certified equipment; or
- 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.

5 The shipper of a container shall ensure the verified gross mass** is stated in the shipping document. The shipping document shall be:

- signed by a person duly authorized by the shipper;
- submitted to the master or his representative and to the terminal representative sufficiently in advance, as required by the master or his representative, to be used in the preparation of the ship stowage plan***.

6 If the shipping document, with regard to a packed container, does not provide the verified gross mass and the master or his representative and the terminal representative have not obtained the verified gross mass of the packed container, it shall not be loaded on to the ship.*

* The term "container" should be considered as having the same meaning as defined and applied in the International Convention for Safe Containers (CSCC), 1972, as amended, taking into account the Guidelines for the approval of offshore containers handled in open seas (MSC/Circ.860) and the Revised Recommendations on harmonized interpretation and implementation of the International Convention for Safe Containers, 1972, as amended (CSCC 1/Circ.1309/Rev 1).

** Refer to the Guidelines regarding the verified gross mass of a container carrying cargo (MSC 1/Circ.1475).

*** This document may be presented by means of EDP or EDI transmission techniques. The signature may be an electronic signature or may be replaced by the name, in capitals, of the person authorized to sign."
Most of this is already covered in the current version of *Marine Order 42 (Cargo, stowage and Securing) 2014*.

In Australia we have used the term “verification of mass before loading” for many years, as this reflects the current intent of Regulation 2.3 of SOLAS Chapter VI which has been in effect since 1 January 1994.

Basically shippers have been required to ‘accurately’ declare gross mass since 1994.
What are the current requirements?

10 Information for master

Paragraphs 1 and 2.1 of regulation 2 of Chapter VI of SOLAS have effect for the loading of cargo on a vessel in a port in Australia.

**Note** These provisions require a shipper to give information about cargo, including the information mentioned in chapter 1.9 of the CSS Code, to the master before loading. A suitable form for giving cargo information to the master or the master’s representative (as required by regulation 2 of Chapter VI of SOLAS) is the ‘Shippers Declaration’ Form, available from the AMSA website at [http://www.amsa.gov.au](http://www.amsa.gov.au).

11 Verification of mass before loading

Paragraph 3 of regulation 2 of Chapter VI of SOLAS has effect for the loading of cargo on a vessel in a port in Australia.

**Note** This provision requires that, before loading cargo units on board a vessel, the shipper must ensure that the gross mass of the units is in accordance with the gross mass declared in the cargo information given in accordance with section 10.
So why do we need to do anything?

Essentially because the current marine order does not specify ‘how’ verification should be carried out but the changes to SOLAS require Australia to do this.
How verification may be carried out may appear to be a simple problem …… but is proving complex.

• The UKMCA have chosen to accredit shippers through an audit programme that looks at the processes and equipment used.

• Canada has chosen to base their process on existing land transport weight verification legislation.
How are others doing this?...

• New Zealand looked at a range of options but like Canada they are looking at basing their process on existing land transport weight verification legislation.

New Zealand are also of the view that method 1 is preferred.

Australia is also looking at no increase in ‘red tape’ approach in the same manner as Canada and New Zealand, however the challenge is what standard to apply.
In legal terms … Inaccurate declaration:

…. will have an effect on the master’s duties, safety and the ship’s liabilities. Given that a bill of lading will almost always be issued for the carriage of containers, whether requested by the shipper or not, the Hague-Visby Rules will apply to their carriage by sea. Accordingly, under article III(2), the carrier has to, inter alia, “properly and carefully load, handle, stow, carry, keep [and] care for” the goods carried. So, if the master is provided with incorrect figures, his calculations and the vessel’s stowage plan will be equally as wrong. This is most important when it comes to containers, which, based on the shippers’ advice, can be stacked very high. If the weight is misdeclared, this can lead to incorrect stowage, causing the containers to become unbalanced and collapse.
Why is this necessary?...

And there are examples of the impact this has:

The *MSC Napoli* is a useful example. This was a 4,419 TEU container ship, which suffered a hull fracture while in the English Channel and had to be beached to avoid braking up. According to the ship’s Classification Society (DNV) one of the main reasons for the listing and eventual loss of the vessel was the excessive weight of the containers onboard. This resulted in the very structure of the hull cracking and giving way. The UK MAIB found that at least one in five containers weighed more than declared. On average, the increase was of 3 tonnes, while the greatest difference was 20 tonnes of additional weight.

This is one of the reasons the IMO has taken this so seriously
Why is this necessary?...

Not all accidents are this serious but they still have a major impact:

The *Annabella* is an example. This was a 868 TEU UK flagged container ship. While crossing the Baltic Sea, seven of her containers collapsed. The UK MAIB found that these containers weighed a total of **225 tonnes**, that the lowest four had a maximum allowable stacking weight of 100 tonnes and that the maximum allowed weight for the stack was **150 tonnes**. Because the containers’ weight was misstated, the cargo planning and the ship’s loading computer had both failed to make accurate calculations and the stacking was effectively an accident waiting to happen.

Why is this necessary?...

Pictures are useful:

P&O Nedlloyd Genoa suffered a container collapse due to overweight containers

MV Deneb in 2011, rolled over after loading containers where [only] 1 in 10 varied between 1.9 to 6.7 times the declared weight

UK - MSC Napoli aground in the English Channel
Why is this necessary?...

And it happens in Australia as well:

- **Sydney** - Broken containers on Shelly Beach after falling from a container ship.

- **Darwin** - Mis-declared container results in narrowly missing 2 people after it exceeded the crane limit.

- **Melbourne** - Mis-declared container results in over balancing of a fork lift.
This workshop will present Australia's approach to the changes in SOLAS. The aims of these changes are to:

- Ensure weighing of containers is sufficiently accurate;
- Do this in a manner that leverages off existing land transport regulation to minimize the regulatory impact.

However, it is important to remember “we have to do this”.
Any Questions?

(not noting we will cover a lot more in the following presentations)