SUMMARY

Executive summary: This document supports the proposal in document MSC 89/22/11 (Australia, Denmark and the Netherlands) for inclusion of an output in the post-biennial agenda of the Committee and recommends that the proposal be clarified to include within its scope the possible establishment of a requirement that loaded containers be weighed to obtain their actual weight prior to vessel lading.

Strategic direction: 5.2

High-level action: 5.2.3

Planned output: No related provisions

Action to be taken: Paragraph 21

Related documents: MSC 89/22/11; DSC 13/INF.9; DSC 15/16/1, DSC 15/INF.2; and MSC 88/26, paragraph 23.7

Introduction

1. This document comments on document MSC 89/22/11, concerning the issue of the mis-declaration of container weights, which has been a subject of industry, labour, insurance, and government concern for a number of years, and is submitted in accordance with paragraph 4.10.5 the Guidelines on the organization and method of work of the Committees (MSC-MEPC.1/Circ.2).

2. The Maritime Research Institute of the Netherlands concluded a joint Industry-Government research project ("Lashing@Sea") about cargo securing, including collapsing container stacks. Amongst the main recommendations of the project was a call for compulsory weighing of containers prior to vessel loading and use of the measured weight for vessel stowage planning.

3. When considering the conclusions and recommendations from the research project, DSC 15 agreed that, in the interest of safety, there is a need to consider ways and means to ensure that the correct weight of the containers is known and declared to the ship's master. Further, MSC 88 noted a joint ICS/WSC statement, as set out in annex 33 to document
MSC 88/26, which was supported by the delegations of France and the Netherlands, that there is an urgent need for a new output to consider how to ensure that the correct weight of containers is declared to the carrier and communicated to the master before vessel loading, and invited Member Governments and international organizations to submit a proposal for a new output in accordance with the Committee’s Guidelines.

Problems relating to mis-declared container weights

4 Containers that are "overweight", i.e. that weigh more than the declared weight provided by the shipper, can create safety concerns for the ship, its crew, other cargo on board, and the workers in the port facilities handling the container. Incorrectly declared weights, both over and significantly below the limits declared, also lead to incorrect stowage planning and implementation, and operational problems. Less frequently, containers can be loaded beyond the maximum gross weight indicated on the Safety Approval Plate. All of these situations present safety and operational concerns.

5 There is no available data that reliably indicates how many containers have an incorrectly declared weight; however, the problem is significant, and arises in almost every trade to some extent. In some geographic trade lanes, the problem is common and, at times, rampant.

6 The problems resulting from mis-declared container weights include the following:

1. incorrect vessel stowage decisions;
2. re-stowage of containers (and resulting delays and costs), if the overweight condition is ascertained;
3. collapsed container stacks;
4. containers lost overboard (both those overweight and containers that were not overweight);
5. cargo liability claims;
6. chassis damage;
7. damage to ships;
8. stability and stress risks for ships;
9. risk of personal injury or death to seafarers and shoreside workers;
10. impairment of service schedule integrity;
11. supply chain service delays for shippers of properly declared containers;
12. last minute shut-outs of confirmed, booked and available loads when the actual weight on board exceeds what is declared, and the total cargo weight exceeds the vessel limit or port draft limit;
13. lost revenue and earnings;
liability for accidents and fines for overweight containers on roads, and resulting time and administrative efforts and costs to seek reimbursement from responsible parties;

impairment of vessels’ optimal trim and draft, thus causing impaired vessel efficiency, suboptimal fuel usage, and greater vessel air emissions; and

mis-declared weights can also deprive Customs authorities of revenues in cases where duties or tariffs are applied by weight measurement of a commodity.

In short, such containers present a risk to industry workers, to ships, to equipment, to operational reliability and to accurately declared shipments.

SOLAS regulation VI/2 requires that the shipper provide the carrier, prior to loading on the ship and confirmed in writing and by appropriate shipping documents, with the gross mass of the container, and further, that the shipper shall ensure that the gross mass of the container is in accordance with the gross mass declared on the shipping documents. The problem is that this requirement of the shipper to provide the accurate container weight prior to loading is often not met.

Container vessels do not have the capability to weigh the containers that are loaded on to them. Proper and safe vessel stowage planning requires accurate container weights before the loading process occurs; accurate container weight must be obtained on-shore, and provided to the vessel, prior to the vessel loading process.

Industry self-help efforts have not solved the problem

It is common practice by all ocean carriers to inform their shipper customers on the proper and safe packing of containers and, upon request, to provide specific packing guidance material.

In 2008, the World Shipping Council (WSC) and the International Chamber of Shipping (ICS) jointly produced a document: "Safe Transport of Containers By Sea: Guidelines on Best Practices", which was presented to MSC in December 2008, and the Committee subsequently invited Member Governments to urge shipowners and operators to make the publication available on board all ships carrying containers.

The Guidelines specifically and extensively address the issue of containerized cargo weight and the importance of not overloading containers. They provide (in chapter 6) specific guidance to shippers and container packers regarding container weights, including – in conformance with SOLAS regulation VI/2 – the need for them to ensure that: "After finalization of stuffing and securing of containerized cargo, the total container weight must be verified and documented." Furthermore, the Guidelines include provisions regarding

1. DNV projects the liner industry could improve fuel efficiency by 0.5% by operating at optimum trim and draft.
2. "Safety in the supply chain in relation to packing of containers" (page 38), International Labour Organization, 2011. See also, "Working with containers", referenced in paragraph 12, which states: "a mixture of anecdotal and more authoritative evidence shows that shippers fail to make accurate weight declarations when booking cargo" (page 6). Further, as the proposal submitted by Australia, Denmark and the Netherlands notes, the investigative report, conducted after the structural failure of the container ship MSC Napoli in January 2007, showed that out of 660 containers on deck the actual weight of 137 (20%) of these differed more than 3 tonnes from their declared weights, resulting in a total deviation of 312 tonnes from the cargo manifest.
container weighing by marine terminals, namely that the terminal should: "Verify the container weight against documentation by use of a weighbridge or weight gauge/load indicator on yard equipment or, alternatively, verify that weighing has occurred before entry and that such weighing was compliant with accepted best practice."

12 Other industry "best practice" guidelines also stress the importance of obtaining accurate container weights before vessel loading. The "Working with containers" publication, published by the Freight Transport Association, and endorsed by the Global Shippers' Forum, for example, notes: "Container terminal operating companies have the opportunity to weigh containers either at the port gates or during the handling process, however they tend to avoid doing so. (...) Until stakeholders agree an action plan, road hauliers will continue to be prosecuted for running overweight, stevedores' and seafarers' lives will continue to be put at risk and container stacks will collapse".

13 Such guidelines, however, can only recommend best practices. They have had little discernible effect on reducing the incidences of shippers' providing incorrect container weights, or on ensuring that marine terminals verify the weight of loaded containers upon receipt/prior to loading.

**Safety requires a container weighing requirement prior to vessel lading**

14 Despite the existence of regulations requiring shippers to provide accurate container weights, the problems noted above persist, and can be expected to continue in the absence of regulatory requirements for containers to be weighed before being loaded onto a ship for export.

15 Ships cannot weigh containers, and given that the only way to establish or verify a container's actual weight is by weighing it, the actual container weight needs to be ascertained prior to vessel loading so that it can be used in developing the proper vessel stowage plan. Weighing a container after it has been transported and unloaded at the import port does not protect the port workers handling the container or the ship or its crew, and does not promote proper vessel planning. Nor does it provide an appropriate remedy for the problems. In the absence of a requirement that all loaded ("stuffed") containers be weighed before vessel lading, a substantial number of containers will continue to go unweighed, and mis-declared containers will continue to create the various problems noted.

16 A requirement to weigh stuffed containers for export is feasible and practical, as has been shown in those jurisdictions that require such containers to be weighed.

**Recommended clarification of scope**

17 The proposal by Australia, Denmark and the Netherlands:

.1 correctly notes the need for "the verification of proper weight used on the shipboard loading computers";

.2 envisages in the outputs amendments to SOLAS regulations VI/2 and VI/5.5, strengthening the requirement that shippers verify that the gross mass of units is in accordance with the gross mass declared on the shipping documents; and

.3 notes that benefits from the proposal would include:

.1 "container weight will have been verified before loading";
18 For these benefits to be achieved and for the problem of mis-declared container weights to be effectively addressed, loaded export cargo containers will need to be weighed prior to vessel lading. It is not sufficient to say that shippers should be required to provide accurate weights. That requirement already exists. The only way to ensure compliance and knowledge of actual weights is for a container to be weighed prior to vessel loading.

19 In order to avoid any uncertainty about whether this proposed unplanned output can effectively address the problem, it should be clarified that consideration of a requirement for weighing of loaded containers prior to vessel loading lies within its scope. The marine terminal may not need to weigh a container that has already been weighed prior to its arrival at that marine terminal, but if it has not been weighed prior to arrival, it should be weighed prior to vessel loading. This clarity is necessary if this effort is to meaningfully address the problem of mis-declared container weights.

20 It is therefore recommended that clarification should be provided in approving the output proposed in document MSC 89/22/11, in particular that the possible establishment of a requirement for loaded containers to be weighed prior to vessel loading falls within its scope.

**Action requested of the Committee**

21 The Committee is invited to consider the comments and take action as appropriate.