

STAKEHOLDERS WORKSHOP ON LOST CONTAINERS, 4 JULY 2019

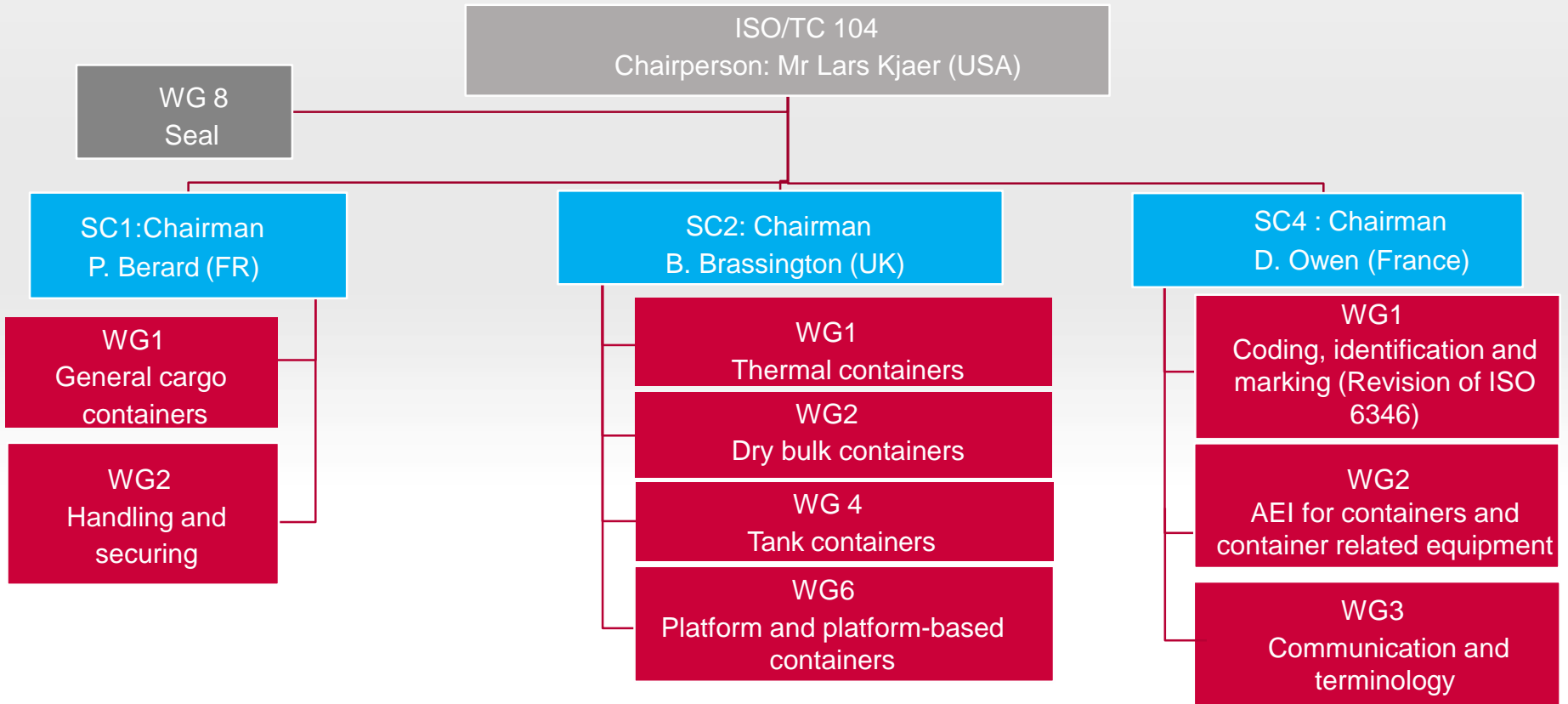
**ISO TC104
Relevant Standards and
Important Changes**



01 ISO TC104 ORGANIZATION 2019 OVERVIEW



ISO TC104 ORGANIZATION 2019





ISO TC104 ORGANIZATION 2019 **THE STANDARDS**

SC1

- **ISO 668:2013** Series 1 freight containers -- Classification, dimensions and ratings
- **ISO 830:** Freight containers -- Vocabulary
- **ISO 1161:2016** Series 1 freight containers -- Corner and intermediate fittings - Specifications
- **ISO 1496-1:2013** Series 1 freight containers -- Specification and testing – Part 1: General cargo containers for general purposes
- **ISO 3874:2017** Series 1 freight containers -- Handling and securing
- **ISO/TR 15069: 2018** Series 1 freight containers -- Handling and securing -- Rationale for ISO 3874 Annex A
- **ISO/TR 15070:1996** Series 1 freight containers -- Rationale for structural test criteria

WG8

- **ISO 17712:2013** Freight containers -- Mechanical seals



02 ISO TC104 Relevant Standards and Important Changes



□ ISO 1161:2016

Series 1 freight containers -- Corner and intermediate fittings – Specifications

With the industry facing problems with containers lost at sea, the failure of corner castings was identified as one potential contributing factor. In this spirit, IMO asked ISO to review this standard. This review was completed and the new standard published in 2016.

Improvements made:

1. Strength requirements: Added mechanical properties and reference to heat treatment.
2. Added interior wall and plate thickness hitherto unspecified.
3. New testing methodology
4. Corner fitting marking: Added new compulsory markings



□ ISO 3874:2017

Series 1 freight containers -- Handling and securing

Another potential contributing factor was the lashing and securing of containers aboard vessels. Here again, the IMO asked the ISO to review the relevant standard. This review was completed and the new standard published in 2017.

Improvements made:

1. All securing fittings such as twist locks, lashing rods and structural types of securing fittings were updated bearing in mind the new container MGW as well as the forces encountered on very large container vessels.
2. Automatic twist locks, now commonly used on container vessels, are now part of the standard with dedicated tests.

Note: An additional review may be required to improve a few items, e.g. tensioning device of lashing rod. **TC104 SC1 stands ready to continue reviewing the standards as needed.**



□ ISO 668:2013

Series 1 freight containers -- Classification, dimensions and ratings

Amendment 2: 2016 : Maximum Gross Weight was increased to keep pace with actual state of container industry; this was important as preceding two standards refer to ISO668.

“5.2.2 Ratings : The rating given in Table 2 are applicable to all types of containers, except that for particular traffic higher values are permissible for containers of any type specified in table 2. Such containers are considered as ISO containers provided that their maximum gross mass (R) does not exceed 36000 Kg and that they are tested and marked to their actual rating (R)”

These modifications have 2 main consequences

1. Up to a MGM of 36000 Kg, all types of containers does not need to be UIC approved.
2. All container equipment (Handling and securing) will be designed with the new MGM



□ ISO1496-1

Series 1 freight containers - Specification and testing

ISO1496-1 was amended in 2005 to increase the stacking strength for standard containers from 192,000 kg to 213,000 kg. The International Convention for Safe Containers has not been amended and still includes the lower figure as the threshold below which a container is deemed as having reduced stacking strength (and requiring marking as such).

The BIC identified as this as a potential problem and this year joined forces with the WSC in recruiting widespread industry support (ICS, ICHCA, BIMCO, IICL) as well as France to co-sponsor a submission to the Sub-committee on Carriage of Cargoes and Containers (CCC6), asking that the CSC be harmonized with ISO1496-1.

In addition, **ISO 6346 (Coding and Marking)**, which includes the size and type codes (including those indicating reduced strength) will need revision to align with ISO 1496.



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Other SC1 Standards and Updates

NEWS on SC1

ISO/TR 15070:1996 Series 1 freight containers -- Rationale for structural test criteria

- In a similar way to ISO TR15069, The TR 15070 is a document needed to understand the 1496/1 standard. This document explains for future generations the reasons for the choices that we made during the development of the standard.

ISO/TR 15070:1996/Amd.1:2005

- This TR standard includes a “sequence of tests” chapter. During the discussions of the plenary meeting of ISO TC 104 held in Paris in March 2017, the possibility of including this chapter in the 1496/1 standard was raised.
- The possibility to include this “sequence of test” in the 1496/1 standard would result in reinforcing the container, but for obvious economic reasons, the container manufacturer are opposed to this modification.



ISO TC104: Expert participation is key

- Standards work involves long cycles, and very importantly, the participation of experts.
- TC104 has historically had the benefit of significant participation by technical experts from major container operators. To cite a recent example, the most recent changes to 1161 and 3874 were led by a convenor from the world's largest ocean carrier and had involvement from several others. This year, the third-largest carrier nominated an expert to Chair SC1.
- We encourage container owners and operators to continue, or even increase, their involvement in TC104, which we feel is just as important now as it was in the early days.
- We also encourage experts from the public sector to participate.

**THANK YOU FOR YOUR ATTENTION.
DO YOU HAVE ANY QUESTIONS?**