

# COA Flexitank Meeting: London 22 May 2008

## *Report of the Questions/Answer and Discussion Sessions*

Reported below are the questions and issues that were raised at the COA Flexitank Meeting in London Docklands, UK on 22 May 2008, together with a summary of the COA Flexitank WG's next steps.

Following introductory remarks given by Patrick Hicks, Bill Brassington, Andrew Watson and Alec McAndrew, an overview of the proposed 'Industry Standard for Flexitank Manufacture and Operation' was presented by Justin Smith. A copy of this presentation is available on the COA website ([www.containerownersassociation.org](http://www.containerownersassociation.org))

### Questions and Answers

*Q1 CMA-CGM: Questioned the compatibility of the flexitank with the container*

**Response:** The standard (that was subsequently presented) addressed this matter in full, covering testing and approval of the combined flexitank and container. There was general agreement that that this was the correct way forward by those present. The proposed standard will be applicable to all modes of transport (sea, road and rail).

*Q2 Wine & Spirit Trade Association (WSTA): Requested that a press release should be made available to inform the wine industry of the progress regarding this working group*

**Response:** The COA Working Group will issue a press release.

*Q3 Maersk Line: Mentioned the need to improve electronic tracing of containers with flexitanks and not rely on container signage. Booking to be logged by Line, flexitanks should always be denoted on the bill of lading (often applies already). Flexitank company and product information could also to be noted on an electronic database by Line to assist in the event of an incident. Also discussed was: should the flexitank manufacturer/company's responsible telephone number be shown on bill of lading? It was mentioned that the information presented on the bill of lading etc are controlled by specific regulations now in place.*

**Response:** It was felt that the WG would like to assist in giving additional relevant data. Though electronic tracking is taking place at ports etc, tracking of flexitanks is outside the scope of the proposed standard, but it could be another project for the COA in the future.

*Q4 Maersk: Stated that flexitank companies should ensure always that the liquid product is suitable for the tank*

**Response:** A response was given on the compatibility process carried out by TOD & Braid. All materials are checked re compatibility with the flexitank, incompatible materials are not shipped, tanks are sized to material density's etc. Carriers and shippers also ask for product information MSDS etc and can also refuse carriage.

**Q5 T Stahmeyer:** *Materials (in terms of energy stress absorption) and design of the flexitank should be reviewed, in accordance with ISO1496 Part 4, to ensure that the static stress plus the dynamic stresses on the container walls conform to the ISO Standard.*

**Response:** 'Agreed' the proposed standard incorporates tests designed to show (or not applicable after tests) that the flexitank/container combination is safe and conforms with the container ISO norms.

**Q6 Maersk:** *Container manufacturers build to the established ISO Standards. It is essential that the cargo and packaging is designed for, or adapts to, the container standard, not vice versa. It is not possible to build a small fleet of superior containers for this application. The flexitank combination should conform to ISO1496.*

**Response:** The Tests proposed will define numeric, quantifiable and reportable results that realistically ensure that the current (or future) flexitank container combination meets ISO norms.

**Q7 Hapag:** *Tests should be conducted to show results for 'normal' and 'worst case' operating conditions.*

**Response:** It was agreed that this would be the case and tests would, for example, include rolling period of 15 seconds or more, leaning to 30 degrees (possibly 36-38 degrees) and rolling or tilt tests equivalent to speeds of 30km/hour. All carriers were invited to add their data to that previously supplied by Hapag. Carriers were invited to join the Management Implementation Group (Working Group - WG). It is critical that they approve in advance the standards and the tests as envisaged.

**Q8 Stahmeyer:** *Current tendency to load containers to 24 tonnes or more, compared with 21.5 tonnes a few years before, it exerts too much side wall stress and would be difficult to simulate in tests. CMA CGM is also concerned as to how the 24KL payload had been derived. (NB 21 tonne payload was the norm at the time of 24 tonne gross containers).*

**Response:** Tests would be based on carrier information, on roll and pitch of vessels etc, analysed via a Computational Fluid Dynamic Model to substantiate that tests actually conducted properly simulate normal and adverse operating conditions at ports and at sea. From this data tests will be defined and the flexitank and container combination tested. Flexitank materials are also subject to rigorous tests covering areas such as tensile strength, weld quality, puncture resistance, impact strength and elongation at break tests to ensure that they are capable.

**Q9 WSTA:** *Advised that the wine industry is geared up for 24KL loads and is investing heavily in bulk storage accordingly.*

**Comment:** Maersk comment that they were happy to ship wine but this quantity sometimes damages their containers. The percentage of such incidents was not indicated or discussed.

**Q10 P&I Club:** *Indicated that the insurance industry is concerned at increasing level of incidents, especially in Asia, believed to be arising from new and unaudited flexitank manufacturers or operators and this causing concern at P&I, the continued acceptance of such claims. The insurance industry is subsequently in favour of an independent industry standard and approval as envisaged. Carriers agreed that their concern equally was in regard to cargo losses and container clean up costs etc as well as container sidewall damage.*

**Response:** The incidents, container damage arising from new manufacturers or operators was a cause of concern to the industry as it gives all companies and the trade as a whole an unjustified bad name. As an example of how this occurs, TOD commented on photos shown to them earlier

by Maersk of a damaged, leaking flexitank assumed to be manufactured by TOD. This was not a TOD flexitank, the photos showed TOD bulkheads that were scavenged by an unknown flexi operator. TOD do not supply bulkheads to other operators, the flexitank failed as it was not designed to work with the TOD bulkhead.

***Q11 Maersk:** Flexitank bulkheads are inadequately robust and should be designed and built stronger to reduce loads on container doors.*

Response: given. Tests in the proposed standard will measure door and front end pressures and ensure that current or future bulkheads are demonstrably suitable.

## **Summary / Next Steps**

- A. The proposed standard relates specifically to the safe operation of the flexitank and the flexi/container combination. The standard is not designed to provide a technical manual on the manufacture or specific operation of flexitanks.
- B. Flexi Manufacturers or Operators will all have the opportunity to conform to the standards as they will be independently audited and managed.
- C. Pass and fail criteria will be clearly defined in the standard.
- D. Standards are not designed to halt or inhibit progress or innovation
- E. Carriers must sign off on the standards prior to tests being conducted to ensure that resources (human and financial) are not expended to no result. Costs for the analysis and tests are substantial.
- F. Maersk, Hapag Lloyd and CMA-CGM were / would be asked to join or contribute to the Management Implementation Group, as would a container manufacturer and a rail-road operator. COA are to get buy in to this and the standard from its members accordingly.
- G. Flexi manufacturers or Operators also are able to join the Implementation Group, but must commit real resource to the process and share costs for testing process etc.
- H. The draft standard is to be presented to the COA Board and members in more detail at the June meeting in Shanghai and will be made available to all via the COA web site once agreed by the COA membership
- I. Discussions are under-way with Lloyds and another independent audit company to approve the standard, audit tests and provide formal certification to approved companies. The target is to have them in place by end June/July. The target also for the standard ultimately to become a ISO Standard.