



Carefully to Carry

Substandard components and cargoworthiness

A vessel's container stowage and securing arrangement can be easily undermined if substandard and/or incorrect components are utilised. To maintain securing equipment in good order, both fixed and portable, requires considerable time and effort.

Whatever regulations, standards or codes of practice are issued the integrity of a vessel's container stowage and securing arrangement can only be made by regular inspection of the securing equipment. The securing arrangement can amongst other things be undermined by one or more of the following:

- 'Rogue' securing equipment.
- Improperly maintained securing equipment.
- Insufficient supply of correct securing equipment.
- Overloading of the securing equipment.

Portable securing equipment

The human nature of stevedores means that they will often use the first item of equipment which comes to hand, be it 'rogue' or damaged, without due consideration to its suitability. If substandard equipment is used it can fail at a lower load than its design rating, thereby resulting in a failure of the overall securing system and the possible collapse of the container stow.

The aspects which should be considered during periodic inspection of container securing equipment should include the following:

- Inspection of the twistlock complement to ensure that 'rogue' twistlocks, i.e. ones with an opposite locking action to the ship's standard complement, have not made their way onboard. When left-hand and right-hand locking twistlocks are fitted with similar shaped handles, which can be the case, it is not always possible to differentiate between them once used in the same stow. Even if the stevedores are aware of the difference, any subsequent checks by other people could allow disengagement if the handles were all actuated in the same direction on the premise that some twistlocks had not been properly locked in the first instance. ISO TC104 has been considering for some time amendments to ISO Standard 3874 that will include the physical and functional requirements for various items of portable securing equipment. For manual twistlocks it is proposed that the unified direction of handling will be clockwise when viewed from above, i.e. left-hand locking.
- Checks to ensure that the spring holding the twistlock in the closed position is in a resilient condition. If a spring loses its resiliency the cone(s) will not be held in position in a positive manner. The moving and flexing of a vessel in a seaway has been found sufficient to allow twistlocks to unlock themselves if their spring action is failing or has failed.



"The carrier shall properly and carefully load, handle, stow, carry, keep, care for and discharge the goods carried."

Hague Rules,
Articles iii, Rule 2

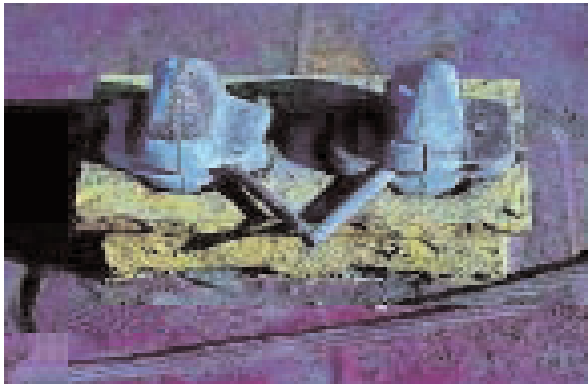
Carefully to Carry Advisory Committee

This report was produced by the Carefully to Carry Committee – the UK P&I Club's advisory committee on cargo matters. The aim of the Carefully to Carry Committee is to reduce claims through contemporaneous advice to the Club's Members through the most efficient means available.

The committee was established in 1961 and has produced many articles on cargoes that cause claims and other cargo related issues such as hold washing, cargo securing, and ventilation.

The quality of advice given has established Carefully to Carry as a key source of guidance for shipowners and ships' officers. In addition, the articles have frequently been the source of expertise in negotiations over the settlement of claims and have also been relied on in court hearings.

In 2002 all articles were revised and published in book form as well as on disk. All articles are also available to Members on the Club website. Visit the Carefully to Carry section in the Loss Prevention area of the Club website www.ukpandi.com for more information, or contact the Loss Prevention Department.



Mixed twistlocks the bags

- No structural defects which would compromise the proper use of the equipment, for example:
 - Twistlocks with missing handles.
 - Twistlocks with fractured housings.
 - Double cones with fractured base plates.
 - Seized/buckled turnbuckles, bridge fittings.



Fixed fittings

Regular inspection of fixed fittings is also essential to establish whether progressive wear has undermined their integrity. Areas requiring particular attention include:

- Reduction in the thickness of securing points where for example a turnbuckle may have chafed.
- Wastage in the way of the key holes of deck foundations.
- Wastage and cracking of the plating to which fittings are welded.
- Dovetail deck foundations distorted.

If a dovetail type fitting and its associated part are compatible and in good working order, it should only be possible to slide a dovetail type twistlock or locating in a horizontal direction into the deck fitting. However, if the deck fitting is damaged or its associated part is incompatible, it may be possible to lift a dovetail type twistlock or locating cone out vertically. In such an event no vertical restraint will be provided to secure a column of containers to the deck.



Uniform twistlocks.



Worn shoe fitting

To ensure as far as possible that containers can be safely carried can be summarised as follows:

- Providing and maintaining an adequate supply of container securing equipment.
- Ensuring that they are of the required strength.
- Ensuring that they are properly maintained.
- Warranting the adequacy of the design of the securing arrangement.
- Provision of a comprehensive stowage and securing manual, and ensuring that the ship's staff understand the manual.