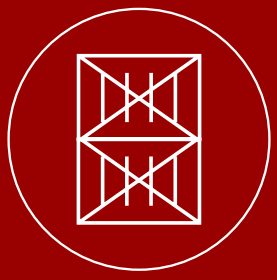
Box Clever: Tackling the basic working practises on container ships that when ignored cause big problems!

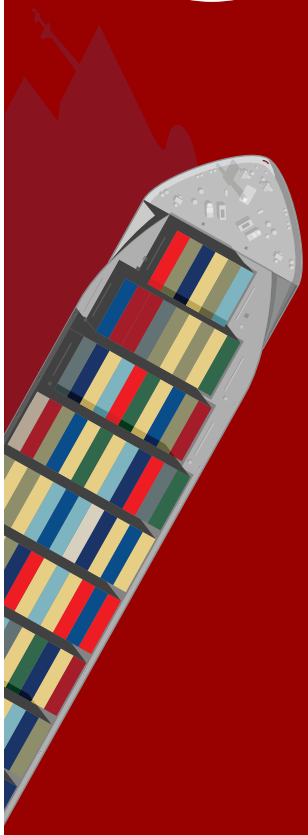
North

Lashing it down!

Guidance on the correct use of lashings systems on container vessels

Container losses continue to occur and incidents are becoming increasingly high profile. In almost all cases, incorrect stowage and securing was a factor; highlighting the importance of the correct application and checking of lashings and how vital lashing maintenance can be. We take a look at some of the most important aspects of securing your deck container cargo.





ACCELERATE INTO TROUBLE

The effectiveness of lashings is affected by the weight of the containers within the stow. These weights, coupled with the motion of the vessel, create acceleration forces on the lashings which can lead to failure when the forces exceed the parameters of the securing system.

What to follow?

- Maximum allowable weights are shown in the Cargo Securing Manual (CSM), this must always be followed.
- Check the CSM for allowable container configurations– e.g. how many hi cubes in a stack, as this affects the acceleration forces acting on the lashings.
- SOLAS indicates crew cannot be solely reliant on a loading computer for containerised cargoes, so any loading or lashing software in use should be confirmed as in compliance with the criteria of the CSM.

Bigger not always better!

- The weights in the CSM are based around a certain vessel GM. Check your GM is suitable for the voyage and weights in the cargo plan.

Know your limits

- Information in the CSM is based on calculations for set criteria (e.g. a maximum roll angle of 20°).
- Be aware of these limits during voyage planning and ensure these are not exceeded.

CARE AND MAINTAIN

Lashing equipment should be inspected and maintained in accordance with a suitable regime, with accurate records kept by the crew.

Condition

- The CSM will outline the maintenance schedules and requirements, which should be strictly followed and recorded in the CSM.
- Consider how to rotate the use of the lashing equipment, especially twistlocks, to allow for their availability for periodic inspection.
- Remember to include your deck securing points such as pad eyes and deck sockets in your inspections.
- Damaged lashing equipment should be taken out of service as soon as possible and quarantined.
- Make sure lashings are gathered up and stored correctly when not in use.

For more information, please visit www.nepia.com

Box Clever: Tackling the basic working practises on container ships that when ignored cause big problems!

Lashing it down! (cont).

Pick and mix

- Non-standard lashings that find their way on board your vessel should be segregated from the in-use lashings and quarantined.
- Pay particular attention to any twistlocks picked up from the quayside during cargo operations.

Container condition

- The containers should be in a satisfactory condition and fit for the voyage.
- Substandard containers can lead to stowage collapse when subject to dynamic forces.
- Container condition should be checked ashore during the pre-use inspection; however, if crew find a container in poor condition, raise the issue with the terminal planner.

GET THEM RIGHT AND GET THEM TIGHT

Having a correct cargo plan and well-maintained lashings is an excellent start, but it all means nothing if they are not used properly!

Configuration

- Be aware that different container vessels have different lashing configurations.
- Remember: shore lashing gangs will not be familiar with the vessel's CSM.
- Prior to operations, crew can liaise with the lashing foreman and discuss requirements and expectations.
- Consider what support can be given to the lashing gangs; such as providing the foreman with a photocopy of the relevant pages of the CSM.
- Crew should always check the work of the lashing gangs as soon as possible after each bay is completed. Don't wait until the very end of cargo operations when under time pressure to finish.

Tight and right!

- Crew should check that the lashings are attached and applied correctly, e.g. lashing bars and turnbuckle locking systems are engaged.
- Check the lashings for correct configuration, fitting and tightness well before departure, where possible.

Check, check and check again

- Within 24 hours of departure, where possible, the crew should re-check the lashings.
- Remember, vibration caused by the vessel's movement can loosen the lashings. On long sea passages it is recommended that the crew check all the lashings at regular intervals and tighten as required.
- Rechecking of lashings is very important before and after any periods of heavy weather.
- Maintain good records of all lashing checks carried out.

USEFUL LINKS

North's container stowage 'Quickfacts': www.nepia.com/publications/container-stowage-poster

APL England preliminary report: www.atsb.gov.au/publications/investigation_reports/2020/mair/351-mo-2020-002/

MAIB Ever Smart accident report: www.gov.uk/maib-reports/loss-of-cargo-containers-overboard-from-container-ship-ever-smart