

Safety Alert

Number: 20-04

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Subject: PDO - Nets v Tarpaulins for Covering Cargo Carrying Units

What Happened / Narrative

A cargo basket was being discharged from a Platform Supply Vessel to the installation when a Potential Dropped Object (PDO) was discovered jammed against the underside of the basket. The PDO was found to be a wooden baton of the type often used to support covers attached to open topped Cargo Carrying Unit's (CCU's).

Finding this PDO prompted the operator to carry out an assessment of the suitability and need for wooden batons on open top CCU's, below are some of the assessment findings:



Assessment Findings and Causes

- Wooden batons are normally used to support the tarpaulin cover used on open top CCU's
- Wooden batons are only held in place by being jammed against the sides of the open top
- There is generally no securing mechanism holding the wooden batons in place
- Batons need to be 'knocked out' prior to heavy cargo being lifted from the CCU by crane
- Knocking out batons from high sided CCU's can result in it falling onto those removing it

These findings prompted another assessment comparing the use of tarpaulins verses the use of nets as top covers for CCU's, below are some of the assessment findings:

Net Covers	Tarpaulin Covers
No significant weight	Much heavier than nets to manhandle
Multiple tie down points	Limited tie down points (eyelets)
Less prone to ripping and tearing	Unusable if ripped or torn
Easily and cheaply repaired if ripped or torn	Disposed of when ripped or torn
Doesn't hold water	Holds water (extra weight when lifting)
Doesn't require wooden batons for support	Requires wooden batons for support (PDO)
Doesn't catch in the wind	Catches in the wind, potential to tear off
No protection from the environment	Provides protection from the environment

Best practice states: *Prior to shipping the person responsible for packing the CCU must ensure control measures are in place to prevent the lifting gear snagging on the cargo so netting, tarpaulins, cord-lashing must be taut. Similarly, even empty open tops must be covered or battened to prevent the lifting gear from falling inside during transit.*

The investigation acknowledged that there are two significantly different purposes for covers:

1. To protect the cargo within the CCU / open top from the elements (Normally a tarpaulin)
2. To prevent the lifting gear from falling inside the CCU / open top. (This 'cover' can be a net, a tarpaulin, wooden batons, roof bars etc)

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Post Assessment Trials

With these findings the operator conducted trials to determine if the risks associated with the use of tarpaulins and wooden batons could be reduced while still ensuring best practice was still being complied with.



The above photo taken during the trial shows 3 x open top CCU's backloaded on the PSV's deck. Note that the lifting gear cannot fall inside the CCU's and snag on the cargo, yet wooden batons are not being used to support the net covers.

Some other findings highlighted during the trials showed that there was little thought on how tarpaulin covers were being used.



The above photo shows an open top CCU delivered offshore with a tarpaulin & baton cover.

Points of concern included:

- The tarpaulin was full of water (Extra weight)
- The tarpaulin couldn't be removed without soaking the wooden crate. (Detrimental)
- The wooden batons holding the tarpaulin up were only jammed in place
- There was a risk of the wooden batons falling out under the extra weight of water (PDO)

Would it have been safer and more beneficial to wrap the crate in tarpaulin and place a net across the top of the unit?

Conclusions & Recommendations

Tarpaulins and batons do have their uses when required for covering cargo, but their use should always be risk assessed and evaluated against other cover types which may be readily available.

The risk assessment should include but not be limited to:

- Type of cargo and the effects of its exposure to the environment
- The manual handling issues that may be encountered by the end user
- Consider the use of 'cord strap' or similar instead of wooden batons to support covers. (particularly on high sided open top units)

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