

Gas bottle rack door swings open during back-loading operation

Details of near miss:

Whilst back-loading of cargo from an installation, it was noticed that an airborne gas rack on its way down to the Supply Vessel had the door swinging open. It was also noticed from the bridge that one of the bottles inside the rack was at an angle. The Master alerted the Crane Operator who landed the unit without damage or further incident.

The locking pins on the gas rack door were both subsequently found to be in the open position and have now been secured.

One of the bottles inside the unit was found to be loose and able to tip backwards and forwards despite there being a ratchet strap around them.

View of bottle rack showing dislodged bottle



Master and vessel deck crew comments

On checking the bottle rack, it was not immediately apparent that the locks were open as there is no clear indication of the open and locked positions; there were no stickers or other form of markings to show the position the handle should be in. The door looked secure, but on physically checking, it could still be opened.



Pin in correct closed position



Pin in open position – door can swing open

Investigation findings:

The rack was not of a type that the Installation deck crew were familiar with, and this may have contributed to the incident.

The rack had been made ready for shipment the previous day when the internal retaining bar had been secured with tie wraps and an additional fabric ratchet stop had been used to secure the cylinders in the rack. **These prevented any bottles falling to the deck of the vessel, which could have been potentially serious for the vessel deck crew,** although the strap was probably a bit too low.

The rack had then been given a visual check and lifted with no incident from a landing area where bottles had been loaded, to the roof to await backload.

On the day of the back-load, the material controller had carried out the Banks-man's checks and visually checked the door was closed, attached a Banks-man's label and sent the load down to the boat. **With hindsight, a physical check of the door security was not done as it was believed that the door was secure.**

Recommendations

1. **Banks-man's checks should include not only visual, but a physical check of security of any opening doors or panels, not only on gas bottle racks, but any back-loaded cargo.**

CHECK THE DOORS!

2. **The internal retaining bar and application of an additional fabric ratchet strop clearly prevented the bottles falling when the door opening and it is recommended that bottles racks are not moved without these additional precautions being used.**
3. **Ratchet straps should be fitted in a position which takes into account the likely centre of gravity of the bottles.**
4. **Suppliers of bottle racks of similar design should be contacted to make them aware of the need to provide clear indication and instruction as to how doors should be locked.**