

Republic of the Marshall Islands

MARITIME ADMINISTRATOR

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MARINE SAFETY ADVISORY No. 06-24

To: Owners/Operators, Masters, Nautical Inspectors, Recognized Organizations

Subject: INCIDENTS INVOLVING THE STORAGE AND HANDLING OF STEEL PLATES

Date: 20 June 2024 (renewed for 2026)

This Advisory highlights the urgent need for vessel managers and seafarers to ensure steel plates are properly secured and handled. Since 2019, the Republic of the Marshall Islands Maritime Administrator (the “Administrator”) has investigated 11 incidents of steel plates that were being manually handled falling on seafarers. These incidents have resulted in fatalities and serious life-threatening injuries that required medical evacuation.

The following observations are based on the Administrator’s findings following investigations into these incidents:

- In eight of the reported incidents, steel plates were stored vertically by leaning them against a stanchion or bulkhead and secured using lashings or a retaining bar¹ to hold them in place (see Figure 1). Materials used for lashings included rope, web straps, and chain. If a retaining bar was used, it was typically secured using studs that were welded to the bulkhead and held in place with nuts. In the other three incidents, the steel plates were stored on purpose-built storage racks that used a retaining bar located along the length of the storage rack to hold the plates in place. The retaining bars were secured using either bolts or studs and nuts. The lashings or the retaining bars had to be removed to handle the steel plates. As a result, there was always the potential for the steel plates to fall whenever they were being handled.



Figure 1: Examples of steel plates stored using lashings.

¹ Commonly constructed from either angle or flat iron.

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- In several of the incidents, the steel plates were stored so that the length of the plates were parallel to the ship's longitudinal axis. This increased the risk of the plates falling due to the ship rolling when the securing mechanism was removed.
- In each incident, crewmembers had to manually handle the steel plates rather than use lifting² or manual handling equipment.
- In each incident, handling steel plates was considered a routine task that did not warrant conducting a pre-task hazards assessment.
- In every case, there were insufficient materials and resources at the work site.

The Administrator recommends that:

- Whenever possible, steel plates are stored horizontally in a location where lifting equipment can be used to lift and move the plates.
- If steel plates must be stored vertically, they are stored on racks that have a mechanical means of preventing the plates from falling prior to removal of the securing mechanism, and before being handled.
- Racks designed for storing steel plates vertically are oriented athwartships rather than along the ship's longitudinal axis.
- A Toolbox Talk and pre-task risk assessment is conducted to identify and remove the risk of personal injury before handling steel plates.
- The crewmembers are encouraged to use their Stop Work Authority to challenge any unsafe practices.
- Adequate lifting and/or manual handling equipment is located at the work site.

² Chain blocks or other specialized lifting equipment.