

Republic of the Marshall Islands

MARITIME ADMINISTRATOR

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MARINE SAFETY ADVISORY NO. 29-20

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

Subject: MAINTAINING INTACT STABILITY - REMINDER

Date: 6 October 2020

The United States Coast Guard (USCG) recently held a formal investigation hearing into the loss of stability and subsequent capsizing of the pure car/truck carrier GOLDEN RAY, which occurred in Brunswick, Georgia, USA on 8 September 2020. The Republic of the Marshall Islands (RMI) Maritime Administrator (the "Administrator") participated in this public fact-finding hearing as part of the joint investigation with the USCG. While this investigation remains in progress, the Administrator is issuing this Marine Safety Advisory (MSA) as a reminder to RMI-flagged ships of the current requirements and recommended practices for maintaining intact stability.

1. Ship Stability

- a. Properly completing ship stability calculations and ensuring compliance with the relevant Stability Booklet prior to departure and during the voyage is essential. While this is important for all vessels, it is particularly relevant for pure car and truck carriers, roll-on/roll-off vessels, and bulk carriers carrying logs and grain cargoes. The International Convention for the Safety of Life at Sea (SOLAS) II-1/20 and RMI Marine Notice [2-015-1](#) require that Masters determine the ship's trim and stability on completion of loading and prior to departure. Additionally, Masters must ascertain and record if the ship complies with the applicable stability requirements.
- b. All Masters and officers with stability related responsibilities must be trained and familiar with the operation of the onboard stability instrument.¹ Additionally, a simple and straightforward instruction manual for the stability instrument should be available onboard in a language common to the officers.
- c. Investigations into stability related casualties across the worldwide fleet have identified the use of inaccurate cargo weights during stability calculations as a common causal factor. If applicable to the ship and operation, actual weights of the cargo on board should be used for calculating the ship's stability. Over-reliance on estimated cargo weights should be avoided, whenever possible, to prevent potentially inaccurate stability calculations.

¹ RMI Marine Notice 2-015-1 defines a stability instrument as: hardware and software installed on board which provides the means by which it can be confirmed that the stability requirements specified for the ship in the Stability Booklet are met in any operational loading condition. This is commonly referred to as a loading computer.

- d. Depending on vessel type and trade, retention of ballast water in double bottom tanks will ensure that the vessel maintains a positive GM at all times.
- e. All watertight openings should be closed prior to departure.

2. Master's Responsibility

- a. In accordance with §2.11.3 of the RMI Maritime Regulations (MI-108), it is the responsibility of owners and masters to ensure that their ships comply with all applicable International and National requirements. The Administrator reminds Masters of their responsibility to ensure that the ship remains at all times compliant with the Stability Booklet. The Administrator also recommends that Masters verify stability calculations conducted by other officers, to the extent necessary, to ensure they are satisfied with the accuracy of the calculations and compliance with the Stability Book.
- b. Masters of RMI-flagged ships are also reminded that MI-108, §7.41.1(a) provides them with the overriding authority and discretion to take whatever action they deem to be in the best interest for the safety and security of the passengers, officers, crew, cargo, ship, and marine environment. This includes actions necessary to ensure the ship complies with the Stability Booklet following loading and prior to departure.

3. Company Oversight

- a. The failure of one or more crewmembers to ensure compliance with the Stability Booklet has frequently been identified as a causal factor of stability related incidents [which have occurred across the worldwide fleet]. If not already in place, the Administrator strongly recommends that managers of RMI-flagged ships consider implementing a program for the routine audit of ship stability compliance for ships in their managed fleet. Additionally, verification of compliance with ship stability requirements should be considered for inclusion in all onboard audits conducted by the managers.
- b. It is also strongly recommended that owners and managers ensure that training on the use of the specific stability instrument installed onboard is included in the initial onboard familiarization training for Masters and relevant officers.

The Administrator encourages review of this MSA and RMI Marine Notice 2-015-1 during regular shoreside and shipboard safety meetings.