

Republic of the Marshall Islands

MARITIME ADMINISTRATOR

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MARINE SAFETY ADVISORY NO. 23-19

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

Subject: STRUCTURAL FAILURE OF PROVISION CRANE MAINTENANCE PLATFORM

Date: 30 July 2019

The Republic of the Marshall Islands (RMI) Maritime Administrator (the “Administrator”) is currently conducting a marine safety investigation of a fatality that occurred when the extension of the lower maintenance platform for one of the ship’s provision cranes detached and fell 8-9 meters. A seafarer was standing on the extension when it collapsed. He was wearing a safety belt with a line connected to the handrail on the extension.

The lower maintenance platform consisted of two parts: the main platform (welded to the pedestal), and the platform extension. As built, the extension was attached to the main platform by three bolted connections (see Figure 1). Each of these connections had a bracket welded to the main platform and another to the platform extension. The brackets were notched where they were welded to the main platform. Each bracket set had two bolts installed through the holes connecting the extension and the main platform sections. There was no physical connection at the railing. There were no modifications to the maintenance platform since the ship was built and delivered from the shipyard in 2006.

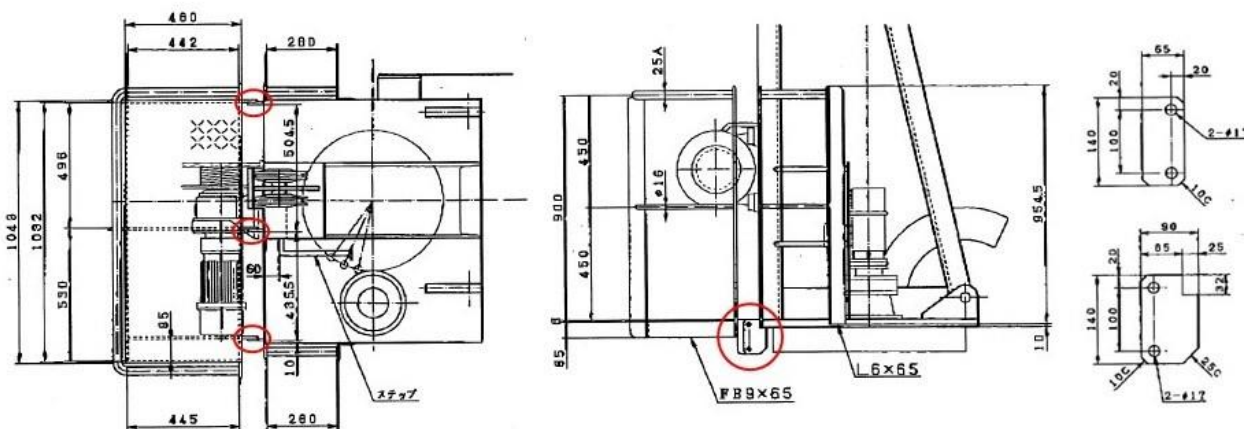


Figure 1: Drawing of the lower maintenance platform. The brackets are circled in red. Note the absence of a physical connection at the railing. On the right are detailed drawings of the brackets. On the top is the bracket that is welded to the platform extension and on the bottom is the bracket that is welded to the main platform.

This MSA expires one (1) year after its issuance, unless otherwise noted, extended, superseded, or revoked.

When examined as part of the Administrator's marine safety investigation, it was determined that the welds for all three of the brackets that were attached to the main platform had failed. Heavy corrosion was observed on the main platform where all three brackets attached. The ship's crew reported that the corrosion was not visible prior to the extension falling. It also appeared that the welds lacked full penetration.

The provision cranes were subject to testing and inspections by a competent third-party in accordance with International Labour Organization (ILO) Convention No. 152, *Convention Concerning Occupational Safety and Health in Dock Work* (ILO No. 152), Part III, Articles 21-32.¹ They were also subject to quarterly inspections by the ship's crew in accordance with the ship's Preventive Maintenance System.

The Administrator recommends that ship managers:

1. Inspect the maintenance platforms for cranes fitted on-board the ships in their managed fleet to determine if they include any portion that is supported by brackets such as those shown in Figure 1. If they do, ship managers should ensure that:
 - the connections are inspected to determine if they show any indication of damage or deterioration (ship's staff should be aware that damaged welds or rust might be obscured by paint);
 - any potential damage or deterioration is reported and corrected as soon as possible;
 - if only brackets such as those shown in Figure 1 are used to connect any part of the maintenance platform to the crane, to consult with the crane manufacturer regarding recommendations for reinforcing the connection and to make the required modifications as soon as possible;
 - ship's staff do not use the platform until any required modifications or repairs are completed; and
 - the maintenance and inspection procedures for shipboard cranes are reviewed and, if necessary, revised to ensure that the connections are subject to regular inspections.
2. Review and, if necessary, revise the safe work procedures in their Safety Management System to ensure that as part of the pre-task planning for any work aloft, near, or over the ship's side include the identification of appropriate strong points for attaching safety lines or fall arresters.

The Administrator also recommends that Recognized Organizations take note of the information provided in this Advisory.

¹ RMI-registered vessels are not required to comply with ILO No. 152. However, the Administrator encourages vessel owners and operators to implement Articles 21-32. See [RMI Technical Circular No. 3](#).