INSPECTION REPORT Ref: MofGC 010425_1

MV Maid of Glencoul Bow & stern loading ramps

Vessel: Maid of Glencoul
Location: Ardmaliesh boatyard, Bute
Date: 30 April 2025

Forward loading ramp,

Made up of 4 interlocking welded steel fingers, each with a hinged steel finger flap extension.

The ramp was inspecting visually, in situ, off the yard mobile lift platform with the vessel dry and undercover on the shipyard slipway.

1. Failure and cracking of welds was noted on historic reinforcing and repairs to the flanges of the principle longitudinal structural members in way of the 2nd transverse some 900mm from the hinge line.

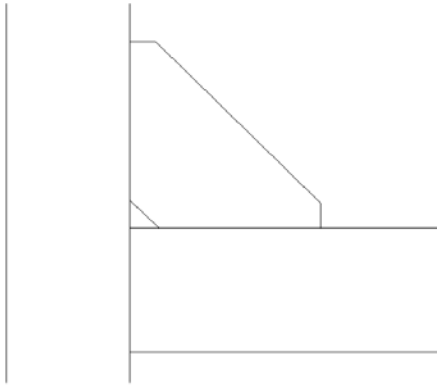
It is recommended that the top flanges are cropped over a length of approx.700mm (as marked) and the material replaced with S235 20mm thk bar. All weld to be continuous and transitions to original lighter flange material to be tapered 1:4.

Care is to be taken to ensure a minimum of 75mm clearance between new flange butt welds and any existing web weld seams.

2. Numerous minor cracks where noted (as marked) at the connections of longitudinal and transverse flange and toes of bracket connections on the 1st & 2nd transverse grillage members

Many of these issues will be resolved as part of general flange repairs detailed in 1. above, but where this is not the case, the cracks are to be ground out, arrested and welds repaired.

Consideration should be given to fitting additional gusset plates outboard side of the connection between longitudinal & 2nd transverse member.



3. Significant abrasive wear& tear was noted on ramp stool sacrificial grounding bars to the extent that any protection offered by the bars has been compromised, with resultant abrasive wear and tear effecting:-

- Stool support structure;&
- Finger flap hinges; &
- Ramp finger lift plates; &
- Stiffener flange on outboard member of outboard leaf

Existing stool structure and grounding bars have clearly been subject to multiple rebuild & additions in the past, to the extent that further localised repair or rebuild is considered to be neither practical nor a cost effective solution. As a consequence rebuild of the stool structure to include replacement of all sacrificial grounding bars is recommended.

Any rebuild should ensure that original stool height & geometry is maintained across all ramp fingers to include allowance for a full width 50mm high ½ round sacrificial grounding bar.

4. Heavily abraded outboard finger lift plate to cropped and replaced like for like.

5. All finger flap hinge stops to be built up with weld to original heights.

<u>Aft loading ram.</u>

Made up of 4 interlocking welded steel fingers each with a hinged steel finger flap extension as per forward ramp

The ramp was removed from the vessel at time of survey, and inspected visually deck side down on the ground in the yard.

Aft ramp fingers

The after ramp was generally found to have the same issues as the forward ramp, although to a lesser extent and severity.

Repair instructions as recommended for the forward ramp fingers should apply equally to the after ramp, with:

- Principle girder flanges to be cropped and replaced as marked
- Cracked welds at flange connections and gusset toes (as marked) ground out and rewelded.
- Additional gussets added where practical.
- Stools and grounding bars to be made good.

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[redacted]

14 May 2025

[redacted]

On completion a visual inspection of the repairs was carried out, with all works deemed satisfactory and in general accordance with report recommendations and good practice.

[redacted]

02 July 2025