



TECHNICAL CIRCULAR No. 715 of 7th January 2022

To	All Surveyors/Auditors. All flags
Title	Inner Bottom Repair
Reference	CONARINA -Instruction to surveyors

Temporary Repair of Torn Inner Bottom Plating

A dry cargo vessel was attended for damage survey in way of the number 1 cargo hold inner bottom plating.

The damage was reported by the surveyor to have been sustained from cargo falling from the shore crane.

The inner bottom plating was found indented, torn and holed between five frame spaces.

Permanent repairs were not possible due to unavailabe steel plating and suitable repair facilities. Damaged inner bottom plating and adjacent structure may be subject to buckling under dynamic loads.

Whay if analysis: In the event of grounding, the number 1 cargo hold could become flooded and negatively impact stability leading to an increased risk of safety to life, property, and the natural environment.

The Surveyor approved temporary repairs consisting of doubler plates and cement boxes in way of the affected areas.

The temporary repairs were examined upon completion, tested as required, and found satisfactory. The master of the vessel requested regular monitoring by the vessel's crew during voyage and loading conditions to avoid high stress in the damaged area.

Prompt action provided a cost-effective, temporary repair that allowed the vessel to proceed on a scheduled voyage and to a suitable repair facility within one week.

In remote ports, facilities may not be available to carry out permanent repairs.

CONARINA Head Office may need to be contacted to confirm the suitability of proposed temporary repairs.

CONARINA Head Office

6505 Blue Lagoon Dr. Suite 455

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Communicating with internal and external resources to achieve acceptable solutions is key. Permanent repairs were to be carried out at the next repair facility. Inner bottom plating and adjacent stiffeners were replaced and welded in place.

REFERENCES:

- CONARINA – Case study

ATTACHMENTS: No

Kindest Regards,
CONARINA Technical Office

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