



# DRIVE Marine Services

## REPAIR Procedure

During the Australian National Maritime Museum 'Wooden and Classic Boat Festival' in October 2012 it was noticed that the lighthouse was displaying visible signs of corrosion where the riveted plates overlap.

If this is not treated it will become a serious issue as the rust (ferrous oxide expands at 16 times the thickness of the original metal rusting) will gradually place significant pressure on the rivets and start to distort the steel plate at the lap joints. Degrading a valuable Maritime Heritage artefact.

It is also unsightly with rust streaks affecting the exterior & interior appearance.

The solution is relatively easy if the following procedure is carried out and it will not involve disassembly or major disruption to the display. The answer is to convert and seal the rust using FERONITE Rusty Metal Primer.

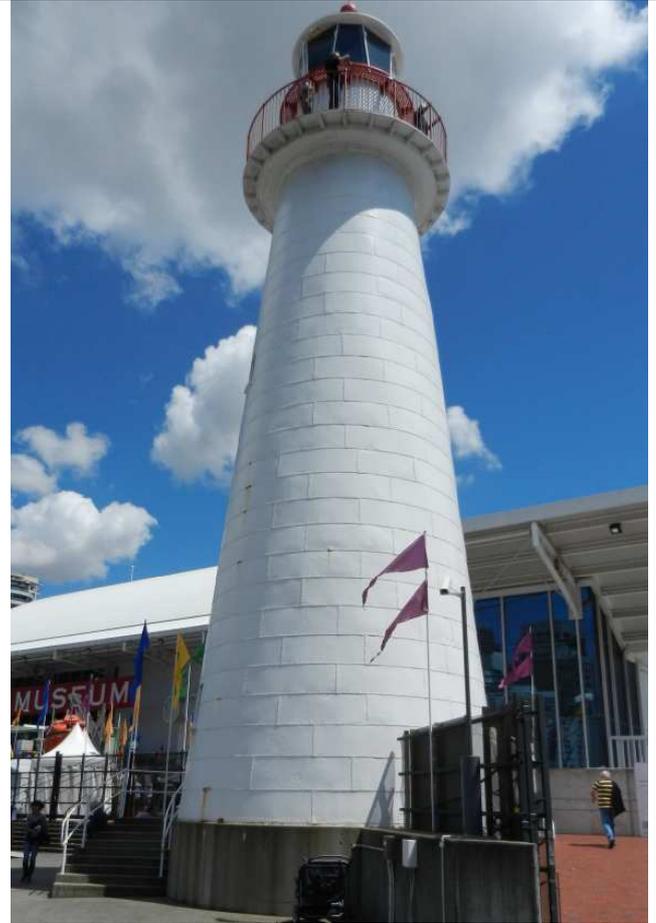
The restoration could even be carried out in stages by only treating areas where there are visible signs of rust internally and externally.

**NOTE:** 1. Refer to DRIVE Marine Services information sheets on FERONITE Rusty Metal Primer and further information at [www.BoatCraftNSW.com.au](http://www.BoatCraftNSW.com.au) under FERONITE

**Step 1** – Set up scaffolding internally where access from staircase is not available to enable access to all joints for the full diameter where rust is evident. This is to enable the joints to be cleaned of paint and loose rust.

**Step 2** – Once each seam is cleaned of all paint, to enable the FERONITE to wick through, it is then wet with fresh water to provide maximum time for the FERONITE Rusty Metal Primer to work into the joints for their full depth. This may take more than one application to achieve full saturation.

**NOTE:** 1. It is recommended that an operator be located outside in a Cherry Picker adjacent to where the Feronite is being applied to the joint to advise the applicator when Feronite starts wicking through and to wipe excess away with water otherwise it will leave dark brown streaking and additional work in preparation for painting.



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*For a Comprehensive Range of Boat Building requirements including*

**Bote Cote** 2:1 Epoxy Resin, Fillers, **Pour-on-Gloss** Decoupage Coating, **COP-R-BOTE** Epoxy Antifouling, **AQUACOTE** Polyurethane Coatings, **PURBOND** Waterproof Single Pack Glue, **TREDGRIP** Rubberised non-slip Paint, **Fibreglass & Carbon Reinforcing Fabrics**, **FERONITE** Rust converter and Primer, Marine, Proof & Aircraft **Plywoods**, **NIDAPLAST** Composites, **Silicon Bronze** Fasteners, **DAVEY** Traditional Bronze & Marine Fittings

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**Step 3** – It will be necessary to check between all timbers and steel cladding to ensure there is no rust behind them.

**NOTE:** 1. Indication in this photo is that this may be the case. If so treat using the same technique as steps 1 & 2.



**Step 4** – For areas of exposed rust, wash the surface with hot soapy water to remove any wax or grease which may be present.

**Step 5** – Use a wire brush or 100mm angle grinder with a wire wheel or wire brush to remove loose flaking paint and rust.

**NOTE:** 1. Remember FERONITE needs rust to work. If bare metal is produced wet it with water and let rust bloom overnight before treating with FERONITE.  
2. The cherry picker operator would be doing the external preservation in conjunction with the observation and cleaning procedure.

**Step 6** – Apply two (2) coats of FERONITE Rusty Metal Primer by brush to corroded areas.



**Step 7** – The window may need to be removed and badly corroded plate underneath replaced along with the window sill. Otherwise treat overlapped areas using the same technique as steps 1 & 2 above.



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**Step 8** – Once all rusty areas have been treated the whole surface or parts treated should be sanded with a good quality paint applied with similar properties to the existing topcoat.

**NOTE:** 1. Feronite is compatible with most paints and reference can be made to the FERONITE Compatibility Table. We have AQUACOTE Water Based Polyurethane Paint which is extremely durable and your solvent is water.

2. Be mindful that the above procedure should be carried out to only areas affected by corrosion which will save considerable cost. Also applying Feronite Rusty Metal Primer into joints where there is no rust will achieve nothing except additional work as it needs rust to work.

3. FERONITE contains no Phosphoric acid, unlike all other rusty metal treatments available in the market place.

4. If budgeting to carry out the job is not available problem areas can be treated with FERONITE to stem the corrosion and the complete repair carried out when money becomes available. Therefore much safer to use and will not affect the surrounding paintwork. FERONITE Rusty Metal Primer will provide protection unpainted for several months to a year before rust will show its ugly head again.

5. FERONITE Rusty Metal Primer has been used extensively by the Queensland Maritime Museum in the HMAS DIMANTINA hull preservation and the Carpentaria Lightship conservation.



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For further information or technical assistance we look forward to you contacting us.

DAVE GIDDINGS

Technical Manager

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