

# Belzona SuperWrap II ABS approved system Repairs Leak USNS Tippecanoe

ID: 9738

Industry: Marine  
Application: VPF-Valves, Pipes and Fittings  
Substrate: Other  
Products: Belzona 1161 (Super UW-Metal), Belzona 1982 (SuperWrap II)

Customer Location: Guam  
Application Date: September 2024

## Problem

The vessel was at the Guam Naval Base. There are copper-nickel pipes that run cooling water into the main motors. One of the main pipes had already a pin hole from thin wall on the pipe. The only other options were to replace the pipe section but this was not a realistic option because of access and because it would excessively extend the time on dry dock.



USNS Tippecanoe

Work and access area for repair

SuperWrap II being applied on the pipe section

SuperWrap II pipe section being finished.

## Application Situation

The pipe was a 10-inch Diameter pipe to wrap. The only option to the customer was complete replacement or an ABS approved system. This system had also already been specified in MSC as mitigation plan for T-AKE LTFW Cooler SW Outlet Piping. This sealed the option. The other option was to replace the pipe completely this would bring extensive downtime.. The pressure was 50-PSI in the system but the water was directly related to the cooling system in the main motors. The other options to the customer could be very costly. The job was done in 1 day the vessel was then able to be moved. Cabras Marine was the contractor that did the repair supervised by a Belzona engineer. 1982 was used because of the consistent 90F temperature and humidity in the area.

## Application Method

The application method was in accordance with SuperWrap II best practices in application of the system. The surface was prepped with an MBX to and SSPC SP-11 Bare Metal Machine finish. Belzona 1161 was used in the leak area to do a small plate bond. Two wraps were done as per the specification.

## Belzona Facts

Customer was very happy and saved time and money from the other alternatives. The vessel was able to go on its way to the next port. The customer will access the the repair in 2 years to see if it is kept or the pipe will be replaced. The Navy considers composite repairs as temporary repairs. The ABS officer reviewed and signed off on the repair of the pipe section. Both the ABS

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FS 695214  
ISO 14001:2015  
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approval and the MSC specification did the job to convince the customer on the repair system and method.

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