



MARINE HYDRAWRAP[®] STRUCTURAL COMPOSITE REPAIR SYSTEM

Market

Marine

Challenge

Corrosion had resulted in wall loss for this copper nickel pipe that was part of a water cooling system on a Roll-on/roll-off (RORO) ship. The damage was localized to two tee fittings in which an 18" pipe terminated into a 24" pipe. Replacement-in-kind would be costly and a repair that reinforces the weakened portion of the pipe would be quicker. This project required an ABS Design Approved repair.

Engineered Solution

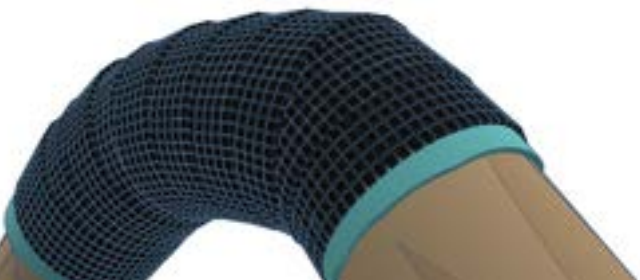
Marine HydraWrap[®] Structural Composite Repair System, an ABS Design Approved technology, was chosen to give new strength to this compromised portion of the pipe.

Scope

On a previous project, HydraTech had trained the vessel's personnel and now they were prepared to apply this repair themselves. First, the surface had to be ground clean to ensure a proper mechanical profile could be achieved. Epoxy was then applied to the repair area. 12" carbon fiber fabric was applied in 4 layers. In roughly a day both tee fittings were strengthened and fortified against future corrosion.

Solution

The vessel personnel picked up the application fast as it is a straightforward process and they were able to apply what they learned right away. Marine HydraWrap provided a quick solution to a serious problem at a fraction of the cost of replacement.



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