

U.S. COAST GUARD
MARINE SAFETY OFFICE PORTLAND, MAINE

SAFETY ALERT 99-02

Rudder port Fairing Blocks Supplemental information sheet

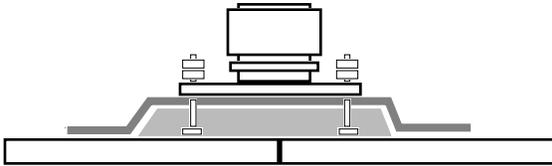


Diagram 1: The March 26th, 1999 flooding incident involved a vessel fitted with a fairing block, to which the rudder port fitting had been secured with bolts anchored to the wood that did not penetrate the fiberglass hull laminate. When the wood fairing block failed, this mounting arrangement allowed the fitting to tear away from the hull, forming a significant hole in the hull, (Photo 1) leading to a very serious flooding rate. The vessel was beached to prevent sinking.



Photo 1: Hull damage from fairing block failure



Diagram 2: Experienced marine surveyors report that an effective temporary fix for this problem is the replacement of the bolts securing the rudder port fitting to the fairing block with bolts through-bolted across the hull laminate. This increases the strength of the fitting and reduces the potential for a catastrophic hull failure as shown in photo 1. If a fitting is so installed, the bolt heads should be visible on the outside of the hull as in photo 2.

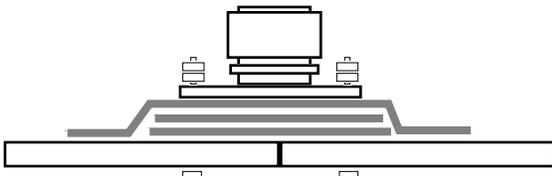


Diagram 3: Leading boat builders in Maine report that current technology to reinforce the hull in way of the rudder port fitting involves strengthening the hull structure by multiple layers of fiberglass. This increases the hull strength significantly without the use of wood laminates in the hull, which may be damaged by rot, stress, bonding failures, or swelling from water ingress.