



# UNITED STATES COAST GUARD

U.S. Department of Homeland Security

## MARINE SAFETY ALERT

### Inspections and Compliance Directorate

November 10, 2014  
Washington, DC

Safety Alert 14-14

#### DESIGNED FOR A REASON – HULL MAGNETS

##### MODIFICATIONS MADE TO PILOT LADDER MAGNETIC SECURING DEVICES LEAD TO ACCIDENTS

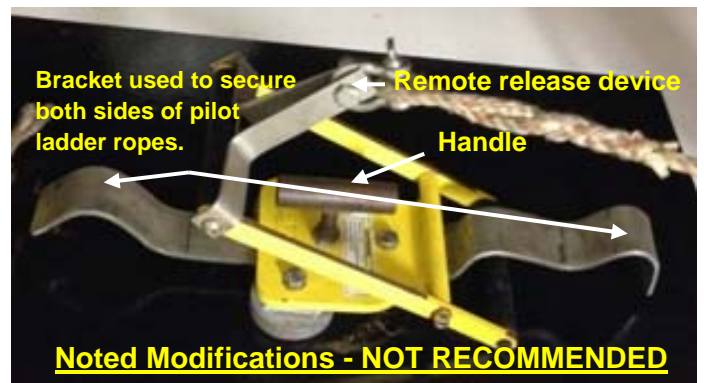
This alert raises awareness as to the importance of not modifying equipment or components from their intended design or operation. Recently, a State Pilot suffered a concussion as he was boarding a vessel via its pilot ladder. The primary cause of the accident was an improperly modified embarkation ladder hull magnet that disconnected from the ship's hull and struck the Pilot on the head.

Unfortunately, this was not an isolated incident. Additional incidents with injuries have occurred on other vessels at several different ports. In each of those instances the hull magnets were modified prior to the accident. Moreover, in all cases, after restoring the hull magnets to their original design no further problems were experienced.



Hull magnets are easy to operate devices and when positioned correctly, provide substantial holding force. The handle of the magnet is also a lever and enables easy release from the hull of the vessel. The intended proper use of the magnets is shown in the above image. In the incidents where the magnets unexpectedly detached from the hull, only one securing magnet was used between the rails of the ladder along with equipment alterations that deviated from the manufacturer's design (see image below).

The Coast Guard **strongly recommends** that vessel owners/operators refrain from modifying embarkation equipment. In addition, operators should regularly inspect existing vessel boarding equipment and return improper modifications back to the manufacturer's original design. Pilots are encouraged to consult with their appropriate associations to determine if any additional precautions should be taken as part of their normal boarding practices and this identified risk.



This Safety Alert is provided for informational purposes only and does not relieve any domestic or international safety, operational or material requirements. It was developed by the Washington State Pilots Association, Coast Guard Sector Puget Sound and the Office of Investigations and Casualty Analysis, Washington DC. For questions or concerns, please email [hqs-pf-flidr-cg-inv@uscg.mil](mailto:hqs-pf-flidr-cg-inv@uscg.mil).