



MARINE SAFETY ALERT
Inspections and Compliance Directorate

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Safety Alert 05-21

CORRODED TURNTABLE PINS CAN CAUSE STRUCTURAL FAILURE ON ACCOMMODATION LADDERS

A recent marine casualty resulting in an injury of a crewmember onboard a foreign freight vessel brought to light a potentially dangerous situation involving the turntable pin on accommodation ladders. Currently, there are no established timelines or requirements to replace turntable pins. Without proper and periodic examination and replacement, corrosion can ultimately lead to structural failure.

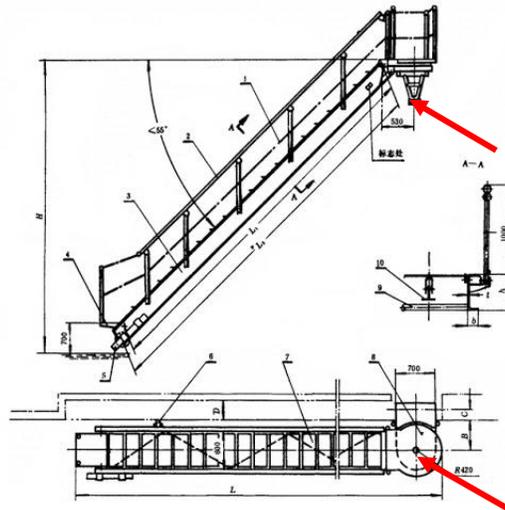


Figure 1: Pin location on the Accommodation Ladder Turntable

After the incident, the Coast Guard noted that multiple foreign flag vessels had accommodation ladder turntable pins in service for more than 20 years without replacement. Guidelines on the maintenance of accommodation ladders is contained within 74 SOLAS (14) II-1/3-9, MSC.1/Circ. 1331, and 74 SOLAS (14) III/20.7.2; however, none of the aforementioned references include maintenance guidelines for the turntable pins.



While the turntable pin may seem like a minor component, its failure can cause significant harm to all persons utilizing the accommodation ladder. In this instance, the vessel's crew was in the process of stowing the accommodation ladder when the turntable pin failed. As a result, a crewmember who was on the accommodation ladder at the time fell approximately 30 feet and sustained serious injuries.

Figure 2: Accommodation ladder connection pin with severe corrosion over the pin's fracture surface & sidewall and on the surface of the hub.



Figure 3: Surface corrosion and contamination are evident on the fracture surface of the failed turntable pin. Severe corrosion pits and surface cracks are also visible on the sidewall, which could have provided an indicator of the pin's unsafe condition prior to failure.

The Coast Guard **strongly recommends** that vessel owners and operators:

- Maintain the turntable pins.
- Periodically inspect the condition of the turntable pins and replace them when necessary.
- Revise accommodation ladder maintenance plans to include turntable pins.

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