

Safety Advisory Bulletin: Shifting a Ship by Warping

Spill Prevention, Preparedness & Response Program

Vessel casualty in 1996

A bulk carrier suffered extensive rudder damage in April 1996 when it attempted to shift aft to complete the loading of grain. In order to shift, all three head lines needed to be simultaneous let go from a deadman on shore. The engines were not on standby and a tug was not present. Due to the Columbia River current and a moderate breeze setting the vessel off the berth, the bow of the ship swung into the river. The remaining lines parted, and, despite letting go both anchors, the ship drifted downstream and grounded.

Fatality incident in Port of Longview in 2018

A fatality incident occurred in June 2018 when a bulk carrier spring line parted during a shift downriver to load cargo into the next hold. The Coast Guard determined the causal factors contributing to the parting were:

1. the tension on the line from the pull of the winch working against the push of the flooding tide;
2. the severe angle of the main bow line coming off the bow guide roller to the dockside cleat, and;
3. the material condition of the bow guide roller used to guide the main bow spring line off the vessel.

Coast Guard Investigation Report for the ANSAC SPLENDOR is available at [CGMIX IIR Search Page \(uscg.mil\)](https://www.uscg.mil/CGMIX/IIR/SearchPage).

Best practices for ship operators

Operators can require that a berthing log, describing each facility's location and type of shoreside mooring points, be maintained by their ship masters. Ship operators can also encourage the use of the International Chamber of Shipping (ICS) Ship/Shore Safety Checklist, which addresses mooring arrangement adequacy.

Consideration for masters prior to shifting

- Are crew members observing the shift from a safe location? In the 2018 incident a linesman on the pier and a vessel crewmember on the forecandle were fatally injured. The Coast Guard determined that observation position was a contributing factor to the casualties.
- What are the environmental conditions of the location? Average seasonal conditions are available from the U.S. Coast Pilot, Sailing Directions and Pilot Charts. State pilots are experts on local conditions and can provide information on conditions such as unusually high river levels and unusual winds and currents.
- What precautions are appropriate given the specific circumstances? Is there an informed plan for line handling? Will main engines be on stand-by?
- Is there anything unusual about the mooring arrangement? A first-hand inspection of how the lines are made fast to shore, the dock construction, and the shore contour can reveal any unusual arrangements. This is especially true for large vessels using infrequently used shoreside mooring points.



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