

Safety Bulletin 01 of 2018

Use of Safety Harness Tethers on Sailing Yachts

The attention of all Yacht Owners, Skippers, and Crews, is drawn to this Safety Bulletin (based on SB1/2018 issued by the UK Marine Accident Investigation Branch titled as above, which forms part of an ongoing fatal accident investigation. The referenced Safety Bulletin can be found on the MAIB website).

<https://www.gov.uk/maib-reports/safety-warning-on-the-use-of-safety-harness-tethers-on-sailing-yachts>

Background

A crew member on an ocean racing yacht fell overboard. He was attached to the yacht by his safety harness tether. The hook at the end of the tether, which was clipped to a jack-line, deformed and released resulting in the crew member becoming separated from the yacht. He was recovered unconscious onto the yacht but sadly could not be resuscitated.

Initial Findings

The crew member was using a three-point webbing tether attached to the integral harness of his lifejacket that allowed him to clip on to the yacht with a short or long tether. A safety issue identified during the MAIB investigation was that the hook on the end of the crew member's tether had become caught under a deck cleat (see **Figure 1**), resulting in a lateral loading that was sufficient to cause the hook to distort (see **Figure 2**) and eventually release. The harness tether was certified under the international standard applicable to this equipment which contains detailed testing requirements that assume the tether and its hooks will be loaded longitudinally rather than laterally. The tether hook was of a conventional design and quality of build, and was commonly used by manufacturers of safety harnesses and tethers that were certified under ISO12401. When loaded longitudinally, the tether can withstand a load of over 1 tonne. However, when loaded laterally a tether hook will deform at much less load. It is important that tether hooks remain clear of obstructions and are free to rotate to align the load longitudinally.

Safety Lesson

To prevent the strength of a safety harness tether becoming compromised in-service due to lateral loading on the tether hook, the method used to anchor the end of the tether to the vessel should be arranged to ensure that the tether hook cannot become entangled with deck fittings or other equipment.

This Safety bulletin will be revised once the MAIB have completed and published their investigation report

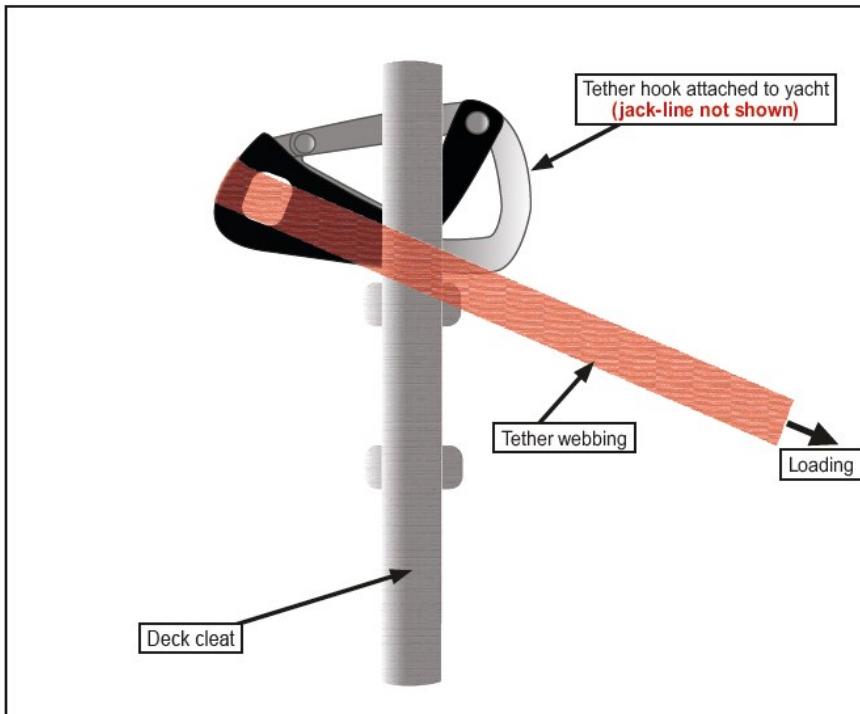


Figure 1: Tether hook under deck cleat



Figure 2: Example of a tether hook and a tether hook after lateral loading