

**Extracts from
The United Kingdom
Merchant Shipping
(Accident Reporting and
Investigation) Regulations
2012**

Regulation 5:

“The sole objective of a safety investigation into an accident under these Regulations shall be the prevention of future accidents through the ascertainment of its causes and circumstances. It shall not be the purpose of such an investigation to determine liability nor, except so far as is necessary to achieve its objective, to apportion blame.”

Regulation 16(1):

“The Chief Inspector may at any time make recommendations as to how future accidents may be prevented.”

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NOTE

This bulletin is not written with litigation in mind and, pursuant to Regulation 14(14) of the Merchant Shipping (Accident Reporting and Investigation) Regulations 2012, shall be inadmissible in any judicial proceedings whose purpose, or one of whose purposes is to attribute or apportion liability or blame.

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Fatality resulting from the inversion of a craft with a retractable keel following a capsizing

June 2019



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MAIB SAFETY BULLETIN 2/2019

This document, containing safety lessons, has been produced for marine safety purposes only, on the basis of information available to date.

The Merchant Shipping (Accident Reporting and Investigation) Regulations 2012 provide for the Chief Inspector of Marine Accidents to make recommendations at any time during the course of an investigation if, in his opinion, it is necessary or desirable to do so.



Andrew Moll
Chief Inspector of Marine Accidents

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BACKGROUND

The MAIB is undertaking a preliminary assessment of the circumstances that led to the capsizing of an RS Venture Connect sailing boat on Windermere, resulting in the death of a disabled crewman. The boat was manufactured by RS Sailing and was being operated by Blackwell Sailing as part of its RYA Sailability activity. Sailability is the RYA's national programme promoting and supporting people with disabilities to try sailing and to take part regularly.

At the time of the accident, there were two crew on board the boat, an assistant instructor and an experienced crewman who had limited mobility.

The subject of this safety bulletin is the securing of retractable keels and retractable weighted centreboards while the sailing boats are in use.

INITIAL FINDINGS

The sailing boat in use was an RS Venture Connect, a self-righting keelboat version of the RS Venture, built in 2016. It was fitted with a 125kg lead bulb vertical retractable keel that afforded additional stability and could be raised to facilitate recovery from the water and transportation.

The post-accident inspection of the boat, together with photographic evidence from the day, has identified that the restraining device for the keel, a Velcro™ strap, designed to secure the keel in the lowered position, was not in place (**Figure 1**).

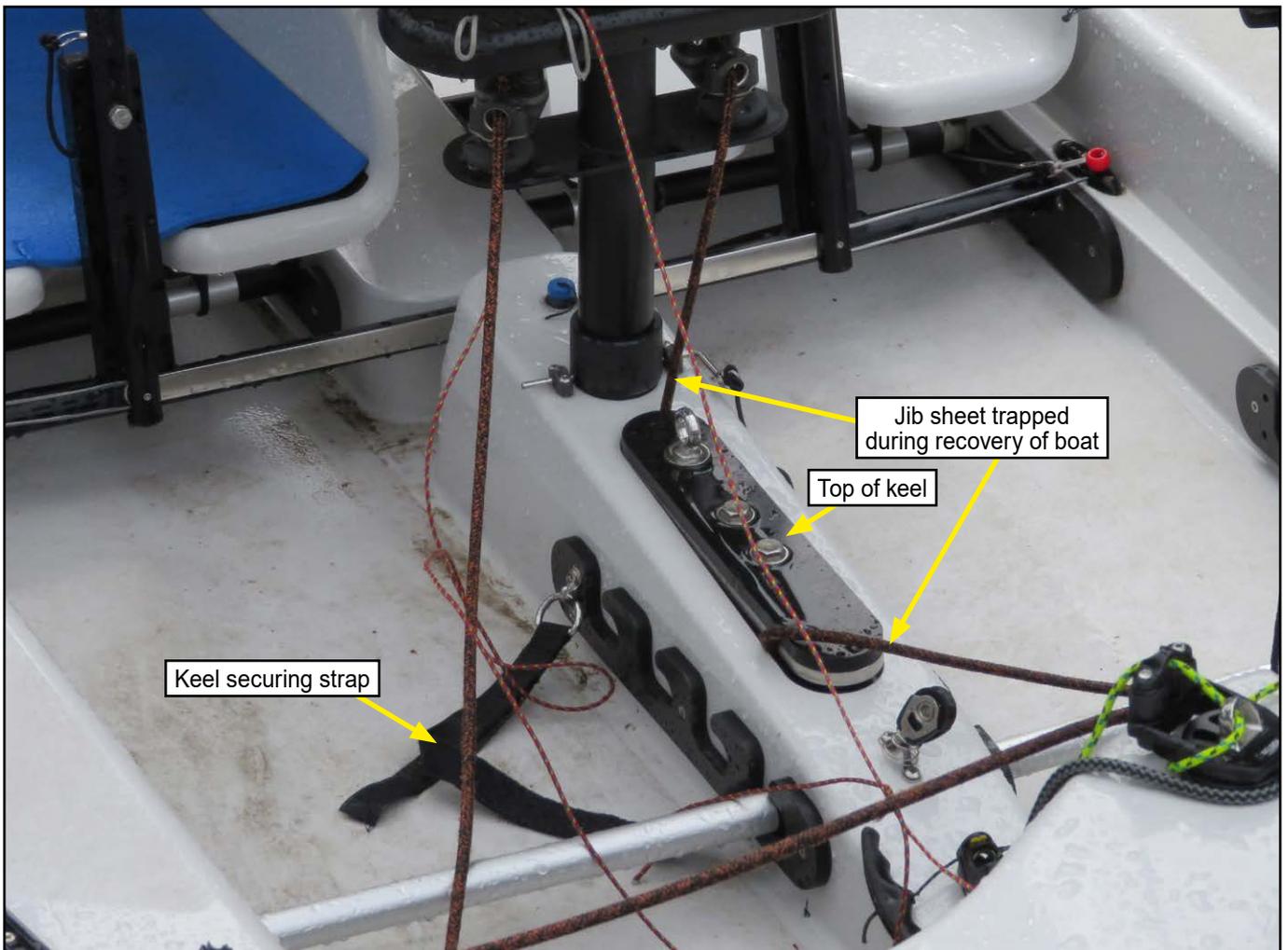


Figure 1: Showing top of the keel with the restraint not in place

In the windy conditions on the day, the boat was knocked down and heeled to such an extent that the keel slipped in its housing, retracting entirely. **Figure 2** shows the boat fully inverted with the lead bulb keel fully deployed, with an inset showing the boat inverted and the keel retracted. During the capsize the assistant instructor was able to swim clear but the disabled crewman became trapped under the inverted hull. The safety boat crew saw the accident and attended the scene quickly, but had difficulty righting the boat and so were unable to reach the crewman in sufficient time to effect a successful rescue.

The importance of securing the retractable keel was highlighted in the manufacturer's rigging guide for the boat (**Figure 3**). However, this accident demonstrates that some users may not be aware of how critical this is.



Figure 2: Inverted boat with a fully deployed keel bulb (Inset: the keel bulb hard up against the inverted hull)

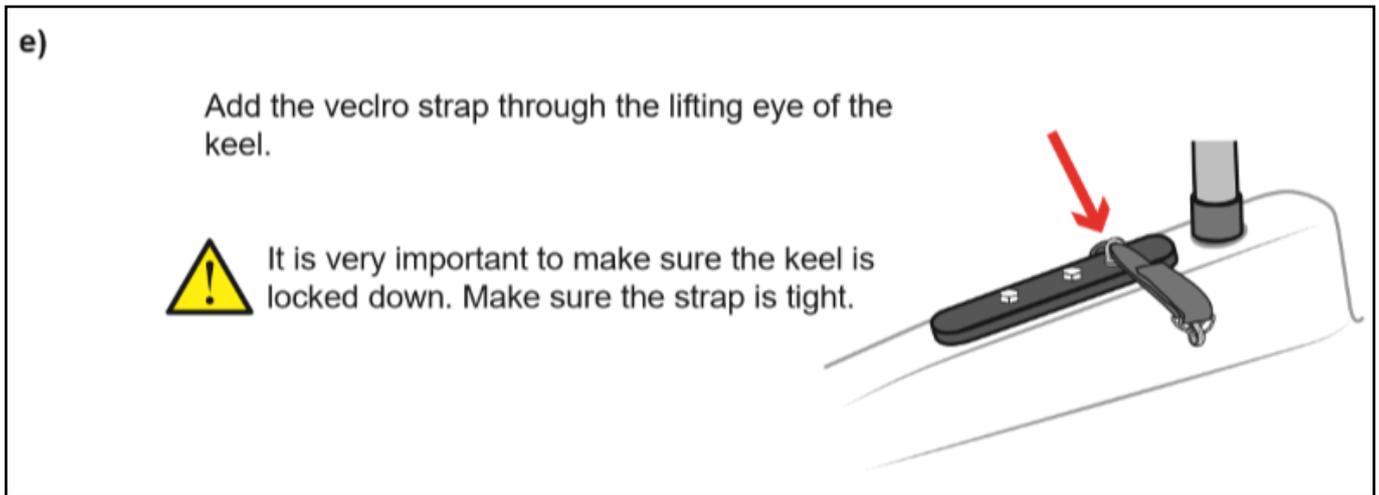


Figure 3: Extract from the manufacturer's rigging guide

ACTION TAKEN

RS Sailing has contacted all registered owners of RS Venture Connect boats, reiterating the instructions regarding the importance of ensuring the keel securing strap is correctly fitted prior to use.

SAFETY LESSON

To prevent a similar accident, owners and operators of boats with either a retractable keel or retractable weighted centreboard, regardless of make or model, are recommended to ensure that:

- Prior to use, checks should be made to ensure the manufacturer's instructions regarding the securing of the keel or weighted centreboard have been followed.
- Their procedures and drills for recovering a capsized boat include the scenario where the keel or centreboard has retracted from its 'lowered' position.

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