

# **SUMMARY OF THE 2017 29er WORLDS INCIDENT IN LONG BEACH**

Immediately following the incident the Class conducted a thorough investigation, gathering statements from the sailors and coaches involved in the incident and rescue and asking follow up questions as necessary. The Class then shared its report with World Sailing's Safety Panel and took input and advice from them. This report is based on first-hand accounts of the incident obtained during the investigation.

## **Summary of the incident**

The boat involved in the incident was approaching the windward mark, of a windward - leeward course. The wind was 5 to 7 knots with a reasonably flat sea state. There were 40 boats in the silver fleet, there were a number of boats close together. As the boat involved approached the windward mark on starboard tack, for the port rounding, they were around 30 metres short of the layline so needed to do two tacks to round the mark.

In the first tack from starboard onto port the boat capsized, the crew was initially astride the side stay preparing to move in front of the starboard shroud to pass between the mast and the leech of the jib when the boat capsized. The boat capsized on to its starboard side and turned turtle quickly. From the reports of the sailors and coaches close by who sent in reports, as requested, it is extremely difficult to ascertain exactly how the crew was entangled.

## **Possible causes of the accident**

There are a number of possibilities - these are listed in order of likeliness with number 1 the most likely,

1. The crew's trapeze hook could have attached onto the starboard side shroud, this would have prevented him from moving to the port side of the boat. His weight on the starboard gunwale could have caused the boat to turn turtle quickly. Being caught on the shroud could have prevented him from getting to the surface as the boat turned turtle. Releasing his trapeze hook from the shroud could have been made more difficult by any twisting of his body making it more difficult to unhook from the shroud. We believe this to be the most likely scenario.
2. The crew's trapeze hook could have become entangled in the retaining elastic used to tension the trapeze ring. This elastic is attached to the trapeze ring using a loop which if the loop is large can catch the trapeze hook. This loop can be eliminated by using a small bobble instead of a loop which would make it impossible for the trapeze hook to become entangled in the elastic. We believe this is also a possible scenario.

### Action to be taken – Sailors and coaches to be made aware of this problem

3. The crew's trapeze ring could have been still attached to the harness hook and the trapeze wire could have caught around the starboard spreader which could have prevented him moving to the port side of the boat.
4. The crew could have become entangled in the jib sheets and / or gennaker sheets however this could be in addition to one of the previous possibilities as we believe it is unlikely that the sheets alone would have prevented him getting to the surface.

**Overall, we believe that this is an incident of entrapment caused by a trapeze hook on the rigging that was exasperated by the weight combination of the helm and crew.**

### Conclusions and Recommendations

#### Trapeze harnesses / hooks

There is an International standard for quick release trapeze harnesses. ISO 10862 was specifically written by the RYA and promoted internationally following a series of fatalities in the UK between 2007 and 2009. There is no product that is certificated in compliance with this standard currently and World Sailing with the 29er Class should be raising awareness of this standard with manufacturers. This system ejects the hook from the trapeze harness whilst retaining the traditional design of the harness and hook system on the boat.

We have looked at the ball and socket trapeze harness manufactured by British Company Allen and feel that it has the benefit of not having a protruding hook on the trapeze harness that can get caught on rigging or sheets but this harness is hardly used by crews who are not as comfortable with this system as they are with the standard trapeze hook system.

However there are a number of trapeze harnesses manufactured which may comply with the ISO standard if they were tested. These designs have a quick release hook activated by pressing the red button just above the hook, in these systems the hook is released completely and lost to the sailor and a replacement hook is then required. Once again this system is hardly ever used.

We have looked at the various trapeze harness systems that are available to consider whether a clearly safer option exists.

- Quick Release Harnesses: The RRS 2005-2008 required quick release harnesses but that requirement was later removed from the RRS. An ISO standard for quick release harnesses has been in place for a number of years, but no quick release harnesses currently available comply with the ISO standard or any other manufacturing or safety standard.



- Ball and socket harnesses: the British company Allen offers a ball and socket system that does not utilize a hook but no information is currently available about its safety and effectiveness in skiff sailing.
- The quick release and ball and socket harnesses are not widely used and to our knowledge no data has been collected regarding the relative safety and effectiveness.

**Action Recommended - That World Sailing look to consider the mandatory use of quick release trapeze harnesses within sail racing similar to that of the 2005-2008 RRS edition which included this within RRS 40.2. For any rule proposed or considered to reference the appropriate standard of ISO 10862.**

**Action taken - The Class met with World Sailing Safety Panel to encourage World Sailing to consider the Action required. World Sailing agreed to consider the matter and report back to the Class with their findings and any future actions.**

**Action taken - To gain information on entrapment incidents the Safety Panel of World Sailing have made it mandatory for Organising Authorities to report to World Sailing any incidents of entrapment.**

**Action taken - Ovington Boats have given out a number of ball and socket harnesses for testing and the gaining more information.**

Crew ages and weights - despite being a competent sailor, we believe the helm's age (11 years old) and weight (32 kgs) were a factor in the accident. If the crew's weight contributed to the boat capsizing and turning turtle quickly we believe that the weight difference, or certainly the helm's light weight, was a significant factor in the boat inverting, especially in the conditions described. She was not able to balance her weight against his weight when it was required. We should investigate the use of masthead floatation devices for crews/helms that are under a certain weight. It is our recommendation that sailors under 13 should not be able to enter major championships.

**Action required – That Organising Authorities responsible for running racing for the 29er class consider that sailors who are under 13 years old represent a higher risk and should only be considered for events in exceptional circumstances.**

**That Organising Authorities responsible for running racing for the 29er class consider that sailors who are either inexperienced or whom may be unable to right a 29er without assistance in the event of capsize, and therefore represent a higher risk, may be required by the Organising Authority to carry a masthead floatation device.**

**That the 29er Class Association continues to work closely with its National Authorities to identify any ongoing associated risks with the above scenarios.**

**The 29er Class Association acknowledges that an Organising Authority has the right to reject an entry.**

**Action taken - The Class has now implemented the policy of not accepting entries from sailors with sailing age under 13, the Notice of Race for the 2018 European Championships have been published with this restriction along with a statement on the Class website explaining the reasoning.**

**Action taken - The Class Rules allow for masthead floats. The Class is investigating suitable floats**

Whistles - we believe that blowing a whistle in an emergency would have an increased effect in drawing attention to a boat in distress. Barry Johnson, the Class Measurer, has already instigated a change in the Class Rules which was finalised, effective immediately, by World Sailing on 16th November.

**Action taken - whistle rule has been implemented as stated above**

Knives - knives are used on catamarans with trampolines to enable crews to cut through the trampoline if caught underneath. We believe that knives, which are of a hook design without sharp edges, will be of limited use as they will not be able to cut the wires on the boat only the ropes but with some difficulty.

### **Finally**

This was a serious incident that highlights the importance of a robust safety plan that is followed consistently at all International Class regattas. The Class has reviewed its Support Boat Guidelines, which the Organising Authorities of International Class events are required to follow, and has established the position of Class PRO. The Class PRO will attend all major International Class events to work with the OAs on safety and race management practices.

David Campbell-James

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