



## 4. MASTHEAD FLOATATION POLICY & ENTRAPMENT ADVICE (Latest update + review 28.12.23)

Using masthead floats (MHFs) significantly reduces the risk of inversion and entrapment, enhancing the safety of sailors and reducing fatigue. Club Members or other persons sailing their own boats are not required to use a MHF in order to sail at QM but they may choose to use one or be advised, by a competent member of staff, to use one in certain circumstances such as: 1) going out in strong winds; 2) when under instruction in their own boat; 3) sailing with young and/or inexperienced crew. Such persons may use their own MHF or use a QM-owned MHF (if there are enough after QM boats have been provided for). It is important for the MHF to be returned with any damage reported. If a QM MHF is required more than once, boat owners are expected to purchase their own or hire a QM one.

### QM DOUBLEHANDERS

ALL QM double handers MUST be sailed with a 40 litre MHF apart from:

- 1) Persons specifically given a dispensation from doing so by the Sailing Principal or Chief Dinghy Instructor
- 2) QM Staff qualified as RYA Dinghy Instructor or above, helming and crewing the same boat
- 3) A person under instruction practicing inversion techniques, as detailed below

The above users of double-handers may still use a MHF if they choose to do so.

### QM SINGLEHANDERS

QM single handers MUST be sailed with a minimum of 9 litre masthead float by those on courses who have not yet achieved RYA Level 2 (adult) or RYA Stage 3 (youth). For those hiring single handers, where appropriate experience is accepted in lieu of an actual RYA Level 2 or RYA Stage 3 certificate, 9L masthead floats are not generally imposed but may be chosen to be used by the hirer or imposed for any reason (such as borderline experience levels or stronger winds etc.) by any member of staff.

### MHFs IN USE

MHFs should be securely attached either to the head of a mainsail or to the specific MHF line running up & down the mast. Care should be taken to: 1) ensure that the MHF is in good working order and fully inflated; 2) avoid hoisting the MHF inside any shrouds; 3) ensure that the MHF has not become wrapped around the mast/shroud when lowering (if it has then the boat should be capsized ashore to free it). It should be noted that MHFs may be a disadvantage in the following ways: 1) they may reduce the performance of the boat (although this is understood to be so negligible that it should be of little concern to all but the most performance-orientated sailors; 2) they may cause the mast to bend or break when it hits the water during a fast capsize, as they prevent the mast slicing through the water (although this is very uncommon).

Additionally for multihulls: without a MHF a capsized catamaran may invert, allowing a separated helm/crew to swim to the boat. With a MHF, however, a capsized catamaran will remain on its side

and may be pushed downwind faster (due to windage on the trampoline), away from the helm/crew who may be unable to swim fast enough to catch it. As there is always a chance that MHFs could fail or become separated from a boat, or not be available in another location you may sail at, correct inversion technique should be understood and is delivered on appropriate courses at QM in a controlled way. Please ask QM if you require advice on capsize technique.

### **AVOIDING THE 'PROMOTION OF ENTRAPMENT'**

Sailors must be aware of their responsibilities in this respect. *'Promoting Entrapment'* can be defined as, *"acting in a way that would cause the boat to invert or cause the helm or crew to end up underneath an inverted boat, were it not for the presence of the MHF"* (ie. doing any of the following when the boat is capsized on its side: 1) refusing to let go of the boat after the chance of achieving a dry-capsize has passed; 2) holding onto, or hanging off, any part of the boat above the waterline; 3) standing on any part of the rigging or sails; 4) unnecessarily delaying getting onto the daggerboard to stabilise the boat; 5) not moving quickly to the back of the boat when helm and/or crew are in the water between the boom and the hull.

### **SAFETY KNIVES AND TRAPEZE HARNESSSES**

All sailors (especially multihull sailors who should consider the risks of inversion entrapment under a trampoline) are strongly advised to carry a safety knife, ideally with a sharp, locking, serrated, one-sided, round-tipped blade. The Sailing Principal and Chief Dinghy Instructor can recommend personal knives should advice be needed. All persons trapezing are strongly advised to use a harness with a quick-release hooks. Fixed-hooks can foul on standing or running rigging, or any other part of the boat's equipment, during a capsize.

### **ENTRAPMENT ADVICE**

It is critical to get an entrapped person to the surface ASAP by 1) righting a monohull dinghy by using the centreboard/daggerboard. Centreboards/daggerboards should be firmly secured down when sailing by a well-maintained device in the boat. A knife can be used to lever-out a centerboard that has fallen inside a boat; 2) Cutting through the trampoline of a multihull. Safety knives are mounted to all console powerboats for this purpose. Swimming underneath an inverted boat to save someone carries a risk to life so must be avoided.

There are very few cases of entrapment reported. Almost all reported incidents of entrapment-related near-misses or fatalities from around the world relate to: 1) problems with the hook on fixed-hook harnesses fouling on double-hander shrouds and rigging (*so use a quick-release harness and understand how to operate it in all situations*); 2) multihull sailors becoming entrapped in the toe straps of an inverted catamaran, especially when safety knives have not been available at the time of the incident to cut the trampoline (*so carry a knife, as above*).

QM has addressed the risk of entrapment in the following ways: 1) creating and following this MHF policy; 2) using modern harnesses with RWO quick-release hooks for all hire and tuition; 3) fitting safety knives into safety boats; 4) making MHFs available to all sailors wherever possible, (as above).

*For further information and advice please speak to one of the Senior Team.*