Support Boat manual

1 Introduction

This document can be used as the training manual for Support Boat helms and crews, and also as the general reference manual for Support Boat use. It will be updated from time to time, and signed off by the Sailing Committee.

Note the term **crew** is used throughout and is used to encompass all support boat volunteers including skipper and any crew.

Recommended further reading: RYA Powerboat Handbook www.rya.org.uk

2 General Points

Sailing events will be as scheduled in the Sailing Programme. The designated Officer of the Day (OOD) has overall responsibility for leading the event. The OOD and support boat crew will be listed by the duty rota on the club website and may also be shown on the club notice boards.

As volunteers, the crew supports the OOD and the members on the water, offering whatever assistance can reasonably be given. The crew is not intended to replace professional rescue or medical services, but to offer what assistance it can, without endangering their own lives or the lives of others. On occasions after talking with the OOD the crew may declare themselves unable to offer support due to conditions being outside their experience and skills. It is better to take this course of action than put yourselves, members and the support boat in danger.

Your duty starts after signing the support boat log and ends when the last boat leaves the water. However you are not expected to wait around for members who have taken themselves off for extra sailing and have left the group. The OOD should stress this at the briefing.

Depending on your experience, preparation of the boat and equipment can take considerable time. Until you gain the necessary experience, give yourself plenty of time. Two hours before the event start time is about right for your first duty. Don't leave it all to the skipper, there is enough work for two.

It is worth noting that the person acting as skipper does not necessarily have to helm the Support Boat. In fact, unless conditions at sea indicate otherwise, it is helpful if those crew members with less experience are encouraged to helm the boat. Only by doing this, will we increase the pool of trained volunteers available to man the Support Boats.

Please read the manual fully, and if not certain of any points ask at one of the training sessions, or by emailing Rear Commodore Sailing for clarification.

The club has 3 support boats: Saracen, a 4.7 metre RIB (rigid inflatable boat) fitted with a 50hp outboard; Jaffa 1, a 4 metre cathedral hull dory fitted with a 25hp outboard; and Jaffa 2, a 3.6 metre cathedral hull dory fitted with a 20hp outboard. All 3 boats are certified as RCD class C which means they are designed to operate in wind speeds up to Force 6 and wave heights up to 2 metres. The basic operating techniques are similar for all 3 boats although there is a difference in load capacities as certified on the plates fixed to the inside of the boat transoms Helms must be aware of these capacities which are not to be exceeded except in an emergency. More generous loading is permissible if operating to RCD class D (winds to Force 4 and wave heights to 0.5 metre)

Lastly, thank you for volunteering, as without you the club could not hold events.

3 Event stages

3.1 Briefing

It is usual for events to be preceded by a briefing by the OOD . This will take place one hour before the start of racing (if racing in the Pool), or half an hour before the start (for Pontoon starts) and pottering. It is usual for the support boat team to be at the briefing, but the OOD will advise if that is to be the case.

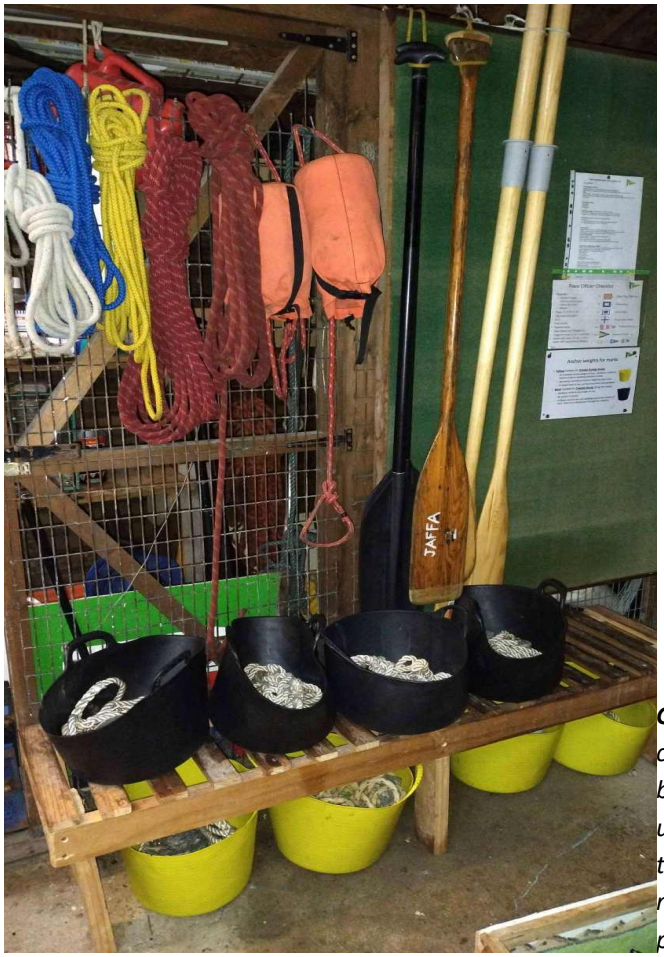
By the time of the briefing the event participants should have signed on with their name and details of boat. Make a copy of the details and take it onto the water in a clear "ziploc" envelopes. These are provided in the Race Box to protect your paper list. Please return the envelope to the race-box at the end of the duty.

3.2 Preparation

Sign the Support boat log.

Check exact requirements with OOD, such as how many boats required.

Gather equipment into club trolley, as specified by the Equipment List.



Equipment is stored in Four locations:

- Bosuns locker: boat keys; fuel store key; VHF radios and emergency bags.
- Gear store equipment rack: oars\paddles, ropes, throw-bags & weights for marks
- Undercroft: racing marks; club tenders.
- Fuel store: boat tanks and spare fuel. See Section on Fuel and Refuelling.

Gear store Equipment Rack. *Black buckets contain weights for the training marks. Yellow buckets hold weights for the large dumpy marks used for regatta courses. This is also the place for tow ropes; throwing lines and paddles/oars. A reminder list can be seen on the far right of the photo.*

Row out to Support boats and retrieve boats. Depending on the number of boats required, It can be easier for one person to bring a single boat into the pontoon and pick up a second helm rather than trying to row two people in a small tender. [See Moorings]

TIP – 1. There is a check list attached to the rear of the Bosun's Locker door and also in the gear store with a reminder of the kit required and the preparation duties.

TIP – 2. Before going out to boat leave a VHF radio with someone in the club and take another with you, to keep in contact. Test radios before going afloat.

At the Boat

Place bird scarers into their containers and place in club tender;

Remove console covers and place under boat seat, or put under thwart in tender;

Secure fuel tank using straps on Saracen or place tank into Jaffa's consul under the seat.

Connect fuel. Be gentle making the connection or disconnection;

Check the following:

- Bungs are fitted - pump/bail out any excess water;
- Anchor is securely attached;
- Bow and stern lines securely attached and neatly coiled;
- Lower engine into water; start engine and check tell-tail water is flowing.

3.3 After the Event

Moor Jaffa1 to buoy 20; Saracen to buoy 21 – (Remember larger boat is closer to sea.)

Connect boat directly to mooring chain not the plastic buoy; - See Moorings

Raise engine and turn steering fully to port;

Disconnect fuel; and hang fuel line out of any water;

Remove keys;

Wash off any accumulated mud, so the next crew doesn't complain;

Fit console cover; put the gear leaver in reverse to make it easier to fit the cover;

Fit bird scarer. - See illustration

Recoil bow and stern ropes;

Return all shore gear to its rightful place;

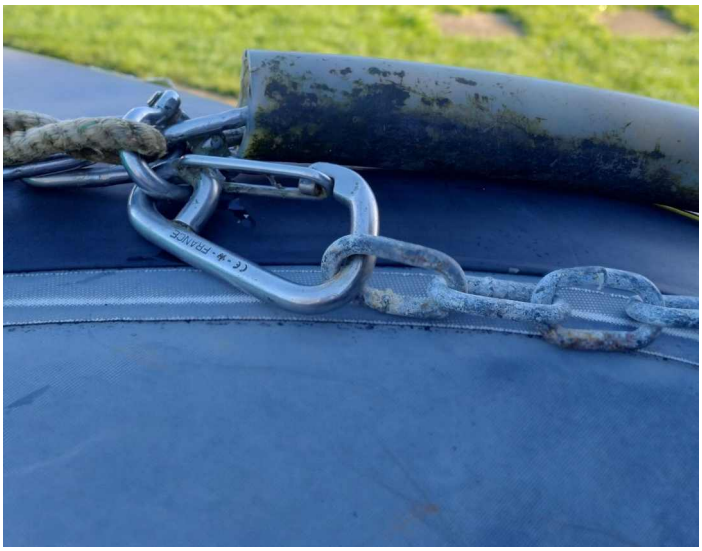
Clean, and if necessary, wash & dry the radio and attach to charger;

Refill the fuel tanks and complete Log Book and report any faults.

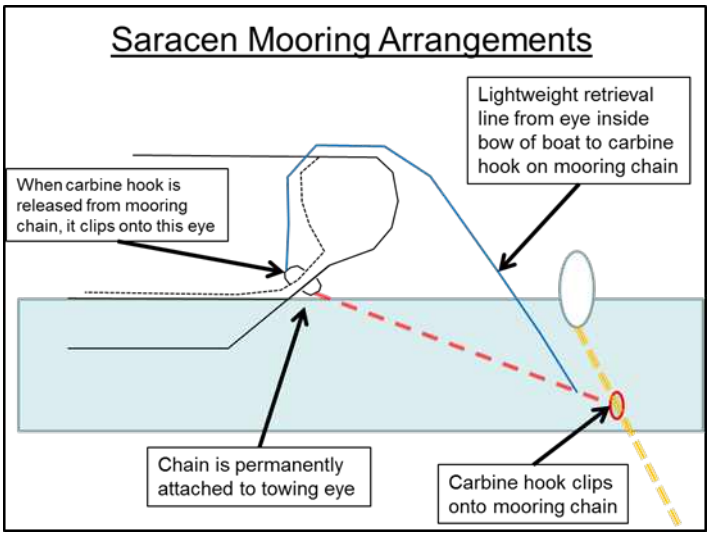
4 Moorings

4.1 Saracen

Saracen is attached to its mooring by a carbine hook on the end of a chain which is permanently attached to the towing eye under the bow. Pull in the lightweight rope which disappears over the bow, the other end of which is attached to the chain near the carbine hook. Once the carbine hook is detached from the mooring buoy, it should be brought over the bow and attached to the eye in the floor of the boat.



To moor the boat, release the carbine hook from its storage place on the eye in the floor of the boat. The chain is encased in a clear plastic pipe and is permanently attached to the D-ring on the outside of the boat under the bow. Then lift the mooring buoy onto the side of the boat and attach the carbine hook to the chain below the buoy. Lower the mooring buoy back into the water.



4.2 Jaffa1

The carbine hook shown in the photo is now shackled to the boat. Just lift the chain and clip on the carbine hook.

Make sure that the bung at the stern is securely located in the drain-hole, with the over-centre lever properly closed.

Fit the wire spider bird repellent devices – the longer one with the short aluminium stem goes at the stern, while the one with the thicker, longer aluminium stem mounts through the finger hole in the cover of the anchor well (make sure the anchor is out of its way!). Leave the black storage tubes in the bottom of the Support Boat

Jaffa 2

Jaffa 2 is our smallest support boat and is kept ashore.

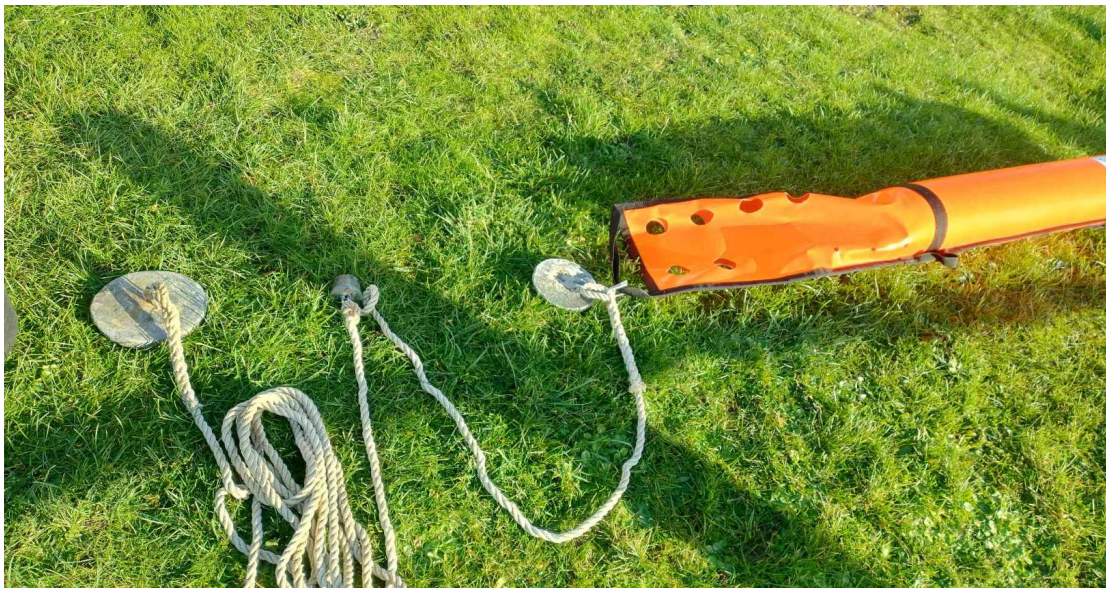
The boat is secured by three padlocks. The keys to unlock can be found in the Bosun's locker with a wooden key fob in the shape of a boat. Do not take these keys onto the water, but return them to the Bosun's Locker once you have unlocked the boat. Leave the padlocks attached to the chain / fitting where you found them. At the rear of the boat the engine is locked to a ground chain. It is sufficient to remove the lock and leave the cable attached to the engine. This presents no problem with steering or engine performance.

Jaffa 2 has a removable drain bung at the aft end. This should be removed when the boat is recovered and refitted before going afloat.

After recovering the boat, wash down before replacing the cover.

5 Mark Laying & Retrieval

The OOD will decide how many racing marks are required. The usual marks are the long cylindrical Training marks, stored on a wooden rack next to the small tender under the building. The weights for these marks are in the black buckets as shown in the photo at 3.2.



Note the captive shackle used to attach the racing mark to the warp.

The OOD will indicate the general position for each mark.

The support boat crew must ensure that marks are:

- Clear of the main navigable channel;
- Clear of the turning mark for the Hurst ferries;
- Clear of moored or anchored boats;
- In deep enough water for the dinghies to round. - test with paddle.

Ideally all the marks should be clearly visible to competitors . This can be a problem with many moored and anchored boats. Just do the best you can.

The OOD may instruct you to move a mark by streaming behind the boat until in the correct position. In this case, lower the mark and the two small weights over the side, but keep the large sinker weight in the boat. Approach into the wind, or tide if this is stronger, towards the approximate position.

Try to maintain a steady and straight course to avoid the weight line wrapping around the propeller. When the OOD signals Drop, or calls on the radio “Drop, Drop, Drop” lower the heavy weight over the side.

Tip Observe how boats on swinging moorings are lying to any tide and wind. This gives a good indication of the best line of approach.

Mark Retrieval

Approach the mark into wind, or tide if stronger. When closing the mark, motor dead slow until along-side with the boat stationary. The crew retrieves the mark on board, then the small weights and lastly the sinker weight. Try to remove the mud as it comes in board by continually dipping it into the water until clean.

By motoring slowly, using minimum revs, you will avoid tangling the rope around the propeller

6 Providing Support

6.1 Golden Rules

Always wear the kill cord when driving. When changing helms the engine should be stopped and the kill cord transferred to the new helm before re starting the engine.

Keep one hand on the throttle and one hand on the steering wheel at all times when the boat is moving.

Helm and crew to keep a good look out in all directions, at all times, when moving.

After setting of, you must not leave the dinghy fleet without permission from the OOD.

6.2 General Advice

Attach the second kill-cord to the seat backrest, in case the helm falls overboard.

Before setting off, do a radio check with the OOD, and other boats, and double check that you have all necessary equipment.

Check the position of the steering before engaging gear.

Ensure everybody is securely seated and holding on before moving.

Warn the crew of your intentions.

Check for other boats.

> Remember your primary role is to assist people in distress and is not a dinghy repair service. Help when you can, but do not leave the rest of the fleet without safety cover. On occasion it may be necessary to leave a dinghy at a convenient buoy, or on the shore for later collection.

Keep a good watch for sailors in distress. The standard distress signal is the up and down waving of the arms above shoulder level.

6.3 Where to be during a race

- You do not need to be constantly on the move. If all is going well, sitting at one point and observing the race is probably the best idea. Try to locate yourself at a point where all the marks are visible to you and where you will not obstruct the course.

- If you have been asked to patrol a particular area, please remain in that area unless you are specifically asked to attend another rescue. If a capsize occurs and more than one Support Boat is available, only one should attend in the first instance.

- Keep well clear of the dinghies whether or not they are racing, and be aware of the potential effect of your wake. Remember that the crew should be very aware of what is happening behind the Support Boat. Watching for approaching dinghies, watching for signs that the outboard propeller is in the mud etc.

- The gybe mark is possibly the point where the risk of capsize is greatest.

- In cases of strong tides but insufficient wind, be particularly aware of dinghies being swept down-tide and away from the race area. Be prepared to offer towing facilities to these boats.

- Be aware that if a dinghy is racing, it will be disqualified from the race if you assist it. "Assisting" essentially means touching either the sailor or any part of the dinghy (such as righting a dinghy, helping with bailing or helping a sailor get back aboard). Keep well clear but within communicating range of a capsized dinghy that the crew are righting.

- Even if the dinghy is not taking part in a race, it is under the charge of the skipper who has primary responsibility for the safety of the boat and the crew. You should therefore seek permission from the skipper before you start to render assistance. If you cannot elicit a response from the crew, it is acceptable to start to render assistance! HCSC Sailing Instructions for all club races state that the skipper must follow instructions received from a Support Boat. If you feel that safety is at stake, you may over-ride the skipper's wishes (as they will be disqualified anyway for not following your instructions).

6.4 Dealing with a capsize

Most dinghy capsizes can be righted by the crew without the need for outside assistance Bear in mind that to a person in the water, a Support Boat approaching at speed is a frightening sight. While you should make good speed towards a person in difficulties, it is best to aim for a point off to one side of the casualty. Also ensure that you reduce speed well before reaching the casualty, or you may well submerge them with your wake. Dinghy crew should stay with the dinghy in the event of a capsize but if they have become separated, rescuing them becomes a priority.

In the case of multiple capsizes, or indeed any instance where you come under pressure to be in several places at once, you must remember that the priority is always to ensure the safety of the people. You should always be prepared to abandon a dinghy if your attention is needed elsewhere to assist other sailors. See 4.2.3 Abandoned Boats (below).

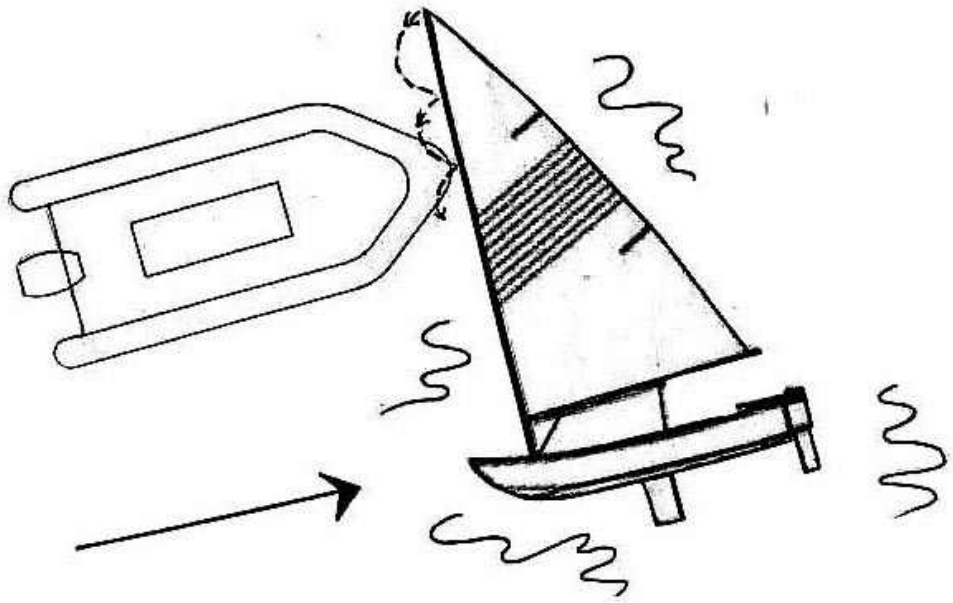
6.4.1 Righting a dinghy

It is usually best to approach a capsized dinghy from ahead at right angles to a point towards the top of the forestay or the mast if there is no forestay. This gives the support boat crew a good view of the situation usually clear of obstructions like lines in the water and the forestay or mast can be grasped to prevent a capsize becoming an inversion.

Having accounted for the safety and any immediate needs of the crew, the support boat can assist in righting the dinghy if, and only if, assistance is required. Righting is made easier by turning the capsized dinghy head to wind by holding the top of the mast and gently motoring it round with the support boat. The mast can then be lifted progressively from the water until the dinghy is righted. Hold the dinghy head to wind with the support boat bow to bow.

In very windy conditions or if a spinnaker is in use it may be necessary to drop sails before righting the dinghy. This is best done by the crew with the mast supported to prevent inversion

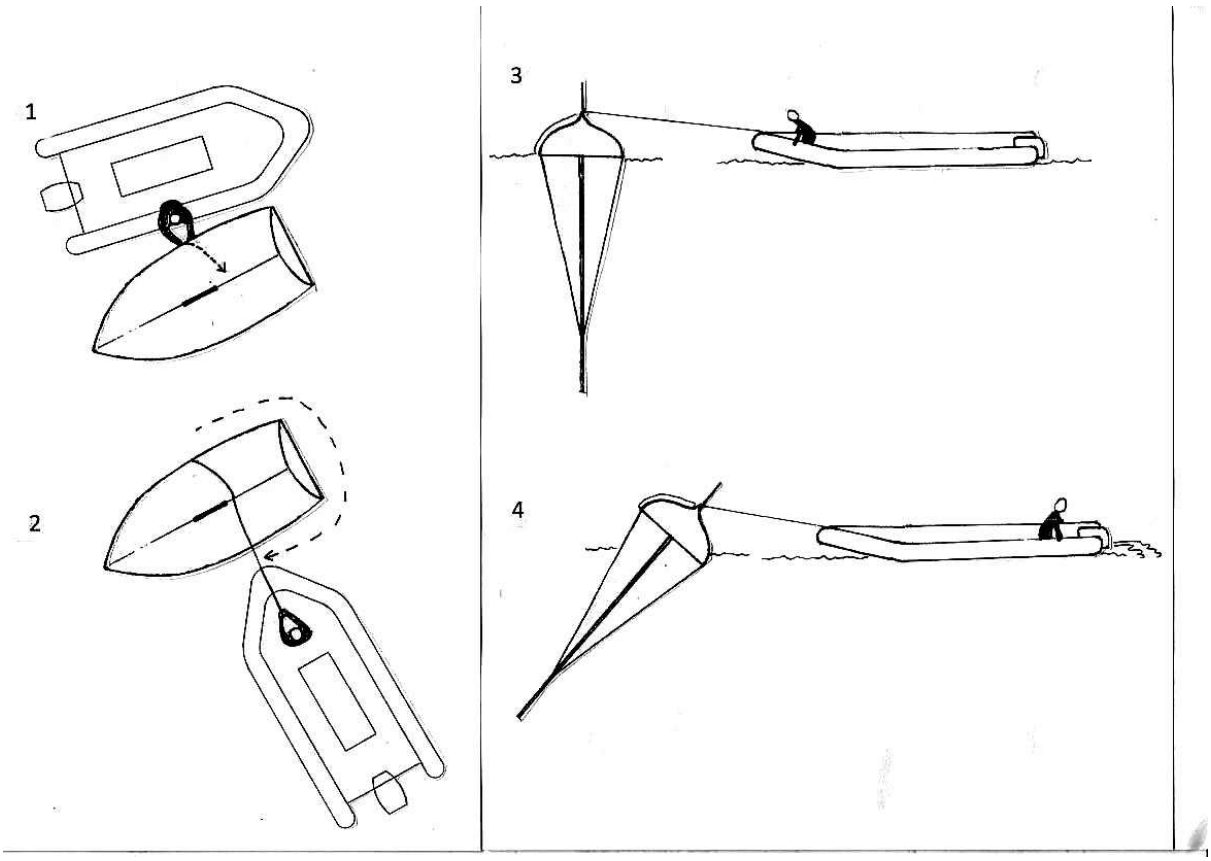
Ensure the crew are still able to manage, and have the dingy under control, before leaving the scene after righting the capsize.



6.4.2 Inverted boats

Check that nobody is trapped under the dinghy. There is usually a sizeable air pocket under most inverted dinghies. If crew are missing and believed to be trapped, righting the dinghy into the capsized position is a priority.
Consider turning the dinghy head to wind by towing around with the painter or forestay. This can frequently cause the dinghy to roll back into a capsized position.
Otherwise come alongside the inverted dinghy and assist the crew by levering on the board and pushing down on the leeward gunwale.
If this fails to bring the dinghy back to a capsized position, confirm that the mast is not stuck in the bottom then take a line attached to the bottom of the shroud at the chainplate, pass it over the hull behind the board and pull carefully but positively by reversing the support boat away from the inverted hull until the hull comes upright.

If the mast is stuck in the bottom the dinghy can only be righted by carefully rolling it in the opposite direction to which it capsized. Consider taking the crew on board the support boat to minimise the damaging effect of their weight on the impaled mast.
Attach a line to the bottom of the appropriate shroud or a strong point inside the middle of the hull if the dinghy is only partially inverted, lead it over the hull behind the centre board and **pull at right angles to the hull.** Lines to the bow and stern of the dinghy will help to maintain the correct angle of pull.



6.4.3 Abandoned boats

It may on occasion be necessary to abandon a dinghy in the water. For example, you may need to attend another capsize or to remove an injured sailor to safety. In this case the following points should be considered.

You might be able to beach the dinghy, leaving it in safe place for recovery later. Consider the state of the tide, and try to tie the dinghy to something secure.

If the dinghy is floating, consider mooring it to a buoy using the painter or using its anchor if accessible.

It's important to mark an abandoned dinghy in some way, so that anyone seeing it adrift will not raise the alarm. The grab bag in the Support Boat should contain lengths of coloured tape which should be attached to a visible point. If the dinghy is flat in the water, the exposed shroud would do. In the case of a totally inverted dinghy, the exposed rudder bracket might be a better bet. Consider attaching a fender to the masthead of an abandoned capsized dinghy to prevent it inverting.

If you have to abandon a dinghy and cannot secure it in any way, you should inform the coastguard and harbourmaster as soon as possible.

6.4.4 Recovery of a MOB

Approach slowly and to windward of the casualty. Stop the boat and allow it to drift sideways down onto the casualty. Any tidal stream will affect the casualty and the Support Boat equally and so can be ignored. Switch off the engine once you have made contact with the casualty. Under no circumstances should you have a casualty in the water at the rear of the Safety Boat while the engine is running.

Alternatively approach the casualty slowly from downwind and bring them onto your windward bow. Use neutral to control the speed of final approach such that the boat is stopped as soon as contact is made by the crew grabbing hold of the casualty from the windward bow.
Waves can make it difficult to bring the support boat alongside the casualty. Providing they are still able bodied, a fail proof method of making contact with them is use the system for picking up a fallen water skier. Stream the floating heaving line with its floating bag or a fender attached behind the support boat and circle the casualty at a safe distance. The trailing line will inevitably cross right over the position of the casualty in the water. They can then be reeled in to the boat or possibly towed slowly into calmer water.
Be very careful if you have any reason to suspect that the casualty is injured. In the case of a serious injury (broken bones) or of an unconscious casualty, you should radio for assistance immediately.

The casualty may be able to board using the anti-cavitation plate on the engine as a step and climbing over the transom. If they are unable to board the Safety Boat using their own efforts, try the following:-

Method 1.
Use this method if the casualty is unable to assist, is unconscious, or may be injured. Arrange the casualty alongside the support boat with the nearer leg and arm over the side tube. With one person at the casualty's hips, and the other person at their shoulders, reach as far over the casualty as possible, grab their clothing and roll them across the side tube into the boat. Take care that the casualty is not injured by falling into the floor. On a RIB (Saracen) a section of the inflatable side tube can be deflated which makes it much easier to get the casualty out of the water and into the boat. Deflating a single, aft section does not seriously compromise the seaworthiness of the hull although it must be re inflated at the earliest opportunity. Deflating the tube should be a very last resort, as Saracen does not carry any means or reflating the tube. Saracen is equipped with a **Jason's Cradle** to assist recovering a MOB into the boat. The cradle (located under the seat console) is attached to the large rope fastened into the bottom of the boat by the carbine hooks at the top of the cradle and draped over the side into the water. The casualty is floated into the cradle and the loose end is then pulled up and over the tube into the boat (parbuckling). Again, ensure that the casualty does not fall to the floor of the boat.

Method 2.
Use this method if the casualty is conscious, able to assist, and is otherwise uninjured. The casualty lies in the water at right-angles to the boat, with both legs over the side tube as far as possible. The two crew members stand one each side of the casualty and leaning forwards each grabs one of the casualty's hands. It should be possible to then just pull the casualty in over the side of the boat.

If it proves impossible to bring the casualty into the boat, consider as an **emergency** measure securing them alongside and well forward with a line around their chest holding their head and shoulders well clear of the water. The casualty could then be carefully motored to the shore. **It is imperative that they are kept well clear of the propeller and that they are secure.**

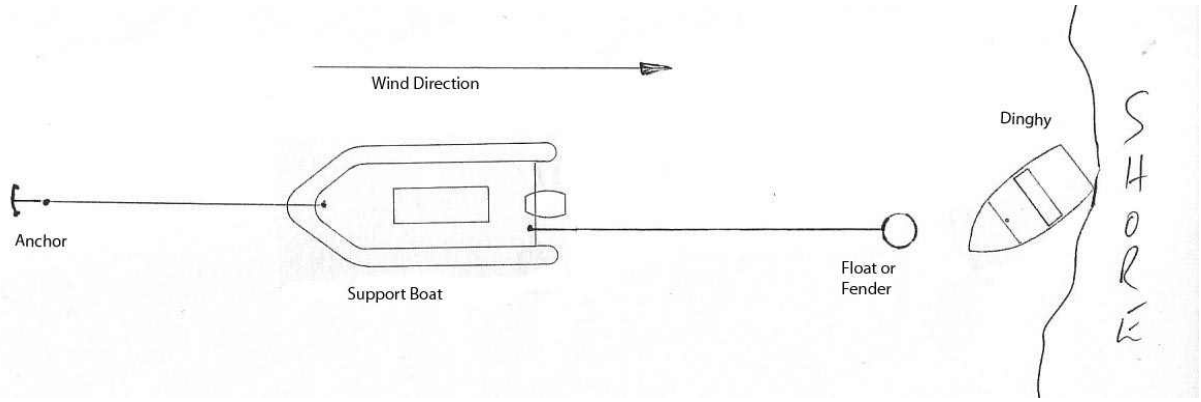
6.5 Lee shores

- If some-one runs aground on a lee shore, it is important that you do not join them there.

- Make sure you have sufficient depth of water. You can use a paddle to check that you have adequate depth. If necessary partially raise the outboard, but be very careful that the cooling water tell-tale continues to show that water is being

pumped through the engine. Remember that tilting the engine up will dramatically reduce its ability to drive astern.

- If you have adequate depth of water, motor carefully towards the casualty and throw a line from your bow. Then motor backwards until you are both clear. If there are significant waves this approach might result in swamping over the transom of the support boat in which case a stern-to approach must be used as described below.
- If you have insufficient line to reach the casualty, then anchor the Support Boat to windward of the casualty while it is still in an adequate depth of water. Make sure the anchor is holding well. If there is any danger of the outboard leg grounding, switch off the outboard, and raise it completely out of the water. Allow the Support Boat to drop back directly downwind towards the shore to the limit of the anchor warp but try and maintain a sufficient depth of water such that the support boat can be driven away from the shore if the anchor fails to hold. Do not become a lee shore casualty! Use the throwing line or float the line with a fender tied to it down to the casualty. If there is sufficient water to operate the outboard, the support boat can be veered from side to side to position it precisely upwind of the casualty by motoring gently astern against the anchor with the appropriate full lock on the steering.



- If necessary, some-one may have to wade ashore from the Support Boat and assist the casualty. **BEWARE.** Test the bottom before wading ashore. Mud can be deep and very dangerous. Do not become a casualty. If in doubt attach yourself to the support boat with a line.

- Instruct the dinghy crew to secure the tow line (preferably through a fairlead at the bow) to the mast by taking a turn around the mast and holding onto the free end such that it can be easily released. The dinghy's centreboard and rudder must be fully raised to avoid damage as the dinghy slews around when it is pulled clear.

6.6 Towing

6.6.1 Towing alongside - suitable for short tows in calm conditions

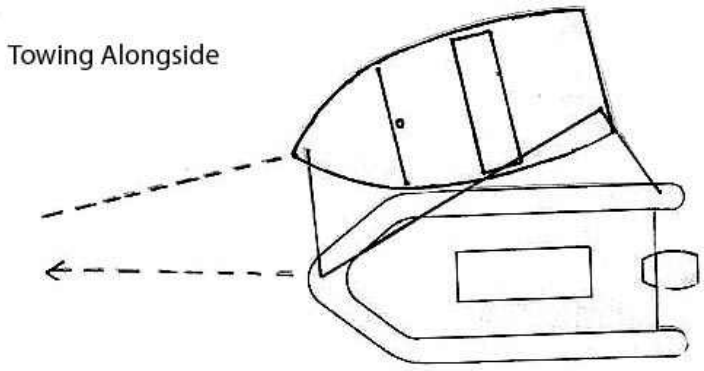
The towed dinghy should be slightly ahead of the Support Boat so that it is in effect being pushed rather than towed. The Support Boat outboard should be behind the stern of the dinghy. If the towed dinghy cannot be steered, remove its rudder. The board should be raised.
Use bow and stern lines to secure the dinghy **tightly** to the Support Boat using fenders if necessary. To assist steering the centrelines of the two vessels should be steering slightly into each other.

If you are using Saracen, **do not** be tempted to use the plastic rings fixed to the inflatable tubes as anchor points for the tow lines. Tow lines must be secured to the stainless steel fittings fixed to the solid hull of the boat. The plastic-covered mooring chain, which will be securely fixed at both ends when Saracen is in use, makes a very convenient anchorage point for the securing lines

Connect a line from the bow of the Support Boat to a suitable point toward the rear of the dinghy. This is called a 'spring', and takes most of the strain when towing alongside.

If you have sufficient line available, connect another spring from the rear of the Support Boat to the forward part of the dinghy.

Under favourable conditions, 2 dinghies can be towed simultaneously, one on each side of the support boat.



6.6.2 Towing astern

Make sure the tow line is secured to the dinghy at a point that will not fail under strain. The base of the mast or the centreboard case would be best. Small painter cleats are not likely to withstand the forces involved, particularly in heavy weather.

Make sure the line is kept well away from the Support Boat engine. Having the towing line caught in a prop-wrap will lose much valuable time.

To prevent the towed dinghy slewing from side to side and possibly capsizing, instruct the crew to raise the centreboard, move their weight towards the stern and to try and steer in the wake of the support boat

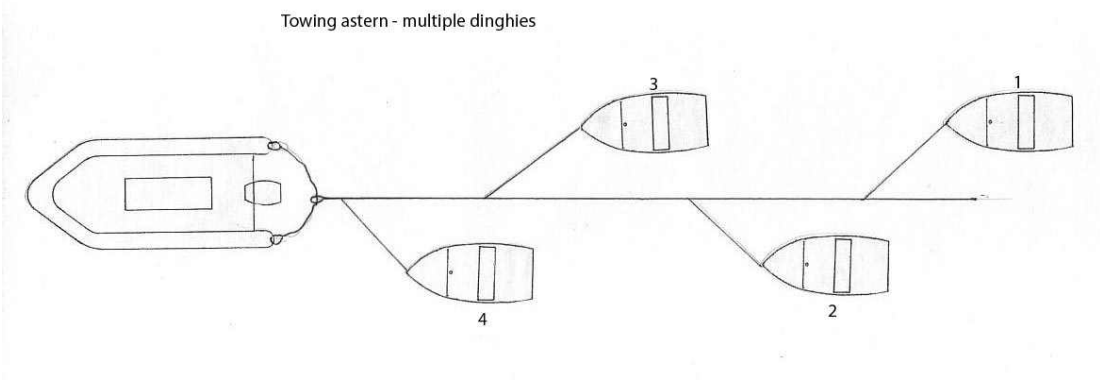
If you need to tow several dinghies at one time, you should consider using a long line fitted with loops at regular intervals. Try to arrange the dinghies so that they are on alternate sides of the line.

Start by attaching the end of the line to a strong point in the Support Boat (This should normally be the carbine hook on the towing bridle which passes behind the engine). Never be tempted to try and hold the line while towing astern.

With all of the line on board the Support Boat, pass the other end of the line to the first dinghy. The sailor should pass their painter through the rearmost loop in the line, and secure it on their own dinghy. Then let out more line until the next loop becomes available. Secure the second dinghy in the same way. Continue until all dinghies are secure, or until all the loops are used. You will need to move the Support Boat forwards in order to avoid the rope becoming tangled.

It is not advisable to tow a string of dinghies with each dinghy connected to the one in front. This places the strain of the entire tow onto the attachment points of the front dinghy. Other than in a flat calm and at very low speeds, this may well result in equipment breakage.

The preferred method using the looped line also has the advantage that individual dinghies can be attached and released without affecting the others in the tow.



In a “herringbone” tow as illustrated above, each dinghy helm will need to put about half centreboard down, and then steer the boat using their rudder to maintain the position of the dinghies as illustrated.

Keep a constant watch on the line of boats. Make all turns wide and gradual to avoid wrapping boats around obstructions. Slow down gradually to avoid rear ended shunts.

7 Basic Rules of the Road

- Nobody has **right** of way. All vessels must be prepared to avoid collision
- A powerboat gives way to: vessels constrained by draft, vessels restricted in their ability to manoeuvre, towing vessels, vessels fishing, vessels sailing.
- Boats “drive” on the right hand side of any fairway.
- When 2 vessels are approaching head on, both turn to starboard.
- A boat overtaking another must keep clear
- When 2 vessels are converging, the one on the right stands on. The one on the left takes avoiding action, usually by turning to starboard and passing astern. Alternatively slow down.
- Avoiding action must be significant and obvious.

8 Basic pilotage

- Do not venture into unfamiliar waters without reference to an appropriate chart and always know your position on the chart.
- Know the state of the tide and any tidal streams.
- Channels are normally marked with lateral marks, usually buoys or posts with distinctive colours and shapes depending on whether they are on the port or starboard side of the channel when moving with the flood tide. Port hand marks are red and can (square) shape. Starboard marks are green and conical (triangle) shape.
- Areas of danger can be marked with cardinal marks (buoys or posts) with different shaped topmarks and colours from which the position of the danger (North, South, East or West of the mark) can be determined.
- Isolated dangers are marked with a buoy or post topped by 2 black balls
- Yellow buoys are of “special interest” (such as racing marks).

9 Tides.

- Tide tables show time and height of high and low water at named position. Heights between high and low water have to be calculated.
- Charted depths are the theoretical minimum known as the Chart Datum. Actual depth is charted depth plus height of the tide at any point in time.
- At spring tides (when sun, earth and moon are aligned - every 16 days coinciding with a new or full moon) the height of the tide at high water Keyhaven (Hurst) is 2.7m falling to 0.7m at low water. At neap tides (when sun and moon are at right angles to the earth) the height of the tide at high water is 2.3m falling to 1.4m at low water.
- Tidal streams, their strength and direction, are determined by the rise and fall of the tide and are shown hourly in a tidal stream atlas.
- Detailed, worldwide tidal information is available on the internet.
- HCSC produces a tide table for Portsmouth each year (available on request from the Sailing Committee). The Club has also produced a set of Perpetual Tidal Curves for Hurst Point, from which the height of the tide at any moment at Hurst Point can be read, by reference to the appropriate table for the range of tide at Portsmouth that day. The Perpetual Tidal Curves are also available on request from the Sailing Committee.

10 Anchoring.

The support boats are equipped with a high performance anchor designed to hold in sand and mud. A length of chain is attached to the anchor to resist abrasion and provide weight close to the anchor. The anchor warp is attached to the chain and must be secured in the boat. For the anchor to hold it must be of the right weight for the size, weight and type of boat; the wind and sea conditions and it must lie horizontal on the seabed. To achieve this horizontal pull the anchor warp needs to be 5 times the depth of the water. When deploying the anchor, bring the boat to a standstill, lower the anchor to the seabed and pay out the warp as the boat drifts back with the wind or the tide. If necessary, motor gently backwards to dig the anchor in. Do not just chuck the lot over the side to land in a tangled heap on the seabed.

11 VHF usage

VHF radio. 'Saracen' has a fitted radio, but the two 'Jaffa's do not and a hand-held should be obtained from the Bosun's locker in the clubhouse. When you take a radio from the Bosun's Locker, make sure that the cover for the charging socket is properly closed. No support boat should be on the water without a VHF radio. It would also be helpful if there was a mobile phone on each Support Boat.

The club uses channel P4 (sometimes seen as M2) and all radio traffic should take place over this channel. This channel is reserved for use by Yacht / Sailing Clubs, and most importantly does not require the user of the radio to hold a VHF licence. All the club radios (including the fixed set in Saracen) have a High and a Low power setting for transmission. In ordinary use only the Low power setting should be used. This greatly reduces the risk of interfering with anybody else using the channel. Except in an emergency situation, the use of any other international channel (including channel 16) is restricted to holders of a VHF licence or someone operating under the supervision of a licence holder. Channel 16 is continuously monitored by the coastguard and ships and is the international channel for emergency calls. If persons who do not hold a licence wish to contact the **coastguard**, they can also dial 999 on a fixed or mobile telephone and ask to speak to the coastguard.

Users of the radio should be brief, concise and speak slowly. Please think about your message before using the radio. Do not forget to press the transmit button before speaking, and to release it after your message is finished. Before pressing the button to make a transmission, listen to make sure that you are not going to disrupt anyone else's transmission. If two radios transmit at the same time, it is unlikely that either transmission will be correctly received.

An example of a message is:-

"Jaffa 1, Jaffa 1, Jaffa 1 this is Saracen, Saracen, Saracen. Radio check please**.** **Over**". Jaffa 1 might reply, "Saracen, this is Jaffa 1, you are loud and clear. **Out**"

In general, each time you speak you should identify the boat you are calling and your own boat so that anyone listening on the channel can identify the conversation and know that when they hear “Out” the conversation is finished and the channel is clear for them to talk if they wish.

The end of each message in a sequence is “Over” - You are saying that you have finished speaking, and it’s the other persons turn.

The end of a complete sequence of messages is “Out” – This means that the conversation is now at an end, and you do not expect a reply.

MAYDAY & PAN-PAN

MAYDAY CALLS ARE ONLY TO BE USED FOR GRAVE AND IMMINENT DANGER TO A SHIP, AIRCRAFT, VEHICLE OR PERSON, REQUIRING IMMEDIATE ASSISTANCE. A Mayday call is classed as a distress call.

A MAYDAY call is made on channel **16** (which has a dedicated selection button on all the radios) and using the high power setting which similarly has a dedicated button switching between high and low power.

A Mayday requires the following information:

- Who you are (how your vessel is identified).
- Your position.
- What is wrong.
- What assistance is needed.
- How many persons are involved.
- Any useful information.

Saracen is fitted with a Digital Selective Calling (DSC) radio which can automatically send a MAYDAY distress call which includes the boats identity and position. The distress call is activated using the red button located at the bottom right hand side of the radio. The button is behind a hinged red flap labelled DISTRESS. To send a MAYDAY call, press and hold the red button for 3 seconds. The radio will give a bleep followed by 3 bleeps which indicates the message has been sent. The message will be acknowledged by the Coastguard and the radio will automatically switch to channel 16, high power, enabling direct voice communication. The standard MAYDAY message is then sent as follows:

Example of a Mayday Call.

Mayday – Mayday – Mayday
This is Support Boat (Saracen) – Support Boat (Saracen) – Support Boat (Saracen)
Mayday (Saracen).
I am one mile North East of Yarmouth
I have a serious engine fire.
Two persons on board with buoyancy aids/lifejackets
We are abandoning the vessel.

PAN-PAN CALLS ARE USED TO ALERT THE COASTGUARD OF AN URGENT SITUATION THAT FALLS SHORT OF GRAVE AND IMMINENT. A Pan-Pan call is classed as an urgency call.

Call on channel 16 and high power.

Example of a Pan-Pan Call.

Pan-Pan – Pan-Pan – Pan-Pan
Solent Coastguard, Solent Coastguard, Solent Coastguard
This is Support Boat Saracen – Support Boat Saracen – Support Boat Saracen
One mile North East of Yarmouth
I have an injured crew member on board with a suspected broken arm. Request an ambulance to meet us at Yarmouth slipway in 10 minutes
Two persons on board
Over.

12 Emergencies & First Aid

This manual is not the place for a serious course on First Aid. It is highly recommended that you obtain a First Aid certificate, and keep it up-to-date by regular refresher courses. Most First Aid certificates have a validity of three years. For further information on First Aid at sea, consider going on a one day RYA approved course.

The primary objective, of first aid, is to keep the casualty alive long enough for help to arrive.

If you are in ANY DOUBT, either:-

- Radio the Coastguard on VHF Channel 16. Explain the situation.
- Use your phone. Dial 999 and ask for an ambulance to meet you.

In either case, give your location. Remember - the person you are speaking to will not be familiar with the area.
Where you take the casualty depends on where you are and what you are told to do by the emergency services.

Unless told to the contrary, take the casualty to the nearest landing point. E.g. Keyhaven club pontoon, Lymington river Harbour Master pontoon, Yarmouth.

While waiting for help to arrive, check the following:-

- Is the casualty's airway clear? Check for obstruction.
- Is the casualty breathing? If not, perform CPR.
- Is the casualty's heart beating? If not, perform CPR
- Is the casualty bleeding? If so, apply pressure to the wound to staunch the flow.

The nearest defibrillator at Keyhaven is on the wall of the River Warden's office. Remember you'll need a mobile phone in order to gain access. Follow the instructions on the box.

Hypothermia.

Causes: Loss of body heat.

Symptoms: These are progressive as the situation worsens

Shivering. Cold, pale skin.

Apathy.

Disorientation.

Irrational behaviour

Lethargy or impaired consciousness

Slow and weakening pulse. Heart may stop.

Actions: Insulate the casualty. Protect from further loss of heat.

Wrap in rescue blanket. Give warm drinks or high energy food

The rescue blanket is a large polythene bag in the HCSC grab bag .

DO NOT Give alcohol or warm by rubbing or application of external heat

Hyperthermia

Causes: Excess body heat.

Symptoms: Headache, dizziness, confusion

Nausea

Sweating. Cramps.

Actions: Cool the casualty.

13 Equipment

HCSC boats are similarly equipped. Exceptions are shown below for Saracen.

Already on each boat:

- Anchor, chain, rope.
- Console cover
- Bucket, sponge, hand bailer, electric bilge pump.
- One bow painter. Two stern painters.
- Towing bridle, already attached.
- Spider bird repellent and holders.

Additional Carried by Saracen:

- Navigation lights.
- Fixed DSC VHF Radio
- Jason's cradle rescue device.

Equipment required for our usual racing and local pottering events.

From Bosun's Locker:

- Hand held VHF radio for helm and crew.
- Emergency equipment bag, identified per boat [See contents list below]
- Boat keys & battery isolator switch attached.
- Two kill cords per boat.

From Fuel Store.

- Fuel tank marked with boat ID. - Check that the tank is full by viewing as the gauges can be unreliable.

From Gear Store

- Tow rope.
- Throw rescue bag.
- Paddles or oars – marked with boat ID.

Additional for race events.

- Racing marks and weights, as specified by OOD

Additional for long distance events, when specified by OOD.

- Additional fuel, either a 5 litre can, or additional large boat tank.
- Spare anchor and mooring buoy.
- Extra long tow rope, ready tied with individual loops for towing several dinghies.
- Hand bearing compass, or GPS device
- Chart, or plan and copy of OOD's Passage plan.

Contents of Emergency Bags.

- First aid kit
- Knife
- Electronic flair
- Orange smoke flare
- Thermal blanket or bag
- Engine tool kit
- Wire cutter
- Fire extinguisher
- Local chartlet of area
- Boat clear tape
- Additional for Jaffa 2- Pair of rowlocks.

Recommended Crew Equipment

- Buoyancy aid (a full life jacket is less manoeuvrable if inflated)
- Knife
- Small first aid kit
- Whistle
- Mobile phone in WATERPROOF case
- Plenty of warm clothing
- Food and drink
- Sun cream (at times)

14 Bird Repellent devices on moored Support Boats

Saracen and Jaffa 1 have each been fitted with two “Daddi-Longlegs” wire spiders for use while the boats are on their moorings, in an attempt to reduce the problem of bird fouling.

Each boat has one long spider and one shorter one. The long one mounts in the white wooden bracket fitted to the backrest of the console seat on each boat, after the cover has been fitted:

On Jaffa 1, the shorter spider, which has a larger mounting pole (25mm diameter) is mounted in the finger hole of the anchor-well lid.

On Saracen, the white wooden bracket for the spider mount fits onto the track fixed to the front of the console (once again, after the cover has been fitted)

When the boats are in use, the spider devices lift out of their mounting brackets, then they are fitted, mounting pole first, into the black 4” drain-pipes to be found in each boat.

Feed the mounting pole into the tube, then gather all the wires together and feed them in too.

The tubes are labelled, so it will facilitate the refitting of the spiders when the boats are put back on their moorings if the right tubes are used!

While the support boats are in use, the tubes with spiders in can be placed in the dinghy.

The wooden mounting bracket for the forward bird-scarer on Saracen must be removed before the console cover can be removed. The bracket can be stored under the console seat or in the dinghy while the boat is in use.

15 Fuel and Refuelling

Observe the No Smoking or naked flame near the fuel store or when filling tanks.

Keep all nozzles or funnels clean to avoid fuel contamination.

Check the tanks before an event and refill following an event.

Visually check the fuel level rather than relying on the gauges.

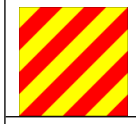
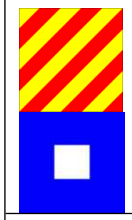
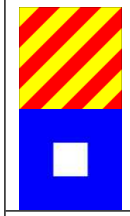
Ensure the fuel connectors are firmly connected before setting off.

Undo the air-vent on the top of the fuel tank filler cap after connecting to the engine.

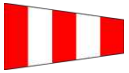
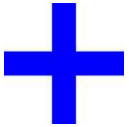
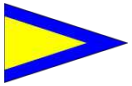
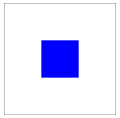
Keep the ends of the connectors clean. When finished for the day, disconnect and hang the hose and connector higher than the bottom of the boat so that it does not suck in water.

Never refuel a hot engine. Check the fuel after a stop and only refuel when the engine has cooled.

Appendix 1 Flags

Race Starting signals				
Flag Signal		Number of sound signals when raised	Number of sound signals when lowered	Description
	Y↑	🔊		Warning Signal. 5 minutes to race start when class flag raised.
	Y P↑	🔊		Preparatory signal. 4 minutes to start when P flag raised. (Alternatives, not currently used in HCSC) If a starting penalty applies I, Z, Black flag or I over Z is used in place of P.
	Y P↓		🔊 Long sound	Preparatory signal. P flag removed 1 minute before start. Class flag stays up! (Alternatives, not currently used in HCSC) If a starting penalty applies I, Z, Black flag or I over Z is used in place of P.
	Y↓		🔊	Start Signal. Race start when class flag removed.

Postponement, Recall & Shorten Course

Flag Signal		Number of sound signals when raised	Number of sound signals when lowered	Description
	AP	🔊 🔊	🔊	Postponement. Races not yet started are postponed. New starting sequence will begin one minute after AP is lowered
	X	🔊		Individual recall. One or more boats did not start correctly and must return back and do a proper start. The X flag is displayed until the earliest of the following: all boats over the line early have returned correctly, 4 minutes from the start or until one minute before the next start. (The sound signal is in addition to the start sound signal)
	1st Sub	🔊 🔊	🔊	General recall. All boats are to return and then a new start sequence will begin. Signaled when there are unidentified boats over the line or subject to one of the starting penalties, or there has been an error in the starting procedure, detected after the Start Signal. The new warning signal for the recalled class will be made 1 minute after the 1st substitute is removed. (The two sound signals when the first substitute is displayed are in addition to the start sound signal)
	S	🔊 🔊		Shortened Course. When displayed at a rounding mark the finish is between the nearby mark and the mast displaying the S flag. When displayed at a line that boats are required to cross at the end of each lap the finish is that line. When displayed at a gate the finish is between the gate marks. For Average Lap handicap racing (as practiced by HCSC), Flag S flown from the Committee Boat indicates to competitors that they will finish on their next crossing of the Start / Finish Line