

Bosun's Hints and tips for Rescue Boat Skippers and Crews

Thought I would pen some useful info for rescue boat crews

Laying Marks

When laying marks drop the anchor first so that you can ensure that the warp is at least twice as long as the depth of water you lay it in, and the chain attached to the anchor is meant to lie on the sea bed to ensure the anchor digs in. This method also ensures that the warp does not get wrapped round the anchor on the way down. If warp is not long enough there are extension lengths on Ark, however please note that some marks have long warps and some short, use the short ones for the inshore buoys. Also check the knots and shackles are secure. We lose a number of anchors with warps each year and that's about £200 a hit, so it pays to check. **(Under no circumstances use the warp for the boat anchor for a mark)** If you don't have enough marks for the course ask the race officer to change the course.

Don't drop marks close to the bathing buoys, the warps can get entangled, use a loop over mark instead on the bathing buoy.

Drop over the up wind (windward) up tide side of the boat so once it is down you will naturally drift off the mark. If the wind and tide are opposing, then you have to compromise come in slowly on the first attempt and accept you might get it wrong so be cautious until you get a better idea of things and can judge the two effects

Drop the anchor so that it does not snag under the boat once down so consider tide and wind and always make sure engine is in neutral.

For the A mark it's easier to gauge where to drop it if the race officer has set the start line transit up before you get on station then it's only a question of how far out to sea along the transit you drop it. Again drop it up tide then you can always pull it onto the line but super precision is not important so long as it's slightly beyond the transit, so boats round the mark after going over the transit.

There is a small pink oval mark with an AP anchor (old fashion style) and short warp, this is specifically for the inner lane mark in the start line, its short warp makes it easier to lay accurately, however do not forget to put the anchor top bar retaining wedge in place before dropping, otherwise it will just slide along the bottom!. Bear in mind that the A mark of the course is always the most seaward mark on the transit, so on subsequent laps of the course the dinghies will not be using the lane mark. Once the race has commenced the RO may ask you to lift it to avoid confusion, just don't forget to drop it again if there is another race!

Retrieving marks

If the mark appears to be jammed on the seabed try tying it to the boat and pulling it up tide on moderate power in reverse. The electric winch on Ark should normally do the job.

Always come up to the mark from the down tide, and (leeward)wind side. If you are using Ark this is critical, if you don't you are very likely to get the mark warp wrapped around the prop. When Ark is put in neutral the propeller will turn slowly for a few seconds, and if the warp gets under the boat due to the wind and tide pushing Ark onto it, you will have a problem. If you realise this is happening soon enough, rather than sticking with it drop the mark reverse out and have another go. If you think it's too late turn off the engine.

There is a prop shaft access cover in the floor immediately behind the engine housing, if the warp is only lightly caught, you might be lucky and be able to turn the prop by hand backwards to free the warp.

If its badly jammed up put down the anchor on Ark until rib is free, as a mark anchor is not big enough to hold Ark in position and it won't do the prop shaft cutlass bearing any good dragging an anchor. Once Ark is secure then you need to get rib to lift the mark anchor before you get towed back to the berth where we can sort it out in slow time. When anchoring Ark use at least three times as much anchor line as depth of water.

If you really have a jammed Anchor and feel you need to cut the warp please tie a small pink plastic loop-over type mark to it, so that others have an opportunity to recover it later, or we can ask the local dive club to help out.

Radios

Call signs:

Ark, Orange Rib, Grey Rib

Race box is Arrow use channel 37A/M1 or P1 depending on radio.

Newhaven Harbour channel 12, please call them before entry or leaving .

In rough weather the microphones on the ribs can get wet. They are water proof but water tends to get lodged in the microphone and cause distortion on the voice. If this happens tap the mic down on your free hand this should dislodge the water and clear up the voice quality.

Please note that some of the radios have the high / Low power (25W/1W) switch on the handset, use low power unless on the long distance race or calling Arrow from the berth. Selected power setting is shown on the LCD display.

Ribs

On arrival connect fuel line and release fuel tank air bleed valve, before strapping in under seat.

Inspect propeller and **check there are no fishing lines caught in the prop.** If you do find one and cannot remove completely please inform Bosun, as fishing lines **will** destroy the oil seals on the gear box and I need to remove the propeller to ensure this does not happen.

Both rib engines have mechanical locks to keep them up should the hydraulic lifts fail, these may need to be disengaged before dropping the engine, they are situated on the starboard side.

Start engine ensure kill cord in place and engine in neutral.

Sort out marks and if any need air use foot pump in Ark's bow locker. This also applies to Rib tubes.

Note the position of the warps before you slip the berth, so they can be replicated on return, it is important that warps do not rub on the rib tubes un-necessarily.

Once off jetty call in on channel 12 for clearance to leave harbour, proceed down starboard side of river ensure that no fishing lines catch on the engine. Don't get too close at low tide!

Don't bring ribs or Ark close to the shore at any time unless you really know what you are doing, a wave can catch you out and worse case is a beached rib, which is likely to mean a bent propeller, both these things have happened in the past!

After returning to the mooring please disconnect the petrol line from the tank but let the engine run and clear fuel from the carburettor particularly if it is not expected to be used again for some time. This is because petrol reacts with water and leaves deposits in the jets and so winter overhaul becomes a big job.

Bits on Ribs

There is one switch on the console below the steering wheel which operates the navigation lights, please use on Wednesday evenings when the sun goes down.

The plastic container contains:

Knife, Compass, thermal blanket, first aid kit, flares.

The bilge pump is automatic and will come on only when there is about 5cm of water by the pump, there is also an chrome override push button on the transom that allows you to clear most of the water out of a rib.

The elephant trunks should not be needed unless the boat has been swamped by a wave. On grey rib the port side trunk can be dropped by the crew and is held up by elastic, so simply pull on the rope at the transom until the worst of the water has gone.

The anchors are secured forward by rope to the D ring at the bow to stop them sliding around. If you wish to use the anchor let all the warp out so that the external bow eye takes the load and does not rub on the sponsons. A short rope allows the anchor warp to be easily retrieved when you need to raise it.

There are handles on ribs sponsons, these must not be used as mooring cleats, or securing tow lines for large dinghies, they are not strong enough for that purpose.

Note that the tell-tail water outlet on grey rib can often become blocked as the grit in the marina mud is similar size to the outlet. Donot worry I check this regularly and there is overheat protection on the engine.

Don't take ropes over the tops of the stern A frames you may break the lights or aerial.

Moore up Grey Rib

Secure blue bow line to the pontoon cleat. Secure stern line directly to cleat on ark then take forward to the internal bow eye the anchor is secured to, this forms a spring so keeping the rib from hitting the jetty.



Moore up Orange Rib

If it is moored on the opposite side of the jetty to Ark, it can get caught under the pontoon. When you arrive you will find a loop over mark or fender on the starboard forward quarter, keeping it away from the jetty. Please make sure you put this back when mooring up. Also as Orange rib is not the main rescue boat please transfer all marks back to Ark before you leave.



Bits on Ark

To start Ark first operate the battery isolator, then advance the throttle half way with the clutch disengaged. To disengage the clutch press the black rubber button at the base of the throttle lever whilst moving it from neutral.

Now turn the ignition key until the glow plug lamp is illuminated and wait 5 to 10 seconds (depending on how warm it is) then turn the switch further to activate the starter motor. The engine should catch straight away if it has had enough glow plug time. If not repeat the process with the glow plugs on for longer.

Ark has a large anchor in a bin in the wheel house. It also has a spare emergency anchor in a box in the forward cuddy, note this is not tied off to any fixing point.

Ark, like both ribs, has an automatic bilge pump. However it also has a manual pump on the port stern quarter, the handle for it is under the helms seat.

Under the seat are useful bits including mole grips to undo shackles and the key to undo the fuel cap. Spare life jackets can be found under the seat.

There is an emergency steering position available by removing the large rear cuddy cover on the transom, and fitting the bar in the rudder stock to forming a manual tiller arrangement.

The Electric winch is very powerful, but also draws a lot of current so use when the engine is running, simply lift the protection covers over the foot switches to operate.

Air horn button is on the side of the console.

Mooring up Ark

All of the warps are secured to the pontoon and lengths set to give you: bow line, forward spring, rear spring, stern line.

If they don't fit you probably have the bow line and bow spring the wrong way round.



Anchoring Ark

Arks Anchor warp has been arranged in such a way that it is no longer necessary for a crew member to have to get on the foredeck to drop or lift the anchor. Pulley blocks are positioned on the deck to route the warp back to the electric winch on the starboard side.

So to drop anchor simply take the anchor from the bin and lower over side with chain, however once you get to the rope warp clip the large karabiner hook over the warp and let go such that the anchor is now coming off the bow of the boat from the roller on the foredeck. The rope to the karabiner (which will now be under the water) has the free end still back in the cabin tied off to the handle on the side of the cabin. Now simply let out the anchor warp from the cabin and tie off on winch and adjacent cleat once you are certain you have let out enough for the water depth.

So to lift the anchor use the electric winch slowly until you see the chain coming up, but stop before it comes to the bow roller. Now the anchor will be free so simply pull on the rope that goes to the karabiner hook and retrieve the anchor into the boat from the starboard side.

This method is a lot simpler and safer than having the crew work up a sweat on the foredeck!

Beware of getting fingers trapped in the winch accidentally pressing the floor control switches with your feet when lifting anchor or marks over starboard side of boat.

Make sure anchor and warp are placed back in the black bin so all tidy for the next skipper to use.

Rescue situations

Don't forget your primary role is to rescue sailors, the boat comes second. If multiple boats are in trouble offer to take the sailor onto rib and go to all the boats in trouble before you start recovering dinghies.

Be aware that once you help a sailor they will be disqualified from the race, so they may want you to stand off or come back after some time, as they will prefer sort the situation out on their own if they can.

If boats are stacking up, moor them to buoys until things are under control, and the race is over. Do not tow one boat all the way to the shore while others are in difficulty or likely to be so.

Terms used by sailors you may be called to help.

If you go over to a boat to assist in some way and are asked to come along side approach slowly from the windward side (i.e. opposite side to where the boom is), hold the boat into wind by moving forwards very slowly to give steerage, directly into wind or just off the wind so the boom of the dinghy is away from the rib. The helm of the dinghy should be advising you, however make sure there are no sheets (ropes) in the water that can catch in the prop. This is a dangerous manoeuvre and if you are not confident with boat control do not do it, stop the rib pointing into wind, and let the dinghy come to you.

All the ribs and Ark have tow-lines, with a Karabiner hook on one end. Don't throw the hook at a dinghy, that end is for clipping on eyes on rib and will hurt the crew if it hits them!

If a dinghy is inverted and the crew is unable to right it on their own then the action depends a little on the type of boat, (assuming no one else is in trouble)

If it is a single hander rig you might:

1. Go to the bow so both boats are bow to bow facing each other with the boat crew at the bow with a rope (painter) ready to catch the dinghy. Then go slowly in reverse until the dinghy points into wind i.e. stern of rib is upwind of the dinghy, this should make it easier for the helm to bring the boat upright.
2. If they are not able to do this it's probably best to secure the boat to a spare mark or bathing buoy and wait until sailors become free at the end of the race to recover the dinghy in slow time.
3. Alternatively send the rib crew in to the water to help the sailor and stand off to recover once sorted. However once you do this you are committed to that boat and cannot quickly get to any others that need help.

If it is a two manned boat with shrouds you might:

Go to the up wind side bow to, and throw a tow line to the crew. They should take a turn round the lee side shroud, and simply hold the end of the rope. Rib goes astern slowly, and dinghy will roll up and then the crew simply lets go of the rope as it comes to the vertical. Going astern means you keep the prop away from ropes and people in the water and can see what's happening without having to look over your shoulder all the time. This is the safest way to work with dinghies as you can't always see all the ropes and sails from the dinghy that might be underwater. If you wish to tow an inverted boat use the forestay not the centreboard as rope will break the edges.

If it's a catamaran then it depends on the type as to the action to take, this is not a simple rescue and if the crew is unsure it may require for the cat to be moored up until the end of the race. Make sure it's far enough out to sea so the mast does not bottom out.

The rescue crew may be able to help the cat crew by lifting the mast-tip a few inches out of the water for a few seconds at the crucial point in the righting process when the cat crew are hauling on the righting line over the hull in the air. The mast should be pointing into wind for this to be most effective. All sheets on the cat should be released and the crew clear of entanglement in any ropes.

If the cat is inverted, one technique is to approach from windward and pass the tow rope to the cat. The helm passes the rope over the furthest hull from the rescue boat and takes a turn around the mast (NOT the shroud). The rescue boat now reverses away from the cat to windward. Vary the angle that you reverse away from the cat and you will find an angle where the cat comes to the horizontal.

If all efforts to right a cat fail, it may be because the crew is not heavy enough or the mast has become filled with water. In the case of the former an extra man can be put on the cat when racing has finished. In the case of the latter, it would be worth trying to use a line from the rescue boat tied to the end of the cat's righting line and using engine power to right it. This would need to be a long line so that in the event of the cat flipping-over the rescue boat is not struck by the cat's rig coming down on it. If this fails there is only beaching which may not be possible if the breeze is off-shore as the cat's trampoline acts as a sail.

Once righted it may be necessary for the rescue crew to help the cat crew back onto the boat – nearer the bow or front of the trampoline – the highest part – **not the stern** – the lowest part – otherwise the cat will swing around on the weight of the crew in the water as soon as he puts a hand on the boat and head off downwind dragging the crew through the water until he or she cannot hold on!

General

To save fuel costs, if the weather is light, please tie ribs alongside Ark when not required, this will save the club significant fuel costs. Note that when the ignition on rib is off so too is the radio. It's also a lot easier to watch the fleet from Ark.

The RIBS are not toys for you to race up and down the bay just for fun, please consider the fuel that you will be using up.

Please do not cut across the front of dinghies or too close to the stern when they are racing as this will bring them to a standstill in the wake and is unfair to that boat.

Please leave the boats in a tidy state as you would wish to find them.

Please take your rubbish with you

Please don't leave full cans of fuel on Ark, they are too easy to steal and security is not great.

Bosun's Silt Warning for Skippers

As you can see from the attached photos the ribs now end up high and dry for a good hour at low water. Please ensure boats are free floating before starting engines. Always reverse grey rib out into the channel to avoid the prop digging into the mud that has accumulated in front of Ark. Be careful when returning to the jetty near low water. Do not force the boats onto the mud, particularly Ark, tie up bow to, and we can always go back latter and sort things out once the tide has come in.

Please tie the Grey rib bow line off to the jetty cleat, note the small fender cleat on the rear quarter of Ark.



Bosun's Fishing line Warning for Skippers

As you can see from the attached photos when a fishing line gets caught in the prop it can cause a lot of damage to the gear box. It eats through the prop shaft oil seals and then the oil turns to an emulsion. Next, key components start to break up then the gearbox fails. This is the third gearbox failure in the last 4 years due to fishing lines.

Please can I ask all rib skippers to be particularly vigilant when entering and leaving the harbour. Please look for fishermen on the harbour arms and make sure you can see where the lines are going into the water. If you just look ahead you are unlikely to see the lines.

Please take a moment once moored up at the end of the day to inspect the prop and ensure no line is protruding.



Finally

I don't have a problem with people making mistakes I just need to know, please tell me if something is wrong or damaged.

C Turner

Bosun