

















Boat Angler's Safety and Navigation Equipment

Essential Safety Equipment

Here is a summary of safety essentials. These are not listed in order of priority – you need all of them. The RNLI and Coastguard Services can provide excellent guidance on safety equipment to be carried by private boats so feel free to contact them.

1.	<p>Personal flotation devices. You must carry – and wear – some form of flotation assistance for everyone on your boat. Preferably, an automatically inflating life jacket that can be worn unobtrusively at all times. The “braces” style can be worn all day without any inconvenience. The advantage of a life jacket is it will keep you floating the right way up for many hours, even if you are unconscious. A buoyancy aid is a very second best, as it will only help you stay afloat rather than keeping you afloat, and even sport ones can be bulky. Buoyancy aids are best kept for rivers and estuaries, and should never be relied on for your personal safety at sea.</p>	
2.	<p>Secondary flotation devices – you should also carry a lifebelt or flotation cushion designed for the job. You never know when you might need it, either for a crew member who goes over the side and needs extra help, or for the assistance of someone else already in the water. In addition to the life belt, you also need a floating throwing line. These are usually orange in colour, with a knot or handle at the end. Both the life belt and throwing rope need to be kept readily accessible – and untangled – because when it is needed, it will be needed in an emergency, when seconds save lives.</p>	
3.	<p>Distress signals. There are several ways of summoning help of disaster strikes, and you must be acquainted with all of them. All boats should carry a set of distress flares and smoke signals of a type appropriate to the area you fish – you can buy inshore packs, coastal packs and offshore packs in handy watertight containers. They will have expiry dates marked on them, and when that date comes, replace them with new ones. Other forms of distress signal include flames and smoke. If you have room to carry a galvanised metal bucket, you can create an impressive smoke signal by burning oil soaked rags in it – useful as a last resort maybe but not one to be relied upon!</p>	
4.	<p>Powerful torch. You may not plan to be out at night but if you end up that way, you'll need a torch.</p>	




5.	<p>Bilge pump and bailer. Your boat may already be fitted with a pump to remove water from inside, if not you must fit one. If it is electrically powered then it is advisable to have a manual pump as well, in case flooding damages the electrical circuits. If you leave your boat afloat, fit a float switch to start the pump if the water level rises inside the boat, this can deal with rainwater flooding or minor leaks that could sink a boat over time. In addition, you should also carry strong plastic buckets. These have many uses, particularly on an angling boat, and will be invaluable if you have to chuck water over the side in a hurry.</p>																					
6.	<p>Tools and repair “bits”. You could easily go over the top with tools and repair materials. In an emergency, there are limited repairs you can do yourself when at sea, but if you can do some minor repairs you might prevent a situation developing into something worse, or you might be able to keep fishing instead of abandoning a day. Buy a large plastic food-saver type box with a tightly fitting lid, and keep the following items on board. Spray any metal tools with WD-40 even if they claim to be stainless.</p> <table border="0" data-bbox="243 661 1071 1008"> <tr> <td>Heavy duty pliers</td> <td>Assortment of strong twine</td> </tr> <tr> <td>Long-nose pliers</td> <td>Stainless wire</td> </tr> <tr> <td>Large screwdrivers</td> <td>Assortment of electrical cable of the type</td> </tr> <tr> <td>(cross-head and Phillips)</td> <td>used in your boats wiring loom</td> </tr> <tr> <td>Electrical screwdriver</td> <td>Shackle key</td> </tr> <tr> <td>Appropriate fuses and</td> <td>Tube of caulk</td> </tr> <tr> <td>spare bulbs</td> <td>Tin of WD-40</td> </tr> <tr> <td>Stainless screws, nuts,</td> <td>Electrical tape</td> </tr> <tr> <td>washers and bolts</td> <td>Plug spanner</td> </tr> <tr> <td>Adjustable spanner</td> <td>(for petrol engines)</td> </tr> </table>	Heavy duty pliers	Assortment of strong twine	Long-nose pliers	Stainless wire	Large screwdrivers	Assortment of electrical cable of the type	(cross-head and Phillips)	used in your boats wiring loom	Electrical screwdriver	Shackle key	Appropriate fuses and	Tube of caulk	spare bulbs	Tin of WD-40	Stainless screws, nuts,	Electrical tape	washers and bolts	Plug spanner	Adjustable spanner	(for petrol engines)	
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7.	<p>VHF Radio. All boats should carry a VHF set, preferably a fixed set run from the boat electrics and a second, hand-held set as a backup. All VHF sets must be licensed to the boat, and all operators must be qualified, or supervised by a qualified operator. This means taking some training, sitting a short operator’s examination and obtaining a VHF Operators Certificate. This is a one-off cost; the boat VHF licence has to be renewed annually. Digital Selective Calling (DSC) radios have many advantages including being able to signal specific boats like a telephone, but their main safety advantage is that they can be connected to a GPS so that the current position of the set can be broadcast automatically – a great safety asset in an emergency. DSC sets have a red “panic button” which transmits an emergency message identifying the vessel and position, which is often the most difficult (and important) bit to get right when communicating verbally in an emergency.</p>																					
8.	<p>Mobile phone. This does <i>not</i> replace a VHF radio! However there can be situations where it is better to use a mobile phone if you have good signal coverage, particularly when communicating with a shore station with duplex VHF such as a marina office.</p>																					

9.	<p>Anchor. Unless you plan to fish only on the drift, you will have an anchor on board anyway, and will take this aspect of your boat's equipment more seriously than the average speedboat owner. Anchors are essential safety items as well, as they can prevent you getting into serious problems if your engine fails close to rocks, sandbanks or busy shipping channels. There are several different types of anchor available, all with their own advantages, so the choice is yours. I would recommend carrying a spare, in case the first does not hold in an emergency, and also in case you lose one while fishing. Carrying a spare means you can carry on fishing.</p>	
10.	<p>Rope. In a list of safety equipment, rope is for repairs, towing or tying to a rescue boat. Your anchor rope will make a good tow rope, so make sure it can be used in that way by being quickly unshackled from the anchor chain. Your mooring ropes, if they are of a sensible length, will also serve as emergency ropes for a variety of purposes.</p>	
11.	<p>Secondary means of propulsion. Depending on the size of your boat, this could be a paddle, oars, small outboard or second engine. This is not always practical, and there are many commercial boats relying on a single engine. However, it is always preferable to have a backup, particularly if you are relying on a petrol engine or outboard as these are more prone to failure than a marine diesel engine.</p>	
12.	<p>Navigation lights. If you intend to fish at night or into winter evenings, you must equip your boat with navigation lights according to the Rules of the Road. Even if you do not plan to be out late, a problem may delay your return and you must show navigation lights so other boats can see you and avoid a collision. If you do not fit permanent navigation lights, you can buy battery powered emergency navigation lights for small boats from a good yacht chandlers. For small motor boats and dinghies under 7 metres in length and a maximum speed of 7 knots, the minimum is a white light visible all the way round, mounted on a short mast. Boats under 12 metres in length can combine the forward and stern white lights into a single white light visible all round, and a red Port light and a green Starboard light.. Boats at anchor must show a single white light visible all round.</p>	
13.	<p>Anchor Ball. All boats at anchor must show during daylight hours a black ball hoisted in the forward rigging, or on a pole over the front part of the boat. A spherical ball is bulky to stow, so a convenient alternative is two flat black disks that can be slotted together when in use to appear as a ball, and can be stored flat.</p>	
14.	<p>Horn. This is used for signalling your intentions, such as turning to port or starboard, and also for attracting attention in an emergency. If you do not have an electric horn fitted to your boat, you can buy an air-canister horn (as used at football matches) very cheaply at a yacht chandlers. If you do not use air horns regularly, check them because they can leak, and an empty air canister will not make a noise just when you may need it.</p>	



Navigation Equipment

There are some navigation items I would consider essential, some desirable and some are luxury items. However it does depend where you are fishing – a radar set for example would be a luxury item in Southampton Water but essential for mid-channel wrecking.

Essential

1.	<p>Compass. Every boat must have a compass, properly adjusted for the boat's own magnetic influences, and you need to know how to use it. By far the best way is to attend a navigation course such as those run by the RYA.</p>	
2.	<p>Detailed charts of the areas you will be travelling and fishing in. On the same navigation courses, you will learn how to read these maps of the sea, and understand the information they contain.</p>	
3.	<p>Depth/fish-finder. Knowing the depth of water is vital, both for fishing and for safety. As you are running a boat primarily for fishing, a good fish-finder will be high on your shopping list anyway, for identifying good fish-holding features. As a safety aid it is invaluable, for warning you of dangerously shallow water, and for confirming your estimated position. If you think you are in a position which according to your chart has 20 metres of water but your echo sounder shows significantly different, you know you will have to re-check your position.</p>	

Highly Desirable

1.	<p>GPS. This is very useful, but not essential. It is a good idea to get used to navigating without a GPS, firstly because you would look very stupid if it failed and you were lost despite having a compass and charts on board, and secondly because a GPS only takes account of positions and directions. It does not take account of wind and tide, both of which are very influential and for effective navigation, particularly over long distances, you need to understand and make allowances for their effects. Modern GPS sets are amazingly accurate and relatively cheap compared to their predecessors. For identification of positions and basic directional navigation, a hand held set is quite adequate. A fixed set will have a larger screen and a useful tracking facility, which allows you to back-track over marks you may have spotted on the fish-finder, or to replicate effective drifts.</p>	
2.	<p>Tidal Atlas. For the price (currently less than £10), this little booklet should be in every skipper's navigation bag. Tidal Atlases are published by the same Admiralty publications body as Admiralty Charts, and are available from good yacht chandlers. They show tidal currents in terms of direction and relative strength for every hour of the tide, and make it very easy to plan where to fish to take advantage of tide strength and direction over marks. For navigation purposes, it is a much easier way of estimating the effect of tidal currents on your boat's progress through the water than working it out from the tables printed on Admiralty charts.</p>	

Luxury Items

1. **Chart Plotter.** Many are fitted in small boats, and they combine chart information and GPS positions in a very visual and easy to use way. However, they should never take the place of compass, chart and GPS because if you rely on them and they fail, you are in trouble. It also tempts you to jump in, switch on and go, without taking the trouble to learn the basics of navigation and seamanship. You need those basics to get the most out of advanced navigation equipment like a chart plotter.



2. **Radar.** These are now available in small sizes suitable for small boats, and no longer drain batteries like the old sets used to. Invaluable for long distance work, in poor visibility and where you are likely to be near busy shipping lanes, for the small boat operator they are useful but not really essential. If you do decide to install a set, don't underestimate the amount of time you need to spend learning to operate them. A course on electronic navigation equipment is well worth the investment.



Other Equipment

Here is a list of basic items that I would recommend you start with for a five metre outboard powered fishing boat, and you can add to it as you wish.

1. **Mooring ropes.** These are useful for tying up alongside a jetty, and for manoeuvring a boat onto a trailer. There are many different types of rope, but the best for mooring ropes are braided, which feel soft, and made of nylon or polyester. Don't skimp on the length, you may have to tie up to a bollard some distance away so make sure you have at least three ropes of 10 metres each, or more for a larger boat.



2. **Fenders.** These hang over the side to protect your boat from banging against a harbour wall or another boat. You should have at least three each side, with fender eyes screwed to your boat at strategic points to tie them on to if your boat does not have safety rails in convenient places.



3. **Boat hook.** Useful for hooking up ropes, mooring buoys, lost odds and ends, and hooking on or fending off as you manoeuvre alongside a jetty or another boat.






4. **Spare fuel can (full).** Self explanatory, unless you have a very large built-in fuel tank with an external fuel gauge. It is a good idea to have a spare can of the same capacity as your main fuel tank, so if you inadvertently allow it to run dry, you will probably have enough in your second can to get back home.

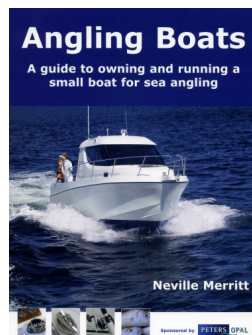


5. **Second battery.** Batteries can and do run flat, particularly if you operate a lot of equipment and lights from your main battery. You will not be able to start a large outboard or an inboard without a well charged battery, so it is highly advisable to have two batteries, one for engine starting and the other for operating what is called the "domestic" system. These can be switched so the engine battery is isolated while fishing, and both charged while under way.



6.	<p>Storage. This all depends on your boat design, but all the equipment listed so far that is not screwed to the boat, needs to be kept somewhere. Storage bays and seat lockers are invaluable, but if you do not have these, then invest in plastic storage boxes with lids. You should also fit hooks, racks and holders to keep things like rods, gaffs, landing net, boathook, paddle etc. from rolling about. Plenty of rings fixed to the boat and some elasticated luggage hooks (with plastic hooks) makes it a lot easier to keep things together. If you don't, then the first few waves will make a complete mess in your boat and the next few could flip them over the side.</p>	
7.	<p>Bait cutting board. It is worth making up something specifically for managing bait on board, as a small boat tossing about at sea is no place for a loose board, knives and bits of bait. You could fix a section of plastic chopping board to the boat transom, or make up a detachable one to fix to the gunwales. A secure place to hold the bait cutting knife makes sure it doesn't get lost or inadvertently cause someone some harm.</p>	
8.	<p>Rod holders. Adjustable ones can hold rods for transport as well as when fishing. It is advisable to secure the rod with a lanyard even if there is a locking device, as a snagged line while the boat is moving could snap the rod holder before the line breaks. A lanyard will stop you losing the rod as well.</p>	

This information was previously published in “Angling Boats” by Neville Merritt



More information on boating and fishing can be found on www.boat-angling.co.uk

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