

# Spotlight on safety

Huw Williams looks over the safety gear set-up aboard a friend's Jeanneau SO 40 and implements a series of upgrades



Sailing Scenes/David Harding

A Jeanneau SO 40 similar to the one given a safety audit in this feature

**T**aking the Standards of Training, Certification and Watchkeeping for Seafarers (STCW) commercial certificate course a few years ago opened my eyes to the possibility of things going wrong afloat.

This was backed up by my experience prepping boats and sailing offshore on my round-the-world trip, aboard two different boats on the World ARC and ARC+.

More recently a friend who owns a Jeanneau SO 40 was planning a few cross-channel trips, so when he asked me to help make it safer and easier to sail I was glad to... particularly as one of the people sailing on it is going to be me.

In my experience the culture on board is the most important aspect of boat safety. It comes direct from the skipper and is particularly important with new or inexperienced crew.

If the skipper doesn't wear a lifejacket the crew probably won't either. If the skipper is drinking copious amounts of alcohol under way, then the crew probably will too – it's party time! These are two of my no-go rules when I sail, but there are other cultures on board that are potentially just as dangerous – how many times have you watched a yacht about to dock, with the skipper urging the crew to 'Jump, it's not far!'. Or late and shouty commands that stress and confuse the crew.

Get the culture right and you only have to worry about the boat's equipment and making sure it's stowed in the right place. As always, it's the details that count.

With this in mind we walked the boat and made notes using the principle of 'what if this happens'. It's more fun to be

## FOR THE RECORD

Keel bolts were photographed as a visual reference to compare against at a later date



## BEFORE



**ABOVE** Jubilee clips are doubled up but emergency bungs are not in evidence

## AFTER



**RIGHT** A bung secured close to a through-hull fitting



on deck, but we started below – it's important to resist the temptation to skip things and go sailing.

### Keel bolt photos

The boat has been surveyed and pronounced sound, but we back this up by photographing the area around the six retaining nuts. Now we have a visual record of any hairline cracks etc. and we can use them as a reference if something like a grounding occurs in the future.

### Bungs for skin fittings

I once saw a boat in New Zealand that had just arrived from Fiji. It was on the hard standing and the owner was examining the plastic skin fittings. He gave one of them a fairly gentle tap with a screwdriver and it fractured. He tapped another – same result!

Thankfully, our Jeanneau SO 40 has metal skin fittings, and each of the hoses is held in place with two stainless steel clamps which inspires confidence. I'm sure they're not likely to fail, but if they do we'll need to react very quickly. There were already a set of timber bungs on board, and some of them were the correct size, but they were stowed under one of the saloon seats. I can imagine the scene trying to find them in an emergency, with the crew tripping over cushions and shouting: 'Where's the mallet?'. And it'll be 3am, of course.

Firstly, we worked out which bung matched which fitting. Then we taped each bung to a length of cord and tied this onto the appropriate hose, taking care to prevent them 'tap-tapping' with vibration and driving us crazy. If they're needed, we can just yank them off the cord.

A mallet was given a wrap of luminous tape and prominently positioned near the nav station.

### Fire hazards and extinguishers

Only 1% of RNLI call-outs are fire related, but everyone I know who has sailed offshore says it's their biggest concern and the STCW really brought home to me the seriousness of a fire on board. I did the course at UKSA on the Isle of Wight,



**BEFORE**

**ABOVE** Fire blanket was well positioned



**LEFT** We determined to upgrade the 0.6kg fire extinguishers to 1kg units



**LEFT** Bag of oily rags stashed under the sink was a potential fire hazard



**AFTER**

Bigger extinguishers were also fitted with luminous tape

and with perfect timing a large motorboat in East Cowes caught fire during one of the lectures.

Within a minute it was an inferno and was quite a sobering experience. As always, prevention is better than cure, so we went over the Jeanneau looking for potential fire hazards and discovered a plastic bag of oil and WD40-soaked rags under the sink. Organic materials in confined spaces can generate heat and have been known to combust.

There were already 0.6kg extinguishers in the forward and rear cabins, all in date and showing green. We resolved to change them for larger models when they got closer to their expiry dates. We fitted a 1kg model in the saloon, and applied luminous tape to the cylinders, ring pulls and retaining straps. The starboard cabin has an access port to the engine bay and this was also highlighted with tape.

The fire blanket was already installed in

the right place and so we simply applied a luminous strip.

### First aid kit

The contents were checked, and we added a bottle of saline, sterile tweezers and more pain killers. We also included a list of any allergies and medication relating to the regular crew, a First Aid Manual (left on the saloon table to encourage study) and a SOL Emergency Bivvy Bag. This is like a space blanket, but in a bag shape and is great for warming up cold people. I've used them in the mountains and they work well. Hypothermia, remember, is one of the leading causes of death in boating related fatalities and you shouldn't hesitate to call for assistance if you need it.

Finally, a small roll of clingfilm was added – it makes a great sterile dressing, particularly for burns. The cupboard was already labelled 'First Aid' and we added a luminous cross.



**ABOVE** We upgraded a few items in the First Aid kit and marked the locker with a luminous tape cross

**LEFT** A SOL bivvy bag is for warming up very cold people

**RIGHT** The First Aid Manual was left out in the saloon to encourage crew to read it





### Torches

Everyone has a head torch, but we mounted a water and shock-proof torch near the nav station, just in case.

### Checklists and equipment location chart

This is a very good idea. Once all the work was done we produced laminated versions of the list, and they were placed in the saloon and in each cabin.

### Companionway

This is where a lot of falls occur – I've done it myself, and it's worth remembering that contusions and fractures caused by falls are the most common injuries on a boat.

There were already grip strips fitted to each step, and we added two short lengths of luminous tape to each step to make things easier at night. We also positioned a small sponge there to inculcate a 'dry steps culture'. Then we climbed up the dry steps to the cockpit...



Companionway steps are sensibly fitted with non-slip strips



Glow-in-the-dark strips could help prevent accidents in the companionway

## Inspection on deck

### Lazarette locker

The lazarette contained a liferaft and nothing else, which is good because there was nothing to hinder rapid deployment. But I think we can utilize the remaining space for other safety gear and make it the dedicated safety locker for the gear we need on deck – if we ever need this gear we'll need it immediately.

Firstly, we hauled out the liferaft, or rather tried to because it's quite a snug fit and to access it you must remove the lazarette lid and the two catches were found to be firmly seized! WD40 penetrating fluid was applied and a few minutes later the lid was off. Then we removed the salt deposits from the catches and applied a layer of grease – smooth operation was restored and confidence in a rapid abandonment increased. When we hauled the liferaft out of the locker it was found to be six months out of date and it had also been sitting in water (the lazarette's drainage hole was blocked) so was looking rather the worse for wear. It was sent for servicing.

### Cockpit locker

Bolt cutters and a soon-to-be-out-of-date coastal flare pack were found in separate locations in the saloon, given a wrap of luminous tape and then placed in the lazarette for quick accessibility.

We also acquired an offshore flare pack which we were planning to put in the lazarette also, but simultaneously discovered the other cockpit lockers had no drainage or venting so we had to store the fuel cans for the new tender's motor next to the liferaft instead.

"There's a fire extinguisher in the port cockpit locker," said the skipper. There was – we eventually found it under a multitude of rope, hoses and other assorted equipment, but its gauge was showing red and so the extinguisher was replaced. This locker received a ruthless



The liferaft was situated in this admirably uncluttered lazarette locker, but the drain was blocked so the raft was sitting in water and was out of date, so we sent it for servicing. The locker lid also needed attention so it could be fully removed to extract the liferaft



We eventually had to stow the dinghy fuel tanks in with the liferaft as the other cockpit locker wasn't fitted with drains



Bolt cutters were stowed in a locker in the saloon – too far from the deck where they'll be needed



Bolt cutters are now found in a reorganised cockpit locker



purge and the remaining gear was stored in plastic crates. The new offshore flare pack was stored here also.

### Harness tether strong points

There was a padeye at the front of the cockpit next to the companionway, but no clip on point for the helmsman so another padeye was fitted between the wheels. There were already jack lines fitted and these were deemed to be sound, but the shackle pins weren't wired and we attended to this.

### Dan buoy stowage

Of course, no one is going to fall off the boat because the culture promoted by the skipper will ensure that everyone will be wearing a lifejacket and tether, and they'll be clipped on when necessary.

But an MOB situation can still happen – if it does, how long will it take to deploy the dan buoy?

The existing set-up was stored in unextended mode, outboard on the starboard side of the pushpit. The flag clip had been replaced with a length of plastic tube (tethered to the back stay) and the longish drogue line (minus the drogue) was tied on to the pushpit as a tether. To deploy it, you must stand on the helm seat (trying not to fall over the lifelines), pull the plastic tube off the flag, unroll the flag, extend and lock in place the three sections, untie the tether line from the pushpit and lob it over the side.

This took 40 seconds in the marina. I wouldn't want to do it in a blow, and certainly not on port tack.

A revamp was required. Firstly, we moved the holder inboard to a more central position next to the stern gate and mounted it as low as possible.

Then we extended the sections and found them to be slippery with green mould – delightful. We gave them a clean, locked them in place and taped the joints to prevent them working loose. Then we pleated (not rolled) the flag and held it in place with the tube. The long tether line (guaranteed to foul the prop) was removed and replaced with a short length of line and a clip.

To deploy, you pull down the tube (it stays on the pole), unclip the tether and over it goes. Aesthetically, the new set-up looks a little top heavy, but the new deployment time is under five seconds and that's more important

### Horseshoe degradation

The original-equipment horseshoe was suffering from UV degradation and the attached light was found to be full of water, so a new model fitted with an LED light was installed.

Interestingly, most of the horseshoe stock in the chandlery was white because 'people like them to blend in with the boat'.



**BEFORE**

**ABOVE** Jackstays were fitted and in good condition but the shackles were not wired... that was simply remedied (right) with plastic cable ties



**AFTER**



**BEFORE**



**AFTER**

**FAR LEFT** Danbuoy would not have been nice to deploy on port tack!

**LEFT** More centrally located and deployment simplified



**BEFORE**

The white horseshoe lifebuoy was replaced with a more obviously visible yellow one



**AFTER**





We chose a yellow model which doesn't blend in with the boat... or the ocean.

Finally, the MOB recovery system (found in the depths of a saloon locker) was stored in the port cockpit locker.

### Non-slip hatches

None of the deck hatches had grip strips fitted, so we rectified the situation with several self-adhesive strips per hatch (radiused ends of course). When we unzip the sail bag we stand on the sliding hatch over the companionway, so we did the same here.

### Releasing jammed winches

A riding turn doesn't often happen, but it's something you need to be prepared for, particularly if there are less experienced crew on board. Think trapped clothing, or worse, fingers. As we know, a jammed winch can be unloaded with a length of line and a rolling hitch, but this can only happen quickly if the line is to hand, so a dedicated line was located on the pushpit.

### Personal protective equipment

Have you ever test-inflated your lifejacket? We asked the regular crew this very question and not one of them had. Their reasons were 'It's new' and 'I'll have to repack it'. These seem to be popular responses, and like getting someone else to do the re-arming I think they're based on a little techno-fear (and having to read the manual). But if you're one of those who haven't done it, how do you know for certain it will hold air? It's not unknown that it won't.

Before you next go sailing, test inflate your lifejacket using the mouthpiece, remove and refit the inflating mechanism, inflate and deflate it again and re-pack it. I guarantee you'll be glad you did it. Then show a friend how to do theirs. Everyone on board did this, and everyone was glad – particularly the person who found their light to be defective.

The importance of crotch straps, hoods, lights and tethers have been covered over and over again in the pages of PBO, but put a knife in the pocket and make sure it has a lanyard. I also keep a 60cm climbing sling on the waist belt, which is a useful aid in clipping on to parts of the boat that don't have convenient pad eyes or jack lines. Most importantly, as the RNLI tells us, a lifejacket is useless unless worn – so just wear it.



BEFORE

ABOVE Some non-slip is needed on this hatch  
RIGHT That's better



AFTER



LEFT Hatch over the companionway is regularly used when stowing the mainsail, so it got the non-slip treatment



A lifejacket should carry a knife and include a 60cm climbing sling on the waist



belt for occasional tethering on deck (shown above)

## A yacht owner's view

I'd always prided myself on a well-run yacht and a review like this is really helpful. I think it's important to get a second opinion because it's so easy for an owner to become precious about their boat and think nothing needs changing.

Our inspection not only identified areas that had previously been missed, but

also made sure that, in the event of an emergency and particularly at night, the relevant equipment was in the right place and easy to access.

As with most things, the work took longer than expected. I'd say we spent about 12 hours, but it was time well spent. The next time we sailed, the

regular crew were given a safety briefing on the changes and everyone agreed the new set-up was logical.

We've also done some forward planning. I'm considering switching to a canister liferaft, and we've made a space for it on the aft area of the pushpit by relocating the new horseshoe lifebuoy.