

Winterising

Rupert Holmes explains how to keep your sails, engine and kit shipshape during the winter, whether your boat is afloat or laid-up



Laying up and winterising used to be a key part of the boating calendar, but that has changed over time, and across the UK over half of boats now remain afloat for the winter period. That doesn't obviate the need for carefully targeted attention and preventative maintenance, however, before the darkest days of the year.

Preparing for winter need not be onerous or time-consuming, but failing to do so risks creating significant problems, including damage while moored or ashore, which invariably leads to a slow start to the following season. In any case, identifying problems at an early stage, and getting them sorted before the pre-season rush, always pays dividends.

Part of the problem with delaying this aspect of maintenance is that by the time the weather starts to improve in the spring, sailmakers, riggers and other marine trades are usually already working at full stretch. Therefore, the key to being well

organised and on top of maintenance at the beginning of the season lies in what you do at this time of year.

Many aspects of boat maintenance are a constant process of looking for early signs of problems and dealing with these issues before a failure occurs.

Check all key items of equipment so you can be confident all deficiencies have been identified. This applies as much to gear that is used every day as to items such as windlasses and generators that are perhaps only rarely used. If time allows, the last sail of the year is an ideal opportunity for this.

Start with the sails

A good place to start is to examine sails for damage to stitching, as well as nicks, chafe and tears in the fabric, both when sailing – the smallest damage will show clearly against the sun – and when packing the sails away for the winter.

Pay particular attention to high-load areas around the head, clew and leech,

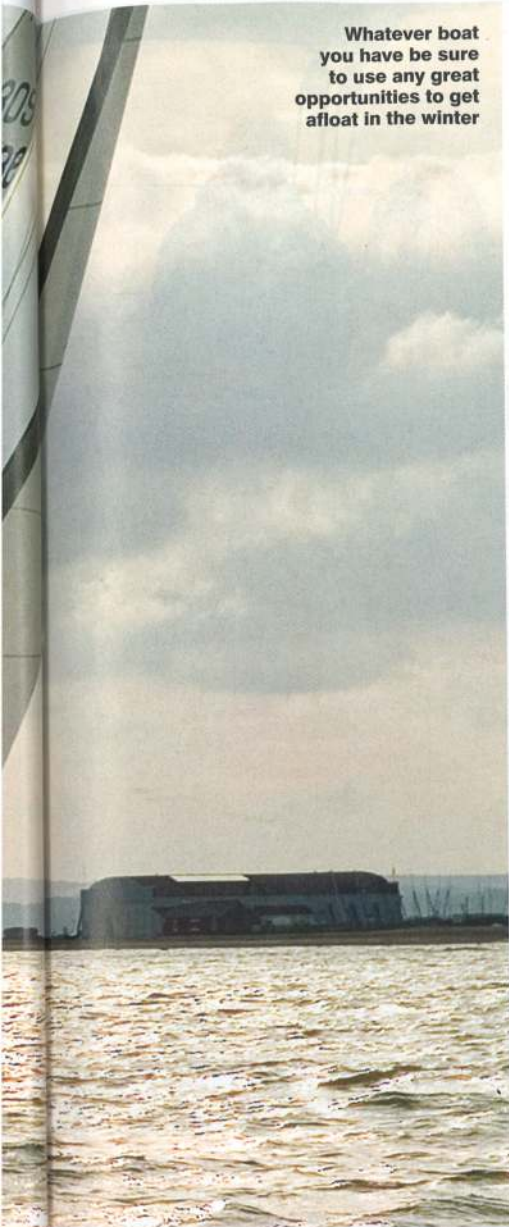


The leech is the part of the sail that most often sees damage

as well as batten pockets, reef points and spreader patches. These are the areas that usually let go first and therefore benefit from reinforcement if damage to the cloth or stitching is evident.

In days gone by, caring for sails in this way was a task that even the least practical of boat owners would undertake. However, John Parker of Parker & Kay's East Coast loft told me his team spends an increasing amount of time at the end of the season taking sails off customers' boats, checking them for damage and storing them over the winter. Whichever

Whatever boat you have be sure to use any great opportunities to get afloat in the winter



route you choose, don't be tempted to skip this important aspect of maintenance – that's when the type of sail damage that can spoil a summer cruise is most likely to be spotted.

Examining deck gear for correct and smooth operation is also best done while sailing as that's when any problems are more apparent. At the same time you can check for play in rudder bearings and wheel steering systems. A final sail of the year is also the perfect time to discuss any modifications to the deck layout and fittings that will take place over the winter – it's much easier to work out exactly what is needed when the boat is still afloat.

A rig check is also worthwhile in the autumn, as it's much easier to solve any



ABOVE Checking the rig: a full rig inspection at this time of year can pay dividends



LEFT Not only does this spring look undersized but it has chafed significantly around the fairlead

problems now than in a last-minute rush at the start of the season. Send someone up the mast, as well as investigating items at deck level, including boom, vang and spinnaker pole.

Pay particular attention to the area around fittings, including swages, spreader roots, and rigging terminals.

Spreader ends should be checked to ensure they are smooth and check halyard sheaves run smoothly. Again, if you don't want to undertake this yourself professional riggers offer checks at prices from less than around £100, providing your boat isn't in a location that involves significant travel.

If halyards, sheets and other lines are several seasons old, it might be worth removing them and reeving a mousing line to facilitate replacement. They can then be washed in fresh water and examined for chafe or other damage.

If lines have picked up green mould, washing them in a big tub or bath will help remove this without risk of damaging the rope. Had I been writing this a decade ago I'd have been recommending putting them in the washing machine, but experience shows this can damage the outer covers of some lines.

Canvas work such as sprayhoods and cockpit tents can sustain more damage and collect more dirt and mould during a few winter months than the rest of the year. So it's worth removing them unless the boat is afloat and will be used regularly.

If you're leaving the mainsail on the boom put extra ties around the sail cover to keep it in place in extreme winds.

Below-deck systems

What about winterising engines, fresh water systems and other similar equipment? Decisions will depend on whether or not the boat is staying afloat, where it is kept, your attitude to risk and the extent to which you can draw on funds to fix an unexpected problem if you get unlucky.

The key problem is water expanding on freezing. This can lead to damaged water pumps in pressurised freshwater systems, blown core plugs in engine blocks and, if you're really unlucky, may even crack the engine block making it unrepairable.

Although seawater freezes at a lower temperature than fresh, the difference is not large. At typical salinity seawater freezes at -2°C, so it offers a little extra protection, but not as much as many people believe. And don't forget that in estuaries the water is somewhat brackish as the seawater is diluted by the fresh water fed from rivers and streams.

On the plus side, the sea remains warmer than air temperatures during the winter, so the interior of boats kept

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afloat tend to stay slightly warmer than those ashore.

On the South Coast and in the West Country, where hard frosts are rare, a boat kept afloat is unlikely to need the engine to be fully winterised. The minimum sea temperature in Brighton, for instance, averages 8°C at the coldest point (early March), rarely dropping below 6°C.

However, it's vital to appreciate there's a risk in this approach and you may get caught out. Nevertheless, it's a risk many thousands of boat owners take – and one I've been happy to accept for 25 years – but that general acceptance of the risk doesn't mean it does not exist. If I had a boat with high-value engines kept on freshwater I'd certainly be much more careful about winterising them.

At the other end of the spectrum, if your boat is based on Scotland's east coast, where hard frosts are more or less guaranteed, a full winterising of systems is essential to avoid damage.

Even those with boats in warmer climes need to be wary of the potential for frost damage. My boat in the north-western Aegean, for instance, is exposed to temperatures well below zero at least every two or three winters. The same is true for other areas including Croatia, the south of France and northern Spanish Mediterranean coasts, although the Algarve and Galicia, which are warmed by the Atlantic, have much less harsh winters.

Full or empty tanks?

Whatever the location of the boat the procedure for winterising fuel systems should be the same. Diesel tanks have potential to grow bacteria – which can subsequently block fuel pipes and filters – at the interface between the fuel and any water in the tank. Keeping the tank full means condensation can't form on the walls of the tank above the fuel level and is therefore always a sensible precaution.

To prevent frost damage to pipework and water pumps, the freshwater system should be decommissioned and drained. The same applies to hot water systems, including the calorifier. If necessary, a propylene glycol-based drinking water



system antifreeze can be used. This also has anti-microbial properties, but unlike ethylene glycol-based antifreeze, is not toxic. If buying antifreeze that is diluted (often it's sold in the UK at a concentration of 30%) it will be further diluted by any residual water in the system and be less effective than advertised.

Engine

Traditionally, winterising was seen as being the best time to service an engine, or at the very least to change the oil and filter. This is less of an issue with more modern oils as they don't become as acidic with age as older oils did. However, much of servicing consists of careful inspections of wires, connections, pipework to spot early signs of potential problems well in advance of the start of the following season.

Most of today's inboard diesels are

indirect cooled, with a mix of water and antifreeze flowing around a closed circuit, as with a car's cooling system. Providing there's a sufficient concentration of antifreeze, the main engine block will be protected. This same coolant also runs through the heating coil of the calorifier of hot-water systems and one side of the heat exchanger.

However, many older engines with raw (seawater) cooling systems can be damaged if the boat is exposed to sharp frosts. To avoid this, the cooling system should be flushed through with an antifreeze/corrosion inhibiting mix. The same procedure for boats with indirect cooling will also protect the saltwater side of the heat exchanger.

Storing equipment

Is it best to keep equipment on board or ashore during the winter? In the days of



ABOVE Inspect connections and pipes to minimise the risk of engine problems

'It's important to check that any equipment not stored on the boat will continue to be covered by insurance'

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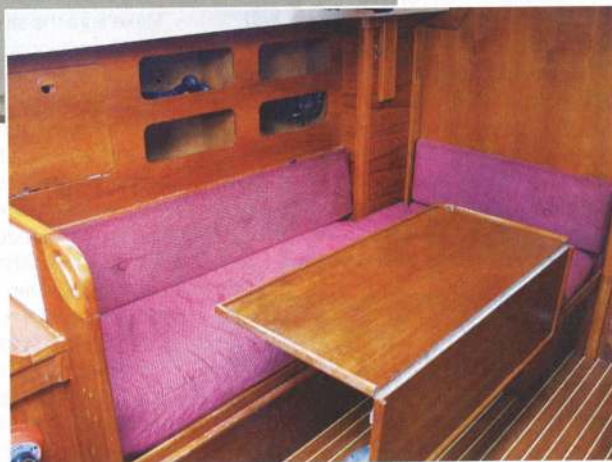
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ABOVE Rye Harbour in December – are you happiest for your boat to be ashore or would you rather be afloat?

ABOVE A full winterising of systems is essential to avoid potential damage

RIGHT Keeping the interior in good order throughout the winter is not something that can be taken for granted



traditionally planked wooden boats it made a lot of sense to take everything ashore for the winter. If the boat was well ventilated and all lockers were propped open this allowed air to circulate throughout the vessel, eliminating the chances of mould to form and rot to start in inaccessible corners.

This is no longer essential for today's boats that don't have myriad leaks through the deck planking. However, it's worth auditing everything on board at the end of the season – it's easy for superfluous clutter to build up on board.

Removing as much in the way of clothing, bedding and other non-

essentials such as spare sails and even excess food can help significantly to eliminate areas without airflow.

However, it's important to check that any equipment not stored on the boat will continue to be covered by insurance. It's also worth propping lockers open wherever possible and standing berth cushions on their edge.

Keeping the interior dry

I repeatedly see boats where no attention has been paid to protecting the interior from the ravages damp and mould. As a result, they require considerable cleaning in the spring, soft furnishings can be

damaged and getting rid of the dank smell may be next to impossible.

Boats kept ashore, or in a berth with mains electricity, can be sealed up and a dehumidifier used to keep the interior in good shape. But it's worth double-checking with your insurer that the boat will continue to be covered if such mains-powered electrical equipment is left operating while you are away from the boat for extended periods.

If it's not possible to use a dehumidifier, good ventilation is the key to keeping damp at bay. This approach works particularly well for boats on a swinging mooring that spend significant lengths of time pointing roughly head to wind. But it's also important to be sure any items that have become impregnated with saltwater during the season are washed out with fresh water and thoroughly dried.


If the boat has a history of developing condensation and mould growth over the winter, wash all exposed surfaces with a mould repellent such as Milton or white vinegar.

While the decks of today's boats are far less prone to leaks than their wooden forebears, they are by no means immune and fittings, hatches and windows can all create problems. If you don't have time for a proper repair, be sure to clean and dry surfaces and then apply waterproof tape, which can usefully keep leaks at bay for a few months.

Batteries, electrics and safety kit

In the past, the best advice was to charge batteries fully at lay-up time then monthly to account for the rate of self-discharge of around 2-3% per month. But with many cruising boats now having solar panels, even a modest setup will provide enough power though the winter to keep batteries topped-up.

As part of the winter maintenance procedure, check that every electrical item works – it's not uncommon for small defects go unnoticed for a surprisingly long time.

For instance, if you've not sailed at night for three months, failed interior lights, or even navigation lights, may have been missed. Winter is also a good time to 



How sheltered is your proposed mooring? This image of the Hamble entrance shows just how exposed the lower reaches can be at a very high tide

audit and service safety kit and it's worth making a list of expiry dates of items such as flares, first aid kits, EPIRBs, liferafts, inflatable lifebuoys and danbuoys.

Jackstays and harness lines should be checked for chafe and if the jackstays are more than ten years old they should be replaced due to likely UV degradation. Equally, lifejackets should be serviced in readiness for the new season.

Afloat or ashore?

It's easy to assume boats are safer ashore during the winter, where they are well clear of waves, storm surges, the potential for collision damage and anything else that might go wrong when afloat.

But being ashore does not guarantee a problem-free winter. Leaves can block

'The furling drum should be secured so that it can't rotate, even if the furling line breaks'

cockpit drains, leading to the cockpit filling up and then filling the interior of the boat via the washboards. Storm-force conditions can cause lines of yachts in boatyards to fall over like dominoes, and damage from rats or other pests can certainly occur from time to time.

While few people see their boats afloat in 70-knot gusts, even on their home moorings a sustained winter storm can wreak havoc on the complacent.

As a minimum, I like to add extra oversize lines with effective chafe protection so that the boat will still be

safely moored even if any single mooring line snaps. Equally, the cost of seriously oversized fenders is a small price to pay for the protection they provide.

Make sure the sails and canvaswork, such as sprayhoods and cockpit enclosures, are able to withstand the most severe conditions. If they can't then it will pay to remove them.

As a minimum, furling headsails will need to be removed before lifting out.

If staying afloat it's also well worth removing the headsail, but as a minimum the furling drum should be secured so that it can't rotate, even if the furling line breaks. Also take time to secure the clew with a strong lashing.

On a larger boat, if the clew of the sail is too far above deck to reach, then wrapping several turns of the sheets tightly around the furled sail will help to prevent a corner from catching the wind.

And don't forget to check the boat between periods of heavy weather.

Every winter has its share of crisp sunny days that can be great for sailing, so it is a shame not to be able to grab the opportunity to use them.

The boat is unlikely to come to harm if you have a properly sheltered winter mooring or berth, invest in oversize fenders and an extra set of heavy-duty mooring lines that are well protected from chafe.

This is the approach I've always taken and is one that has rewarded me with memories of many glorious winter weekends on the water.



ABOVE LEFT Any risk of big weather demands big fenders if the boat is alongside

ABOVE RIGHT Furling headsails are at risk in big winds, so it's best to remove them. If not, at least secure the clew firmly and tie the drum off so that it can't rotate

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