



# Winterization Advice

Guidance on preparing your boat for cold weather

**The boating season is winding down and it is time to start thinking about protecting your boat for winter. The effort and money you spend now will have a definite effect on your boat's performance, or lack of it, and certainly save you time, effort and money come spring.**

Every boat and engine configuration is completely different. It is important to check your boat thoroughly to make sure nothing is missed before the temperature drops. Trapped freshwater anywhere onboard will freeze at 0 degrees. Catastrophic damage will be caused to any part of the boat which contains water. This can include calorifiers, hot water boilers, air conditioning systems, toilets and most importantly your engine.

## Insurance

You should remember that your insurance policy will not cover damage done by lack of maintenance or neglect. Furthermore they will wish to see proof you have taken reasonable precautions to protect your boat from freezing temperatures. As all insurance companies vary you should check with your insurer what you are covered for and what precautions they require you to make. Its best to check your policy now before any potential damage occurs.

## Cracked Engine Block

Engines should be winterised because you are at risk from water in the cooling system freezing, and expanding resulting in a cracked engine block and other engine components. When water freezes it will expand by 9%. This is enough to fracture an engine block or manifolds and exhaust risers. 'A common misconception is that a frost plug, or core plug, is designed to prevent damage by being pushed out when the water freezes. In our experience it rarely does. 'V' engines seem particularly vulnerable due to where the water sits in the block. According to MS Amlin the average insurance claim for a frozen engine runs to £7,000!

## Fuel Problems

Fuel destabilization over the winter period has to be addressed. Today's Fuel is very susceptible to moisture as it will absorb any condensation on the inside surfaces of the fuel tank that forms when large temperature changes occur. This new mixture is heavier and settles to the bottom where it proceeds to eat away at aluminium tanks. It can also strip the anodizing off the sides of the tank. Come springtime the carburettors or fuel injection system may accumulate the particles of aluminium oxide which looks like white sludge. The same scenario happens to the petrol inside of the engine and that affects the internal metal, plastic, and rubber parts of your motor's fuel system. As fuel degrades it is subject to Diesel Bug over time and oxidizes, forming gummy deposits that can harden and smell like varnish. In addition fuel should be stabilized to minimize rusting of steel parts and the freezing up of expensive electric fuel pumps.

## Batteries

A fully charged battery will not freeze but self-discharges over time, more so when connected to an engine. A battery discharged to 50% freezes around -12°C and a dead battery may freeze solid at a relatively mild -6°C. Freezing frequently ruins a battery by distorting the plates, breaking internal connections, or possibly cracking the battery case allowing the acid to leak out when it thaws.

## REMEMBER...

If the Marina freezes over, as it has before, we will be unable to lift boats, so don't leave it too late! Return your winterizing form asap to guarantee your hard standing space for winter.

If you are in any doubt you should seek guidance from a professional engineer.

**River Ouse Marine Engineering are on site and able to assist. Please call Chris on 07940 534937**

P.T.O



# Winter Tips

## Change your oil

Its good practice to change your engine oil before winter. As it's the end of the season any water or acids that have built up may corrode your engine internals. Its best to leave your engine sat with nice fresh oil over the winter ready for the start of next season.

## Check your manufactures recommendations

Always check your engine manufactures manuals and follow their recommendations to make sure your engine is winterized properly. If in doubt or your not hands on get a professional to check and do it for you.

## Refresh your coolant system

Drain your coolant system and make sure its flushed and re-filled with fresh antifreeze to your manufacturers specification. This will help prevent freezing and corrosion.

## Consider slackening drive belts

When kept under tension for long periods of time drive belts can start to crack. There life can be extended by slackening them off over the winter period.

## Batteries

No matter how new a battery is, its serviceable life will be dramatically reduced if it is left to flatten and die over the winter. Top them up with distilled water and disconnect them or keep them trickle charged using a battery charger.

## Fill you fuel tanks

A part filled fuel tank leaves an air gap which with the changing temperatures can cause condensation. Any water in your fuel can corrode the tanks as well as cause your engine to run badly in the spring. Consider filling your tanks and add a fuel stabilizer to keep your fuel good over the winter. Fuel Set is available from the marina chandlery

## Close Sea Cocks

If you are staying afloat close all seacocks to prevent sinking! Of course you'll need a reminder when you re-commission your boat in the spring! put a note on your dash or tape over your ignition.

## Take Care of your Upholstery and Electronics

Moisture can cause mildew to form which will damage any soft furnishings and headlining's. Once this takes hold its nearly impossible to clean back to new in the spring. Take home and stow cockpit cushions if you can or put them inside your cabin. Remove any dash electronics you can, as well as being at risk of theft they are vulnerable to extreme cold and moisture.

Ideally place a dehumidifier and or low powered tube heater on a thermostat in your cabin to prevent damp. Make sure the dehumidifier drains to a sink or shower trap. If you don't have shore power use moisture crystals.

## Covers and Shrink Wrap

If you have canvas covers you'll know they can cost thousands to replace. They can be vulnerable to high winds and the clear panels can crack if frozen. Remove and stow your main covers if possible, use a tonneau cover or winter cover if you have them. if you don't have a spare cover consider checking all your canopy fixings to make sure the cover is taught. You could also cover your boat using a tarpaulin or ideally use our shrink wrapping service for complete protection.

## Check regularly

Although you can do a lot to prepare your boat for winter its still always advisable to check your boat regularly. Visiting your boat during the winter months can raise awareness for potential problems early and ensure plain sailing when the time comes to launch your boat in the spring / summer months.

