



Drew and Avery Maglio restored and sold a number of smaller boats before acquiring their Ericson 38-200 Walden

# 10 tips to avoid boat restoration pitfalls

Drew Maglio owns up to his boat-buying mistakes, and has some valuable tips for anyone in the market for a new second-hand yacht

**A**fter years spent refitting motorboats my wife, Avery, and I decided to buy a yacht. We've been working on our 1987 Ericson 38-200 Walden for over a year now and have made many mistakes along the way. From a blistering hull to sinking dinghy, and costs that just kept spiralling... here are some of the lessons I've learned:

## PRE-PURCHASE 1. Check the climate

It's always hard to resist buying a boat that is lying conveniently nearby, but my first recommendation, having bought a boat in South Florida, a region notorious for harsh ultra-violet (UV) index and



After sitting in salt water for decades, our bronze propeller needed to be reworked



**ABOVE LEFT** Intense UV over decades crazes and wears out port lenses, seals, and latches. **ABOVE RIGHT** Old boats feature beautiful and teak interiors, but also annoying Formica countertops. In my view, Corian is much preferred



**It's prudent to drop rudders on old boats to check the bearings and shaft**

corrosive saltwater – is to buy a boat from a temperate climate.

In the northern areas of the US, for instance, boats are used sparingly and stored away (usually under shrink wrap) for half of the year. In Florida, boats bake in the sun, causing gelcoat to oxidise and hatches and ports to craze, while plastic and leather bits become brittle and break.

Additionally, the warm salt water is a breeding ground for osmotic blistering. Our boat had dozens of melon-sized blisters, most of which were missed by our surveyors.

Compounding matters, the warm brine fuels electrolysis which can erode underwater metals such as rudder and prop shafts, struts, and even propellers.

Suffice to say that, as a general rule, it's much better to buy a boat from a temperate climate as opposed to a tropical one. If you can find a desirable boat from a freshwater river or lake that is even better!

## 2. Buy as new as you can

While a fairly modern and adept design, which is notable for its speed and upwind sailing performance, our fin keel and

spade rudder yacht is still 32 years old.

Despite being well-maintained by the previous owner of 21 years – which is one of the main reasons why we bought her in the first place – she was still an old boat and accordingly almost every inch of her was just that: old. Old tanks, plumbing, through-hull fittings, engine, sails, rigging, anchor and chain, bilge pumps, keel bolts, gelcoat... and so on.

While an attentive owner will replace what breaks along the way, what happens to items yet to be discovered or yet to break? Our 38ft boat whose sister ships have made many ocean crossings, was used as a day-sailer for most of her life.

Because of her light use, many questionable items such as the U-bolt style chainplates had yet to break. On our first passage one let go and we had to motor the rest of the way. That is just one example of why all things being equal, it is much better to buy a newer boat as opposed to an older one.

While fibreglass hulls may indeed last forever, almost everything else installed in them has a very finite life. When this lifespan is exceeded, they'll need to be completely rejuvenated: an unsettling

proposition for all but the most capable of owners. Some items, such as old opening ports – of which our boat has nine – are too expensive to replace at over £150 each. Owners are then forced to repair leaking seals and make do as much as possible: a constant nuisance.

## 3. Check the topsides

Another difficult, albeit cosmetic, thing to remedy is a boat's topside finish. Over time, UV and chemical exposure will fade and discolour gelcoat, making it porous as it ages. A professional paint job can cost between \$10,000 and \$30,000 (£8,000 to £25,000) for a 35ft to 45ft



**Aged gelcoat requires constant cleaning and polishing to stay looking like this**



**Getting an old boat to look like this almost killed me!**

yacht, and while a good two-part polyurethane paint job shines brilliantly for years, it's a big job for an amateur to achieve satisfactory results. If you care about your boat's appearance, a looming paint job must be considered while shopping for a new boat.

#### 4. Buy small

For me, owning a yacht is about sharing sundowners and enjoying a simpler life on the water, not spending years in a dusty boatyard overhauling a boat's every nook and cranny.

If budget is a concern, opt for a newer, smaller boat over the larger classic yacht. You'll spend more time enjoying it, and less repairing complex systems found on older boats that are never as easy to fix.

Plus, you'll have much more money to spend because everything else, from mooring lines to sails, haul-out fees and insurance, is much cheaper!

#### 5. Creature comforts

A small and simple vessel can still have creature comforts. While priorities will vary, these are some of the features that I like to have: a swim step or platform, double helm stations for ease of navigating the cockpit, firm cushions and mattresses, a roomy interior, convenient storage, the ability to reef from the cockpit, air conditioning (though remember, I am based in Florida!) and a diesel generator.

Living in the tropics, diving and snorkelling is a daily activity and the ability to prepare fins and gear while sitting at water level is highly desirable. A walk-through transom is also wonderful for draining and cleaning the cockpit and landing fish.

As a Floridian, one luxury I cannot bear to live without is air conditioning. While it's true the best thermostat is the latitude, if you have to summer in the tropics it's essential. To power A/C away from shorepower, a generator will be needed. Retrofitting one into an old boat is a monumental task, while portable ones are a potential CO hazard.

**RIGHT** A 38 foot boat without a windlass is hard to manage

**BELOW** Climbing around the wheel on an old boat is a major annoyance, while a closed transom makes swimming and landing fish laborious

**BELOW RIGHT** A separate shower stall and wet locker is a great feature



Many cruisers will also want a watermaker, which is similarly difficult and expensive to install.

While storage and cabin and cockpit cushions may be changed or added by new owners, these items are expensive to replace and/or modify. Replacing cushions, for instance, is a difficult task for the DIYer or a very expensive one if done professionally.

Features such as the ability to reef from the cockpit, an electric anchor windlass, electric winches, and electric furlers are not necessary, but highly desirable features, especially among older and

short-handed cruisers.

*Walden* does not have an electric anchor windlass, and pulling up the anchor is sometimes extremely difficult.

And while our reefing lines do lead aft, someone has to be on deck to hook the sail before winching the desired reefing line tight, which can be hairy in a blow.

If given the choice, I think I'd sacrifice a bit of performance to have in-mast furling and the ability to reef from the cockpit as seen on newer production yachts. Electric winches and furlers may seem to be overkill, but if you've ever tried to pull in a small furling line in a gale or tried to winch someone up a mast you'll understand why these are mechanised on newer boats.

#### AFTER PURCHASE 6. Prioritise work

After taking ownership of a second-hand boat, there's much to be upgraded and repaired. Before you start, use the vessel



**ABOVE** Though seakindly, a compact interior can feel claustrophobic at times. **ABOVE RIGHT** Old boats tend to have companionway washboards rather than the popular hinged doors that make entry a joy on newer yachts



**ABOVE LEFT A rotted dorade box was one of many unexpected projects**

**ABOVE Old boats do not have factory-installed below-decks autopilots, meaning a difficult retrofit or fitting a wheel pilot**



**Bolt-on lead keels with stainless steel bolts should be rebagged if over 20 years old with signs of separation or weeping**



**Blisters, blisters, and more blisters on this well-maintained boat demonstrate the unrelenting marine environment**

for a while in order to determine a) you like the boat, and b) what upgrades and modifications you would like to do.

After a shakedown cruise or two in home waters, move the yacht to a location where it can be worked on easily; typically, a boatyard, but a slip could work too if the bottom does not need to be done.

Start with the basics. In any boat, the engine is probably the most important piece of equipment so I'd start by changing the oil and filter, impeller, and transmission fluid. Other items like exhaust mixing elbows, cutless bearings, engine and exhaust hoses, and propeller struts should also be checked to ensure they're in good order. Once the engine has been serviced you can move on to the boat's other systems.

On a yacht, the rig and sails are second only to the main engine. If newly acquired, check or replace the standing rigging (contingent upon age: 15 years is considered old because stainless steel work-hardens), renew the running rigging, and thoroughly inspect all chainplates. I've learned that new rigging wires are of little importance if a chainplate is ready to let go, as was the case on our maiden voyage.

Other hardware such as gooseneck

fittings and sail tracks should be examined. Replace anything that shows signs of potential failure such as hairline cracks, and take heed of brown rust stains that might indicate crevice corrosion.

After the engine and rig are in order, inspect all through-hull fittings, hoses, and hose clamps. Ensure proper articulation and sealing of the fittings below the waterline and make sure hoses are pliable. Any cracking indicates looming failure. Replace any questionable hose clamps and ensure that all fittings beneath the waterline – including sink drains – are double clamped.

Once you're sure your engine and rig are operable, and that the boat won't sink, address the hull. This includes making sure the hull to keel joint is watertight and not moving if a fin keel design.

If it's a modern boat with a hull grid and/or liner, make sure all bulkheads and the

grid itself are securely attached to the hull wherever viewable.

I'd service the rudder bearings with grease and ensure free articulation without lateral play or wobble. If a skeg or barn door-type rudder is present, ensure the integrity of all underwater brackets, bolts, and bearings.

Only after the bones of the boat are in order would I begin to think about potential upgrades and improvements such as electronics, cushions, and so on. A good autopilot is perhaps the first electronic item to install or upgrade.

## 7. Stick to a budget

Costs can often spiral out of control when buying second-hand. The best way to deal with this is to create a budget and stick to it as best as possible.

Space out the tasks. While the 'bones' of the boat – the engine, rig, sails, keel, rudder, and through-hull fittings – must be repaired immediately, other items can wait.

One mistake we made during our refit was spending over \$2,000 (£1,600) on a GPS and radar combo, rather than purchasing a dinghy first: a much more vital piece of equipment for a cruiser. We figured that since the mast was down we may as well do it, but in hindsight we should have waited.

We also went ahead and equipped our boat with 300W of solar panels, which we have used only sparingly because unanticipated repairs and complications have kept us at the dock.

To satisfy the tinkerer, I would start with improvements that don't cost much money – things like replacing cabin lighting with LED bulbs to save energy, touching up varnish, cleaning cabin fabrics, and polishing the boat.

## 8. Buy a good dinghy

Don't think that the old sun-beaten dinghy with the floor coming unglued, and the ancient 2hp outboard that came with it 'will do just fine'.

Our boat didn't come with a dinghy, ➔



**LEFT** A good dinghy is a great investment. Our hypalon Avon dinghy will do about 17 knots with its 9.9hp outboard and is a good platform for fishing, diving, and exploring rivers and beaches

**BELOW** Solar panels are a great investment for future energy needs, but of no use if the boat is nowhere near ready to take to the water



but we quickly located what we thought was a killer deal: a 9ft PVC dinghy with wooden floor and venerable 2-stroke 5hp Nissan outboard, for \$250! The only problem was the floor seam was coming unglued. I thought I could fix this. Wrong!

Run, don't walk, away from inflatable boats coming unglued as they can prove almost impossible to fix. Even the best two-part glue I could buy quickly failed, leaving us up a canal with water pouring in.

I similarly tried to patch a few small air leaks with 'inflatable boat sealant' and tried to paint the PVC to protect it with an overpriced but awful 'inflatable boat paint,' which scratches off easier than the stuff pre-schoolers use!

The outboard also proved to be useless, as its inside passages and fasteners were so corroded from decades of use that I had to cut it to get it apart and consequently could never get it back together. Lesson learned: budget for a quality dinghy and outboard.

For cruisers, the dinghy is not just a tool to get yourself and provisions to the boat, but rather a utility vehicle to explore places you wouldn't dare take a yacht. In the tropics, inflatable boats are used as a platform for line fishing, spearfishing, scuba diving, and snorkelling. Exploring rivers and mangrove channels is also an exhilarating experience.

After our first lemon, we were fortunate to find an older, but serviceable Avon hypalon 9ft RIB, with a brand-new 4-stroke 9.9hp Mercury outboard. This package has been an absolute joy and as recovering powerboaters, we find ourselves taking it out all the time for sunset cruises and joyrides since it's easy,

safe, and economical to operate. For cruisers in colder climes, a heat-welded PVC boat may be an even better option than hypalon since all hypalon boats are glued and will eventually come unbonded.

### 9. Call in the professionals

One of the advantages of the smaller boats Avery and I owned in the past was the ability to do nearly everything ourselves, which helped us to stretch our meagre funds as far as possible.

While we did most of the work on our yacht – minus the standing and running rigging – I've since come to the conclusion that unless you want to give up cruising before leaving the pontoon, it's better to farm out some of the unsavoury tasks to reputable yards and contractors.

We plan to have our bolt-on lead fin keel re-bedded, and this is not something I'd tackle myself. Another job I'll outsource will be dropping the rudder. While I probably could do this myself, at this point in my boating career, and after refitting a number of boats, it's simply something I do not wish to do.

In general, I've found that work done by quality contractors is done quickly and saves a lot of aggravation. I was extremely happy with our rigger, who did a fantastic job for a price that was not much more than if I were to do the rigging by myself using mechanical fittings versus the swages which he pressed. Bear in mind that people who work on boats for a living are able to purchase an inventory of parts and materials at wholesale rates.

Other projects I'd consider hiring out include the installation of an anchor windlass, air conditioning, watermaker and fridge, or replacing standing rigging.

In the case of our refit, we actually spent more money trying to install an anchor windlass than if I'd just paid somebody to do it, because we went through multiple models and still cannot find one that fits our older vessel properly. Had I consulted an expert, I'd have avoided a major project that kept us on the hard for an additional two weeks. Know your limits! As an avid DIYer, the last lesson I learned is specific to large boats.

### 10. Everything costs more and takes longer

Perhaps the greatest lesson of all to be learned is that with boats everything will take longer and cost more than anticipated.

If you think a project will take a week, it will probably take closer to a month. If you think materials to repair bottom blisters will cost \$100, they will probably be closer to \$300 – especially after a batch of epoxy flashes off in the mixing cup prior to application!

The worst thing you can do when mulling over a prospective vessel is to underestimate the cost and time of necessary repairs. At best, this could delay your boating season, though at worst you may not be able to fund an ongoing refit, throwing much money and labour out of the window.

My advice is don't rush! If you grow tired of an ongoing refit, take a break rather than rush to launch the boat before it's ready or you may find yourself back in the boatyard again.

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