



Toxic AVENGER

You need water to make vegies grow and the same goes for hull fouling

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A FEW months back I was talking to a visiting marine engineer from British-based Sunseeker Motoryachts prior to conducting an on-water test when the topic of antifouling hulls came up. He commented on how different it was here than in the colder waters around Europe.

"Blimey, you can almost hear the vegies growing on her bum". "And she's only just been put in the water". I presumed he was talking about marine growth on the hull and the discussion quickly turned to just how quickly marine growth on a hull reduced a boat's performance and fuel economy.

It's a problem faced by all boaties whose boats are moored permanently in the water and one that normally needs to be addressed on a regular basis. The boat needs to be slipped, have its hull scraped off and then new antifouling paint needs to be applied. It's a costly process, but we accept it as one of the pleasures of owning a boat.

But there's trouble in the wind. Here in Australia, nearly all antifoul paints are copper-based — they contain the biocide, cuprous oxide — which is toxic.

But it's also what makes them work so well at keeping algae of a boat's hull. Ablative antifouls — designed to shed layers — normally last 12 months, which is great for boaties, but not so great for the environment.

Remember I said cuprous oxide was toxic? Millions of boats shedding layers of toxic antifoul equals big trouble for the environment over many years.

In the US it is predicted that severe restrictions on the use of copper in antifouling paints are soon to be enforced, while in Europe copper-based paints have been banned since 1998.

Sooner or later — most probably sooner — these restrictions will also flow through to Australia. There is research happening worldwide to develop non-toxic antifouling paints, but at present they have short life spans and are nowhere near as effective as the copper-based paints. Plus, not only does your boat need to be slipped more times a year for them to be truly effective, they are much more expensive to buy.

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A responsible attitude to the very environment we boaties enjoy so much poses the question — is there a better way? As we all know there are other options and other strategies we can take to deal with this issue.

For one, marine growth cannot colonise a boat if the hull is stored completely clear of the water. So boatlifts of one type or another have been popular in the United States for 40 odd years. And if you check out most of our canal estates and marinas these days you see that plenty of Aussies have also caught onto this idea. And boy, oh boy, aren't some of them weird contraptions.

But lately the *Modern Boating* team has noticed more and more of one particular type of lift that looks quite different. It also looks a bit weird, because the boat sit high and dry



on a big rack built from strange looking big "black pipes".

Then, at this year's Sanctuary Cove Boat Show, the team took time out to rest our feet while enjoying a cool drink at a bar that just happened to be right next to a demonstration unit of one of the "black piped" boat lifts we'd been seeing around the traps. We didn't take too much notice of it at first until it dawned on us that we were still on our first drink and the boatlift had been raised and lowered back into the water TWICE.

We finished our drinks and wandered on over for a closer look. Andy Chan from Air Berth's Australian arm, who somehow manages to be an environmental crusader, boatlift salesman and genuine nice bloke, greeted us and before long he had our undivided attention.

We didn't take any convincing that completely aside from its potential environmental impacts, antifouling paint has quite a downside. We mentioned earlier that antifouling is a costly practice, but because antifoul is not as "slippery" through the water as shiny paint, or the gelcoat bottom of a hull — depending on whether it's a timber, metal, or a fibreglass boat of course — traditional type antifouling paint affects a boat's performance and causes it to use more fuel.

We see it all the time when using our speed recording equipment when conducting boat tests. A boat with antifouling applied below the waterline is slower in top speed and simple logic suggests that it's going to burn more fuel over a given distance.

You could actually say that at worst,

ABOVE: Who said solving antifouling problems was all too hard? With an Air Berth it's a simple matter of flooding the unit, driving your boat on, then bleeding out the water.

LEFT: High, dry and marine growth free.

antifouling has the same effect, albeit in a smaller way, as the marine growth it's applied to discourage. There are also certain aspects of presenting a boat for eventual sale where an accumulation of old antifouling doesn't do you any favours either.

Which brought us back to Andy Chan and his Air Berth. We know the Air Berth lifts a boat clear of the water for storage, thus avoiding the need to antifoul the hull, but how does it work?

Air Berth uses air supplied at high volume, although at low pressure, to fill the big black

SPECIAL FEATURE ANTIFOULING ALTERNATIVES



boat was nudged gently into the cradle, our star had only to lean over the side, pick up the waiting line and drop it over a stern cleat each side and the boat wasn't going anywhere. His level of boating skill showed when he no idea how to properly affix a line to a cleat, but the ease of using an Air Berth had been clearly demonstrated.

Andy simply sauntered

washing down the hull.

One last advantage of the Air Berth unit became apparent when we realised that with the entire boat and its stern drive system clear of the water, there also wasn't any chance of electrolysis occurring.

The system lifts the boat bows first and lowers it stern first. Lateral stability during this raising and lowering process is maintained by an automatic levelling mechanism.

An Air Berth needs a mooring pontoon, jetty, or marina berth in reasonably calm water to be effective. Andy told us the air and water systems are separate, so flooding of the air system isn't an issue, basically he

pipes and makes them buoyant enough to lift the boat clear of the water.

To launch the boat the air is bled away, water fills the big black pipes to make them sink and lower the boat into the water far enough so that it can be started and driven away. It sounds incredibly simple and it is. So we made arrangements with Andy to demonstrate the boatlift after the show when he could be a little more relaxed.

His parents like many lucky Gold Coast residents, live canal-side near Broadbeach and have a Sea Ray 335 Sundancer moored behind their home. And, as you'd expect it sits on an Air Berth.

When we arrived the Sundancer was perched on the big black pipes with the stern drive legs sitting just clear of the water. Only we got the relaxed bit wrong. Andy was in the middle of a promotional film shoot and was definitely looking a little frazzled around the edges.

Still, we were suitably impressed when the male lead in the production, who professed to never having driven a boat this big before, neatly berthed the Sea Ray into the Air Berth's cradle.

But film making being film making, of course the director cried, "That was fantastic, but can you do it again please?"

Back out goes the Sea Ray and back in again. You guessed it, "That was fantastic, but..." Several takes later we were convinced that docking a boat into an Air Berth is considerably simpler than most other kinds of docking. Even when our star got it "er", slightly wrong — if he got the bows into the space between the Air Berth's pontoons — the cradle centred it for him.

And as we saw several times, when the



CLOCKWISE FROM TOP: Freshwater wash down system ensures no salt is left on the hull once the boat is clear of the water. Portable blower box forces water from the pontoons. Unit ready to receive vessel.

down onto the pontoon carrying the blower box, cam-locked the air lines onto their fittings on the Air Berth and threw a switch. Around about three and a half minutes later the Sundancer was sitting high and dry. Or should we say drying, because a garden hose had been clicked onto another fitting on the Air Berth and a built-in spray system was

said, if the water where your boat's moored is calm enough for it to be tied up alongside without damage, then it's calm enough for an Air Berth.

The Air Berth is an Australian design manufactured in Malaysia. It's constructed of black high-density polyethylene (HDPE), which is 100 per cent UV resistant, won't mark gelcoat finishes and has a life expectancy of 50 years plus.

The cradle that supports the boat out of the water has compression pads to cushion the hull.

Very little metal is used in the Air Berth unit and what metal there is, mainly hose clips and fasteners, is all 316 marine-grade stainless steel.

Apart from the pontoon, jetty etc, a domestic water supply and shore power are also needed to operate the unit and its wash-down system.

Air Berths are available in a range of standard sizes suitable for boats from 1500kg up to 11,000kg, but custom units can also be built to order. If you want more information about an Air Berth give Andy a quick call on (07) 5570 3611.

The days of antifouling boat hulls are drawing to an end and that has to be good news for boat owners. When you start adding the cost of slipping, labour and the antifouling paint themselves, not to mention losses in fuel consumption and performance, you soon see that the cost of the initial outlay for an Air Berth is quickly recouped. And that's before you take into account any repairs needed to fight electrolysis on your boat.

Remember, to make vegies grow you need water. No water, no vegies, it's as simple as keeping your bum dry.

But film making being film making of course the director cried ... "cut! That was fantastic guys ...can we do it just once more but this time with feeling?"