DIY BOATING
with **NORMAN HOLTZHAUSEN**

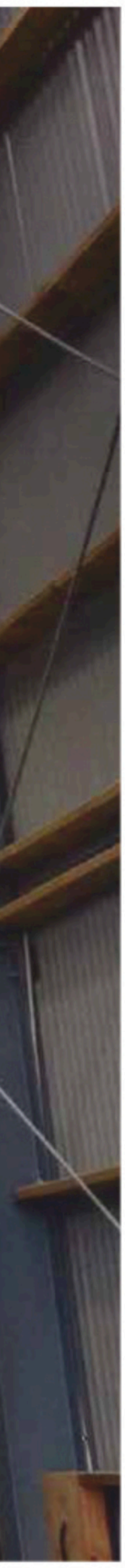
To paint...or not?

No matter how carefully you look after your pride and joy, eventually it starts to look a bit shabby. If you're considering a new look – perhaps a different colour scheme – there are plenty of options to explore.

When the time comes to give her a new look you are now spoiled for choice. Not only are paint coatings better than ever before, there are also more non-paint options. Stick-on coatings like vinyl wrap are cheaper, easier and quicker than paint, and with the ability to print patterns onto these you have more colour scheme options than any single-tint coating can offer. Exotic colours like metallic tints are also readily available in vinyl, whereas these are only available in very high-end automotive baked enamel paints which usually cannot be applied to a boat.

WHAT ARE THE PROS & CONS OF WRAPPING VERSUS PAINTING A SECOND-HAND BOAT?

Unfortunately, the sad fact remains that for both processes surface preparation is the crucial step. No coating will stick to a powdery or rough surface, or one with corrosion or flaking paint. So whichever option you select will first require a lot of elbow grease, sandpaper and chemical solvents, most likely all



No coating will stick to a powdery or rough surface, or one with corrosion or flaking paint.

LEFT Vinyl is also an antifouling option – and offers less resistance than paint.

BELOW Alloy boats, too, can benefit from vinyl. As always, surface preparation is crucial.

BOTTOM Snappy graphics are an easy embellishment with vinyl.

three. If there is severe damage to the surface, some fairing and other underlay work may also be required. There is no real shortcut to this, other than paying someone else to do all the hard work!

Once you've got the surface nice and clean, smooth and free of contaminants, you're ready to apply a new coating. Paint or vinyl? Each has pros and cons.

In the paint corner we have what is undeniably the most hard-wearing option, with a two-pot epoxy coating able to withstand bumps, scratches, cuts, fuel spills and solvents. It will hold its colour for 10 years or more, can be applied to a flawlessly perfect finish when professionally sprayed, and can be just about any shade you desire.

On the downside a proper paint job takes a fair bit of time to apply, is relatively expensive and is usually limited to solid colours. Although exact costs depend on many factors, a recent quote for painting hull and topsides on an 8.5m aluminium trailer boat came in at just over $9,000, and that excluded surface preparation.

In the vinyl corner we have wraps, which can be as little as a third of the cost of a professional spray paint job. Vinyl is fast to apply, typically taking only a day or two for the entire job, and it comes in stunning colours, including metallics. Another benefit is that graphics can be incorporated into the vinyl, producing works of art that would be very hard to achieve with conventional paint.

On the downside vinyl does not give quite as perfect a finish, and especially internal corners and welds can look less tidy. The vinyl is softer, is more easily cut or scratched, and if computer-printed graphics are incorporated these will most likely fade over time. A typical boat wrap may have half the life expectancy than you'd expect from a similar paint job, depending on how much care the owner takes to protect the vinyl.

Still, replacing the wrap with a fresh new look is simple. Because the wrap will itself have protected the surface, peeling the old vinyl off and preparing the surface again is very much simpler than sanding down a painted surface for a recoat. You could have a brand-new looking boat every five years and still spend less than an initial paint job.

VINYL ANTIFOUL

Not only is vinyl taking over above the waterline, the latest innovation involves wrapping the boat below the waterline as well, with an eco-friendly product which acts as an antifouling coating without any environmentally-harmful biocide.

French manufacturer Uniflow Marine has three different products: Flow Silikon, suitable for high-speed boats; Flow Fouling, for lower speed vessels (yachts and displacement launches); and Flow Fouling Fixed, for non-mobile installations like pontoons, wharfs and jetties. Local distributor Marine Protection Systems is the agent and approved installer of this range and can supply and install the products anywhere in New Zealand and internationally.

Each solution comprises two main layers: a high-performance marine adhesive covered by what Uniflow refers to as the 'hostile layer' which prevents marine organisms from gaining a foothold. The nature of the adhesive means this layer acts like paint – it completely attaches to the surface like a second skin, preventing water from coming into contact with the substrate and protecting the hull from marine organisms. The adhesive is extremely tenacious and able to withstand high pressure water flow without loosening.

This tight-fitting skin has many benefits over a painted antifoul coating, with greatly improved water glide properties. The manufacturer claims the improved surface properties can increase speed and subsequently reduce fuel consumption by up to 5% in the case of the Flow Silikon high-speed product.

Anyone who's applied conventional antifoul knows that the finished surface is always slightly uneven with irregularities, while the high-performance adhesive film of the products ensure a perfectly smooth finish.

The second important component is the product's antifoul properties, which it achieves without any chemical additives. There are two different approaches, both based on biomimicry which is derived by studying the way that creatures in nature

prevent themselves becoming encrusted with organisms.

The high-speed Flow Silikon has a very soft smooth silicone surface, similar to the skin of marine mammals like dolphins and whales. Their flexible and ultra-smooth surfaces do not give the micro-organisms anything to grip to, and their high-speed swimming action easily brushes away anything that settles on the skin.

In the case of the Flow Silikon, although the silicone itself has some antifoul property, it is really the 'slipperiness' of the surface which provides the best protection. This is similar to the silicone top coating component of many of the popular gold-coloured propeller coatings currently in use.

The marine organisms are simply unable to attach themselves securely to this layer, and while they may hold on temporarily the boat rapidly cleans itself as it gains speed. If the boat is not used for a period of time the hull is easily cleaned by hand using a soft brush, sponge or window squeegee, or with a light water blast when it is hauled out.

TOP Applying vinyl to a yacht's rounded bilge.

RIGHT Gently does it. The application is a much quicker process compared with a paint job.

The second product – Flow Fouling – takes a different approach. Short micro-fibres match the spiky hairy surface found on certain floating marine plants which have been found to float in the oceans for years without accumulating any fouling. This solution works better for slower-moving vessels, where the gentle water movement causes the fibres to move and make it difficult for marine organisms to establish themselves.

We fitted a sample of both products to our twin-engined power cat which resides on the Tamaki River, an area notorious for rapid fouling. We placed Flow Silikon on one of the rudders, with conventional gold-coloured prop coating on the other rudder. And we put Flow Fouling on an area of the transom, where there is very little water movement even when under way. The boat has had this installed for just over a year now, and there is absolutely no sign of the adhesive lifting at the edges of either product.

Both products have performed well in terms of antifouling capability, and while the boat is just about due to have the rest of its conventional antifoul renewed, neither of these products need anything beyond a light wash off.

The vessel reaches 28 knots, although more commonly cruises at 22 knots, and even without any mechanical brushing the rudder with the Flow Silicon is noticeably cleaner than the one with the traditional product. Especially apparent though is that the conventional product has chipped away in a couple of spots, while the Flow Silicon is pristine.

The product can be applied to all vessel types, with no special restrictions on aluminium hulls since it contains no copper. Because of the importance of a good adhesive layer, it is only available with a professional installation, which will increase the up-front cost especially if the hull surface is in poor condition.

But it will pay for itself with the savings over the years when compared to the costs of annual replacement of conventional product. An added bonus is that when it does come time to peel off and replace, the underlying hull will be almost pristine and the re-coat process can be quickly achieved.

Of course, the soft surface of these products mean they are more susceptible to physical damage and may not suit a vessel that is regularly hauled out the water on a trailer or cradle.

Also, because the products come in flat sheets, they have to be cut to fit complex curves, although they have some degree of stretch and flex. However, most hull shapes can have the product fitted, while a yacht's large gentle curves present no problem.

In fact, one of the testers of the technology was the Sea Shepherd ship *Columbus*, which trialled it below the waterline for more than two years and concluded that it was resistant to antifouling for many years and represented major cost savings. BNZ

CONTACT

For more details of the adhesive antifouling films call Mitchell of Marine Protection Solutions on **027-282-5999 or visit www.nzmps.co.nz**
MPS also provide above-waterline vinyl wraps as well as adhesive non-slip films, providing an all-around solution for your boat.