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Superyacht

INTERIOR DESIGN EXTERIOR SPACE CREATIVITY AND ARCHITECTURE

DESIGN

AN OPEN AND SHUT CASE

It's a sure bet that many of the superyachts at the Monaco Yacht Show are fitted with door handles and latches supplied by Turnstyle Designs. The Devon-based company, which celebrates its 25th anniversary next year, is a leader in design-led handle hardware with the yachting sector accounting for a third of its turnover. Justin Ratcliffe travelled to the West Country to find out more about the humble door-handle.

STEPHEN ROBERTS (RIGHT), FOUNDER AND MD OF TURNTYLE, DISCUSSES NEW HANDLE DESIGNS AND FINISHES WITH HIS MARINE SALES DIRECTOR ALEX FOSTER

TURNSTYLE

FOCAL POINT

JUSTIN RATCLIFFE

Door handles, in all their multifarious shapes and forms, are the most used items of household hardware bar none. Commercial door levers and knobs are mechanically tested to simulate several years of average use. It follows that they should not only look good but also feel comfortable and function reliably. This was brought home to me a few years ago when I went aboard a brand new custom superyacht, and the first thing I came into contact with was a wobbly door lever. Rightly or wrongly, that initial experience coloured my whole opinion of the yacht.

"A door handle is usually the first and last thing you touch when you enter and leave a room, so first impressions are important," says Stephen Roberts, founder and MD of Turnstyle. "Just like on a car, it has to feel solid with a precision movement. No amount of cosmetic design can make up for poor-quality engineering and materials."

Leaving aside the locking mechanisms, door handles have changed little over the generations and consist of four basic components: the lever or knob itself, which has a *shank* to take a *spindle* which connects with the handle on the other side, and the rose that covers the attachment to the surface of the door. Brass is still the preferred base material as it can easily be machined, cast, milled or plated, although for its chunkier models, Turnstyle also uses lightweight aluminium. ▶

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What *is* changing is the size of the doors, and the dimensions of the levers with them. "Residential architects are now specifying larger doors, and yacht designers are following suit," says Alex Foster, Turnstyle's marine sales manager. "If you put a standard lever on a door that might be 2.5 metres high, it looks tiny, so we find we're having to scale up the dimensions of our handles and door pulls."

Turnstyle subcontracts the hot metalworking, but the design, assembly and finishing by hand is carried out in-house at the small factory in Barnstaple, Devon. The brand is particularly well known for its leather-clad handles in styles which have been widely emulated. The process begins with hides imported from Tuscany that have been dyed in various shades all the way through. While the original 4mm leather is used for strap handles, when cladding door levers it has to be split to reduce the thickness to a more workable 2mm. The leather is then cut to size, 'pricked' to mark where the holes will be and bonded to the handle surface before the two edges are saddle-stitched together around the lever. Marie, who has worked at Turnstyle for eight years, completed the fiddly process in minutes, with perfect results. Interestingly, the leather department is made up entirely of women. "Men rarely have the patience," explains Stephen, and considering the larger door pulls require up to 1,000 stitch holes, you can understand what he means.

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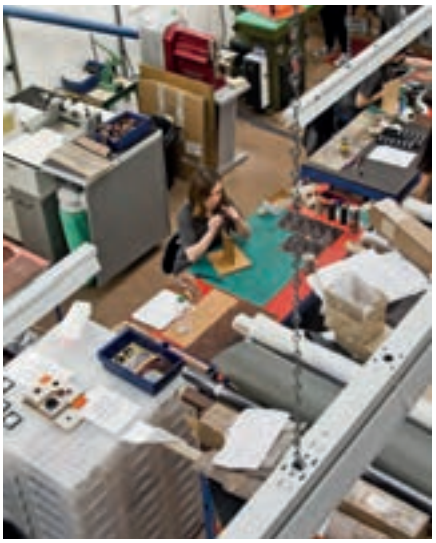

Stephen and his wife Christina design the Turnstyle range themselves and are constantly researching new materials and finishes. Two years ago, the company ▶

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developed its own antiquating technique to lend a vintage look to its brass and nickel handles. The procedure starts by lightly sandblasting the components to 'key' the surface for the subsequent processes. It is then bathed in various acidic solutions at different temperatures to darken the surface of the metal. Finally, the pieces are gently scoured with very fine emery cloth to reveal the brighter metal beneath the 'antique' patina before sealing the finish with wax. The whole procedure is done by hand and takes a careful eye to ensure consistency of finish. Rejects are rare because each handle, whatever the process, passes through at least eight pairs of hands and eyes from assembly to packaging in a built-in quality assurance programme.

Another recent innovation is a hammered or planished finish. The surface of the handles is beaten using special hammers of various sizes and shapes to produce facets that sparkle when they catch the light. The technique takes skill to produce a consistent effect, and Turnstyle has developed its own tools, such as planishing bags filled with sand and reaction blocks that deaden the blow (if the handle bounces it can result in a double hit, which ruins the effect). The company has now perfected the technique of combining both the planished and antiqued effects for an even more sophisticated finish.

On a more practical level, the company has also reinvented the classic push-button latches found on most yachts. These usually contain plastic components that rattle and are prone to failure, so Turnstyle has developed its own all-metal, anti-rattle model that is also available in a version for exterior use with an integrated weatherproof seal.

A hands-on entrepreneur, Stephen moved from London to the seaside town of Barnstaple to pursue his passion for surfing (when the surf is up he will leave the office early and head for the beach). He originally worked as a sculptor, but when his wife was expecting their first child he realised he would need to find a more reliable source of income. Stephen had already experimented with making his own door ▶

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handles while renovating a Victorian property in London, but his lucky break came when he met yacht designer Terence Disdale at a trade show in the capital.

"At that time, I was producing a novelty door knob with a little tree frog on it—a frog-on-a-knob. Terry saw it and thought it would be ideal for the interior of *Kermit*, the 50m Amels whose owner was mad about frogs. In the end, he chose the bamboo model and about a year later, an order for 60 pairs of handles came through. I knew nothing about superyachts and thought he'd made a mistake. He pointed out that he still had another deck to do! It was at that moment that I realised the superyacht industry was worth looking into."

Today, Turnstyle produces more than 12,000 door levers annually in addition to many more thousands of cabinet handles and door pulls. Much of the marine side of the business is with production boat builders such as Brunswick and Westport in the US and Princess in the UK, but it is the custom superyachts that provide the most challenges for Foster, who is regularly on the road visiting designers, shipyards and outfitters.

"Our clients know that we can help them work out their problems," says the marine sales manager. "Our task is to match door handles with other components such as fiddle rails and pull handles, and resolve the engineering issues in the process. We basically pick up the fiddly bits and base our reputation on that."

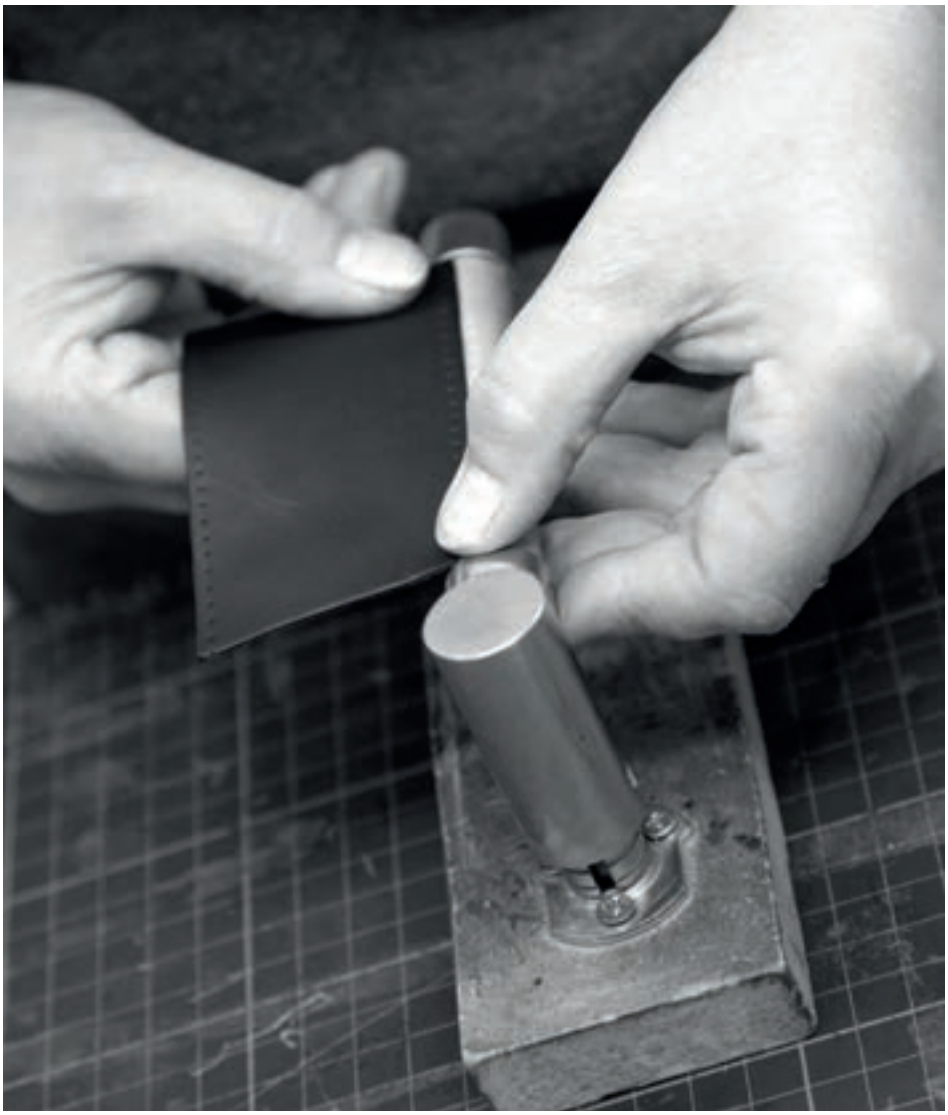
For example, Alex points to a recent 82m yacht with interior design by Francois Zuretti. Starting with the standard Ski door lever, more than 200 man-hours were spent customising the basic design using 3D modelling to create the hundreds of door handles and cabinet latches that appear throughout the yacht. The matching chrome-plated handles and fiddle rails are inset with mother-of-pearl, leather and wood veneer, while a specialist supplier had to be found to produce the small lock mechanisms requested by the owner for the push-button cabinets. Other components are gold-plated, taking care to apply three microns of the precious metal to the lever that receives the most wear and tear, but a thinner layer on items such as the rose and shank.

"On most custom yacht projects, we feed the designers with ideas and materials based on existing models in our range," says Stephen. "Usually, they don't want the standard product but come back to us with what they're looking for and we can develop and engineer the concept further. It also works from a pricing perspective by rationalising the process and avoiding the need to retool; just because we're working in a luxury industry doesn't mean we can charge what we like."

With some 2,000 individual components in stock, Turnstyle has worked out that its standard range of products provides up to 10,000 different combinations of styles, materials and finishes. As the range has grown, so have the business logistics, and the company has spent the past year developing a proprietary software system that catalogues every single screw and spring required for each order to provide accurate cost analysis. Approaching completion is a complete revamp of the corporate website to provide clients with an online configurator that can visualise all the possible combinations on a tablet or smartphone.

To gauge the reaction of the market, Turnstyle showcases its new concepts at the International Contemporary Furniture Fair (ICFF) in New York, 100% Design in London, METS in Amsterdam and the Monaco Yacht Show. On the drawing board is a woven straw finish made out of Amalfine, the resin-based material used for the bestselling shagreen finish. The prototype, made of real straw by a local artisan, was used to create a mould of silicon rubber that can pick up even a thumbprint. Like the shagreen, the casted finish is uncannily close to the original in appearance and texture.

By the way, the wobbly door handle mentioned at the beginning of this article was not supplied by Turnstyle. To avoid just such an eventuality, the company insists on fixing its handles with through-bolts and not just wood screws. ■



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