

TOP DESIGNERS TALK 21ST CENTURY DESIGN

BOAT



EXCLUSIVE

**57 metre
TWIZZLE**
in pursuit of
perfection

THE ULTIMATE WISH LIST
from a sports plane to £385,000 speakers



JANUARY 2011

£4.95 US\$10.99



words: Amanda McCracken
photography: Ray Main, Buggy Gedlek

WHEN
YOU
SEE A
NEW YACHT
AT ANCHOR,
WHAT DO
YOU SEE? HOW
SHE SITS TO HER
LINES, THE WAY
THE DECK
CONTOURS WITH
THE HULL SHAPE,
THE HEIGHT AND
BALANCE OF THE
MASTS? BUT WHAT
YOU DON'T
APPRECIATE IS
THE AMOUNT OF
EFFORT AND
PLANNING THAT
HAS GONE INTO
THIS PIECE OF ART



twizzle





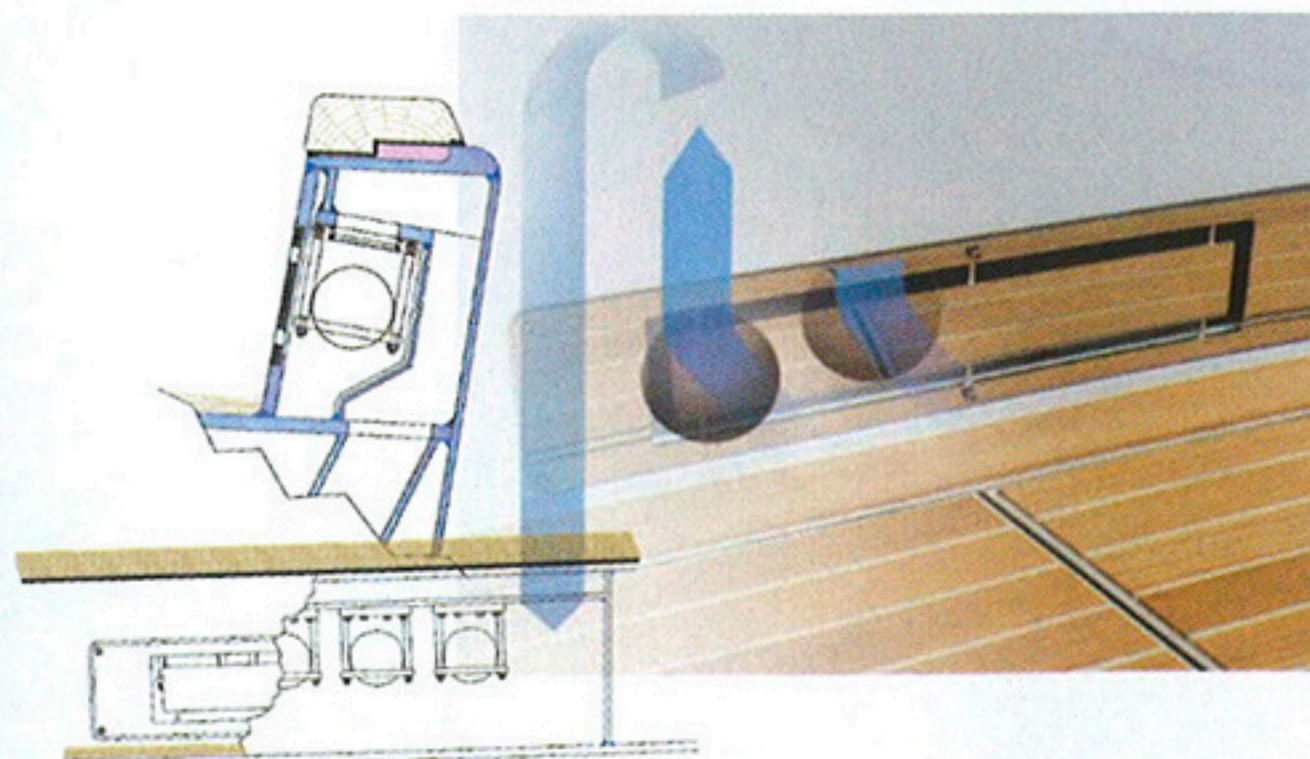
The custom-developed exhaust system for the generators uses soot burners in addition to water separators and sound mufflers



When the owners of *Twizzle* invited me to a meeting in Holland I hadn't envisaged that I would be part of a discussion about the ongoing development of their 57.49 metre fully custom sailing yacht, and I had no idea that they would, at that time, let *Boat International* literally crawl all over their yacht to get an exclusive insight into her DNA. With the complexity of the build we have covered the yacht in two parts, the full technical article can be found in *BI288*, but here we look at the finer points of custom designing.

Remembering a poignant moment while standing on deck with the owner's wife when she turned to me looking quite concerned and asked, 'Do you think people will get it?' Well, let's find out.

The owners are no strangers to superyachts, having started out on the water in a 34 foot Sunseeker, through a series of ever larger motor yachts and then to *Andromeda La Dea*, the 47 metre Perini Navi built by Tom Perkins of *Maltese Falcon* fame. Then the urge to travel further afield kicked in and this was when they deemed that a sailing yacht



Far left: Radio Zeeland and Marine Technologies designed the communications monitoring, navigation and data via the integrated bridge system. Left: The absence of cowls or dorades is achieved by a series of eight ventilation ports in the bulwarks. A customised, Lloyd's-approved snorkel-and-ball system ensures watertight integrity when the boat is heeled



wouldn't form the best mode of transport, where motoring would probably take precedence over sail and a fixed keel would hinder them reaching secluded anchorages. So they changed tack, designed and built the 55.5 metre Feadship motor yacht *Twizzle*, named after a favourite puppet character of one of the children. With many happy nautical miles and memories under the keel, one day they pulled into an anchorage and were struck down with 'mast envy' – and that sowed the seed for the design of *Twizzle*, the sailing yacht.

Reassembling many of their former design team, the discussions and

visits to yards worldwide began in earnest. The owners' brief for a fast, comfortable, go-anywhere sailing yacht with capabilities for a shoal draught and all the finest accoutrements from their motor yacht were the rudiments of the first wish list. The yacht had to look different to anything else – streamlined, sexy, purposeful and above all work in all climates. They also requested a low superstructure height, the placing of tenders under the deck, a boarding ladder and passerelle that worked in all conditions and a beach deck to swim off and arrive at by tender.

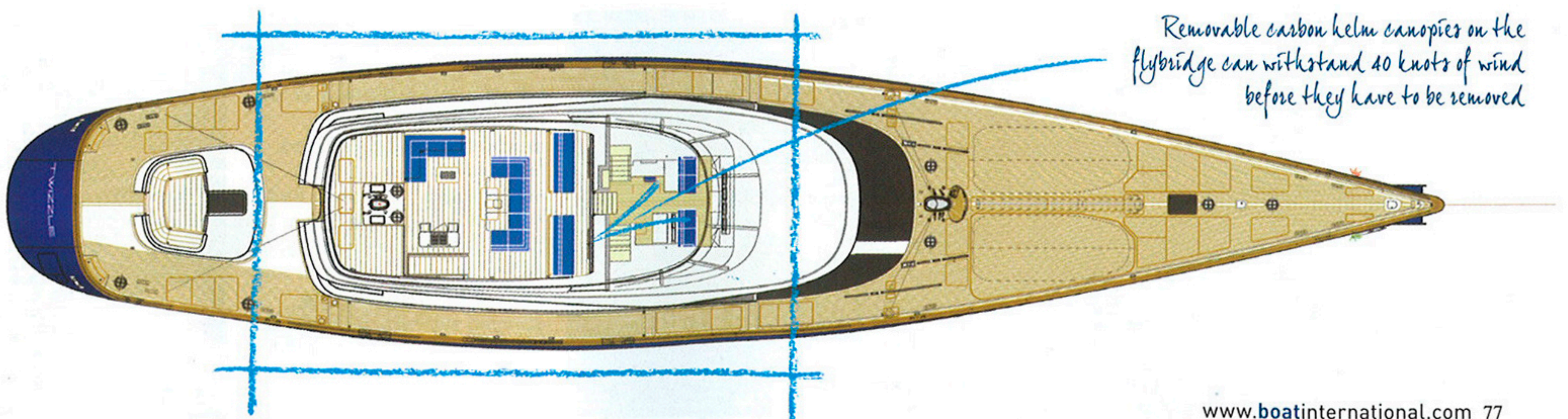
The next chapter emphasised the need for spacious living, large crew quarters, a galley with all the chefs' needs plus lots of storage, spacious and luxurious cabins, several areas for relaxation, a low profile flybridge, an integrated bridge system with all the latest programming and controls, and an engine room that was easy to maintain with plenty of redundancy. Most importantly, they requested an interior volume below 500GT so they didn't have to go into complicated regulatory issues that are associated with large ships. A list like this would probably make most builders want to walk the plank. And by the way, there is no such word as 'no' in the vocabulary of these owners.

Looking at the custom engineering that would need to be done on this yacht, it seemed that there were only a handful of yards around the world that could deliver, but only one that the owners felt could realistically build their 'dream' home on the sea, be close enough for them to visit on a regular basis and treat large or small details equally as high priority items. The yard deemed to have the pedigree to deliver this kind of custom detailing, albeit at a price, is Royal Huisman in Holland. It is a real coup for Huisman as this is its first flybridge sailing yacht and represents one of the most complex and sophisticated builds ever attempted.

Working to a custom brief

I knew from the moment the profile drawing was revealed that this was not only going to be a very exciting experience but a great insight into how totally dedicated and experienced owners propel themselves wholeheartedly into all the processes leaving no stone stone unturned. With 20 people around the boardroom table, discussions for one of 46 other meetings like this began. The two-day itinerary midway in the build outlined the work: lighting issues, the glass tint for the windows, the two bridges, a guest cabin and how to overcome a problem in a cold room off the galley. Representatives from all sectors involved in the build – the yard, the captain, first officer, Dubois Naval Architects for the naval architecture and keel design, Redman Whiteley Dixon for the outside styling and interior layout, Todhunter Earle for the interior styling, lighting consultant Sally Storey, Arjo Spans from Royal Huisman Shipyard and the owners' project manager, Steve Jacover – had notebooks at the ready.

The owners' goals were split in two directions: his, the bridge consuls, hers, the crew cabins, coming back together for the lighting and mock-





Far right: the hingeless stern platform folds out revolving about an internal spindle to form a bathing platform at any level above the sea, depending upon conditions. Not a single hydraulic ram, cable or catch is visible. And as if not enough, the Royal Huisman engineers managed an internal bathing ladder that after use is automatically sprayed with a fresh water wash down as it is retracted into its garage within the platform itself

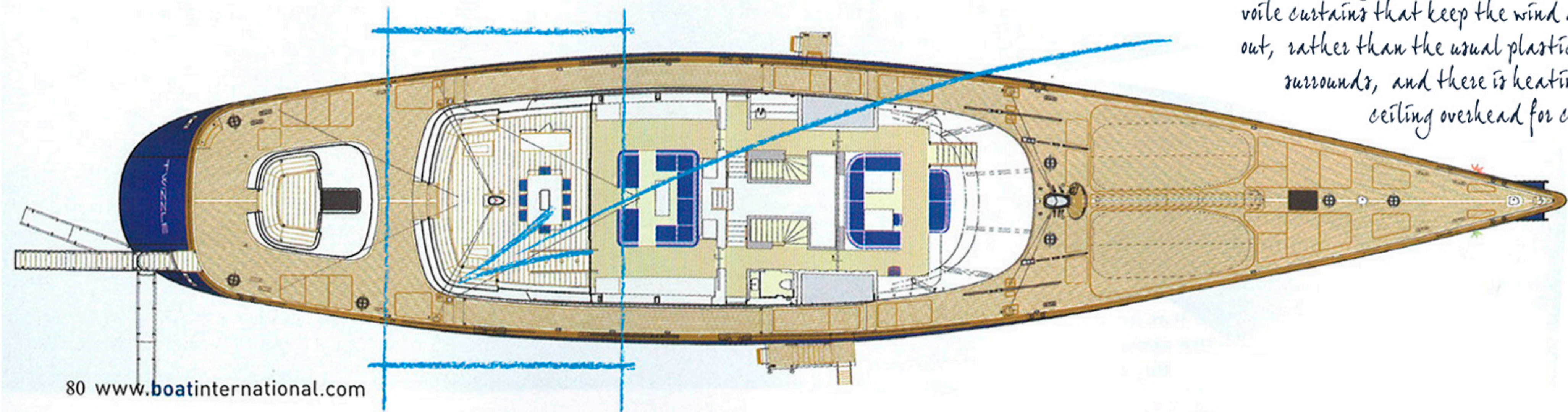


Dubois designed a swing neutral buoyancy daggerboard that increases the draught to 10.4 metres from 3.8 metres and can be fully lowered in one minute



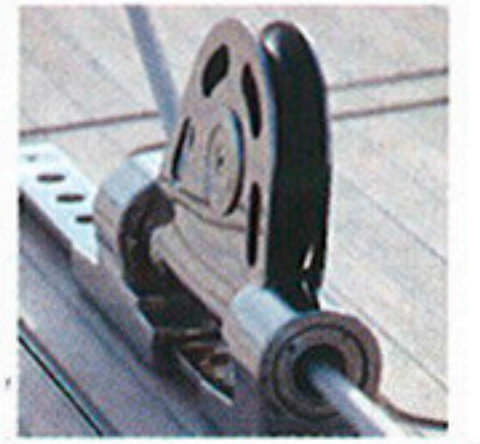


Left: the sunken aft cockpit replaces the need for deckchairs on the aft deck which would roll around when *Twizzle* is heeled over, and above, the main cockpit



On wet days the main cockpit has white voile curtains that keep the wind and rain out, rather than the usual plastic window surrounds, and there is heating in the ceiling overhead for cold days

It's all in the detail. Every glass, plate, vase, cup and saucer has a holder made by the Royal Huisman craftsmen



up discussions. As the teams' mission cracked on at pace it became evident how much time and detail was threaded through the whole yacht by the Huisman team, but they were definitely kept on their toes by the owners who researched absolutely everything and when it didn't exist, it had to be drawn up and executed.

First stop is the shipyard's in-house furniture facility where the whole yacht is mocked up to make sure everything fits exactly. Today we are looking at a 1:1 mock-up of a guest cabin complete with door, bed frames, window recess alcoves dressed with suede-covered shutters and blackout blinds to show the full effect. Everything is checked here from the height of the sill, the mechanics of the blinds, the depth of the mattress on the bed, the décor and the door handles to the length of the stitching and how the detail of the 45 degree bevel to drawer fronts

would compliment the overall styling. Even frames with photographs have been placed on the wall, but a decision to do away with any art on board is final. Changes are made to the colour of the door handles, the length of stitching on the leather and Sally tries three different light effects, gets it right, but then there is a heat problem so it is back to the drawing board.

Nothing is left to chance. In a newly constructed technical laboratory all the bridge equipment, satcoms, instruments and monitors are tried and tested. The tint on the one-way glass is a concern for the owners and the next meeting is with German company Yachtglass, which shows sample tints for windows, but nothing works: the sky looks grey or too blue and the pieces are rejected. A new colour film is to be specially researched and developed by the company, and all goes ahead.



A Finite Element Analysis of glass strength was undertaken to comply with Lloyd's which required a 6kg steel ball to be dropped three times from a height of 10 metres



Later on in the day, a visit on board shows the yacht has evolved from an aluminium carcass to a fledged beauty. Even when she is teeming with workmen, sample after sample is loaded on to the boat by Todhunter Earle's team to check the dimensions from the cushions to the type of fill used for the seating. One of the major late changes on deck was the decision to add a sunken cockpit: no frills, no tables, just a lovely place to sit with a hidden Bimini for overhead protection, an iPod station and an entrance to the owners' areas.

Designed for 21st century living

After four and a half years in the making, it was an emotional experience seeing *Twizzle* anchored off Monaco. Her deep navy hull and prominent style lines gleaming in the sunlight show she is stunningly elegant and purposeful and her two Southern Spar masts dress the yacht's proportions perfectly. It is evident from the moment that you step on board that lighting is important on this yacht from the 'up' and 'down'

lighting on the masts to the interior and underwater lights. There are three settings to create the mood at the touch of a button: daylight, evening and late evening.

Stepping on to the main deck brings a vista worth waiting for: the feel of openness and space is simply stunning. The areas aren't staged, they flow freely – it is difficult to work out where the exterior ends and the interior begins, just as it should be. 'Getting it to look simple and clean is very difficult,' remarks Justin Redman. There isn't a captive winch or a cowl to spoil the lines, instead cross planking is used on the aft deck, flybridge and interior, with fore and aft wide planking of uninterrupted teak with pale grey caulking stretching as far as the eye can see, highlighted by a myriad of tiny lights giving an impression of a continuous river of light. With safety as a priority, high bulwarks, more akin to a motor yacht, add a feeling of purposefulness and an unvarnished caprail, which thickens to accept the genoa sheet track, is as stylish as the curvaceous handcrafted Rondal stanchion rails.



TWIZZLE Royal Huisman

LOA 57.49m
LWL 48.95m
Beam 11.59m
Draught (board down) 10.8m
Displacement 550 tonnes
Engines Caterpillar C32 Acert, B-rating, 970 kW @2100 rpm

Speed (max/cruise)
 17 knots
Range at 12 knots
 4,000nm
Generators
 3 x Northern Lights, M1066H, 155kW
Fuel capacity 44,150 litres
Sails
 North Sails 3DL
Rigging
 Southern Spars Rigging EC 6+ ropes and Gleistein, Spectra

Owner and guests 8
Crew 10

Classification
 MCA LY-2 and Lloyd's #100A1, SSC, YACHT, MONO, G6, [X] LMC, UMS

Naval architect
 Dubois Naval Architects

Interior and exterior design
 Redman Whiteley Dixon

Interior décor
 Todhunter Earle Interior

Charter broker
 Burgess London
 tel: +44 20 7766 4300
 email: london@burgessyachts.com
 web: www.burgessyachts.com
 Caribbean winter 2010/2011. From \$273,000 high season/ \$245,000 low

Builder/year
 Royal Huisman Shipyard/ 2010
 Vollenhove, Holland
 tel: +31 527 24 3131
 email: yachts@royalhuisman.com
 web: www.royalhuisman.com

The state-of-the-art entertainment system is integrated by Harris Grant using Crestron and iTouch remotes in both of the sitting rooms

On the water

With a top speed of 15.4 knots under motor, *Twizzle* is certainly no slouch – but the essence of a yacht like this is, of course, her sailing performance. On her maiden voyage from The Netherlands to Monaco, she clocked 16.5 knots in 20 knots of breeze (and that was without trying), and since then she has exceeded 18 knots. She has even reached 16 knots fully reefed in 32 knots of wind.

I had the opportunity to sail her off Nice, in very different conditions with little breeze and just small wavelets. Many large sailing yachts have serious problems getting going in light airs, and one would expect *Twizzle* to be no exception – after all, she weighs in at 550 tonnes. However, she carries a total upwind sail area of 1,953m² (main, genoa, stay sail and mizzen), and even without the staysail, which can disturb the airflow across the sails in light air, she still boasts 1,764m² of canvas. The huge mizzen and main were set simultaneously in two minutes almost silently – even on the flybridge I didn't notice it. In close to 9 knots of true wind she effortlessly achieved around 8 knots at an apparent wind angle of 40 to 50 degrees. Even as the wind died down to nearly 5 knots she bravely kept a speed of 5 knots.

Twizzle has a neutral buoyancy centreboard that swings down from a minimum 3.8m draught to a maximum of 10.4m in one minute even at speed, and it can be set at any angle. This versatility, combined with her extensive North Sails wardrobe – including a genoa with a 32m foot length (the largest 3DL sail ever made) – offers quite a number of options to react in time to increasing wind strength.

A special pleasure was the steering itself because there was some feedback from the helm – just like on small yachts – thanks to a new fly-by-wire system developed by Royal Huisman. It uses hydraulics and a custom rudder feedback system which measures the axial forces on the rudder stock and converts them into directional loads on the wheel via an electronic actuator. The hydraulic assistance means the feedback is always under control.

In spite of the distance from the flybridge wheels to the jib luff, the telltales can be seen easily, as can the sailing instruments on the fully sunlight-readable screens which can be angled according to the sun's position. Joysticks integrated into the glass bridge allow the helmsman to trim all sails via 19 captive winches. Indeed, *Twizzle* could even be sailed singlehanded...

Jochen Halbe





The owners' suite of rooms follows the style of the other guest rooms. A private stairway leads to the sunken aft cockpit and bathing platform with its own shower



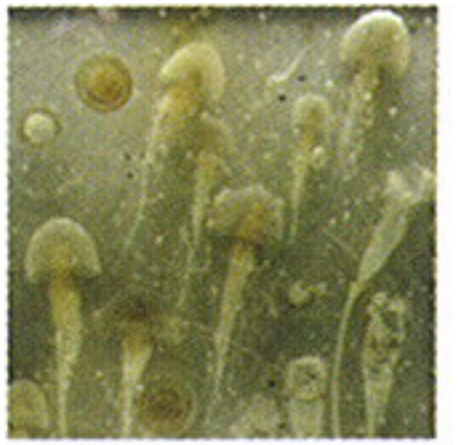
Passing the sunken cockpit you step down into a huge semi-circular main cockpit, where I know the seating fill is the right consistency because I was there when they tried it! The change to natural oak flooring brings you through a wall of open glass for a seamless entry inside. A feeling of calm is immediate with a clever palette of pale colours and textures that you would normally deem too few, against a bitter chocolate and black canvas, accessorised with lamps and candles that set the perfect atmosphere. Storage cupboards masquerade as window seats, secured with hidden magnets to stop them moving when under sail, and entice you to sit and take in the ocean views from the huge windows.

Unlike other yachts, the interior bridge is on a mezzanine deck away from the guest areas. This arrangement caused Redman Whiteley Dixon to squeeze every centimetre of headroom out of the height to avoid the all-too-often 'block of flats' look. So, what is in the place of what would have been the pilothouse? Ingeniously, RWD has created another sitting room, filled with natural light and with a complimentary palette of sea

blues meeting pebble beach colours. Views from here are straight over the foredeck and out to sea through the acres of curved glass, which seemingly disappears magically into the deck. Just one small issue that I noticed was the snug fit for one of the 6.3 metre Castoldi tenders in the carbon fibre-lined bay which only really comes to light when you see the legs of the crew through the windows as they try to manoeuvre a tender with a centrally placed crane past the main mast.

The owners have a suite of rooms aft that will certainly be copied on other yachts. Gone is the double cabin with his and hers aft, instead much more thought has gone into how they will use this area. Entering off the main guest corridor you come into an oasis of cream, white and the prettiest palest wash of colours. Nearly all the furniture seamlessly fuses into the side of the yacht and the deep window recesses. I don't think I have seen a better layout: a walk-in dressing room and separate bathroom for her off the main bedroom, and in his area aft a purpose-built shower room and an office with access straight up into the sunken

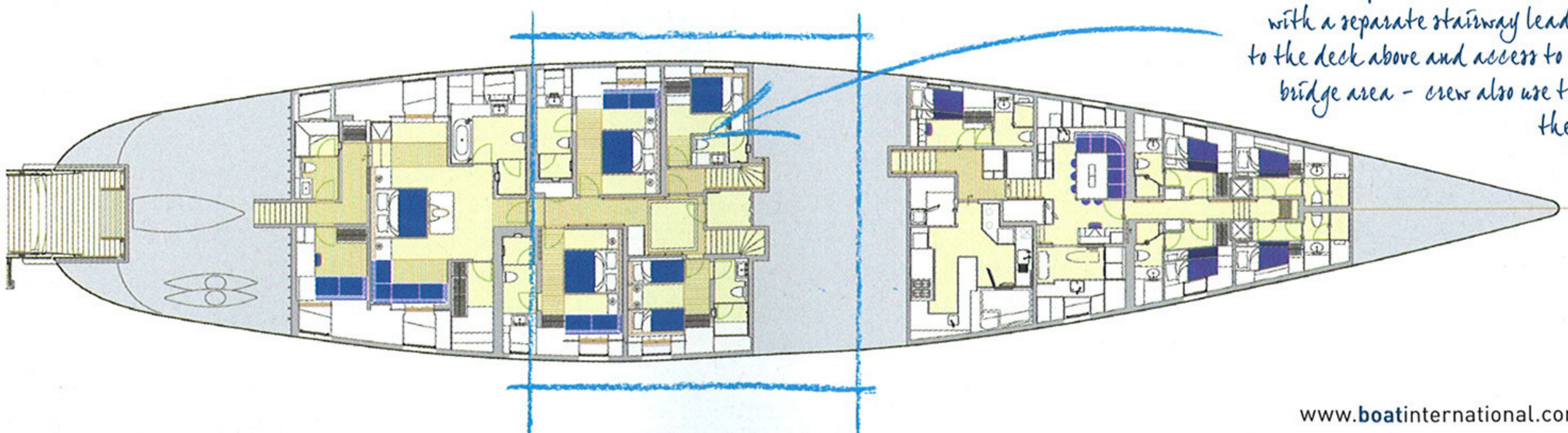
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cockpit. This area can be converted for use as a guest cabin and shower room if numbers overflow.

The guest cabins are all designed to the same theme: silks, cashmere, white cotton and textured fabrics bring a delicious, subtle warmth to the

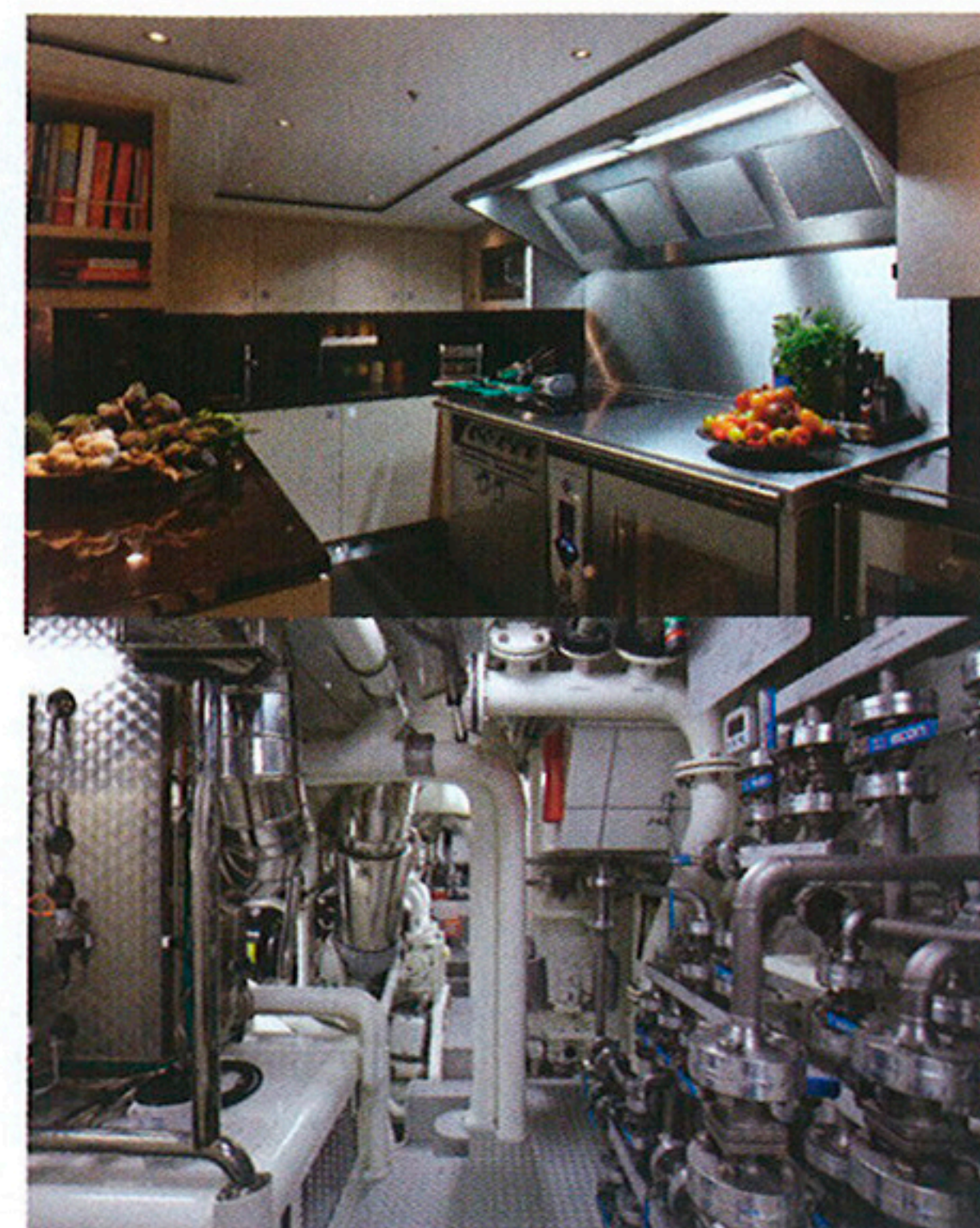
rooms with just a dash of bright colour for a change in tempo. The shower rooms are cosy and inviting in identical champagne marble. Each cabin has a docking station for an iPhone and individual iPods and an Apple iTouch to control the audio-visual system and televisions.



The captain's cabin is in the guest area with a separate stairway leading directly to the deck above and access to the internal bridge area - crew also use this to service the guest areas



The detail took hours and hours of work to make it look so simple from stem to stern and everything in between and Royal Huisman and Rondal should be very proud



The crew mess takes up a third of the accommodation area of the yacht forward, with the galley a few steps up for ease of service

The crew mess has a massive table for meals and communal gathering and crew cabins all have televisions and iPod holders. The laundry and ironing room is close by so the person doing the ironing does not feel isolated. The chef has chosen all professional appliances for the galley – and yes, the problem with the cold store has been rectified by putting in purpose-built drawers for storage.

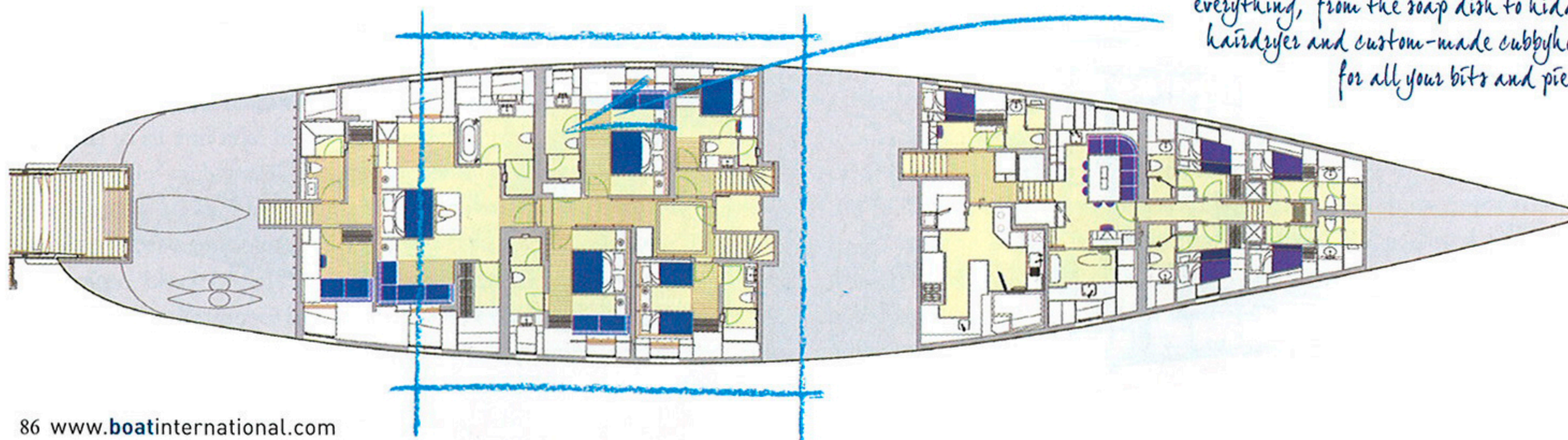
The interior layout has everything that the owners wanted with every centimetre of spare space used for storage. However, nothing looks shoe-horned, in fact, quite the opposite – the whole feel of the yacht's interior is of spaciousness. Moving around the yacht is going to be safe when under way as a great deal of thought has gone into the width of corridors, with handrails and handholds in strategic places.

The flybridge is a masterpiece. Removable twin carbon wheels front a sophisticated driving bridge where the curved glass covers for the monitors and controls are skilfully designed so that they simply disappear out of view at the touch of a button, revealing a dashboard which is simply a work of art. This is the domain of the captain when

racing, but guests will love sitting here day or night. The high-backed seats give shelter from the wind for the cosy seating area behind and where teak pieces of furniture hide a barbecue, fridge and cool box. One item that you will not find up here, or anywhere on the boat, is a spa pool, simply because the owners feel you are on the biggest swimming pool you could ever wish for, so why bother with a tub.

I could whither on about synergy, symmetry and all that stuff, but I am not going to. The fact is that this yacht simply ticks all the boxes, I can't find anything to point out that really wouldn't work. The detail took hours and hours of work to make it look so simple from stem to stern and everything in between and Royal Huisman and its sister company Rondal should be very proud of what their teams have achieved. Between the owners, the designers and builders this yacht is a superb example of 21st century living. Those lucky few allowed to charter her are in for a real treat before the family whisk her off to far-flung places, with the BVI Rendezvous in their sights for her first regatta race.

Do I think people will get it? Oh yes, they will.



In the guest cabins, detail is everything, from the soap dish to hidden handdryers and custom-made cubbyholes for all your bits and pieces