ShowBoats
INTERNATIONAL

IRISH ROVER

A TOWERING ACHIEVEMENT

MARLOW MARINE JOINS THE 100-FOOT CLASS AT 30 KNOTS

IRISH ROVER

MARLOW YACHTS ERASES THE DIVIDE BETWEEN PERFORMANCE AND LONG-RANGE CRUISING WITH ITS EXPLORER SERIES. TEXT BY MARILYN MOWER PHOTOGRAPHY BY SCOTT PEARSON

I subscribe to the philosophy that everything that has ever happened—the good, the bad, the ridiculous, and the truly horrible—is part of a chain of events that brings one to the point at which you are this moment. How you martial those experiences determines how the next link in the chain is forged; into which category the next event will fall.

I had a reminder of that recently driving west across Florida's Alligator Alley in a blinding rainstorm to see a boat called *Irish Rover*. I've known the boat's builder, David Marlow, a long time, longer than the last four years he has been on my radar for building long-range cruising boats, back to when he built and raced sailboats—often beating the boats on which I crewed. *Irish Rover*, his first megayacht project, is one of those points that show you how seemingly random acts are only random if you fail to connect the dots.

David Marlow is a Florida Cracker, born in Apalachicola and raised on one of the little bayous flowing out to Tampa Bay. As a barefoot boy, he learned how to make a tin canoe out of building scraps so he could go beyond the fringing mangroves to fish and scallop. It might seem like a long road from a tin canoe to a 100ft motor yacht, but for

Marlow, it's a remarkably logical, if not exactly straight, road.

I call Marlow a mad scientist—the Chinese workers at his Norseman Marine yard near Xiamen, China, have a slightly more colorful name for him—who chose to erect a shipyard facing the China Sea 500 miles north of Hong Kong. He once described the site as: "Eleven miles from what only an optimist could call a road. From the end of that dirt road to the oceanfront site was another almost six miles, with not a sign of a road, just meandering ruts through woods and granite hills with an occasional mountain. The ruts were the pathways of the free roaming red cows and water buffalo that pulled a plow when caught, and hid among the trees until they were found."

Today the site is a 25-acre, 300,000-square-foot "green" manufacturing and support facility linked by five miles of newly paved road to the ancient fishing village of Chi Hu, which supplies both food and a quantity of workers to Marlow's operation.

His Norsemen yard is next door to a national park and Marlow, a devotee of Rachel Carson, allows nothing to contaminate the grounds, air, or water. Before the buildings were constructed, Norsemen installed underground granite and porous sand filter beds to collect and filter all rain and construction runoff and route the water to cisterns to irrigate the more than 10,000 teak, mahogany, eucalyptus, lychee, apple, and pear trees planted on site and the vegetables and seasonal fruits grown organically for the company kitchen. Wood scraps from the carpentry shop are burned to heat water for the galley and worker's lodgings; the ash is spread on crops. It is Norsemen's goal to reach 100 percent organic food production for its 500 employees by

These pages; The first thing you notice on entering *Irish Rover* is its symmetry; the next thing you notice is that there are strategic handholds everywhere and almost as much stowage. Solar panels on the bridge roof recharge house batteries that power appliance via an 8kW inverter.

supporting farms that don't use harmful chemicals. Figuring out these things is the stuff of late nights and long plane rides for Marlow and, one suspects, the source of a great deal of inner happiness.

But now, the source of happiness is *Irish Rover*. It has been 10 years since Marlow Yachts debuted at the Miami Boat Show with a 53 footer. This year, the yard introduced the 97E, its first yacht with an overall length of 100 feet. A series of deliberate steps brought David Marlow to this moment.

"I was approached a number of years ago by a customer who really wanted me to build him a hundred-foot Explorer, but I wasn't ready, and I told him I wouldn't take his money just to experiment," says Marlow. "We had a lot of things to learn to do first."

Two things were chief on that list: Improving hull efficiency and improving composite construction. Going farther and faster on less fuel is his end game. Marlow, who spent a number of years in the employ of a trawler manufacturer, began to question the wisdom of a deep centerline keel for stability in 1984 and discovered twin keel studies by naval architect Pat Bray and Ocean Engineering Research Center in British Columbia. Far from the prevailing theory that twin keels cost more in tooling and drag, Bray's research showed that their drag disappears

quickly in all but flat water and reduces roll moment while increasing directional stability. "Research led me down the twin keel path when observing that the fastest, most highly maneuverable fighter jets on earth [F-15 and MIG] have twin tails. Viewed upside down, these tails mimic the underwater shape of what became my patented Velocijet Strut Keels," Marlow said.

His design doodles, equations, and experiments to develop the keel concept fill volumes, and the serious customer will likely be treated to several hours of the why and how. With apologies to years of research and hard work, it goes like this: The strut keels exit the underbody of the hull in line with the engines aft of amidships at about the point at which the deadrise begins to morph into tunnels. The keels, a NACA foil shape, work like feathers on an arrow directing the flow of water. They aid tracking, create lift in the after section when the yacht heels, dampen pitch, flatten the stern wave, and reduce parasitic drag by enclosing the rotating prop shaft for most of its length.They also protect the propellers from debris and groundings.

While the new hull shape alone would be more efficient, Marlow was also—as any former yacht racer—obsessed with saving weight and having the stiffest possible boat. Plywood and wood frames were out, unidirectional stitched fibers, Kevlar, and Corecel foam were in. "The goal is to stick each fiber together with the least amount of resin. One drop of fiber over the required amount to wet the fibers reduces laminate strength because resin

These pages; Similar to David and Barbara Marlow's own boat, a 76-footer from the Voyager series, *Irish Rover* has a raised master suite forward with en suite bath featuring Sichuan marble (top right) on the same level.The midships guest stateroom is at center. Forward of the Portuguese bridge is spacious deck seating.

is brittle," Marlow says. Marlow uses only epoxy resin modified exclusively for his yard to eliminate skin irritation.

In 2009 Marlow Yachts won an NMMA Innovation Award for its Full Stack Infusion—a proprietary lamination process where the entire hull is infused with resin in one hour. The process requires seemingly miles of thin tubes that release resin and catalyst through the layup of cloth and coring in precise amounts in a choreographed order. The magic occurs inside a fully enclosed mold using extreme vacuum. "It used to take us thirty-six days to lay up the hull of a seventy-eight footer. Infusion also saves us three barrels of resin in the process," Marlow says.

The final part of making sure he was ready for a 100 footer was to achieve certification by ABS, Lloyds Register (A Ocean Class), ISO 9001, and, finally, Bureau Veritas unrestricted navigation. As Marlow says, "It's a long way from a sand beach in China to this moment".

As for that client who pushed for the 100 footer, he actually became the second in line behind a couple from Chicago who parlayed their backgrounds in law enforcement into a successful software company. They saw the plans for the new model and signed up, asking the yard to modify the interior for their growing family with less galley and more staterooms.

To achieve its high speeds efficiently—we topped out at 30 knots on our trial, and she'll cruise from Sarasota, Florida, to Cancun, Mexico, and back at 25 knots on a single tank—the beam is a comparatively slim 21 feet. The construction method and a smart decision to stack the interior stairs on the starboard side make the most of the space.

Irish Rover is designed with a formal dining area separated from the salon by an attractive storage cabinet that holds a flat-screen TV viewable either through low tambour doors or by popping it up through a hidden panel to counter height. Forward and up a half-dozen steps is the master suite with its 180-degree views. Here the joinery shifts from a clear-finished teak and cherry to maple over a bamboo sole. Marlow always selects its own logs for the interiors and carefully slices its own veneers for maximum efficiency and grain matching. Most Marlows below 86 feet use but one teak tree for the entire interior. Marlow found the log for *Irish Rover*'s owners' suite in Old Forge, New York. "It was an especially stressed tree resulting in a beautiful bird's-eye pattern in some areas and almost tiger in others," commented Marlow.

The show-stopper, however, is the bath tub carved from a single block of white Sichuan marble. Showcasing the artisan's steps from raw stone to a shaped and polished element, its 2,900 pounds is the one weight extravagance aboard.

"Most manufacturers don't build most of their boats; they assemble parts from subcontractors. That may work for some, but we are just the opposite."—DAVID MARLOW

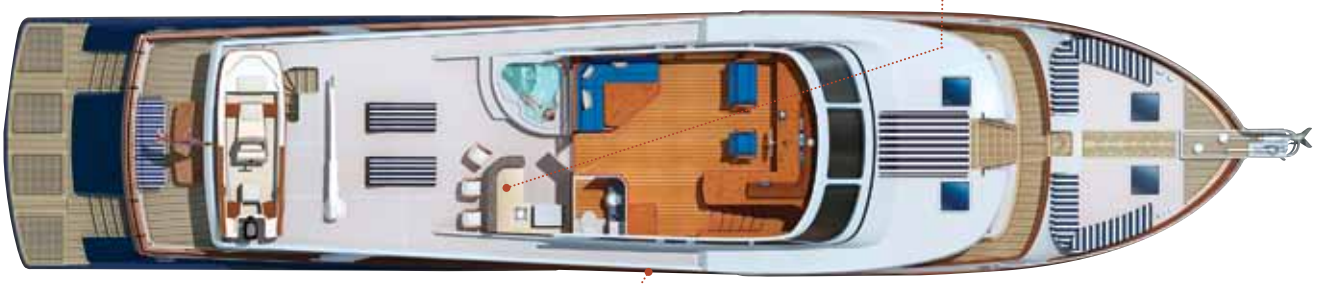
While other layouts are possible, the lower deck accommodation on *Irish Rover* features six staterooms and four heads with showers. With the anticipation of a new grandchild, a planned full-beam stateroom amidships was dissected into twin queen-size staterooms with separate bath and shared shower. An angled companionway glides past hidden laundry equipment and a mini-galley that hides a sink, microwave and fridge drawers in close proximity to those in search of a midnight snack. Of the lower cabins, I am partial to one that opens through double doors to a king-size bed on centerline, although the room itself is offset to port. Located farthest away from engines and bow noise, this is bound to be a popular spot. There is room for up to three crew aft between the engine room and lazarette where a SeaKeeper gyro waits to provide low-speed or at-anchor stabilization.

The upper deck has a large bridge/skylounge that opens onto a long deck with a hot tub and an outdoor entertainment area equipped with full bar and barbecue facing plenty of space for chairs and a tender. A second outdoor bar and snack area is on the shaded aft main deck.

David Marlow's search for optimal solutions—and the fact that he incentivizes his yard workers to innovate—is revealed in detail upon detail; a hundred little links in the chain that have led, on this day, to *Irish Rover*. SB ENHANCED DIGITAL CONTENT ON IPAD & ZINIO.

GOING GREEN: A solar roof system recharges house batteries for 8kW inverter power for appliance use.

COOKING AREAS: There are three areas for cooking: the main galley, a flybridge outdoor kitchen, and an aft deck mini galley.



SLIPPERY HULL: The yacht planes at 14 knots (38% power) meaning it can lose one engine and still plane at 16 knots..

MASTER: The master stateroom is a half deck above the main enabling a dbA of 66 at 25 knots..

AFT DECK: An hydraulic transom door and swim platform host water toys and secondary access to the crew area and engine room.

GUEST ACCOMMODATION: These owners changed the full-beam VIP aft into two equal staterooms with a shared shower.

LOA: 100FT 11IN (30.7M)
LWL: 83FT (25.3M)
BEAM: 21FT (6.4M)
DRAFT: 5FT 6IN (1.7M)
DISPLACEMENT (LIGHT): 147,000LBS
POWER: 2 X CAT C32 @ 1,760HP
SPEED (MAX/CRUISE): 29/25 KNOTS

RANGE: 1,200 NM AT 25 KNOTS
FUEL CAPACITY: 5,000 GALLONS
STABILIZERS: NAIAD/SEAKEEPER
GENERATORS: 2 X ONAN 32KW @ 50HZ
FRESHWATER CAPACITY: 600 GALLONS
GREY/BLACK WATER CAPACITY: 400 GALLONS

OWNER AND GUESTS: 14
CREW: 3
CONSTRUCTION: FRP/CORCEL/KEVLAR
CLASSIFICATION: ABS/BUREAU VERITAS UNRESTRICTED
NAVALARCHITECTURE:MARLOW MARINE
EXTERIOR STYLING: MARLOW MARINE
INTERIOR DESIGN: MARLOW/OWNER
BUILDER: MARLOW YACHTS LTD
4204 13 STREET COURT WEST
SNEAD ISLAND, FLORIDA 34221
EMAIL:SALES@MARLOWYACHTS.COM
WWW.MARLOWYACHTS.COM