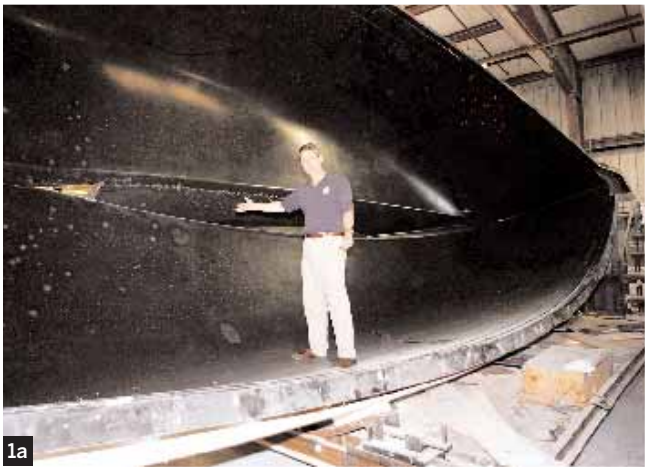
A new Island Packet 485 takes shape



1a

1b

2a

2b

2d

2c

A WELCOME HOME

Island Packet Yachts combines robust engineering with an unshakable sense of family

BY CHARLES MASON PHOTOS BY BOB GRIESER

1 Island Packet builds all its own molds. The hull and Full Foil Keel on most models, like the one shown here (a), has a lead/iron ballast package that is carefully weighed before being placed inside the enclosed keel cavity. The larger the boat, the more lead is used. When the ballast has been installed, it is covered and sealed on the inside with another full hull laminate (b). After a proprietary gelcoat has been applied to the mold's surface, the gelcoat is covered with a layer of mat and vinylester resin. Layers of triaxial glass are then placed over the outer mat; thickness will vary depending on the location on the hull. Total glass thickness on the bottom of the keel will be about 1.5 inches. Hulls are left in the mold for at least five days to ensure a complete cure.

2 This deck mold (a) is being readied for the gelcoat room (b). After the gelcoat has been applied and has set up, the deck mold is covered with two to three layers of glass, a half-inch of proprietary Polycore syntactic foam, and then two to three more layers of glass to produce a strong but relatively light sandwich deck (c). Pre-catalyzed resin is used with all glass in both the hull and deck molds and is applied with a special pressurized roller system. Because resin is delivered by a hydraulic pump to the roller at a constant rate, the result is not only a respirator-free environment but hull and deck structures that have a high glass/resin ratio (d). Half-inch aluminum stock is drilled and tapped and used as backing plates for all deck-installed systems and equipment.

Bob Johnson, the founder and president of Island Packet Yachts, admits he has what he calls a genetic flaw—an overwhelming urge to be near or on the water. If he's asked whether he thinks building sailboats is rocket science, he politely demurs. What he does say is that once you've spent time working around "big birds," as he has, aeronautical engineering and its protocols are useful when designing and constructing safe and seaworthy boats. But that's getting ahead of the story.

Even when he was a kid, Johnson knew he wanted to be in the sailboat business. Each summer his family fled the Florida heat for the Connecticut shore, where his father kept a small motor launch. But Johnson was more interested in sailing craft—so much so that when he was 14, he sent away for the plans for a 12-foot catboat he saw in a boating magazine. When the plans arrived, he spread them out on the living-room floor and began studying the construction details. Johnson built the boat in the garage, but his mother let him keep the plans on the floor while the boat was being built. When he finished, he launched it off a nearby sea wall and went for a sail. Several weeks of testing was enough for him to see that while it was a pretty good example of the type, if he added a bowsprit and modified the deck layout, it would sail even better.

Johnson majored in mechanical engineering in college and in 1967 earned an MS in naval architecture and marine engineering at the Massachusetts Institute of Technology. Aerospace giant McDonnell Douglas offered him a job in its Intercontinental Ballistic Missile design program, in Southern California. He spent five fascinating years working on and around those giant birds, but also found time to get out on the water; cruising the Channel Islands was a regular habit. Then one of his engineering aides, an avid surfer, spotted Johnson's gift for innovation and asked him to come up with an adjustable surfboard fin that could be detached from its board.

Johnson's new fin took him from McDonnell Douglas to a small surfboard company with some big ideas for the exploding surfing market, including high-tech surfboards made out of aerospace materials like honeycomb foam. The new boards were lighter and more durable than traditional boards, and there was more new technology coming along almost every day. Still, the boards were comparatively expensive, and there were some questions about whether the value quotient was there for a large enough chunk of the consumer market. However, the first priority was to raise capital for expansion through a public offering. The experience was, as Johnson remembers it, like getting three MBAs simultaneously.

But by the mid-1970s surfing was starting to plateau in California, and Johnson and his wife, Jeri, now had two young children. When they decided to head home to Florida, boatbuilder Ted Irwin asked Johnson to join his rapidly expanding Irwin Marine in St. Petersburg. Johnson helped Irwin design raceboats and modify some existing models in his line of cruising boats. Several years later Johnson was asked to be the plant manager and in-house designer for Endeavour Yachts. After four years, the opportunity he had hoped for finally came along. He had a chance to buy the molds for a 26-foot centerboarder.

The company that owned the design and tooling was having financial problems, and its investors had decided to close down and sell the assets. Johnson and his wife talked it over, took a deep breath, and made an offer that was accepted. Johnson immediately saw ways to improve the boat. He changed


3a


3b


4


5a


5b


6a


6b


7a


7b


7c


8a

8b


9

3 Engine mounts (a), water and fuel tanks, and through-hulls (b) are installed in a bare hull. All tankage is located on centerline below the cabin sole, and all bronze through-hulls are flanged, bolted, and bonded.

4 All water tanks are built on site using FDA-approvable vinylester resins. Feed tubes and vacuum-bagging create a suction that pulls the resin through the glass to make a void-free structure. All fuel tanks are aluminum and are tested at 3 psi for a minimum of 24 hours before and after being installed.

5 An Internal Glass Unit (IGU) (a) is dry-fitted into the hull for fit and then fixed to the hull with substantial fiberglass tapes that cover both the hull and the IGU (b). Blue Skip Coat tape that protects all surfaces during the assembly process can be easily peeled off when no longer needed.

6 When the deck is turned over (a), elements such as windows, portlights, and winches are added to the topside surfaces. A molded interior headliner is attached to the underside of the deck structure using Polycore foam (b), which gives all weather decks a double core.

7 Components like a teak-and-oak sole (a) and Corian countertop with a complex integral fiddle structure (b) are built by skilled craftsmen in the wood shop before being installed on the boat by build-team carpenters (c).

8 All installations of onboard components conform to the MEP protocol—mechanical first, followed by electrical and plumbing. Shown is an electrical instrument panel for a 44-footer (a). All the wiring is pretinned, and all boat cable is UL listed. Meetings are held at least weekly for every boat in production, and a quality-assurance book for each boat lists every installed item and the installer's name. Quality-assurance managers Cheri Wright and Paul Dillon recheck everything before a boat is shipped from the factory. Dillon also checks every hose clamp and critical fitting to make sure it has the proper torque. A drop of orange Loctite indicates that the clamp has the proper adjustment (b).

9 The mold shop is usually not open to visitors because of ongoing R&D projects. However, the doors were opened enough to see the tooling for the new 41-foot SP Cruiser that Island Packet will be introducing at the fall shows.

the mast location and designed a higher-aspect-ratio centerboard that improved the boat's sailing performance and created more living space below.

When some of Johnson's friends in the industry said they would build him some new molds and do the glasswork on a contract basis, his dream had come true. He was finally working for himself in the boat business. The first boat was sailing on July 4, 1980. Johnson's brother helped him develop a brochure for it, and he decided to call it the Island Packet. Some money was budgeted for classified ads, and not long after orders started coming in.

Soon there was a Mk II version, there were more orders, and a year later Johnson faced another challenge. The friend who had been building his hulls and decks told him that if things kept going so well, he would not be able to keep up with the demand.

It was another hold-your-breath moment for Johnson, but the experience gained from his years in the business convinced him he was right where he wanted to be in the market. He leased a facility, hired a build crew, improved his product, and found more customers who believed in his Island Packet.

Despite the growing demand for the 26-foot Island Packet, Johnson was also working on a new 31-footer with a cutter rig, a full-length keel, and a seagoing hull with a classic sheerline. It had what would become a signature feature on every Island Packet—an eye-catching ivory-colored gelcoat finish. Despite the large up-front cost of building the plugs and molds, Johnson was confident his concept was correct and paid for his own tooling. It's a tradition that continues today.

The boat generated a lot of buzz at the 1983 Annapolis Sailboat Show. "While it was our first homegrown boat," says Johnson, "I guess you could also say it was also our first home run." Ed Kurowski, then and now one of the most knowledgeable dealers in Annapolis, fell in love with the boat, and after he and other dealers began to spread the word, orders for the IP 31 began to flow in. Johnson saw immediately what was happening, and he expanded. Again. "It's a little hard to believe now," says Johnson as he looks out his office windows at the complex of buildings that contain 125,000 square feet of production space for a workforce of around 200, "that when we moved here in 1984, all the land around us was basically vacant. The road running from the main highway to the original building was not much more than a gravel pathway. Now everything has been built up around us."

With the 31 now well established, Johnson began to draw the lines of a boat that would start a small revolution. It was a 38-footer that had many things in common with the 31. But as Johnson was finalizing the mockups of the interior, he knew he had created something special. Until then the standard layout for aft-cockpit cruising sailboats under 40 feet was two staterooms and a single head, either by the mast or aft by the companionway, which the owners shared with their guests. No one objected because that was how designers had always apportioned the interior space. Johnson looked beyond the dogma and saw that two staterooms and two heads was a better idea. If you were a serious cruiser, the Island Packet 38 was for you.

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Johnson's next boat was a 35-footer that refined all the qualities he thought should be in a cruising boat. But this time he accepted input from his rapidly expanding stable of dealers and from his customer base. He gave the new boat's transom a little more rake, made its freeboard slightly lower, and refined the underwater shape and foils. The result was the Island Packet 35. As Johnson recalls, everything kind of "aligned" with that boat. Introduced at the end of 1989, it's still one of his favorite designs.

Johnson has created many other designs over the years, more than 20 in all. Each has been a careful evolution of the features he thinks are needed in a cruising boat. And like any good engineer, particularly one who has been intimately involved with rocket science, Johnson is continuously analyzing new technology and field data. He and long-time vice-president of sales Bill Bolin are constantly asking Island Packet owners for comments and observations. If there's an improvement to be made, there's no argument. It goes into the process. "We do tend to stay away from 'bleeding-edge' technology," says Johnson, "because many of our boats sail to the far corners of the world and we want them to be there trouble-free."

Island Packet has built over 2,100 boats in 27 years, and every owner, whether of a new model or the sixth in a line of succession, is a member in good standing of the Island Packet family. The boats have come a long way from the mat and woven rovings used in the early models to the sophisticated knitted and triaxial fabrics and improved resins used today. But Johnson knows that his customers remain his most valuable asset. And he's happy to live with them forever.