



The All New Manta 46

Designed from scratch to be an ultimate couple's cruising boat, the new Manta 46 also lives up to the principals that made its predecessor, the Manta 42, so popular and successful

It has been over six years since the last Manta 42 was launched, but that has not dampened the spirit and camaraderie of all of those owners who still love and cruise their American-built cruising cats. Every year Manta 42 owners get together for a rendezvous and

cruise so they can keep the Manta flag waving. Between 1994 and 2008 127 boats were built. The first seven were 38 feet then the design was extended to 40 feet and then later to 42 feet.

Last winter, Pat Reischmann, who developed the original concept

and sold and supervised the construction of the first 75 Manta 38 to 42s, got together with veteran yacht designer Cortland Steck to take the concepts that made the Manta 42 a great cruising boat and updated them for the modern age. Pat is a student of the multihull scene and realized that two types of cats were dominating the market; those built for the charter fleets in large production runs and those high-end cats that are being built at the very exclusive high-performance end. This trend has created a void in the market for sailors who want to cruise offshore as a couple in boats that are specifically designed for that purpose.

Additionally, with the advancements in design and technology, particularly in communications and navigational electronics, full-time cruisers have been able to expand their cruising horizons. These sailors are looking for higher cruising speeds under both power and sail with more comfort and safety in offshore sailing conditions.

THE REQUIREMENTS

Given the popularity of the 42 and the new cruising styles of today's cruising couples, Pat and Cortland laid down the basic aspects of the new design that would meet these requirements.

The new boats had to have a high enough bridge deck clearance to prevent pounding even in rough conditions. The hull had to be light enough, fine enough and equipped with performance underwater foils so that it can be sailed at speeds higher than those of charter and production cats. The accommodations need to be very livable and focused on the needs of one couple that occasionally has guests.

The boat's basic systems need to be well thought out so they are easy to access and maintain. The sailing systems need to be set up so a lone watchstander of either gender can singlehand the boat on any point of sail. The cockpit



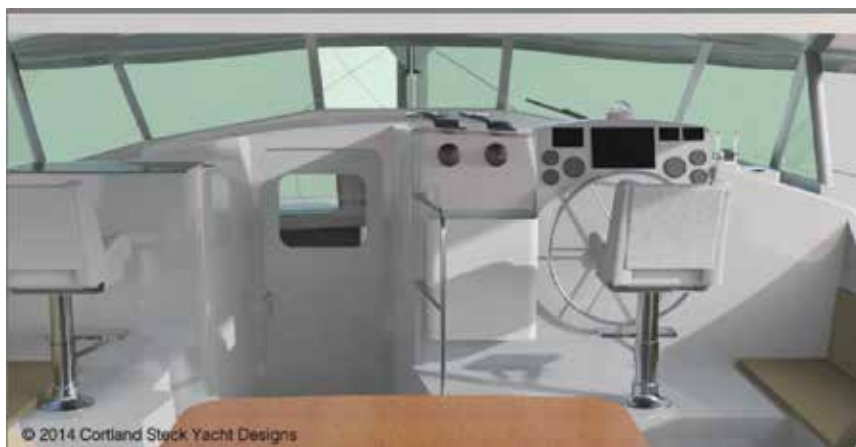
needs to be set up for all weather protection from the elements, 360-degree visibility and for comfortable, extended watches at the helm.

The boat needs to be equipped with the most advanced marine electronics and communications systems so the owners can spend extended time offshore or in far flung cruising grounds while still being in touch with the world around them and their lives at home. And, the boat needs an anchoring system—anchors, rodes and a windlass—that is easy to



performance and they are positioned well aft for maximum steering control. Cruising cats sail much better upwind with centerboards or dagger boards than with the stubby keels found on most pro-

Two hull details give a good indication of the experience that has gone into the design. A full-length rub rail is to be molded right into the hull, which will have a replaceable polymer abrasion resistant guard to protect the hull from encounters with docks and pilings. And, to aid crewmembers that are handling docking lines, two recessed steps are molded into the hull near the bows so you can climb on and off the boat without having to run to the sterns.



THE DECK & CABIN TOP

Starting at the bow, the 46 has been given the traditional Manta composite cross beam and centerline strut that provides better wave clearance and sure footing while working on deck. The anchor windlass and lockers are out of the way in the fore and aft strut, but are handy for quick anchoring or anchor retrieval. Altogether there are two anchor lockers and two bow storage lockers on the foredeck.

use and capable of anchoring the boat securely in storm conditions.

Given this list of requirements, Pat and Cortland set out to create the boat to meet them.

THE HULL

To achieve the sailing and motoring performance that the new design needed, the hull was given a very narrow beam at the waterline and a full-length chine above the waterline to provide the interior volume necessary to create comfortable living spaces and cabins.

An innovative wave-piercing "Z" bow was added to the hulls to give them a finer entry and to reduce bow waves. Additionally, water-tight bulkheads inside the hull create a superior level of safety.

Under the water, the rudders were designed to be stall resistant elliptical shapes for optimal

duction boats. In the Manta 46, it was determined that centerboards that fold neatly into the keels were the best solution. The boards are efficient foils when deployed and out of the way when raised.





Access to the cabin top and hardtop is via unique folding access ladders on both sides of the cabin so you can mount the cabin quickly when you want to flake the mainsail or clear a sheet or halyard.

The top of the cabin top is crowned so it will shed water and the forward edge of the top extends over the cabin windows to reduce glare and solar radiation in the saloon.

The hardtop is an integral part of the cabin top and has been developed directly from the hardtop that worked so well in the 42. The hard top provides shade and shelter and is a great utility platform for the mainsheet traveler, solar panels and a rainwater catchment system.

THE COCKPIT

On cruising cats, the cockpit is where everyone lives most of the day. There are two comfortable chairs, one to starboard for the helmsman and the other to port; a panel for electronics and a VHF radio; and a small external chart table with an acrylic water resistant top.

The space between the hardtop

and cabin top is filled with removable vinyl to reduce wind and spray in the cockpit. In front of the helm is a tempered glass windshield with a wiper/washer.

The cockpit itself is spacious and



comfortable and the place crew will lounge when reading or relaxing. The whole cockpit can be enclosed with acrylic and vinyl panels that have large U-zip openings so in cold or inclement weather you can still operate the boat and

live aboard in comfort.

SAIL HANDLING

The concept behind the 46 is to make it both fast and easy to handle. The speed comes from the hydrodynamic hulls and foils coupled with moderately light displacement and a large and powerful rig. The rig has a high roach mainsail and a 100 percent, self-tacking jib.

All of the halyards, sheets, reefing lines, and the control lines for the boom vang and boom brake

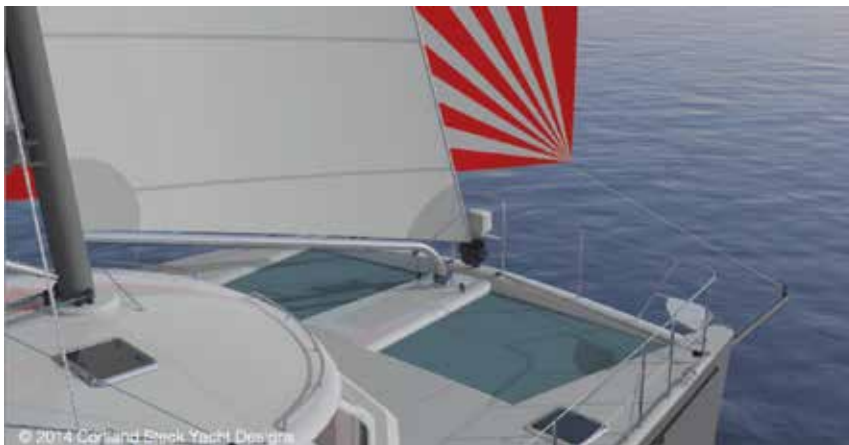
lead aft to the helm through line clutches to the electric and manual winches mounted on the vertical cockpit bulkhead. The person at the helm can manage almost all sail trim from this one position. And, all lines and tails feed into an integral line bin right next to the helm.

The main mast is a round, tapered carbonfiber section without spreaders that provides less weight aloft, a lower center of gravity, less interference with the mainsail's shape and natural depowering of the sail in gusts. The main boom is a "wing" boom that is wide enough to accommodate the full mainsail when flaked.

The jib is rigged with roller furling and to a self-tacking Hoyt jib boom with a unique integral boom brake that controls twist in the sail and enhances both upwind tacks



and off the wind reaching. All of the control lines for the jib and a free flying Code Zero lead aft to the cockpit where you can make adjustments without going forward. Retractable bow sprits with an adjustable bridle for the furling Code Zero are also an option.



THE INTERIOR

As noted at the outset, the Manta 46 is a boat for couples that normally cruise alone and occasionally have friends join them. So the hulls have been designed to have two equal sleeping cabins with large heads and separate shower stalls. A workroom is envisioned in the forward half of the port hull where a watermaker and optional bow thruster can be mounted. A laundry room with a combo washer-dryer can be fit into the starboard bow. Both hulls have sliding privacy doors, so you and your guests can relax in private.

The saloon has tinted windows all around for excellent visibility. The dinette is positioned to starboard while the large U-shaped galley is aft on the starboard side. The galley will have a 12-cubic foot refrigerator-freezer with an icemaker, a four-burner propane stove and oven, a microwave oven and a trash compactor.

This will be an excellent place for entertaining or dining with several friends. And a large flat screen TV will provide entertainment when it is time to catch your favorite shows or a movie.

SYSTEMS

The new Manata 46 is setup to provide all of the comforts of a floating second home while still being easy to maintain. Access and elbowroom are as good as you will find on any cruising cat in this size range. The engine rooms are huge and will make regular oil and filter changes a snap.

The electrical and plumbing systems are specified to meet or exceed all ABYC standards and to

be accessible so you can add new items or make repairs as needed.

The heads are set up with a freshwater flushing system that will eliminate many onboard odors and mineral deposits in the head plumbing and each head has a 50-gallon holding tank.

The 150-gallon water and fuel tanks fit beneath the cabin soles in the two hulls where they are easily accessible for inspection and cleaning.

CONCLUSION

The Manta 46 promises to provide high levels of quality and performance that will compare very favorably when measured against the high volume production cats that often end up in charter fleets, while still offering competitive value. This result will be accomplished by developing intelligent tooling and joinery that will allow the builders to reduce man-hours while simultaneously producing a top quality offshore cruising yacht.

As a design and concept, the new Manta 46 can truly be regarded as

a "second home" that is ready to go cruising anywhere in the world in comfort and style.

For more information contact Pat Reichmann at: 727-432-5441; preischmann@msn.com ■

Manta 46

preliminary specifications

LOA	45' 9"
Bmax	23' 10"
LWL	44' 5"
Bridgedeck Clearance	41"
Draft Boards Up	4'
Draft Boards Down	8'
Displacement	25,200 lb.
Sail Area (total)	1,239 sq.ft.
Water Capacity	150 gal.
Fuel Capacity	150 gal.

