



A Replacement for the C36?

With a longer waterline and ample sail area, the Catalina 375 is quite happy on a reach in a light to moderate breeze.

The new 375 expands to meet the needs of today's Catalina owners.

Now celebrating its 40th year in business, Catalina Yachts is one of the most enduring companies in the U.S. sailboat building business. For most of the company's life, production took place at two facilities: one in Woodland Hills, Calif., where the company has its roots, and the other is a factory in Largo, Fla., that Catalina acquired from Morgan Yachts in 1984.

Currently, the company website lists its fleet at more than 20 models—from the 8-foot Sabot dinghy to the 47-foot 470 cruiser—but a few of those, including one of the best-selling boats of all time, the Catalina 22, have been retired. (The Catalina Sport replaced the Catalina 22, just as the C309 replaced the iconic Catalina 30.) Total output is about 25 percent of what it was during the company's peak, but if any company can float above the current crisis, it's Catalina.

One of the big three sailboat manufacturers with facilities in the U.S.—Hunter and Beneteau being the other two—Catalina is a privately held company. Since 1998, it has been co-owned by founder Frank Butler, Marketing Director Sharon Day, and Vice President and Chief Engineer Gerry Douglas. In addition to shedding the high cost of doing business

in California, the move to Florida brings Catalina closer to its customers. Today, more than 70 percent of Catalina's new boats go to owners east of the Rockies.

This sort of foresight, along with Butler's irrepressible drive, is what has helped Catalina weather the economic storms that have sent other U.S. builders to the bottom. Butler's contagious passion for his work and his hands-on approach to customer service have earned the loyalty of legions of Catalina owners.

"We do well in a down market," says Douglas, succinctly. "We always have."

Although the market for new boats has soured considerably, two boats in the Catalina line are selling relatively well. The first is the Catalina 375, a mid-sized cruiser launched in 2008, the other is the Catalina 445, launched last year. Both boats earned high praise in the advertising-supported sailing magazines, so *Practical Sailor* was curious to see how the boats held up to these reviews. Although this article highlights the 375, we hope to take a look at the 445 in a future issue.

DESIGN DETAILS

The 375 replaces the very popular Catalina 36, which was first launched in 1982 and went through one major design

change in 1995 to become the Mark II. Combined, the two versions account for more than 3,000 hulls. Looking at the wishlist of today's Catalina owners, it was clear that modifying the C36 was not a practical option. Expectations called for a longer boat, and a new hull form would give more flexibility.

Better performance, Douglas says, was at the top of the list, and giving the 375 a longer waterline and greater sail area-displacement ratio than the C36 ensured success on that front. Clearly, the 375 has a greater potential for faster passages than its predecessor, but it is, for all intents and purposes, a family cruiser, with comfort taking precedence.

Comparing the fin keel versions of the 375 and the 36 Mark II reflect the thought process at work. The 375 has 14 percent more waterline, 9 percent more beam, 15 percent more displacement, 13 percent less ballast, and 17 percent more sail area. Its displacement-to-length ratio of 169 puts it right in the middle of the Hunter 38 and the Beneteau 37, with the Beneteau being the more performance-oriented boat. (See table, page 12.) Given the popularity of the tall rig version of the C36 (with an additional 50 square feet of sail area), it is no surprise that the design team added more sail horsepower

Photo by Billy Black, courtesy of Catalina Yachts

PROS

- High lifelines and wide sidedecks make moving forward safe and easy.
- Convenient port-side traveller controls allow for easy operation.
- The in-mast furling mainsail keeps the crew happy and makes reefing easy.
- Plenty of cockpit stowage.

CONS

- No dorade vents for ventilation.
- Traveller too short to be very effective.
- In-mast furling yields a lackluster performance compared to full-batten mainsail.
- Covered lifelines give little indication of wire condition beneath the plastic.



to the 375. Its sail area to displacement ratio is close to that of competing boats from Hunter and Beneteau.

There are two versions of the hull available: a deep-draft model that draws 6 feet, 10 inches and a shoal-draft model that draws 4 feet, 8 inches. The deep draft model is more than a foot deeper than the C36, and this is consistent with current trends. When it comes to performance dividends, a well-proportioned deep keel offers plenty of bang for the buck.

While owners clamored for more headroom below, Douglas said he wanted to maintain a fairly low profile like that of the C36. As a result, the deck house extends farther forward than that of the C36—reducing the working area in the bow—but the overall profile remains fairly low. Two aft opening ports instead of the fixed glazing on the C36 make good sense and give the boat a slightly more salty appearance. The profile view of this boat, in our opinion, is one of the nicer ones in the Catalina line.

DECK DETAILS

As a family cruiser, the Catalina 375 tries to strike a balance between its dual missions of providing safety and efficient sailhandling at sea and providing comfort and convenience at the dock, at anchor, and underway.

An obvious example of the challenges of this undertaking is the roomy cockpit, where a fixed centerline table with drop-down leaves takes up a large chunk of real estate. Coastal cruisers will find the convenience of the table's two cup holders and center-bin storage worth the hassles of having a mid-cockpit obstacle. Wednesday-night racers, on the other hand, may want to make room in their garage for the furniture during race season.

Ample cockpit storage allows room for fenders and lines, and there's even a fixed mount for a small outboard. Storage in huge cockpit lockers leaves room for a generator, watermaker, and air-conditioning unit, although the effect of

piling all this weight aft does not come without consequences.

Genoa sheets lead to two Harken ST44 winches mounted on the coaming near the helm. A two-speed Harken ST40 and a gang of four Spinlock XTS rope clutches to port of the companionway take care of the halyards, main outhaul, and boom vang. A matching winch and three rope clutches on the starboard side manage the spinnaker halyard, mainsail furling, and mainsheet controls. A convenient double-ended line controlling the Garhauer mainsheet traveller leads to a pair of cam cleats, making it easy for one person to adjust the traveller.

Sidedecks are wide and clear, and the 28-inch-high lifelines are a welcome improvement over the 24-inch lifelines on the original Catalina 36. A divided anchor locker meets the needs of coastal cruisers and rail-mounted 10-inch bow cleats avoid chafe while benefiting from the beefed-up solid glass at the hull-to-deck joint.



Blond teak veneer with solid teak trim are balanced by the white overhead to create a warm interior that is not too dark. The standard layout (above left) features a long drop-down table that can be folded in half to serve as a coffee table. A removable bench seat can be placed along the boat's centerline to accommodate up to six for dinner. The nav station (left) is a compact nook with few creature comforts, while the galley (above) offers good ventilation and plenty of room for meal preparation.

A 12-volt Maxwell 1000 vertical windlass manages anchor duties. For most coastal cruisers, this unit will provide adequate service, but it would not be our first choice for long-term cruising. Unfortunately, since the vertical windlass is integral to the locker design, installing a more robust horizontal unit is not a simple upgrade.

The deck-stepped mast is supported by twin backstays and inboard shrouds, allowing tight sheeting angles. Seldén Mast's in-mast furling is standard. In *PS's* view, a conventional mainsail with slab reefing offers a more practical and efficient way to deal with a wide range of wind conditions on a voyaging boat.

BELOWDECKS

Of the 56 owners of Catalina 36s who responded to *PS* questionnaires sent out in 1985, 1989, and 1998, the majority rated the boat's interior as Good or better. But interior details were also a source of many of the complaints. Leaky ports and chainplates, poor ventilation, and "cheap" furniture were among the most common gripes. Catalina appears to have answered many of these concerns with improvements in the 375.

Ports and chainplates are well sealed, headroom has been increased, quality of joinery has been stepped up, ventilation

has been improved (with eight ports and five opening hatches), and the cabin has a new layout. The combined result is more spaciousness, particularly in the main saloon. This roominess quickly loses its appeal at sea, when you are searching for something solid to brace against, but Catalina has made an effort to place grabrails where they are convenient.

Varnished teak presents a warm interior that isn't dark. With solid wood doors and corners, the joinery will stand up to abuse. Door frames are a powder-coated aluminum, ensuring a satisfying fit. The cabin sole is a synthetic faux teak-and-holly material called Lonseal. Wood lovers might turn up their noses, but this PVC product isn't a bad facsimile, resists stains, and has good non-skid properties.

Catalina's answer to the often conflicting roles of the main saloon (passageway, storage space, dining area, entertainment room, etc.) is to use convertible furniture and offer an optional main saloon layout. The standard layout features a portside settee with a table that folds down from the main bulkhead. Seating can be added by installing a bench seat, which stows—inconveniently—in the aft cabin when not in use. The second layout features an L-shaped dinette, with a triangular table that seats fewer people.

Former Catalina 36 owners will no-

tice that the galley has been shifted to the starboard side. While some argue that the traditional portside galley is more desirable when crossing oceans, the point is moot for a family coastal cruiser.

Our tester liked the galley's twin sinks located well inboard for self draining, but noted that putting a front-opening fridge right next to the engine compartment flouted the laws of thermodynamics. The optional top-opening fridge/freezer is less prone to the caprices of convection. Good galley ventilation, through opening ports, is much improved over that on the C36. Engine access is adequate through removable stairs at the base of the companionway and access panels in the aft cabin.

Opposite the galley is a compact, outboard-facing nav station with a well-organized AC-DC control panel and system monitors. The chart table is too narrow in our view (as are most today), and the limited vertical space may require some creativity to fit a full suite of cruising electronics, but is adequate for coastal hops. If the door to the aft cabin is open, it blocks access to the nav station.

The head, with separate shower, is accessible through not one, but two doors; one from the forward cabin and

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Photo courtesy of Catalina Yachts

CATALINA 375 CONSTRUCTION DETAILS

Tried and True Methods Endure at Catalina Plant

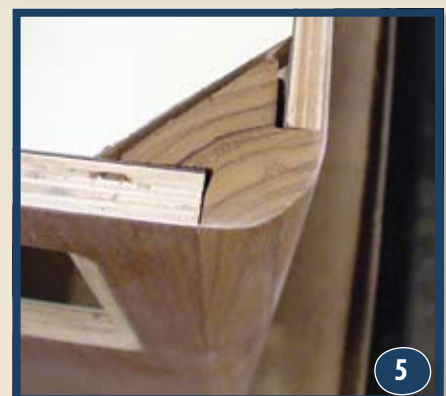
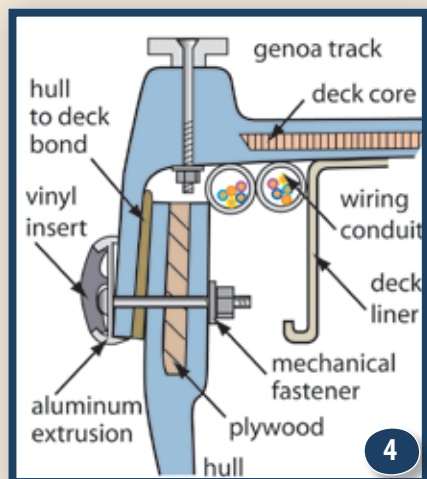
The Catalina 375 is assembled using four principle molds: the hull (with a separately molded structural grid), the deck, the transom, and the interior liner, which incorporates the cabin sole and some of the furniture. There is also an overhead liner, which helps conceal wiring conduits and provides a layer of insulating air between the deck and cabin.

Hull: The hand-laid hull is solid fiberglass. Blister-resistant vinylester resin is used on the outer plies. The laminate schedule alternates cloth, heavy knitted and woven-roven fabrics, and chopped strand mat. Loads from the keel and rig are transferred via a separately laminated structural grid. Molded with biaxial, unidirectional, and non-woven fiberglass for strength, the grid is bonded along the hull bottom. The separately molded transom is glassed to the hull before the deck is capped. The interior liner has a full-length molded-in aluminum stringer near the waterline to provide rigidity.

Deck: The hand laid deck is cored with end-grain balsa. Solid laminate is used at high load areas, or where hatches or ports penetrate the hull, and aluminum plates are laminated into the hull at places where bolt-on hardware will be mounted. Bolts are well sealed with anti-seize coatings, but should leaks develop, this arrangement (used by several other builders) can lead to hidden corrosion problems.

Hull-to-deck joint: The 375 is the largest Catalina with an overlapping "shoebox" flange at this joint. PS prefers a more rugged inward-turning flange joint in boats of this size. 3M 5200 adhesive sealant and 1/4-inch screws secure the deck.

Keel and rudder: While both Beneteau and Hunter use iron keels in their comparable models, Catalina has stuck with the more costly, but far less troublesome, lead keel with stainless-steel bolts. Its rudder is reinforced by a weld-

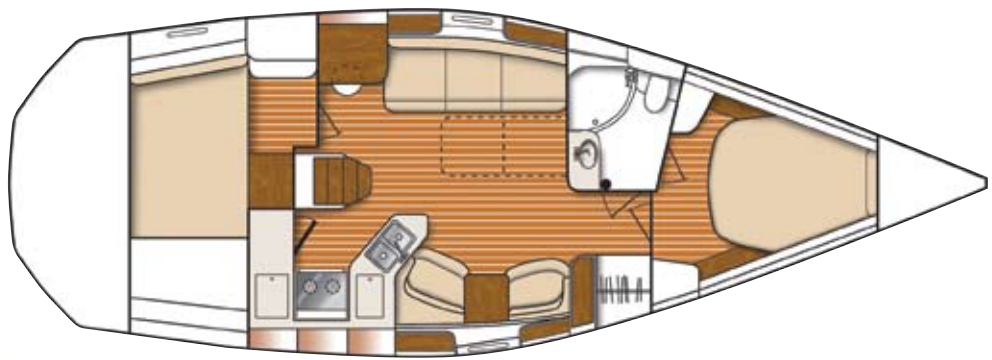
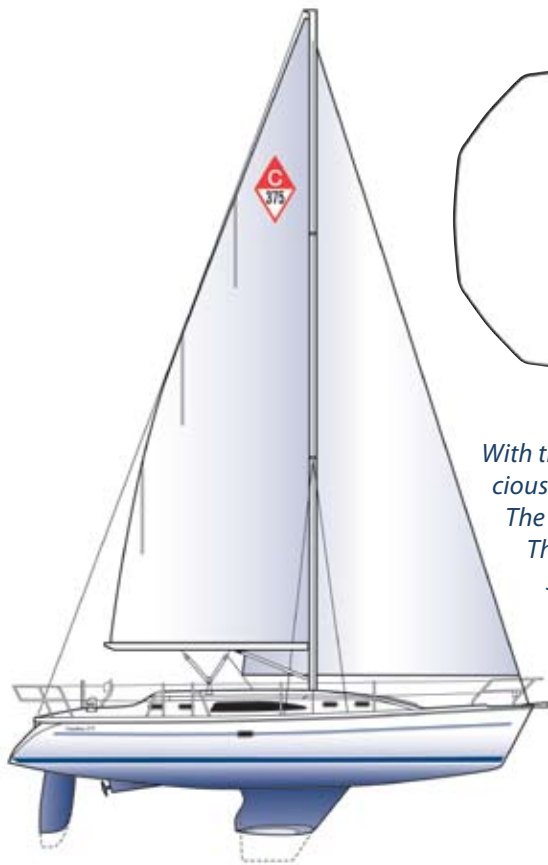


Practical Sailor's recent visit to the Catalina plant in Largo, Fla., presented insight into its boatbuilding techniques and materials. **1.** While the 375's hull is solid glass, Catalina's larger boats (top) have balsa core above the waterline. **2.** Catalina's ball-and-socket chainplate combats deck leaks. **3.** Catalina molds a separate transom for its larger boats. **4.** The 375 is the largest Catalina boat to use the overlapping hull-to-deck joint. (The 375's genoa track is inboard, not as it is shown here.) **5.** Furniture corners are solid teak to withstand knocks.

ed stainless steel structure that is welded to the rudder post and bonded to the rudder skin with heavy glass laminate.

Rig: The 375 has a continuous two-spreader rig that allows easy adjustment

from the deck. To reduce the chance of deck leaks where rigging loads pass through the deck, Catalina uses a ball and socket tie-rod that reduces any shear loads at the adhesive sealant's bondlines.



With the bulkhead-mounted table folded up, the main saloon transforms into a spacious living room (above). The 15/16 rig (left) will keep the boat moving in light winds. The 375's performance specs puts it very close to the Beneteau 37 and the Hunter 38. The Beneteau's longer waterline and lower D/L ratio will give it an edge, but the 375 is clearly at an advantage compared to its predecessor, the C36.

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the other from the main saloon. (Following the logic of this trend to its extreme, one wonders if a companionway entrance to the head is in the works.) In the forward cabin, the traditional V-berth with a filler cushion found on the 36 has been replaced with a wider centerline berth.

The aft cabin, entered through a door on the portside of the companionway, makes more sense than the expansive bunk found on the C36. One complaint among owners of the C36 was the aft cabin's lack of ventilation and low headroom. Although headroom is still low beneath the cockpit of the 375, opening ports improve ventilation, and there is a small hanging locker for clothes.

Our last interior comment is held for the starboard side "game table" and facing upholstered chairs that date back to the original C36 and the heydays of backgammon. Today, the table offers a convenient place for laptop computers, but *PS* laments the loss of another full-length sea berth.

PERFORMANCE

We sailed the 375 with a shoal keel in winds that ranged from 8 to 15 knots, with occasionally higher gusts. Combining a

shallow-draft fin keel with a beamy hull presents several challenges for a designer. Some concerns that were discussed in our article on modern sailboat design (February 2009) are the effect that the shape of the immersed hull and the lead (the fore-and-aft distance between the center of effort and the center of lateral resistance) can have on helm balance when the boat is heeled. That article also points out how shallow rudders can lose effectiveness when the boat is heeled.

According to Douglas, the boat was given plenty of working sail so that it would be fun to sail in light air, without raising the spinnaker. Equipped with a 140-percent genoa, our boat was clearly at home in the lighter wind ranges.

In 10 to 12 knots of wind, we were able to reach along nicely at 6 knots, and the boat was particularly sure-footed on a beam reach. It is worth noting that, un-

like Hunter's B&R Rig, Catalina's cruising boats do not have swept-back spreaders, allowing sailors to ease the main more without worrying about sail chafe.

However, when beating to windward in gusty 12- to 15-knot winds under full sail, the boat rounded in the puffs and weather helm was persistent. Reducing sail eased the weather helm, but the resulting sail shape was less than ideal. Achieving a lightly balanced helm in these gusty—and somewhat challenging—conditions required attention.

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CATALINA 375 IN CONTEXT

	CATALINA 375	HUNTER 38	BENETEAU 37	CATALINA 36 MKII
LOA	38' 6"	38' 2"	37' 8"	36' 4"
LWL	34' 5"	34' 8"	36' 6"	30' 3"
BEAM	13' 0"	12' 11"	12' 10"	11' 11"
DRAFT/SHOAL	6' 10" / 4' 8"	6' 6" / 5' 5"	6' 3" / 4' 7"	5' 10" / 4' 5"
DISPLACEMENT	15,500 lbs.	18,326 lbs.	14,008 lbs.	13,500 lbs.
BALLAST	5,200 lbs.	6,128 lbs.	4,253 lbs.	6,042 lbs.
SAIL AREA (100% foretriangle)	647 sq. ft.	758 sq. ft.	621 sq. ft.	555 sq. ft.
ENGINE	40 hp.	29 hp.	29 hp.	29 hp.
WATER	97 gals.	75 gals.	95 gals.	82 gals.
FUEL	40 gals.	35 gals.	34 gals.	25 gals.
SA/D RATIO	16.7	17.5	17.1	15.7
D/L RATIO	169	197	157	201
PRICE*	\$180,000	\$160,000	\$140,000	\$35,000-\$120,000

** Median price of online search; actual prices can vary greatly.*

to a 2,000 GPH pump, if the battery is fully charged. According to pump maker ITT/Rule, small electric submersible pumps are rarely useful with more than 4 feet of vertical discharge head and medium/large submersibles are similarly ineffective with more than 7 feet of head.

The discharge line should rise steadily to the through-hull or loop. If there are any low spots in the run, water will pool there once the pump cycles off. This can create an airlock when the pump is activated again, and the pump likely will stall. Hose connections, as recommended by the ABYC, should be made with non-corrosive clamps and should be airtight.

- **Wiring:** Use correct size wire and fuses: The proper wire size reduces voltage drop and properly fused wiring reduces risk of a locked rotor (a motor that's trying to turn, but can't) causing an overcurrent situation and potential fire hazard.

Consult the American Wire Gauge 3% voltage drop table (www.marinc.com/page/three-percent-voltage) to be sure you're using large enough wire. Remember that the run length given in wire-gauge tables is the sum of the positive and negative legs of the circuit; a pump 10 feet from the battery will be referenced as having a 20-foot wire run.

For the fuse size, simply go by the pump maker's recommendation, and you should be set. The fuse, per ABYC standards, should be installed within 7 inches of the power source.

If the pump's leads are too short, extend them carefully. Use oversized tinned marine wire and adhesive heat-shrink connections. ABYC standards recommend using a length of water-resistant electrical cable, sealed at the pump connection, so all electrical connections can be made above the max bilge water level.

- **Accessories:** A few accessories to consider adding to the bilge pump system include a visual/audible bilge alarm, bilge switch, and a cycle counter. ABYC standards require an alarm on boats with enclosed berths. Be sure that the alarm is loud enough to be

heard over engine noise while underway and ideally by passersby or marina personnel when docked.

Automatic pumps should always be fitted with a readily accessible and clearly marked manual switch so that even if the owner isn't around, anyone (crew, marina neighbors, or passersby) can locate and activate the switch when the need arises. Switches also should offer visual indication that the pump has power supplied to it. Our top pick for mercury-free bilge switches, reviewed in the January 2006 issue, is the electronic Water Witch 230.

If the larger-capacity pump has a float switch, we highly recommend connecting it to a bilge alarm (and alarm cut-off switch). That way, hopefully, the horn will get someone's attention before the constant cycling of the pump drains your batteries. We reviewed the Aqua Vigil Alarm in the May 15, 2001 issue, and deemed it "simple but quirky." We plan to revisit bilge alarms and cycle counters, including combo units like the Aqua Alarm pump monitor, alarm, and counter.

Two good references on bilge pumps and installing them are "This Old Boat" by Don Casey and Nigel Calder's "Boatowner's Mechanical and Electrical Manual."

MAINTAIN

Regular and frequent inspections of your bilge pumps are a must and should be included in the vessel's overall preventative maintenance program. This helps you know when to replace worn or damaged components (bad float switches, deteriorated hoses) before they fail. Before you set sail, it's always a good idea to make sure the pump has power and is working properly, keeping in mind that testing should verify the actual pumping of water overboard, rather than (in the case of electric pumps) simply switching the pump on and listening for motor operation.

Keeping your bilge clean can be a hassle, but it doesn't compare to the headache of a locked rotor or an important bilge pump in an emergency.

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As pointed out in our February 2009 article, this sort of behavior is more the rule than the exception among many contemporary boats, and it can be exacerbated when in-mast furling enters the picture. The fin-keel version, with its longer keel and rudder, would probably be less prone to these tendencies. According to Douglas, the C375's rudder area was increased, improving helm balance when the boat is heeled.

The 40-horsepower Yanmar and fixed three-bladed prop move the boat well, pushing it at about 6 knots at 2,000 rpm, 7 knots at 2,800 rpm. The boat backed and turned responsively in tight quarters, and a bow thruster is one of the many options available.

CONCLUSION

Catalina's success is no accident. The company brings a consistency and responsiveness that its owners have come to depend on. Some might question the company's conservative philosophy, but they can't argue with the results.

Customer support on new boats is good, and Butler has been known to personally handle warranty claims. Catalina has cultivated a very strong community of sailors, so buying a Catalina boat is, truly, buying into the Catalina lifestyle. Catalina also tries very hard to retain its new boat owners, so the trade-in values tend to be strong.

Clearly, we were not as smitten by the performance of this boat as were some of our cohorts in the advertising-driven media, but Catalina has made several key decisions that add significant value. The lead keel, the sensible rig, and the quality hardware and systems will keep an owner happy for many years. And a decade down the road, when you're pondering a new boat, Catalina will have a good idea of what you are looking for. ▲

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