REVIEWS

New Technology, Boats, and Gear for the Cruising Sailor

BOAT TEST BY PETER HOGG

A Different Kind of Cat

Speed may be relative, but the Wyliecat 48 is one fast California-built catboat that's absolutely simple to sail

Glossary of terms:

Tom Wylie—a San Francisco Bay Area-based yacht designer who generally maintains a low profile; however, since the 1970s he's designed a series of radical and breakthrough boats. Tom has an eclectic portfolio to his credit, including the 21-foot water-ballasted *American Express*, which won the 1979 Mini-Transat; the 24-foot Wylie Wabbit trailerable keelboats; *Rage*, the 70-foot ultralight cruiser; and, more recently, the 60-foot *Made in America*, which he designed for the 2000 Vendée Globe race.

Catboat—a monohull sailboat with a single mast that's not jib-headed, i.e., there's one hull, one mast, one sail.

Wyliecats—a line of catboats designed by Tom Wylie and built by Wyliecats in Santa Cruz, California. The line consists of four models. The 17 was conceived as an affordable high-performance daysailer. The 30, of which 12 have been built in the last half dozen years, has proven itself as a viable racer/cruiser and has made several passages to Hawaii. The more amenity-rich 39 was introduced in 1997. The most recent addition is the 48, which we sailed last fall on San Francisco Bay.

Lest the reader suppose I have a vested interest in the Wyliecat's success, I should say that my personal preference is for a cat of a different type—as in catamaran. The kind that goes fast.

ROB GRESER

This Month

One of the catboat's biggest advantages is hidden below the deck. No rigging means much-reduced rigging loads. And that means the hull structure doesn't rely heavily on bulkheads, so any number of interior designs are available. *Ahava*'s owner preferred a simple, open plan.

An Unmistakable Rig

The first thing you can't help noticing about all the Wyliecats is the rig. The free-standing mast of braided carbon fiber has a circular section made on a mandrel. The absence of a backstay permits substantial roach in the sail's leech. On the Wyliecat 48, the triangular area of the sail is 978 square feet, yet when you account for the luff round and leech roach, the actual sail area comes out to 1,328 square feet.

Then, of course, there's the wishbone boom. The forward end of the carbon-fiber wishbone is attached with a simple "hanger" that's fixed to the mast. A single line called the "choker" serves the multiple purposes of traditional traveler, boom vang, and outhaul. The leech reefing lines lead through the starboard arm of the wishbone, come out at the mast, then lead back to the cockpit.

Speed Made Easy

If you subscribe to the notion that a cruising boat should be fun to sail, then you'd probably expand that notion to include both "easy" and "fast."

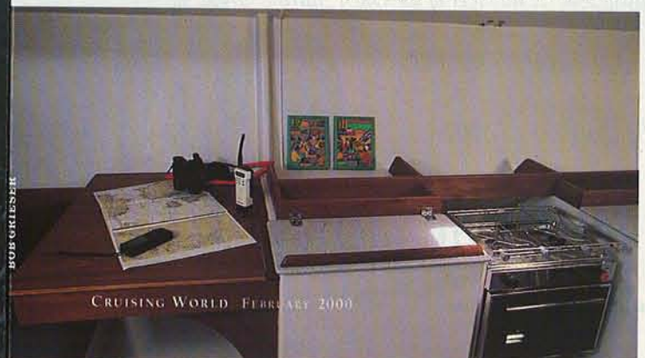
Of course, "fast" is both a subjective and a relative term. I recently sailed *Ahava*, a Wyliecat 48, with Tom Wylie and two friends on San Francisco Bay. As we approached the Golden Gate Bridge in about 15 knots of wind, we could see two Farr 40s sailing on the ocean outside of the bay. While Bruce Farr is unlikely to call the Farr 40 a cruising boat, these two boats would at least provide a base for evaluating the speed and heading abilities of the Wyliecat. So under the bridge we went, and out into the ocean. We pulled in behind the Farr 40s on a weather leg, and I thought Tom would be embarrassed. As expected, the Farr 40 was pointing about 15 degrees higher than the Wyliecat. But in the words of one of the crewmen sitting on the Farr 40's rail, "The Wyliecat had a better VMG to weather!" A slight overstatement, perhaps, but it reflected the general assessment that these Wyliecats really can sail to weather.

Before I could get the Wyliecat in the upwind-sailing groove, I needed to undergo a major mental shift: The single sail should be trimmed as a genoa, not as a mainsail. This meant that the wishbone boom wasn't sheeted in to the centerline, as you'd do with a boom. Rather, you let it down so that the sheeting angle is about 10 degrees. With this trim, the boat came alive with a moderate degree of heel and a comfortable motion.

After a while, the Farr 40s tacked onto a jib reach so they could sail away from the pretender: big mistake. With *Ahava* sailing to leeward of the Farr 40s, it was a match race that could've gone on forever, as neither boat gained or lost. (Remember: Those 12 crewmembers are still sitting high on the weather rail. Meanwhile, the four of us are comfortably spread around the cockpit.)

Soon it was time to head back into the bay and run downwind. On the Wyliecat, this is a simple maneuver. Just turn the wheel, ease the single sheet so that the wishbone boom is square to the boat, and ease the choker to make the sail more full. At this point, the Farr 40s, which first had to drop a headsail, then raise a spinnaker, fell behind. They weren't noticeably faster downwind. Now I don't mean to imply that a Wyliecat can outsail a Farr 40 on a typical racecourse, but this properly rigged catboat performed far better than I'd imagined it would.

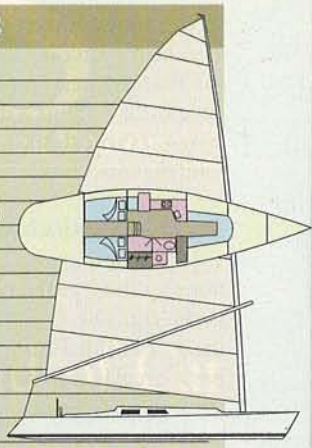
If the Wyliecat can sail this fast, how can it be so easy to sail? The answer is in the details. Because most cruising boats sail with a crew of two, plus occasional guests, one criterion for determining the suitability of a cruising design is whether a crew of two can



easily handle sail changes. On sloop-rigged boats, the development of roller-furling headsails has made it easier to reduce sail area in a building breeze. Allowing for their occasional mechanical eccentricities, roller furlers are an "ease-of-use" improvement over hanked-on headsails. But the reality is that a partially furled headsail can never assume a desirable shape, so the skipper's alternatives are either to use a cutter rig, thereby permitting two furlers, or to go forward and change headsails.

The solution embodied in catboats is simply to eliminate all headsails; this means there's no need to go on the foredeck in "unpleasant" conditions. With only one sail, you might assume that it'd be necessary to reef a Wyliecat earlier than you would a sloop. Ironically, the reverse is true. As the wind builds, the circular, unstayed, carbon-fiber mast simply bends off to leeward (with more bend aloft) and depowers the upper sections of the fully battened sail. As the apparent wind decreases, the mast automatically becomes straighter, presenting a full sail with a leech that's more closed. To most sailmakers, this would be a nightmare. However, Pineapple Sails in Oakland, California, has given considerable thought to the sail design on the Wyliecats, and the result is a sail that performs well in a wide range of windspeeds and wind angles. When it does become necessary to reef, the procedure is as simple as you could wish. Step 1: Ease the halyard from the cockpit, and the sail falls into the lazy jacks that are hung from the wishbone boom. No sail ties required. Step 2: Tighten the reef cunningham from the cockpit. Step 3: Tighten the leech reef

Wyliecat 48



LOA	47' 6" (14.48 m.)
LWL	40' 0" (12.19 m.)
Beam	13' 0" (3.96 m.)
Draft	3' 6" (1.07 m.)
Disp.	14,500 lb. (6,577 kg.)
Ballast	6,536 lb. (2,964 kg.)
Sail Area	1,328 sq. ft. (123.37 sq. m.)
Ballast/Disp.	.45
Disp./Length	101
SA/Disp.	35.7
Mast above water	68' 0" (20.73 m.)
Fuel	60 gal. (227 l.)
Water	30 gal. (114 l.)
Auxiliary	Yanmar 3 GM, 30 hp.
Base Price	$439,000
Price As Sailed	$460,000
Construction:	
Hull Below WL	1-inch balsa core; E-glass; Hydrex vinylester resin
Hull Above WL	1-inch balsa core; E-glass; Hydrex vinylester resin
Deck	3/4-inch balsa core; E-glass; Hydrex vinylester
Gelcoat	Vinylester
Hull/Deck Joint	Biaxial tape; secondary bond
Spars:	
Mast	Carbon fiber: braided; made on mandrel
Boom	Carbon fiber: braided; made on mandrel
Designer	Tom Wylie

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lines from the cockpit. Done. No flogging sail (thanks to full-length battens), no shouting, no grief among the crew.

Construction Notes

The following construction details apply specifically to the Wyliecat 48 but are typical of the whole product line. The hull core is 1-inch balsa, and the deck core is 3/4-inch balsa. Both the hull and deck skins are two layers of bidirectional E-glass in a vinylester (Hydrex) resin. The hull/deck joint is made with a secondary bond and biaxial tape. The 1,500-pound steel fin keel is attached with 14-inch by 1 1/4-inch bolts and contains an integral 60-gallon fuel tank. A 4,500-pound lead bulb is attached to the steel fin keel. The high-aspect spade rudder uses the NACA 0015 section. Steering is via the Whitlock push-pull system. As is typical of California-style boats, the hull and laminate design doesn't require interior structural bulkheads. However, depending on the interior configuration chosen by each owner, any resulting bulkheads would normally be attached as structural bulkheads. Every sailor will have his or her own opinion on whether or not the above parameters are suitable for extended passagemaking. In my opinion, they adequately meet the structural requirements for a cruising boat.

Design Notes from Tom Wylie

I've read Peter Hogg's review and feel he's accurately represented the Wyliecat 48. I'd just like to add a couple of things about the Wyliecat family of designs, including the 17, 30, 39, and 48. All four designs share several philosophical threads.

While fast, Wyliecats are truly the very easiest boats to sail. No live ballast is required; they're the ultimate shorthanded design. They use finesse, not force, for steering and sail-handling in any wind or sea. In fact, one rarely uses a winch handle when trimming the sail. Their hull forms feature modest beam, exceptional stability, and clean, timeless aesthetics. High-tech core construction in both the hull and deck produce strong, durable boats. The freestanding epoxy carbon-braided mast with wishbone boom is Wyliecat's clearest difference. Here's how it functions. As the apparent wind decreases, the spar automatically becomes straighter, allowing a full sail with a more closed leech.

The spar has been designed to bend in concert with the wishbone, sail, and hull, so the boat always has a very gentle weather helm. The Wyliecat 30 demonstrated this en route from Hawaii to San Francisco, even with 40 percent of her sail reefed.

Our fully battened sail has lots of roach, which feathers into neutral as the wind builds while going to windward. In fact, the total area is approximately 135 percent of the triangle described by the luff, leech, and foot. All this sail area is available in a very efficient planform for light winds and running conditions.