

ASPEN C120

YOU'VE NEVER SEEN A POWER CATAMARAN LIKE THIS ONE.
BY CAPT. RICHARD THIEL PHOTOGRAPHY BY NEIL RABINOWITZ

A Different Breed of Cat

Test Notes

THIS IS THE largest in Aspen's lineup of catamaran offerings, but there are also 30- and 35-footers.

THE PACIFIC NORTHWEST builder also has a new 50-footer in the works that is expected to have huge living spaces and a 1,100-mile range at 8 knots with a 450-gallon fuel capacity.

IN 2014, ASPEN won the AIM Marine Group's award for best multihull from 30 to 39 feet.



There's an inherent incongruity in writing about boats: the more interesting and innovative they are, the more difficult it is to craft a story about them. Run-of-the-mill vessels are a snap because basically you're transcribing what you saw and experienced. Truly innovative boats require you to also delve into engineering and design minutiae, which, while rewarding, often poses challenges in terms of doing the boat justice within the allotted space. The Aspen C120 is such a boat.

The 120's story seems relatively simple on its face. Like many catamarans her hulls are asymmetrical—one side of each hull is shaped differently than the other. But while the hulls are identical in profile, they are very different otherwise. The starboard one is a bit beamier than a conventional catamaran's so it can carry the lone engine. The port hull is 35 percent thinner and carries no engine nor has any underwater appendages, save some small tracking fins at the transom. (The starboard hull has a short keel that fully protects the rudder, which is about 50 percent larger than normal for better tracking and maneuverability.) Normally, a catamaran with only one engine in the starboard hull would yaw to port due to the effect of the engine and propeller's torque. The asymmetry of the C120's hulls and the oversized rudder are designed to overcome this tendency so that the boat will track straight. The differing volume of the two hulls is designed to offset the hulls' uneven payloads so that the boat sits on an even keel.

The endgame here is to combine the inherent efficiency of a catamaran with that of a single-diesel boat without losing the true tracking inherent in a conventional single-engine monohull. Does it work? As to efficiency, our test boat (which belonged to an owner, so it was fully loaded) put up some numbers that are hard to argue with. Powered by the optional 435-horsepower Volvo Penta D6 diesel, she managed 9.5 knots and 1.76 nautical miles per gallon (nmpg) at 2000 rpm, and even at 3000 rpm she still hit nearly 19 knots and better than 1.3 nmpg. In fact her efficiency never fell below 1 nmpg, even at her top speed of 22.1 knots.

And this is for a vessel that weighs 22,500 pounds dry and considerably more in full dress, like our test boat. Even in base trim Aspen doesn't scrimp on gear. Standard equipment includes an 11-gallon water heater, bow and stern thrusters, a 5-kilowatt Kohler generator, two 160-watt solar panels, an 800-watt inverter, a three-burner Force 10 propane stove with 20-pound stainless steel tank, a Nova-Kool side-by-side refrigerator, and an electrically reclining dinette seat. (A shout out to Aspen for also including as standard not one but two smoke detectors.)

Structural strength is more of a concern to this builder than weight for two reasons: One, the C120 was designed and is promoted as an authentic offshore cruiser with all the seaworthiness that implies; two, being a catamaran, attention must necessarily be given to preventing torquing as the hulls encounter different sea conditions.

Not having to worry about stability or fuel economy allows you to get back to the important things, like the view of those mountains.



Plenty of overhead hatches and side windows fill the master stateroom with fresh air and light.

Consequently wide use is made of vinyester resin and S-glass. The critical tunnel area is boxed in and cross-braced with a combination of 18-ounce woven roving and Coosa, a plywood-polyurethane composite that is both durable and impervious to water intrusion. Abaft the first 3 feet of the hull is a true watertight collision compartment consisting of an aft Coosa bulkhead and lid, with the resulting space between the sides of each hull being filled with closed-cell foam to 6 inches above the waterline. Six layers of fabric, including one of Kevlar, in each stem provides added protection against collision damage.

To address the possibility of a grounding mishap, each hull has what is essentially a double bottom. After the basic layup is completed, two additional layers are applied to each, one of $\frac{1}{2}$ -inch Divinycell closed-cell foam, the other of $\frac{3}{4}$ -inch Divinycell, both fully encapsulated in glass fiber and resin. While small areas are reserved for bilge-pump wells, 92 percent of the hull bottom is so protected.

There are three watertight compartments in each hull, created by glassed-in Coosa bulkheads, each with its own automatic bilge pump. (Yes, that's a total of six bilge pumps.) A final backstop against calamity comes in the form of a 1,600-gph engine-driven crash pump and high-water alarm. When Aspen says the C120 was designed to go to sea, it doesn't mean only when it's calm.

So how does this combination of a unique hull form and overbuilt structure translate into on-the-water performance? For starters, the C120 runs like no catamaran you've ever driven. The asymmetrical hulls appear to have erased all of the conventional multihull's notorious bad manners. You don't get the conflicted forces between hulls in a seaway as one lifts and the other digs in. There's no yawing and no blow-back through the forward end of the tunnel when the aft end closes up. I couldn't get our boat to pound, and tracking was as good as that of any monohull: Pick any course and any speed, set the wheel and remove your hands. You might need to initially adjust the wheel by 10 or 15 degrees but after that it's pretty much a hands-free proposition. Put the helm hard over at full throttle and the 120 heels outboard ever so slightly.

The boat is also quiet, mainly because the Volvo diesel is totally under the cockpit sole and isolated from the living spaces by a solid



(watertight) forward bulkhead. Accessed by three hatches, the engine space enjoys good accessibility, thanks in part to the fact that this is a V-drive boat—one in which the propshaft bearing is uncharacteristically exposed and easy to access. Besides the standard 115-amp Volvo alternator, a 210-amp Balmar is available (\$2,245) to service the four extra-large, high-capacity, 6-volt house batteries that live in the port hull. Standard duplex Racors come with a vacuum gauge to warn you when the elements are getting fouled, and the crash pump is directly in front of the engine where you can reach it in a hurry.

If this were the end of the 120's story it would indeed be a good one. But this is a boat touted as being as comfortable on big water and long passages as any monohull trawler, and that means she also has to be comfortable. You can't help but compare the 120 to a similar 40-foot monohull, and in terms of accommodations she comes out looking pretty good. Multihulls typically enjoy an expansive main-deck area, and this boat is no exception. The galley, aft and to port, is 15 feet long, has 15 square feet of counter space and three refrigerators and is directly across from a six-person U-shaped dinette. Its table is on an electric lift, while the aft seat back has an electric recliner. There's big stowage beneath, and farther beneath is a queen berth that you reach from the forward starboard companionway. Turn aft and you enter the stateroom; forward and you're in the guest head, which is also the day head.

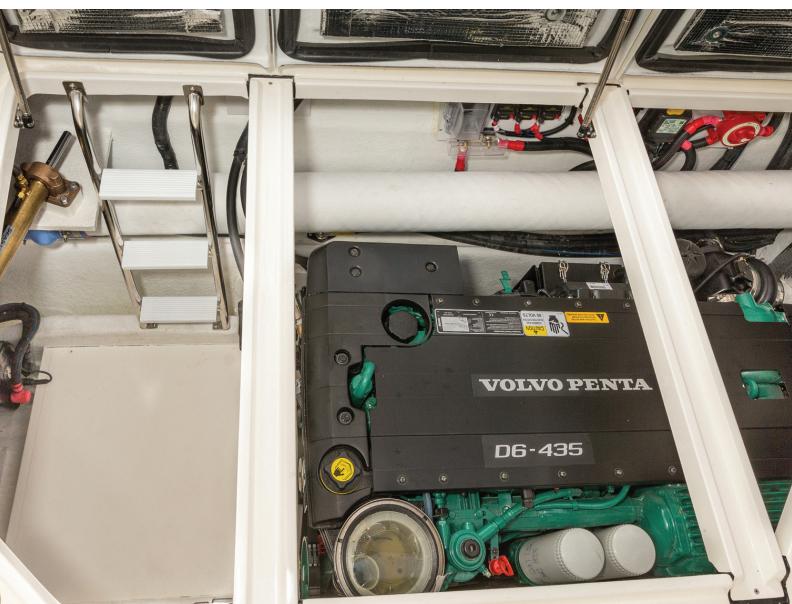
The real challenge for any multihull is carving a master stateroom

out of two hulls without making it feel claustrophobic. The 120 benefits from a 13-foot 10-inch beam that carries well forward. The king-size mattress lays fore-and-aft atop the tunnel, and there's enough headroom so that if you suddenly sit up you won't bang your head—even though from the outside the foredeck profile appears moderate. (Headroom is at least 6 feet 5 inches throughout.) Access to the master is primarily via the port companionway, although you can also reach it from the starboard side by passing through the guest head. The master head is to port abaft the companionway and has an enclosed shower. A solid aft bulkhead separates it from the 6-foot 4-inch long port-side quarter berth, which has its own main-deck entrance abaft the galley. Both gallery and guest stateroom have skylights to preclude claustrophobia.

In short, the 120's accommodations are the equal of a comparably sized monohull. And another bit of good news: at 13 feet 10 inches wide she's considerably narrower than a conventional catamaran, so you shouldn't need two slips or an end tie when you pull into port.

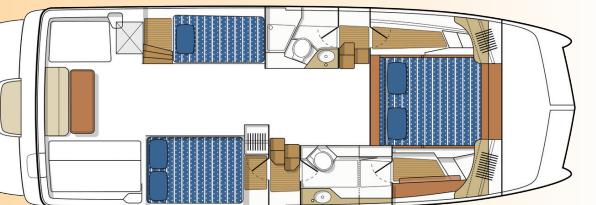
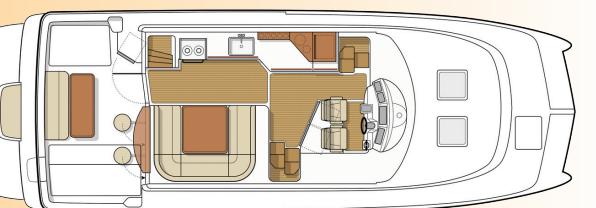
There are more noteworthy details about the 120 but, alas, I'm out of space. You can probably tell that I'm quite impressed by this boat. I really enjoyed my time aboard her, and I enjoyed writing about her even more. She's that kind of boat. □

Aspen Power Catamarans, 360-668-4347;
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Access to service points is made easy. Note the long stretch of work surface in the saloon (left) that spans from the cooktop to the windshield.

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RPM	KNOTS	GPH	RANGE	dB(A)
1000	5.3	0.8	1,073	66
1500	7.0	2.7	420	67
2000	9.5	5.4	285	69
2500	14.2	9.4	245	71
3000	18.9	14.4	213	73
3420	22.1	21.9	163	76

TEST CONDITIONS: Air temperature: 71°F; humidity: 55%; seas: 1-2'; wind: 5-10 knots; load: 90 gal. fuel, 80 gal. water, 3 persons, 200 lb. gear. Speeds are two-way averages measured w/ Garmin GPS. GPH estimates taken from Volvo monitoring system. Range is based on 90% of advertised fuel capacity. Sound levels measured at the lower helm. 65 dB(A) is the level of normal conversation.

NOTEWORTHY OPTIONS: Flying bridge (\$43,650); 10-foot 6-inch Walker Bay RIB w/ 9.9-hp Honda (\$17,850); Side-Power variable-speed thruster upgrade (\$3,265); swing-down TV over helm (\$1,225); Garmin electronics package (\$29,450)