



STORY BY JOHN WOOLDRIDGE

PHOTOGRAPHY BY BILLY BLACK

NO-FUSS CRUISING FEATURES MAKE THIS CAT A KEEPER

A stiff northwest breeze announced the arrival of fall on Chesapeake Bay, stirring up closely stacked 3-foot waves as Dick Vermeulen and I moved *Moxie*, the first Maine Cat P-47 power catamaran, from Solomons, Maryland, to a dock on Spa Creek in Annapolis.

We were running the edge of the deepwater markers that lead commercial traffic up the Bay, and the angle of the wind occasionally swung beam-to, producing a bit of roll. I adjusted the autopilot several degrees to port, and the cat's narrow hulls sliced more authoritatively into the waves. The roll diminished quickly as our angle of attack to the waves increased. For the next two hours, we had a very nice ride, indeed.

From my seat on the centerline at the forward end of the saloon, I turned to look over my shoulder at our minimal wake and realized I could see well past the dinghy hanging over the "back porch" and could view several channel buoys in the miles behind us. The P-47 has extraordinary visibility from anywhere in the "great room" saloon, but especially from the helm, a real boon when operating shorthanded or when those who are off watch are sleeping. This is just one of many thoughtful cruising features incorporated in Maine Cat's first powerboat.

"We've been building lightweight composite sailing catamarans for 17 years and have over 105 very happy owners that we have worked very hard to keep in the Maine Cat family," said Vermeulen, company founder and designer. "We hope to build their next boat even if it does not have sails, thus the new Downeast-style P-47. Keeping our owners out on the water, using their boats more because they love the way they move through the water without much fuss, is key."

MAINE CAT P-47





Left: The foredeck of the Maine Cat P-47 is well protected by stout, welded-stainless handrails all around. Other foredeck highlights include a bow roller setup for two anchors and recessed runs for chain-and-nylon rodes leading back to a custom Ideal windlass with twin wildcats. Right: Virtual 360-degree visibility is one of the strengths of this single-level saloon layout that has a galley and lounge aft, cherry joinery, and storage all around the inner perimeter.

WHAT SHE'S MADE OF

The new Maine Cat P-47 features lightweight composite Core-Cell cored structures with no embedded wood in the glasswork, and easy-to-maintain surfaces and finishes inside and out. Lightweight boats are faster and more fuel efficient and have a better payload-carrying capacity than heavier boats.

Maine Cat uses resin infusion to produce consistently high quality parts; an optimal ratio of resin to glass provides maximum strength at the lightest possible weight. "Controlling the vessel's weight is key to the success of any catamaran design, since our hulls have a smaller water plane than a similarly sized monohull form," Vermeulen said.

All bulkheads and interior furniture modules in the

Maine Cat P-47 are infused with vinyl ester resin. For those who don't know, resin infusion is an advanced laminating technology that produces composite structures that are stronger and lighter and have mechanical properties superior to those of structures built with conventional hand layup and dry-bagging core methods. Resin infusion is time consuming but is well worth the added effort. During the early stages of the process, laminates of biaxial and triaxial fiberglass and Core-Cell coring are laid dry in the mold and are held in place with contact adhesive.

"Our choice of coring has always been Core-Cell, because it forms a chemical bond with the infused vinyl ester resin," Vermeulen said. "Our supplier cuts the P-47 core kits on a CNC [computer numerical control]

machine to perfectly match the shape of our molds, with the required panels of various densities and configurations. High-density Core-Cell is used in all high-stress areas in the Maine Cat P-47"

Components that may be as large as a hull or as small as a shower stall are covered with plastic sheeting that is sealed around the entire perimeter, forming a bag. Vacuum manifolds are attached to remove all air and tightly shrink the plastic bag around the laminate materials. Catalyzed vinyl ester resin is then pulled into the bag, flowing through numerous feed tubes, until the entire component is saturated. Finally, excess resin removed.

"Our 1-inch-thick infused bulkhead panels weigh less than 1.7 pounds per square foot and are stronger than a conventional handlaid part that is 30 percent heavier," Vermeulen said. "In addition, infused laminates have no voids and are more resistant to moisture migration."

While Vermeulen elected to build his catamarans with resin infusion to provide lightweight, stiff composite

construction, he combined those benefits with a hull design that blends ample reserve buoyancy and a high prismatic coefficient—a design that has excellent bridgedeck clearance above the water between the hulls, a low center of gravity, protected running gear, and extremely fine hull shapes forward with a minimum of wetted surface area.

"Our hull forms are seakindly and very easily driven," Vermeulen said. "The P-47 has slippery hulls at the waterline when fully loaded. We estimate she will burn 7 gallons per hour cruising at 15 knots, or just over 2.1 nautical miles on 1 gallon of diesel with the Yanmars on *Moxie*."

With the Yanmars operating in a more efficient mode, fuel burn at 8 knots is 1.6gph total, with both engines turning at 1500 rpm. Predicted range at this speed is 1,800 nautical miles, with a 10 percent reserve left in the tanks. Total fuel capacity is 400 gallons on the P-47.

These numbers are from Yanmar sea-trial data gathered by a Mack Boring technician aboard *Moxie* in



Opening overhead hatches and sliding side windows supply the galley with abundant light and fresh air. Sixteen lineal feet of Granicoat countertops should be plenty for entertaining a large group of friends. And with a Force 10 three-burner propane stove/oven, double stainless sink, and Sharp microwave/convection oven, the chef is well equipped to feed the crowd.

August 2009. While Maine Cat has not yet run the P-47 with Volvo Penta 190s, which it plans to use as the standard engines, the top speed with the Volvos is estimated to be 24 knots.

“Hulls 5 and 6, which are currently under construction, are both getting the new Volvo D3 220-horsepower common-rail diesels,” Vermeulen said. “These are Tier 3-compliant engines that will be even cleaner burning and have better fuel consumption than the Yanmars. We are expecting our express models to hit top speeds of 30 knots, with cruising speeds over 25 knots.”

That kind of performance offers a range of options for owners who prefer to cruise at low-speed efficiency, then select a higher speed to reduce time on the water when a storm approaches or when schedules must be kept. To have this flexibility in a power catamaran designed with

Downeast lines in mind and excellent living spaces will make the P-47 a perfect fit for some cruisers.

A ROOMY CAT

Boarding the Maine Cat P-47 from the swim platform on either hull is made simpler and safer by the addition of freestanding stainless steel handrails. Part of the standard equipment is a 12-foot RIB tender from AB Inflatables with an 8hp Yamaha four-stroke outboard, hauled and launched by the included Steelhead WD600 hydraulic crane. When the dink is stored on chocks on the “back porch,” there is still plenty of room for safe boarding. For those days when you’re tied to a high fixed dock, there are sliding gates in the custom 30-inch-high 316L stainless steel handrails. I appreciated the large-profile, rigid vinyl rubrail that ran the entire length of the

sheer and dropped down to protect the last 12 feet of the aft-quarters panels.

Hatches leading to the engine compartments and anchor lockers are flush in the foredeck. The deck’s molded, slip-resistant pattern offers a good grip as you move from the aft deck along the side decks to the bow. Eight rugged, 12-inch cast-stainless cleats with hollow bases around the deck perimeter will handle most any docking requirement, and four custom 11-inch stainless steel chocks fore and aft help protect against chafe.

To meet the needs of anchoring across a wide range of bottom conditions, Vermeulen specified a double bow roller with a 44-lb. Delta anchor with 250 feet of 5/16-inch high-strength chain rode and a Fortress FX-37 backup anchor with 100 feet of chain and 150 feet of nylon rode. Both are served by a custom Ideal windlass with twin wildcats and controls on deck, as well as at the helm. A saltwater/freshwater pump outlet with quick disconnect is close by to make anchor washdown duties more efficient.



Courtesy of Maine Cat



Clean and contemporary, the master stateroom is located forward on the starboard side. Bookcases flank the queen berth, which measures 6 feet 9 inches by 5 feet. A forepeak hanging locker; four deep, under-berth drawers; and a large closet in the outer hallway offer spectacular storage.

MAINE CAT P-47

LOA	47' 3"
LWL	44' 6"
BEAM	18'
DRAFT	3'
DISPLACEMENT	29,900 lb. (full load)
BRIDGE CLEARANCE	13' 9" (express model); 15' (flybridge model; mast & bimini down)
FUEL	400 U.S. gal.
WATER	120 U.S. gal.
HOLDING TANK	40 U.S. gal.
GENERATOR	5kW Northern Lights
ENGINES	180hp 4BY180 Yanmars (as tested); 190hp Volvo D3s (standard)
MAXIMUM SPEED	23 knots
CRUISE SPEED	8 knots
RANGE AT CRUISE SPEED	1,800nm
DESIGNER	Dick Vermeulen
BUILDER	Maine Cat
BASE PRICE	\$749,000 ("cruise-away" package)

For more information:
Maine Cat
P.O. Box 205
Bremen, ME 04551
888.832.2287
www.mecat.com

The “wow” factor when you step into the main saloon, designed around the “great room” concept, is impressive. Most catamaran designs have an abundance of space on the “bridgedeck,” the term used here to describe the deck spanning the two hulls. Headroom ranges from 6 feet 8 inches to approximately 7 feet in the staterooms. Opening, screened windows surround the aft portion of the saloon, where the galley is located to port and the lounge with custom high-low table for dining and entertainment is to starboard. Aboard *Maxie*, cork floors add functionality, as well as warmth that is evident under bare feet. In the overhead, one finds two of the



Each hull contains a heavily soundproofed, easily accessed engine compartment aft housing a 190hp Volvo Penta D3 with a 150-amp alternator. An Electronic Vessel Control CAN bus feeds information on rpm, fuel burn, coolant temperature, and voltage to the helm.

boat's four Pompanette stainless steel hatches with roller screens and shades. (The others are located in the staterooms.)

The galley has a shallow "U" shape, with 16 lineal feet of Granicoat countertop that is attractive, much lighter than man-made solid surfaces or granite, and easy to repair. There's a rational workflow in the galley, with a Force 10 three-burner propane stove/oven at the aft end and a custom 12-volt Sea Freeze refrigerator forward. A 110-volt Vitrifrigo ice maker is also part of the standard equipment. A deep double sink of high-polish stainless steel adds utility during meal preparation and gives you a place to quickly stash small items when the going suddenly gets rough. Cherry cabinetry with paneled doors and hardwood frames is all located under the counters—another reason visibility is outstanding on the P-47.

Cherry cabinetry also flanks the comfortable, contemporary settee to starboard, perched on a riser so that those seated have wonderful views of the watery world around them.

The helm spans the full width of the deckhouse and is fronted by three massive windows that have weather-sealed opening sections on the lower edge for ventilation when you need it. *Moxie* also has a sliding sunroof, providing an increased connection with the outdoors for

the helmsperson, who sits directly on the centerline in a premium helm chair. A large chart table is located to starboard, with massive storage beneath, and there is a single companion seat to port.

Moxie was outfitted with a full suite of Garmin electronics, including a Garmin 5212 color plotter with HD radar, a Coursemaster CM85i hydraulic autopilot, and a Garmin Marine VHF 200—all fully networked on a Maretron N2K backbone. This is a very complete package, with a Maretron ultrasonic weather sensor, a CCU fluxgate compass, and a "smart" triducer to show depth, water temp, and speed.

Before leaving the saloon, it is important to note that *Moxie's* layout, Vermeulen's favorite so far, is one of several that a customer can specify. The large interior can accommodate other designs that may better serve an owner's needs.

ENGINE ROOM DETAILS

In each engine compartment, there's a large work area directly under the aft-deck hatch. At a glance, I noticed noncorrosive, reinforced Marelon Forespar seacocks, as well as Sea-Tech Quick-Connect 35 Series Pex tubing for plumbing leading to hot and cold faucets. Water tanks are constructed of custom-welded, food-grade

polyethylene. The twin 180hp Yanmars installed aboard *Moxie* are easy to reach and are configured for ease of routine maintenance. Future P-47 builds will be equipped with twin Volvo D3s ranging from 190 to 220hp. Vermeulen equips the motors with Evolution Marine Shaft System drivetrains, complete shaft systems that incorporate a stainless-steel-alloy shaft turning in an oil-lubricated tube with a bulkhead-mounted thrust bearing to help eliminate engine vibration and reduce noise throughout the boat.

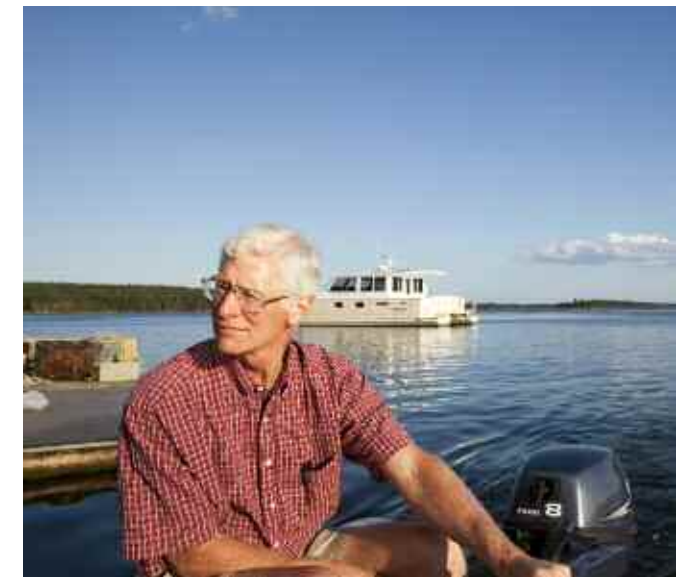
The twin Yanmar 4BY180 diesels are Tier 2 compliant and feature electronic high-pressure injection for optimal burn control. Two Separ duplex fuel filters/water separators process 79gph from the two 200-gallon molded, vinyl-ester-resin-infused fiberglass tanks. There are fuel level indicators at the fills and at the helm, plus four 6-inch inspection ports in each tank. Access to the rudder heads and the Coursemaster hydraulic steering pumps is very good.

The engines are equipped with 150-amp alternators to serve two engine-start batteries and four 8D AGM house batteries. A Victron combo 3,000-watt inverter/charger/controller adds flexibility to the electrical setup. There is also a 440-watt, four-panel solar array with separate controllers on top of the deckhouse hard top to help keep the system charged. When you are docked, the P-47 has a 50-foot, 30-amp shore cord.

LED lighting is used throughout the boat, including two red/white lights over the helm. To starboard of the helm, you descend a comfortable set of stairs to a landing with a large locker on the inboard side. Open the door forward to the master stateroom, and you enter a world of spaciousness, with a queen berth that measures 60 inches wide and 6 feet 9 inches long and is supplied with a Memory Foam-covered mattress. There are four deep drawers under the berth, plus a massive hanging locker forward. Teak-and-holly steps lead up to both sides of the berth for easy access, and two built-in bookcases flank the head of the bed.

The guest stateroom to port is nearly identical in layout to the master, but with slightly less headroom and a bookcase at the foot of the berth. Both staterooms have private head compartments with Tecma freshwater heads, Granicoat vanity countertops, and cherry drawer storage. The guest head also houses the Splendide combo washer/dryer and linen storage.

Dick Vermeulen elected to prepackage as standard many components that are optional on other models; he did so because he wanted the P-47 to be equipped with gear that he considers "bulletproof" and offers simplicity and long life. The examples are many: a 40gph watermaker with auto-flush controls and a



Dick Vermeulen is the designer and owner of Maine Cat, builders of sailing catamarans since 1993.

remote-mounted display and control, a U.S. Coast Guard-required safety gear package that includes a Lifesling to help recover people in the water, a 5kW Northern Lights generator with its own single-unit Separ fuel-water separator and starting battery, plus a Victron Power Man automatic switching unit that powers the Climma water-cooled air conditioning system, offering 30,000 Btu of reverse-cycle air conditioning with three-zone control.

Needless to say, I was impressed by the ride, the build, and the passion that Vermeulen and his Maine building crew have achieved for the new Maine Cat P-47. The accommodations are beautiful and comfortable, and the power catamaran approach to cruising has much to recommend it.

"The P-47 has the ability to cover large distances in comfort very quickly and burn a minimum of fuel," Vermeulen said. "Our trip to Ft. Lauderdale from Maine was tracked on the Garmin plotter for average speed and miles traveled, and we keep the fuel receipts. We traveled over 1,800 nautical miles, burned 890 gallons of fuel, and averaged 15.8 knots for 115 hours of travel time.

"This was also accomplished with protected running gear without cutters that allowed us to travel at night in waters with lobster or crab pots in our path. I drove *Moxie* from the Annapolis show to Crisfield on the Eastern Shore on Sunday night, arriving at midnight. When we left in the morning, my track had taken me through a minefield of crab pots."

With so much working for it, the Maine Cat P-47 may be just the solution you're looking for in a new cruising vessel. 