BOAT REPORT

George Ribeiro Products

ODOM SAILBOAT

by TOM HOULE

Model: AMYA-sanctioned ODOM

Type: sailboat

Manufacturer: George Ribeiro Products

Length: 39 3/8 in.

Beam: 8 1/2 in.

Weight: 7 1/4 lb.

Height: bottom of bulb to masthead: 75 in.; mast height: 57 in.

Hull material: laid-up gelcoat, resin and fiberglass cloth. Carbon-fiber reinforced.

Sails used: Gordon Stout Sails

Radio used: Futaba Attack with Futaba servos

Factory direct prices: boat kit: $249.95 (plus shipping); hardware kit: $60 (can ship with boat); sails: $90 (plus shipping).

Comments: a great boat for those who want to enter the fast-growing ODOM or U.S. One Meter racing classes. The boat can be built quickly, is a pussycat to sail and looks great in the water.

Hits
- Mirror-finished hull and deck.
- Choice of 12 hull colors.
- Minimal construction time.
- Excellent first-time builder's boat.
- ODOM and U.S. One Meter fleets developing throughout the country.

Misses
- Absolutely none.

In a class of its own

The ODOM (one design one meter) came about in the mid-'90s when South Bay Sailing Club members Eric Peterson and Ian Scott spearheaded its development. This fiberglass One Design is based on Bob Debow's U. S. One Meter class Mistral. Scott made minimal changes to Mistral's lines: he rounded and reversed her transom and eased the turn of her stem knuckle. Later, George Ribeiro built a commercial plug and female mold, Jim Kahula Jhao and Bob Smith designed a raised fiberglass deck, and Ian Scott added a lazarette to improve rudder-horn access.

The ODOM soon became an American Model Yachting Association (AMYA) one-design class, meaning that all boats in that class must be built in accordance to one set of plans—Ribeiro's, in this case. George Ribeiro Products* is the only authorized producer of ODOM kits. The ODOM also qualifies for registration in the AMYA U.S. One Meter class, which has led to ODOM fleets in both classes. At a racing weight of 71/4 pounds, however, the ODOM isn't competitive with these 5- and 6-pound boats. The ODOM is intended to be raced in the One Design class, so a skipper's only advantage is his or her skill.

OPENING THE BOX

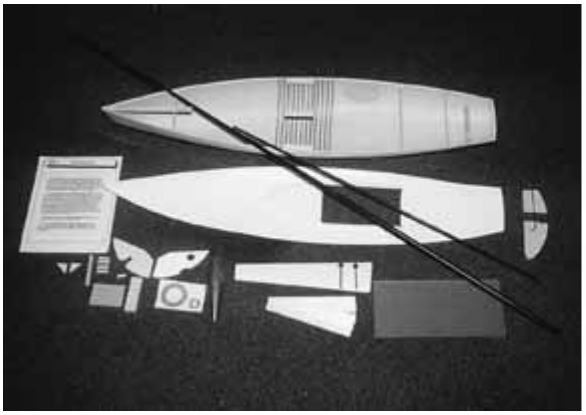
My kit arrived in two packages. One carton lined with 2-inch-thick foam padding contains the hull, molded deck, wood parts and hardware kit. The die-cast-lead keel bulb comes in a separate box in this package. Ribeiro

ships the 57-inch, carbon-fiber mast in PVC pipe. Everything arrived in good shape.

I was struck by the mirror-smooth finish of the gelcoated hull and snow-white deck. I've never seen more flawless gelcoat. The interior of the hull was clean and smooth. George had already epoxied the Sitka spruce sheer strakes into the hull along with four spruce thwarts. The pressure-molded keel fin is a one-piece assembly of gleaming-white, laid-up fiberglass laminate. The fin was perfectly straight and stiff enough to support the 4-pound bulb. At both ends of the fin, 3/16-inch-diameter holes facilitate attaching the fin to the hull and the lead bulb.

The kit also includes a comprehensive instruction manual, plywood floors and additional spruce thwart material. A highly useful optional hardware kit is also available and includes ready-to-use, stainless-steel wire shrouds, 3/16-inch stainless bolts, a pre-installed stainless wire backstay, plastic bowsies, stainless-steel screws and screw eyes, a jib swivel deck fitting and a Graham Bantock* aluminum and steel gooseneck.

Several ODOM builders said that Ribeiro's kit instructions were pretty meager, so George recently commissioned Joe Dioso to write and illustrate a new, beginner-friendly manual with thorough, insightful instructions and CAD drawings.

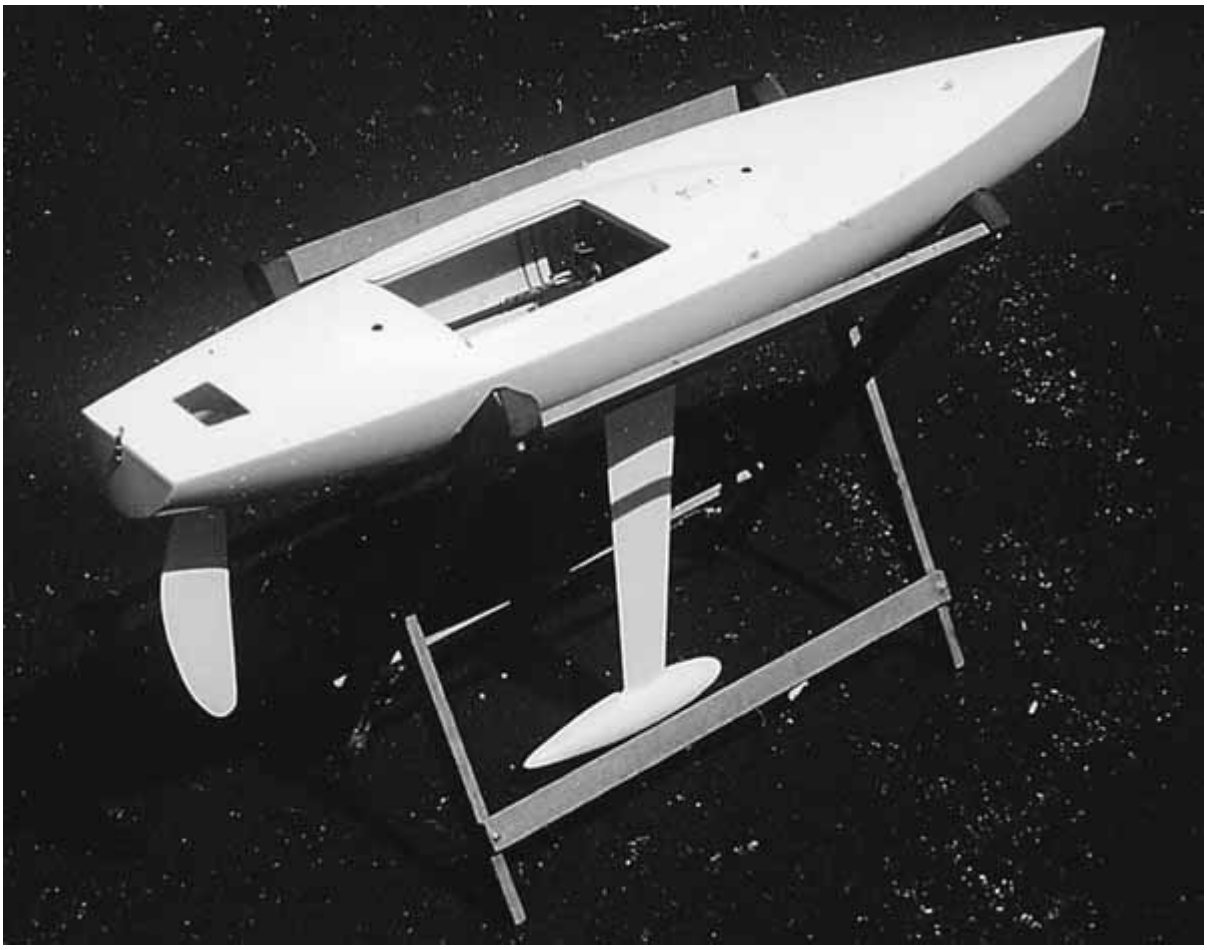


Left: The ODOM kit as shipped. Note carbon-fiber banding on the hull interior. It is a simple, uncluttered kit.

Right: To install the fin, suspend and level the hull across two padded supports while the epoxy coating on the keelson block inside the hull cures. This ensures a fin that is dead vertical to the sheers.

CONSTRUCTION

The hull consists of an outer gelcoat layer in your choice of 12 brilliant colors and laid up fiberglass cloth. Amidships carbon-fiber banding reinforces the keelson. The hull is quite stiff with no tendency to "oil can." The sail winch, rudder servo, receiver and battery pack are all mounted at the boat's center of buoyancy; this reduces "hobby horsing" in a chop. Using epoxy instead of CA prevents hard points being visible from outside the hull.



Above: The ODOM has a large access hatch, so it's easy to get your hand inside and back to the rudder horn.

I began by assembling the keel fin to the lead bulb. The clear instructions easily allowed me to set the bulb at an 87-degree angle with the fin. When the fin-to-bulb joint had cured, I applied a fillet of Sig* microballoons and 30-minute epoxy to each side of the bulb joint. Fillets reduce underwater drag.

After you have attached the keelson block, you must decide whether you want a removable fin and bulb. Some builders prefer the ease of transportation and storage of a removable fin, but I think it is more trouble than it’s worth. If you opt for the removable fin, coat the fin bolts with a light coat of oil or grease before you slip the bolts through the holes in the hull and the keelson block. To ensure a good seal, apply a thin layer of epoxy to the top edge of the fin and the keel bolts before you tighten the nuts that hold the fin in place. To ensure that the fin is perpendicular to the hull, suspend the hull between two padded chair backs and level the hull with a spirit level. I snugged down the nuts and the unique washers that have rubber gaskets attached to the keelson block but didn’t fully tighten them. The weight of the suspended keel bulb ensures that the epoxied keelson cures vertically to the sheers. After the boat has been built, you can access the fin nuts through the hatch with a 1/4-inch ratchet drive.

Next, install the two, upright 1/8-inch plywood floors that are notched to straddle the keelson. Position the forward floor at the forward edge of the keelson. Shift the aft floor fore and aft to accommodate your sail winch. The floors also hold the radio gear. They are not marked and are not identical, so you must epoxy them into place

in the correct sequence. Dry-fitting the components is always a good idea.

For my ODOM, I used a Futaba* S-3801 sail winch. Angular ply brackets and rails hold the rudder servo in place. Position the radio gear directly over the center of buoyancy; it is not the most accessible location, but it is best for optimal performance. I made a 0.062-inch sheet-aluminum sail arm, attached it to the sail winch and ran the arm through its full travel to ensure hull clearance.

The hull and rudder thwart have undersize rudder-tube holes drilled though them. Enlarge these to 5/32 inch after you have checked their alignment with the sheers. The rudder tube must be perfectly vertical and aligned with the keel fin. Mine were dead on, so I epoxied the 5/32-inch-o.d. brass rudder tube into the hull. I cut a full-depth slot into the rudder to accommodate the shaped, 1/8-inch-brass rudder shaft. To prevent epoxy from seeping out of the rudder-shaft slot, I sealed both sides of the slot with masking tape. The leading and trailing edges of the 3/16-inch-balsa rudder must be shaped and sanded to a symmetrical airfoil shape. You can seal the bare balsa with thinned epoxy, but I opted to cover the rudder with 11/2-ounce fiberglass cloth, which adds some weight but protects the rudder from dings and dents.

On the inside of the hull, brush on a coat of isopropyl alcohol-thinned epoxy, which is great for fiberglassed balsa. Then, install your radio gear. Using hook-and-loop fastener to attach your receiver and battery pack to the floor makes them readily accessible.

Install the rest of the rudder assembly before you attach the deck. File a flat spot on the rudder shaft where the Allen screw contacts it; this ensures that it stays in place during races. The lazarette window in the aft deck allows you to check on the rudder horn, which can be reached through the aft deck.

When you attach the deck, epoxy the hatch-cover guide rails into place, then tape the deck with masking tape applied every inch or two to ensure that it does not curl up. I centered the deck with the lazarette window directly over the rudder shaft, and the bow of the deck lined up with the stem. Make sure your deck is fitted over the shaped deck beams A through D.

With a sharp pencil, I traced the outline of the hull onto the underside of the deck, then I trimmed the excess fiberglass from the deck with the 6-inch vertical sanding wheel on my belt sander. This way, the gelcoat will not chip. I left 1/64-inch excess before I epoxied the deck to the hull. I sanded off the last bit of overhang after I covered the hull sheers with masking tape; this protects the hull while the deck edge is being block-sanded. I sealed the exposed deck edges with Pactra* 1/4-inch trim tape; the yellow tape matched my hull perfectly.

I spot-drilled the holes for the mast and deck hardware with a pin vise. The hardware package makes short work of installing the deck fittings. Next, I cut a hatch cover out of 0.020-inch styrene sheet. The kit includes a 6x10-inch sheet of G-10 laminate, but styrene is lighter.

Follow the instructions for attaching the sails but with this piece of advice. After the sails had been bent onto the spars, I positioned the boat directly beneath an overhead beam in my garage that holds a finishing nail and several feet of nylon line. I located the stepped mast directly under the nail, then tied the masthead crane to the nylon thread. I leveled the boat fore, aft and beam-wise, and used the line to

level the mast vertically. I drew the nylon string taut until it just began to pull the mast from its step.

After stringing up the jib, I ran shroud wire from the masthead tangs through the spreader eyes and down to the deck and crimped adjustable clevis ends onto them; these snap onto the port and starboard chainplate eyes. I used keepers on the shroud clevises and attached the backstay with its adjustable bowsie and a clevis to the tang at the transom. At this point, you should have four people hold the boat.

I set my jib to swing out 95 degrees to either side of the boat with my transmitter set to sails full out. This setting holds the jib out and keeps it there when the ODOM runs downwind in light air. The main boom should stop right at the shrouds. Sheeted in hard, the aft end of the main boom should point to the corner of the transom, and the aft end of the jib boom should point to the chainplate eye. An adjustable jib-topping lift helps match the shape of the jib to the main when the boat is being sailed windward.

FINAL THOUGHTS

So how do I rate the Ribeiro ODOM and Gordon Stout sails? Outstanding. There were no problems at all with the kit. Ribeiro's quality control is excellent. I spent around 20 hours building the hull, fin and rudder and another 15 attaching deck and spar hardware, bending on the sails and rigging the boat. Total cost was $400, and that includes Ribeiro's kit with hardware package plus Stout's sails. All that's left to buy is an inexpensive 2-channel radio and Futaba S-3801 sail servo. I rate the ODOM a solid 10! Look for the future release of other George Ribeiro Products' boat kits currently in development.

*Addresses are listed alphabetically in the Index of Manufacturers in the magazine

GORDON STOUT SAILS

Skipper skill and sail cut and trim are probably the most critical elements in winning races. Skills improve with practice; but ODOM sails are available from several sailmakers, so you must choose wisely. I use sails by Gordon Stout. Gordon has built and raced RC sailboats since 1979. He has been a sailmaker for virtually all AMYA sailboat classes since 1995. At the 1997 ODOM Nationals, the first- and second-place boats used Gordon Stout sails; at the 1998 Nationals, the first-, third-, fourth-, fifth-, and sixth-place boats used Stout sails, and Gordon himself took first place at both events. Gordon's sails come well-recommended for the ODOM. Gordon has built 17 ODOM kits, so if anyone understands the dynamics of this boat and its sail requirements, Gordon does. He has raced for 20 years. He knows what works and what doesn't. The ODOM sails come neatly taped and sewn, so they're ready to use. The sails can be mounted nicely on the spars and come with styrene battens and reinforced corners. Gordon's ODOM sails will also fit most U.S. One Meter boats.

ON THE WATER

I gave my new boat a thorough pre-sail check of the knots, main and jib sheets, rudder throw and so forth, before I dropped it into the water for the first time. I adjusted the backstay until there was just a touch of mast bend. I set the clew outhauls to allow a sail-chord depth of about 10 percent. Facing the boat from the rear, I adjusted the jib-topping lift until the curve of the jib luff matched the curve of the main luff. Then, it was ready to sail.

Racing can be hectic when several boats storm off the line, so rather than test my new ODOM on a race day, I put it through its paces by itself. I must say, the ODOM is a real lady who behaves perfectly on all points of sail. The boat is well balanced, tracks beautifully on a beat and is quick to respond to rudder commands. It stays on a windward beat in moderate air with virtually no attention. I set my rudder to 35 degrees of throw to either side of neutral. Some skippers think this is too much, as the boat can spin on itself before the rudder is fully thrown; I like that sensitivity. It can be useful in close quarters at the starting line when everyone maneuvers for position.

If you're a beginner, limit rudder thow to perhaps 15 or 20 degrees. You can always increase it later by moving the clevis on the rudder servo outward to the next hole. Rudder throw can bite you when running downwind. Unlike full-size boats that reach top speed on a beam reach, model sailboats do best running straight downwind. At top speed in a good blow with the bow tucking under, the rudder becomes extremely sensitive. It takes a gentle touch to avoid spinning sideways and broaching.

A WORD ABOUT AMYA

If you plan to race your ODOM, it's almost imperative that you join the American Model Yachting Association (AMYA), an organization dedicated to the promotion of model yacht construction and racing. Since its inception, it has organized and sanctioned sailboat racing in a variety of controlled classes. Boat classes range in size from less than 30 inches in length to over 7-foot J Boats that displace 65 pounds. Class secretaries track new boat registrations, rule changes and national competitions. Annual membership is a modest $25 and is well worth it.

AMYA's newsletter, "Model Yachting," is published quarterly and contains everything you need to know to get your boat into the water and make it fast. "Model Yachting" lists sanctioned clubs and upcoming sites for regional and national regattas. Each issue contains articles on sail trimming, boat construction and tuning, as well as which new classes, kits and parts are available. Nor has AMYA forgotten those who have non-racing interests; the organization caters to all model sailboat aficionados: vintage non-RC pond boaters and also scale boaters who build and sail schooners, yawls, skipjacks, America's Cup boats and the like. There's even an active schooner class that combines twin-mast vintage beauties and racing. Contact AMYA for more information.

American Model Yachting Association; membership secretary: Michelle Dannenhoffer, 558 Oxford Ave., Melbourne, FL 32935; (888) 237-9524; Mdannenhof@men.com.