

CONSTRUCTION DETAILS

The old C&C Yachts pioneered cored laminates, composite construction, and the elegantly efficient aluminum toerail. The new C & C Yachts, by engineering its production line to capitalize on up-to-date developments in modern boatbuilding, is making a bid to once again become a force in the world of high-performance sailing.

Hull: The C&C 115 is constructed with epoxy resins. More than a decade of epoxy use has confirmed its superiority to polyester and vinylester layups in strength-for weight, bonding, and water penetration.

Feeding hull components (e-glass and carbon fiber) through a machine that closely controls resin content begins the process. This achieves, Jackett says, a saving of up to 30 percent in hull weight (when compared to the traditional process of hand layup) and yields a resin-to-glass ratio approaching 30/70. Gel-coat is laid in the mold and cured. Then come wetted-out fibers, the Core-cell core and the inner layer of glass/carbon reinforcement. Laid in place in a "single-shot," the matrix (which actually forms two overlapping halves reinforced with extra material down the centerline) is then vacuum-bagged until an initial cure is achieved. The completed hull then bakes in an autoclave for 16 hours at 145 degrees.

Deck: Given the graphs, charts, and hyperbolic verbiage surrounding C&C's embrace of epoxy, we were somewhat surprised to learn that the company uses vinylester resin in the 115's deck. Fabrics plus unidirectional e-glass, along with Baltex premium AL 600 balsa coring, are placed dry in a closed mold and vacuum-bagged together. Resin is then "infused"

through channels until vacuum pressure causes it to saturate the entire composite. The deck is reinforced in high-load areas with additional e-glass and "windows" of solid glass in areas where hardware will be attached. The laminate is 60 percent glass as opposed to 70 percent resin as in some conventional cored decks. Jackett has done his best to keep his new boat "affordable." Using vinylester resin in the deck certainly helps in that regard.

Hull/Deck Joint: Tartan's time-tested (35-year) method has been adapted for C&C as well. An inward-turning flange atop the hull accepts a backing bar of 6061 T-6 hardened aluminum. The joint is sealed with 3M 5200 and, using ¼-inch stainless machine screws on 4-inch centers, an aluminum toerail is tapped and bolted over the joint.

Keel/Rudder: The rudder is foam-cored with e-glass and carbon-fiber skins on a custom, carbon-fiber rudder

post. The steering is a 1:1 from Edson via a 60-inch destroyer wheel that is bulkhead-mounted in a recessed trough. The keel is epoxy-coated antimonial lead cast into a low-drag, high-lift, bulbous fin. Keel bolts are stainless steel.

Spars and Rigging: The 115's black Awl-gripped carbon spar is tapered for reduced weight and superior airflow. It is keel-stepped, stands 59' 9" above the waterline, has two pairs of swept-back spreaders, and ties into a custom stainless steel chainplate system anchored in the hull. Standard rigging is wire (with diamonds nicely adjustable from deck level), but discontinuous rod and jacketed PBO rigging, both available as options, offer additional savings in weight and windage.



A Yanmar saildrive keeps noise down when the 115 is underway.

