

A newly completed *Strider* on facing page, is not to be missed in the middle of the other boats in the Buffalo Yacht Club basin before the Lake Erie Cruising Race.

— before it caved in — was the delaminated balsa core deck. Dave decided to leave the interior in place to support the deck shape while they worked on it. He removed all deck hardware and fittings: cleats, turning blocks, ports, everything. To preserve the original shape of the deck, Dave and Joe cut the outer skin off the deck in sections.

Dave was amazed at how thin the skins were. He later learned the engineering principle of a cored structure that uses thin skins over a lightweight core to increase stiffness without creating excessive weight. As suspected, the core was wet and, in many areas, rotted. Much of it was literally wood pulp that could be cleared away with a putty knife and wire brush. A portable router with a bit set to the thickness of the core cleanly removed the remaining balsa wood.

They set about rebuilding the deck. Section by section, they sanded the inner skin and troweled on a layer of filled epoxy. They pressed new end-grain balsa core in place and vacuum-bagged it using a small medical vacuum pump and clear film. The film allowed them to see the epoxy flow through the core as the vacuum pressed it tightly to the inner skin.

After a section of impregnated core hardened, they sanded it, troweled another layer of filled epoxy over the core, and set the outer deck skin back in place. The vacuum was again applied to clamp the outer skin in place. They repeated this process until the entire deck was re-cored. As they progressed, they filled all the holes in the deck, including the old portholes. They added solid reinforcements where deck hardware would be placed. They also added ABS plastic core for a pair of genoa tracks.

Sanding and priming

Once the deck was structurally sound, Dave and Joe went to work on the boat's appearance. They applied epoxy and fiberglass over the cuts they'd made in the outer skin. Now came what Joe calls the boring part: sanding, applying epoxy primer, and sanding, repeating the steps until the



Dave MacMillan bonds the deck skins back together, above, after the top skin was vacuum-bagged in place. Other views at right from top: the balsa core is vacuum-bagged; Diane MacMillan wet-sands the deck between layers of paint; the bow during painting; the cockpit at a similar stage; and Diane does finish work on the cherry tongue-and-groove planking which lines the hull.

surface was true. Then the deck was sprayed with Awlgrip epoxy primer and sanded to a better-than-factory-smooth finish. They followed this with a spray coat of Griptex mixed with the first coat of Endura two-part polyurethane. A second coat of white Endura sealed the non-skid. The deck looked like it had just been released from a factory mold: fair and high gloss with no holes or cutouts.

During deck reconstruction the cockpit seats were slightly redesigned with rounder edges to make them more crew-friendly. The teak planking on the seats was replaced. The original teak cockpit floor grate also needed sanding and oiling, but it was then reused.

Dave remounted deck hardware in the original locations and added new running lights and genoa tracks. He cut new port openings and installed modern ports. Below the waterline he

