

2004 505 World Championships

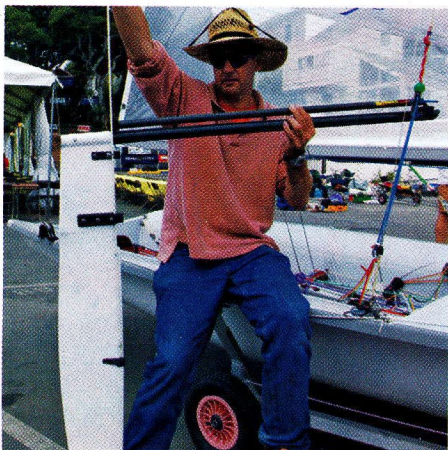
MORGAN LARSON AND TREVOR BAYLIS, OF Santa Cruz, Calif., won the Lightsurf 2004 505 Worlds by scoring no lower than third in the seven-race, 102-boat series. Their experience in the 505, as well as their knowledge of the conditions off Santa Cruz, were part of their winning equation, but the setup of the notoriously tweakable boat and the gear they used were important, too.

Waterat 505

The top four boats at the Worlds were built by Larry Tuttle at Waterat Sailing Equipment (Watsonville, Calif.). While the winning boat had been popped from the mold a few months before the world championship, the second-place boat—sailed by Howie Hamlin and Peter Alarie—is 15 years old. Tuttle has been building epoxy 505s with a honeycomb core for 25 years, and even the old boats are touted to be as stiff as the day they were built. For this year's Worlds, Larson and Baylis asked Tuttle to make several modifications to an older design.

"The basic layout of 8854 was based on the boat Trevor and I sailed in 1981 [7200]," says Tuttle. The layout, with no forward thwart, increases the working area for both the helm and crew without affecting the strength or stiffness of the boat." Additional structural enhancements, such as all-carbon construction, a beefed up centerboard case, and repositioned aft thwart, help with the boat's transverse stiffness.

A SIMPLE WEED STICK with a carbon fitting pushes seaweed off the rudder.



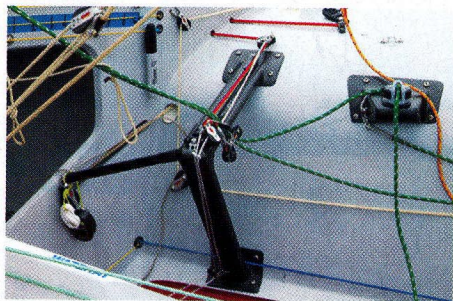
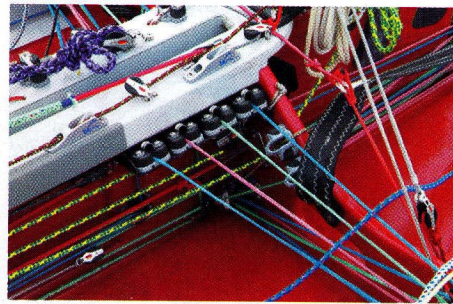
LARSON (AT HELM) AND BAYLIS used an offset spinnaker launcher (port foredeck). Baylis oversaw the web of control lines and developed a custom jib-lead system (bottom).

Tuttle credits Baylis for the boat's successful outcome: "A key aspect of the boat is the amount of quality rigging work that Trevor put into it. He is aggressive about making the systems work and does not hesitate to change when they do not." One of Baylis' objectives was to develop a rig that didn't require an adjustable mast ram—a mainstream device on a 505 for controlling lower mast bend.

"The conventional mast ram with its vertical track and strut prohibits you from having a proper foreguy because it must bend around the strut," says Baylis. "We used the combination of lower primary spreaders and a mast puller at the partner, like what they use on 470s, to achieve the correct bend characteristics, thus eliminating the need for a ram."

Centerboard Inspection Ports And Weed Stick

The seaweed can get nasty during the month of August in Santa Cruz, and while most 505 teams heel their boat for a quick inspection, Baylis installed two small acrylic windows in the cockpit floor—one on each side of the trunk. Likewise, weed on the rudder can be quickly removed using an integrated weed stick attached to the rudder fittings. The simple fiberglass



rod, like one you'd find on a mooring pick-up buoy, has a carbon fitting attached at the bottom that slides down the leading edge and wipes the rudder clean.

Adjustable Jib Leads

Most 505s are limited in their range of jib-lead positions. Baylis designed and fabricated a custom lead system that allows far greater control, especially for positioning the leads inboard for tighter sheeting angles in lighter air. Baylis fabricated the carbon-fiber brackets, and mounted Ronstan ball bearing blocks and traveler components to complete the sys-



ADJUSTABLE DIAMOND STAYS provided improved upper-mast bend control.

tem. Not only did this system offer a greater range of adjustment, it also allowed those adjustments to be made quickly. Additionally, Baylis' philosophy of making the boat easier to sail is demonstrated by his 2-to-1 jib sheets for ease of control and fine adjustment.

International 14 Style Rig

Baylis' thinking has always been influenced by fast boats, whether it's windsurfers or skiffs, so it's no coincidence then that the 505 rig used on the winning boat bears more than a passing resemblance to a Paul Bieker-designed International 14 rig. By lowering the primary spreaders and adding upper spreaders with an adjustable diamond stays, Baylis created a rig with better upper-mast control. The adjustable diamonds can add pre-bend above the hounds to help flatten the top of the main while also providing additional support downwind to prevent distortion caused by sideways bending. The lower spreaders were designed by Buzz Ballenger, and the carbon upper spreaders were made by Baylis using Bieker's general design.

Offset Spinnaker Launcher

Larson and Baylis wanted the flexibility to experiment with different jib-tack positions, but they also wanted a spinnaker launcher (spinnaker launches from a tube in the foredeck). Typically, these two configurations are mutually exclusive in the 505 because launcher tubes are normally placed at the bow in place of a forward

tack fitting. The offset launcher allows the best of both worlds. One drawback, initially, was spinnaker sheets dropping over the bow, but adjustments in technique minimized this occurrence.

Automatic Spinnaker Twings

Topping the "why didn't I think of that" list is the Buchan Auto Twing System. Carl Buchan is a master of adding function and simplicity to his rigging systems, and Baylis borrowed ideas from him. The Auto Twing is simple, yet effective. Instead of pulling the spinnaker twings on and off manually, the Auto Twing is an integrated system that uses the tension from the guy to pull the windward twing on tight. The weather twing runs from the rail, down to the cockpit, and aft along the floor where there's a loop in the tail that the spin sheet runs through. The sheet is thickened (with cover and whipping) at a preset point. Aft of the whip is a stopper ball. As the guy goes forward under tension from the spinnaker, the ball hits the whip and the twing tail hits the ball, automatically pulling the twing tight. Meanwhile, when the spinnaker sheet is trimmed in, the leeward twing is released. ♦

ABNER KINGMAN

