

Boating World

April 2002

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Attitude Adjustment

Nauticus has created an inexpensive trim system to help smaller boats run safer and more efficiently, and you can install it yourself.

There's a myth going around that only big planing hulls need trim tabs. But smaller boats can benefit from trim tabs just as much as a larger boat, especially where weight distribution is a big variable — such as on a 19-foot bowrider when you're carrying a heavy load of engine and people at the transom, and you have no ballast up front to keep the bow down. You've seen them, or maybe own one of these moon-walkers yourself: The stern digs in and takes forever to come on plane. When it does, you might not be able to see the horizon over the bow.

Other issues with small boats include looking like Flipper doing tricks for food, having your boat continuously porpoise, or suddenly developing a list when big Uncle Henry decides to park himself on a seat in the right-hand corner of the transom. Trim tabs go a

long way in making fast attitude adjustments.

But most manufacturers don't include tabs as standard equipment on boats less than 25 feet for two reasons. Price is the obvious one: They could add \$500 to the cost of the boat. That's big money in a category where price is a major consideration. Most runabout owners would rather spend five Benjamins on a sound system upgrade or a nice fishing reel.

Second, there's a potential safety issue. Since hydraulic trim tabs are controlled by the operator, it's possible to stuff the bow of an 18-footer just by pushing down one trim tab at 55 mph. They're great if you know what you're doing, but in unpracticed hands, they could be unsafe. That's why most manufacturers rely on the engine trim to control the attitude of the boat. Trimming the drives may eliminate porpoising, but it can also cut a few miles per hour off the top end.

Smart Tabs, designed for powerboats from 10 (yes, 10) to 22 feet, eliminate many of the negatives, and are a fraction of the cost of hydraulic or electric tabs. Simple, self-contained units that attach to the boat's transom, they work with water pressure to adjust the boat's attitude. There are no hydraulic lines or console switches: You just install them, and they go to work. They're literally a no-brainer since Smart Tabs adjust themselves.

The tabs use a nitrogen-filled gas actuator, situated between the plate and connection point at the transom, to control trim. Think of it as a gas-controlled spring that expands to keep the tabs down while at rest or running at low speeds. Then, as speed (and the water pressure)



builds up, the plate pushes on the actuator and it retracts (compresses) upwards. When the boat slows, the actuator extends the tab down again.

The result is a self-regulating tab that reacts instantly to water pressure rather than waiting for the operator to adjust a switch at the helm.

Nauticus, which manufactures Smart Tabs, says they should improve performance on any boat from a 10-foot soft-bottomed inflatable to a 22-foot fiberglass bowrider. According to the company, bigger boats require an investment in hydraulic trim tabs because fixed hydraulic tabs are more suitable to the bigger water a bigger boat inevitably faces.

But if your boat falls in the 10-foot to 22-foot range, Nauticus claims you should notice a difference right away on several fronts: time to plane, cornering abilities, running attitude, stability in chop and top end. Of course, there's the logical concern that if launched over a big wake, the tabs may reset and become water brakes, but that problem is averted by a built-in reset delay.

There are a few things to remember about this system. The first is that you have to dial the tabs in right, or performance might actually get worse instead of better. With five different plate/actuator choices, however, that shouldn't be a problem. The second is that you can't adjust the tabs as weight conditions change — like the days when Uncle Henry jumps on board — unless you want to readjust them later. But even with a temporary list, your boat should perform much better than having no tabs at all. The third is that you have to be careful in shallow water, because the tabs are in the down position. Nauticus offers a "beach/storage" kit that consists of a rope and self-locking cleat to keep the tabs in the up position.

Smart Tabs also look flimsier than hydraulic trim tabs, but that's because they're in the up position most of the


Smart Tab Installation

Are you feeling a little skeptical about how the Nauticus Smart Tabs will perform on your boat? Join the club — especially after watching the company's installation/demonstration video. It just looks like one of those too-good-to-be-true inventions. But it's worth a try, so it's decided to install the Nauticus trim-tab system on a 17-foot Boston Whaler Montauk center console, with a 90-hp Mercury outboard.

The supplied installation kit is easy to follow with step-by-step instructions and separately bagged hardware corresponding to each step. The estimated installation time of one hour is a little ambitious, however. The hardest part is making sure the plates are set properly at 25 degrees (any more than 30 degrees and the tabs turn into brakes), and that the upper brackets are placed perpendicular to the plate.

You should plan on at least two hours to complete the task. Also, consider using some sort of marine sealant on the holes beneath the waterline instead of the "sealant foam tape" supplied with the kit.

Each tab has an adjustable setting on the plate that lets you change the amount of "lift" pressure for your boat. One benefit of this system is that you can adjust the two tabs independently of each other, which is good if your boat has a noticeable list. Dialing in the correct lift pressure takes a couple of test runs, but once you have it (you only need to set it once), there's a noticeable difference in the boat's behavior, planing almost instantly when given some strong throttle.



It's easy to install the Nauticus Smart Tabs on your own boat.

Because the boat is a tri-hull, it usually has more trouble in chop than a V-hull, but once the Nauticus Smart Tabs are installed, it makes for a noticeably smoother ride. The biggest impact, however, is felt when towing a skier or inflatable. Not only is there a 3- to 4-mph increase in the top end, but riders are not dragged through the water, and long and sharp turns are definitely easier to make and control. — Steve Noury

time, rather than hydraulics which are designed to be dragged through the water for hours. Nauticus guarantees the actuator and housing for two years, and the metal parts, if you use a zinc anode in salt water, for five years.

But those points are pretty insignificant compared to what you get from the Smart Tabs, such as better handling and savings at the fuel dock, because the

tabs help your boat run much more efficiently, and just plain smarter. Smart Tabs come in three plate sizes, and five different actuator pressures (from 20 to 80 psi), so you can match them to the size and horsepower rating of your boat. The price for a kit ranges from \$129.99 to \$199.99. For information contact Nauticus Inc. at (800) 233-0194 or www.nauticusinc.com. 