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SMART TABS & GLEVER PROPS

Innovative Devices to Improve Small Boat Handling



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The Smart Tabs are e

Fishing World's Editor reviews a couple of new products that have both been creating a fair amount of interest at boat ramps.

BY JIM HARNWELL

ost small boats are fairly basic in design and operation. They generally don't feature the levels of refinement and equipment found in larger vessels.

Thus performance in your average 3.7m to 6m boat is a static affair — the boat performs as efficiently as it can. There isn't much you can do to a basic boat to make it go much better.

However, a new product I've had the opportunity to put to (so far limited) test has the potential to allow small boat owners to achieve significantly better levels of performance.

Called 'Smart Tabs', they are manufactured by Californian-based company, Nauticus, and are marketed in Australia through Mainstay Marine in Sydney.

Regular readers of US fishing magazines will have noted that many flats and bass boats between the 5-6m range feature electrically powered trim tabs. In our waters, it's very rare to see a boat under 6m with trim tabs.

POWERBOAT

GPS features a fuel flow system so any improvements should be easy to ascertain.

At top speed, turns proved smooth, tight and effortless with the tabs. There was no 'skitter' – a tendency I'd noticed when making high-speed turns with the Smart Tabs deactivated. At speed the wake with the Smart Tabs working was much flatter than usual.

For more information contact Mainstay Marine on

(02) 9979 6702.

The three models of Smart Tab available include the ST-780, for boats up to 3.7m and 25hp, which retails for \$259; the ST980, for boats up to five metres and 80hp, which retails for \$318; and the ST1290, for boat to six metres and 175hp, which retails for \$398.

ADJUSTABLE PROPELLER

Selecting the right prop for your boat is a basic requirement to attain good on-water performance. A badly propped boat will act like a pig in the water and drive you nuts.

Most careful 'boaties' carry a spare prop just in case a rock, or similar hard object, shears one or more blades off.

A damaged 'prop' can cause all sorts of problems so carrying a spare is highly advisable.

Most props are made of either aluminum or stainless steel, with the SS models providing much greater levels of performance.

The trouble with standard metal props is that they're made to do a specific task. Also once they're broken, they're pretty much dead, although they can be welded up.

Corrosion, especially with aluminum props, can also be a problem.

A new prop from Swedish company, ProPulse, offers a range of advantages over standard models.

The ProPulse range are made from a tough composite material, which is lighter and stronger than aluminum with added benefits of having adjustable pitch and replaceable blades.

Available in sizes to cover all brands and models of outboard engine, the ProPulse props allow the user to select different

pitches for different applications.

If you want to spend the day skiing, or blasting around with family and friends, you can set the pitch at a high level to attain maximum speeds; conversely, a day out fishing with your beefy mates and a load of gear, bait and ice would be suited to a lower pitch for better power.

The ProPulse props have five different blade positions and pitch can be changed one inch at a time upwards and downwards.

Altering blade position involves taking the prop off and using a supplied tool to loosen the blades and allow the desired pitch to be set – I found this to be a bit 'fiddly'.

Although the adjustable pitch control has significant benefit to the boatie who wants to achieve maximum performance throughout a range of activities, the replaceable blades offer the recreational boater the most benefit. Having a few spare blades on board offers peace of mind at much lesser cost than buying one or more spare props.

Remember though, you need to take the prop off to replace the blade – you can't do it with the prop still attached to the engine leg.

ProPulse propellers retail for much the same price as a standard prop and are available through Golden Seal Marine Products in Mordialloc, Victoria.

For more information telephone them on (03) 9587 1533.







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3M Innovation

Trim tabs are used primarily to trim or adjust the attitude of a boat when it is moving over the water.

Good, well-adjusted trim tabs can make a big difference to the way a boat operates.

Smart Tabs are designed specifically for boats in the 3.7-6m range with outboards from 10 to 175hp.

They consist of stainless steel plates fixed to the transom and are actuated by gas struts.

Unlike electronic trim tabs, which are controlled by the operator via switches, Smart Tabs are automatic, adjusting their angle according to boat speed and resultant water pressure. You simply screw them on and they do the rest.

At rest the Smart Tabs hang below the transom. When the boat is moving, water pressure lifts them up until they extend flat out behind the transom.

A certain amount of water pressure is required to actuate the gas struts and make the tab plate rise.

When speed decreases, the plates gradually lower, lifting the rear of the boat and keeping it on the plane longer.

I fitted a set of ST-980 Smart Tabs to my 5m aluminum runabout, which is powered by a 75hp Force outboard. The installation took about 1.5 hours with my technically-minded mate, Ron 'Simo' Simpson, doing most of the work.

Required tools include an electric drill, 1/8" and 3/16" bits, Phillips head screwdriver and appropriate spanners. The detailed instruction

manual is easy to follow – a person with average handyman skills should have no problem installing the Smart Tabs within a couple of hours.

Pay attention to getting the angles right and you should have no worries. Note that installation of the Smart Tabs requires drilling holes through your hull, even though a brochure says they don't.

Both Simo and I were impressed with the finish and quality of the Smart Tabs. Made out of polished stainless steel, the tabs look great and would require minimal maintenance.

The gas actuators, which feature a rubber boot, would require regular inspection to make sure no cracking or deterioration has occurred. When the boat is not in use, the tabs are best kept horizontal. An optional storage cable can be used to achieve this.

ON THE WATER

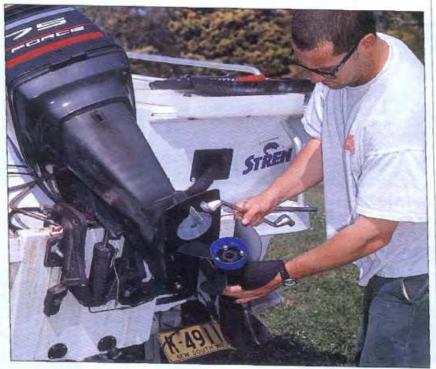
The prochures enclosed with the Smart Tabs explained that the tabs made the boat get on the plane faster, improved acceleration and top speed, provided a level, more comfortable ride at lower speeds and improved fuel economy, handling and safety.

During the four years I've been running my boat, it has displayed no particular vices when it comes to handling and performance, so I was keen to see what, if any, improvements could be made with the addition of the Smart Tabs.

A run out into Jervis Bay with a blustery westerly wind creating substantial chop saw a GPS recorded top speed in calm water of 31.5 knots at 5800 rpm, an improvement over non-tab top speed of 28 knots at 5600 rpm. I recorded a minimally faster acceleration rate with the Smart Tabs activated.

This speed improvement has no practical benefit other than to indicate that the Smart Tabs make the hull work more efficiently.

More interesting was the way the tabs helped push the bow of



Fitting a ProPulse prop. Adjusting pitch, or replacing a blade is relatively easy although some may find it a tad 'fiddly'.

the boat down when rising up on the plane.

My boat has a level attitude when the motor is trimmed correctly so I trimmed the 'Force' out much more than usual before taking off.

As you'd expect, the bow rose way up initially and then, as the tabs began to work by lifting the transom, lowered noticeably.

The engine had been trimmed out to an extreme degree, much more than would ever happen in an average boating situation, but the positive effect of the Smart Tabs was definite and noticeable.

Many small boats, especially those with non-trim and tilt engines, have problems with a bow-up attitude at both low and high speeds.

It's not hard to see that the addition of Smart Tabs could help solve that problem.

While my boat does not 'porpoise - an annoying bounding across the water that many boats, especially tiller steer models, suffer from when travelling at speed - US tests indicate the Smart Tabs are helpful in reducing the effects of this problem.

Driving at speed in a crosswind also resulted in a pleasing discovery. Like most smallish, light boats, my runabout has a tendency to bounce around when driven hard across chop in windy conditions.

Without the tabs the ride was uneven and difficult to control in the chop generated by the 25-knot westerly.

With the tabs, the boat handled much better, digging into the water and remaining level and easy to steer.

I didn't notice any significant improvement in handling, or ride at idle speeds; at troll speed of six knots the boat did feel more stable than usual, but much more testing over extended periods in a range of conditions will be required to ascertain whether that's a fact, or if I'm imagining it.

The same will go for any possible fuel economy. My Navman