All zipped up

We put Zipwake’s new automated interceptor trim system to the test – and it passed with flying colours!

Back in our March 2015 issue, we wrote about the new interceptor system from Zipwake that we had seen at METS. Now, thanks to Wessex Marine letting us loose on its Zipwake-equipped XO360, we can tell you exactly what the hands-on experience is like.

Well, the words ‘could not be easier’ spring to mind. The key multifunctional manual controls are the central pitch wheel, and its surrounding roll wheel. Thumbing the central pitch wheel upwards depresses the two interceptor blades in tandem and push the bow down, and vice versa (note, Zipwake’s reference to ‘pitch’ is the same as many a boat owner’s reference to bow up or bow down trim – it doesn’t refer to a boat’s pitching movement). Rotating the roll wheel clockwise will drop the port blade and raise the starboard blade, and so roll the boat clockwise, i.e. to starboard (and vice versa). Simple!

Out on the water, even at high speed in rough conditions, these two wheels are so easy and quick and intuitive to use that they make nigh-on every other system I’ve tried feel clumsy. Three other things made Zipwake’s system very effective in practice. The blades are extremely fast acting; in theory 1.5 seconds from fully up to fully down. So fast that my thumping or wheel twirling was the limiting factor in manual mode. I managed around three seconds minimum for ‘lock-to-lock’ operation on either wheel, roughly two to three times as quick as the fastest trim-tab systems I’ve used. Despite their speed, there is no perceptible lag or overshoot in the system. On a few I’ve come across, the interceptors or trim tabs seem to play catch-up with the user’s input, and that results in overshoot, followed by further annoying correction. However, although the blades can be fully depressed or raised very quickly, the two wheels are speed-sensitive, so if you just tickle the wheels rather than spinning them furiously, the blades will move by as little as 1% at a time. That amazing degree of fine-tuning was difficult to detect when adjusting pitch, but it was terrific (and detectable) when I was trying to perfectly level the XO360 in flat water in a crosswind.

So far, so manual. Although the in-built gyro sensor controls the system’s auto-roll mode, in auto-pitch mode it is the boat’s speed, not its real-time trim (pitch) that determines how much the blades are depressed. To establish how much, the user inputs basic boat data: length, beam, and weight. The system then generates what it thinks is a good starting point for the boat; an auto-pitch control curve that tells the system to depress the blades a given amount at any given speed, with the speed taken from a GPS input.

**THEORY VS PRACTICE**

Compared with a system that uses gyro-measured real-time trim to control the pitch, in theory this approach has its limitations. In 5 knots of tide, a notional 20-knot cruise would register as 15 knots on the controlling GPS in one direction, and 25 in the other. Also, Zipwake’s system does not account for significant changes in trim caused by changes in load such as fuel or stores, nor particularly heavy

**MY TAKE** In the same way that the joystick has demystified the art of berthing, these intuitive Zipwake controls will make it much easier for newcomers to make the most of their boat’s trim tabs. That can only be a good thing. **Hugo**
tenders all the way aft. Nor changes in trim, abrupt or otherwise, caused by the local wind and waves and tide.

All this will matter to some. However, even on the XO360 which is fast and narrow and therefore sensitive to trim, it didn’t bother me. Even under way at 35 knots, it was a doddle to fine-tune that standard auto-pitch control curve, either by accessing the menu, or by saving any number of real-time manual settings simply by pressing the roll wheel. All told, I reckon that anybody who is genuinely sensitive enough to their boat’s behaviour to want to fully optimise the trim of their boat in any given condition, will fine-tune the auto-pitch control curve to suit their boat’s typical condition, switch on auto-roll, and then use Zipwake’s manual override adjustment to fine-tune the boat as necessary. I think the fact that it is so fast acting and incredibly intuitive will encourage its users to play around and optimise their boat’s trim more, because it is so ridiculously easy.

Zipwake has incorporated a steering function into its system (see 30 second briefing) which is engaged by pressing and holding the roll wheel. I was amazed how well it worked, providing up to roughly 20° course corrections by spinning the roll wheel. Although I can’t vouch for every boat, on our XO360 it gave us genuinely effective steering control — if our steering had failed, it would easily have navigated us through Poole Harbour’s hazards and back to the marina.

Testing the steering function unfortunately highlighted an embarrassing point — XO had connected the blades the wrong way round. Although that didn’t effect any of our myriad trim tests whatsoever, nor stop us scrutinising every detail of Zipwake’s effortlessly understandable on-screen menu system, it did confuse the auto-roll software. We plan to return and finish this aspect of the test when Wessex has rewired the blades correctly — watch this space.

So how much does this much ‘easy’ cost? On a typical 45-foot flybridge boat, for example, a twin station, twin blade system (see yellow installation diagram) would be around £2,700 inc VAT. Trimming a boat correctly can improve the comfort on board considerably, and reduce fuel bills, so £2,700 seems very reasonable on a new 45-footer that will doubtless cost upwards of £300,000.

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