Tap Fins Vs. Lifting Strakes

For years we've been trying to find the right situation to compare the TAP Fins by Conrad Marine to manufacturer lifting strakes. Our biggest challenge? Finding two identical pontoon boats with identical engines so these two performance options could truly be tested, compared and evaluated.

Thanks to Evan Davis, the owner of Boat Club of Lake Norman in North Carolina, we finally found the right testing situation. The Boat Club offers a wide variety of boats to its members so that the cost of ownership, maintenance and storage is taken out of the equation. Members reserve a boat and then simply show up and enjoy a hassle-free day of boating every time. And because of the popularity of pontoon boats on Lake Norman, Evan decided to add two 2010 Sweetwater 2386 pontoons boats to his fleet this past summer, both rigged with Yamaha 115hp four-strokes.

The only difference in the nearly identical pontoon boats-one has TAP Fins and the other has lifting strakes. "We have the exact same options and configurations between these boats that are nearly identical," explained Evan when he first contacted PDB magazine. "The only other difference is that one is blue and the other is tan. I'd be very interested to see how the boats perform head-to-head." And just like that we were finally in business. The boats are launched and retrieved at the Ramsey Creek Park in Cornelius on Lake Norman and that's where we met to conduct our test.

Nearly Identical

Evan was as anxious as we were to see which performance option improved the most and that made our job a lot easier. He had already lowered both bimini tops, topped off the gas in the boats and installed brand new propellers by the time we arrived. He wanted everything to be as fair and as equal as possible for our evaluation.

These boats were identical in almost every way possible, but we were a little disappointed to find out that the blue Sweetwater has lifting strakes on the inside and outside of the pontoons, while the tan version only has TAP Fins on the inside. Plus another advantage is the full aluminum underskin on the blue pontoon that is not on the other one. Still, we were working with two very similar pontoons for our test so we weren't about to complain.

Timed Run

To make it more official, we recruited a local family that just happened to be near the dock when we first arrived. Dave and Charline Magnone along with their daughter had never been on a pontoon boat before, which made our situation even better. Anytime you can introduce a young family to pontooning it's a good thing.

Both Sweetwater 2386 pontoons were powered with Yamaha 115 four-strokes with a 13.5 diameter prop and a 15 pitch. An obstacle course was set up and we had Evan drive both boats for consistency.

We ran the course twice with each boat and then average the times. The blue Sweetwater with lifting strakes completed the course with an average time of 2:22, while the tan version with TAP Fins had an average time of 2:10. We did note that the TAP Fin boat turned a little sharper going to the right, which could have been the difference.
"I felt like the blue boat was faster for some reason," said Evan. "But as for cornering, I definitely noticed that the tan boat cornered a lot better. It was smoother running through the course where I felt the blue boat had to work harder."

Just for fun we decided to let Dave, who had never been on a pontoon let alone driven one, take a turn behind the wheel. Unofficially we thought this might give us a better perspective on which performance option might be better for the novice driver. Turns out it didn't make that much of a difference. Dave was only three seconds faster in the blue pontoon versus the tan one.
"On the blue boat I thought it handled well. It bogged down in the turns, but that was probably my fault," said Dave after the test. "On the tan one I felt the accuracy in turning was better and it didn't rock as much when I turned. It was easier in effort and maybe a little flatter in the turns."

Take Off

Next we wanted to see if there was a difference in the 0-20 mph time between the lifting strakes and the TAP Fins. We did the full throttle test from idle to 20 miles per hour three times going in one direction, then three times in the opposite direction and then averaged all the times. The blue Sweetwater with lifting strakes had an average 0-20 mph time of 9.72 seconds, while the tan Sweetwater with TAP fins had more than a second quicker time of 8.05 seconds. This was the most dramatic difference between all the tests that we conducted on this day.
"The boat is fast. For a dual tube pontoon with a 115 hp motor, it's faster than I expected," said Evan. "The cornering is tight and flat and the ride is super quiet because there is no spray deflecting up onto the sub-floor."

Wide Open

All that was left now was to put the throttle down and see which boat went faster. We kept the Magnone family onboard for each testing phase so everything would be as accurate as possible. At the cruising RPM of 3000, both pontoons were near the 9.5 mph mark, but it was the top speed where we noticed the real difference. The blue lifting strake version reached 6100 RPMs at a top speed of 23.5 miles per hour. The tan TAP Fin Sweetwater topped out at 5800 RPMs, reaching a full mile and a half faster at 25.0 mph.
Success

After a solid round of testing, the TAP Fins out-performed the lifting strakes in all the different phases of our test. So the final question to ask would be the difference in cost.
"Personally if I ordered another boat it would probably come down to price," says Evan. "For performance and handling I really like the tan boat with TAP Fins on it. It would be interesting to see

what it would be like with Fins on the inside and outside. From an economic standpoint the TAP Fins would be the way to go because I believe they are less expensive than the strakes."

For clarification we went to Malcolm Sohm of Conrad Marine who invented the TAP Fin system. "On average when compared to lifting strakes installed by a manufacturer, the TAP Fins are around 20 percent less expensive and that includes inside and outside Fins," explains Sohm. "And unlike most manufacturers who increase their prices each year, I have maintained my prices for the past several years."

As we walked away from the Ramsey Creek dock it felt good to finally have the data and information that we've been in search of for so long. We've been as curious as anyone to see which performance option would be better and we found out that on this day and on these two particular pontoons, the TAP Fins performed better.