

THINKING TWIN



PHOTO: PWA / CARTER

Since Kauli Seadi put the modern twin-fin waveboard back on the map at the 2007 Cabo Verde event, more and more brands are now experimenting with – and in many cases embracing – the concept. In our April edition we talked to one of the brands (Mistral) about why they were doing it, so let's now hear from **Ola Helenius**, who has put several of the latest twinsers through their paces. Pix by **Gisela Helenius**...



Twin-fin top turn control

My first hint that twin-fin boards were reappearing on the scene was during a conversation with Kauli Seadi at Guincho back in 2006. He has always been 'out there' with his ideas about board design, going for really short shapes with narrow tails and lots and lots of rocker. At the time he was very happy with what he had, but let on to me that he'd just had a twin-fin built that was waiting for him back on Maui. He didn't really have a clear idea about what the twin design would do for him, but said that, at the very least, he could probably learn something from the experiment. I bet that if I had asked any of the other riders if they'd given twin-fins a thought lately, they'd have laughed at me.

Anyway, Kauli returned to Maui, rode the twin-fin board – and liked it. Then Quatro shaper Keith Teboul got his hands on it, and he started to like it even more. And as we all now know, he took his twin-fins to the Cabo Verde World Cup event in early 2007 and showcased them to the world in what were surely the best wave conditions ever sailed in a competition. While Josh Angulo won the event and Kauli 'only' came second, it was Kauli's sailing that drew most other riders' attention. He was staying closer to the critical section, turning deeper in the pocket and squirting out more turns at higher speeds than previously thought possible. Of course, Kauli is an incredible sailor – but it

wasn't just skill and technique that was getting him around on those waves. Talking to Scott McKercher after the event, he said Kauli had opened his eyes to what drive and fitting into the bowl of the wave was about – and he was going right back home to work on some new twin-fin boards of his own. Scott wasn't the only one. At the Guincho World Cup just a few months later several other riders were already on twin-fin designs, and one of them Jason Polakow – the very man who had established the dominance of the single fin pintail back in the nineties. Many other riders were also working on twin-fins. Others seemed kind of hesitant, but said they'd probably "have to try them at some stage". By the end of the 2007 World Tour, over half the sailors had twin-fin boards in their quivers, and over the winter even more have been sailing them and working on the design. Many of the board brands – maybe all of them – will have twin-fin waveboards in their 2009 ranges.*

So What's The Deal?

Let's start out by hearing what some of the pros say. The re-inventor himself, Kauli, says he was primarily after a board on which he could control his top turns better. He wanted something where he could hit the gnarliest of critical sections at full speed and not have to think for a moment about whether the board would handle it or not. I discussed this with Scott McKercher

at a stage when he was testing both tri-fin and twin-fin setups, and he said that while tri-fins produced some good turns they were also rather unforgiving at speed, whereas the twin-fin boards were like using training wheels: "You couldn't miss a turn". Kevin Pritchard has said he does not think twin-fin boards have as much drive off the bottom as single fin boards, but when asked why he still uses the twin, he says they are just so much fun off the top.

Some Amateur Views

So much for the pros – what about the regular sailors? The majority of my friends who spent time on Maui this spring have been totally blown away by the twin-fins they've used. This includes people that were very sceptical about the hype surrounding them before trying. My friends all rode different sorts of Quatro boards, from their '08 production twin-fin (which is essentially their single fin design with twin-fins added) through to 'regular' Quatro customs and boards made for some of Quatro's pro team riders. To be fair, most of these sailors have had (single fin) boards that blew them away too, so the most interesting thing was to hear why they like their new twin-fins. Firstly, none of the half-dozen twin-fin devotees thought the new style of boards took any real getting used to – at least not any more than when moving between any two waveboards. Just step on and go. The →



Jesper: I have a few magical single fin boards at home and I don't think a twin-fin board will automatically be magic just because it has two fins. But that said, the 77L Quatro custom I've been using really has been incredibly turny and surfy, especially in slightly bigger waves, where I often mis-time my bottom turn a bit and have to adjust to get to the right spot for the top turn. With this board, I can just keep the speed and smack the top completely unplanned. It makes it much easier to charge even if you don't have the precision of the top guys.



Twin-fins are great for recovering from a tail slide, as Levi Siver demonstrates



* To be scrupulously fair here, German brand HiFly have been doing all sorts of twin-fin boards for years, both in the wave and general freeride departments. However, they seem to come at it from a slightly different angle, and as no top pro riders are using them, have seemed to remain outside of this latest surge of design and development.



Single fin top turn (left). A good setup for a powerful top turn, but I set it up more aggressively than I could handle. The board locked into the curve, the nose dove, I couldn't power through and got worked. The twin-fin sequence on the right shows a rather shallow entry, where a lot of drive is added in the second image, but where I still hook the board out of the turn in image three and then happily sail along.

second thing concerns the top turn. Some describe it as the board being looser in the top turn and requiring less force to turn sharply. Others focus on how their twin-fin board simply encourages them to attack the lip harder, and on bigger waves, too.

What Do The Shapers Say?

Most shapers seem to agree that twin-fin boards need some special attention when shaping them. You can't just slap two fins in your existing shape and expect it to work. But different shapers do different things. Keith's shapes have generally become a bit shorter, rails have grown fuller, and he uses less curvature on the rear part of the outline. Rockers are essentially the same as Quatro use in their single fins. Mistral's Nik Baker indicates that twin-fins need to be shorter and wider and with less tail rocker, while the Starboard design team have kept similar dimensions as their existing Evo boards (already rather short and compact), but have tweaked the outline with some more curve in the rear section. So it would appear that you most definitely do need to change a shape when you go from single to twin-fin setup, but there are many variables and, as usual, what you do will depend on what you started out with and where you are aiming.

In the April issue of **BOARDS**, Nik Baker wrote that when moving to a twin-fin board you'll generally move up a size. Keith Teboul also recommends this – he is using boards at or above 70L now, when he used to be on 63-65L boards. More on that later.

My Own Experience

I have used some of the more off-the-shelf Quatro twin-fins, as well as some more special designs. I have also used some prototype Starboard twin-fins, which were part of their continuous R&D programme (i.e. not protos for the upcoming Starboard production twin-fin board). The overwhelming feel after using all of them is that the rest of the shape is still way more important to the feel and performance of a board than whether it has one or two fins. Details like rocker, rails, outline and deck shape will very clearly shine through. The Starboard protos I used, for example, were all rather thin with flat decks and typical Starboard rails, which made the board feel very much like using an Evo. In comparison, the Quatros were more domed and came with their own special character. Once in the straps and on a wave, these issues are not as easily distinguishable, but nevertheless

The comparative pictures used here are purely to illustrate points. I am not claiming that the only thing making the difference between the moves in the sequences is the number of fins in the board. No two waves are the same, and there will obviously be many other factors at play, but they were fairly typical pictures from the sailing sessions and do show the points pretty well.

ON THE EQUIPMENT SCENE



Mats: I was very sceptical about the concept at first, and was set on getting myself a single fin. But the people at Quatro told me to try a twin-fin first. Contrary to what some people say it was very intuitive from the start – except that I turned too much in the beginning! But that's what I like about the board; it is so easy to turn off the top. My twin-fin board feels a little unstable when schlogging, but that's probably more the domed deck shape and the rails. It's not particularly fond of drawn out bottom turns, but prefers tighter turns closer to the wave. But I want my sailing to go in that direction, so for me it's an advantage to have a board that works more like a surfboard than my older boards do.

they're details that contribute to the feel of a board. On a more performance-oriented note, the character of the rocker is still what influences the boards the most – twin-fin or not. One board I rode was (for a waveboard) a low rocker design, and guess what? It turned out to be super early planing, excellent upwind, and could be loaded up over the fins in choppy conditions and when overpowered, etc (just the same as comparable low-rocker single fin boards). On the wave it had a fantastic flow and acceleration in the bottom turn, but a stiffer entry to the top turn. On the other hand, one of the Quatro boards had huge amounts of rocker throughout the board and, not surprisingly, it required some work and concentration to go upwind and to get planing in

light wind. But on a wave that curvy board was of course super loose.

Having said that, all the twin-fin boards I rode definitely had things in common. The first is how they handle a top turn. As all my friends and the aforementioned pros say, there is something special about it. I would say that twin-fins give you a solid top carve but still stay very loose, and by loose I mean that you can easily change the radius of the turn in mid-carve, whereas single fin boards tend to lock into the turn more. With twins, it's like you're 'on top of the turn' and can use both legs to control where you're going to end up. The board just feels very free and easy, which means you don't need to devote so much time and energy to setting up

the turn just right – you'll probably pull it off anyway. And the steeper the section, the more this feel is noticeable. I think this is exactly why many sailors say twin-fins make them attack the top turn harder.

Interestingly though, when coming onto a more open section of a wave, particularly if you're going fast and maybe a bit overpowered, twin-fins can be prone to spinning out. All the boards I used needed some extra attention to really stick these turns. Okay, since twin-fins are also easier to bring back from a slide this isn't usually a big deal, but sometimes you'll end up slipping off the wave and crash.

Some pro sailors have commented that twin-fins have less drive in the bottom turn. This was not at all true for me, nor did any of my friends comment on it – on the contrary, they said you could make good bottom turns with much less effort. Personally, I had a much easier time to bury the rail in the bottom turn and get excellent drive. I will try to explain this discrepancy in the next section.

Jumping

In decent cross-shore conditions you hardly notice that you don't have a full sized fin under your tail when jumping. In more onshore conditions you do notice a bit less drive, but again, it's the other aspects of the design that make the main difference in the jumping performance, rather than just the number of fins. Some of the top pros still prefer to use single fins for some locations – even Kauli used a single at the high wind, jumping oriented Gran Canaria event last year (although he was on a twin at the rather onshore-ish Guincho event). For aeriels off the wave, there isn't really any noticeable difference – except that they're easier to recover on a twin-fin if you land a bit awkwardly.

Imperfect Conditions

I've only used the boards on Maui so far, but we did have a few days with cross-on, small choppy waves, and for me the twins still worked really well in those conditions. Other than that, ➔



Twin-fins make it very easy to get a lot of rail in the water when bottom turning...



...whereas on the single fin board you can see how the big, central, rear-mounted fin drives the tail into the water, giving the rider a lot of leverage to push against



Even this wide board can easily be fully committed to the rail in the turn, thanks to the twin-fins

they're not so nice for a powered top turn on a flat part of the wave. Or, to be more precise, in such situations they need more attention to the setup of the turn (a bit like a wide tail board such as the EVO, actually).

Why Twin-Fins Work Like They Do

When Keith Teboul describes how twin-fins turn he often says they "push more rail into the water" (hence the need for other outlines and rails). Many people also attribute the twin-fin feel to the fins being smaller (hence quicker rail to rail), and that the side fin gives you better bite in a sharp turn. All this is probably true, but I have a slightly different take. Think of a board in a bottom turn (or any kind of hard but long turn). The sailor is pushing the rail into the water to make the board turn on its rocker. The fin can be seen as playing the role of keeping the tail well dug into the water. Without a fin, it would still be theoretically possible to turn (think of a practically 'fin-less' kiteboard or wakeboard), but very hard to find the right balance on the rail. With the fin, the sailor is using his leverage to decide how much rail he wants in the water while the fin acts as a kind of pivot point.

From that basis it's not hard to understand why a twin-fin works like it does. Once turning, in practice only the inside fin will do any work. This fin is both much further forward and much closer to the rail, making the fin's leverage much smaller, so it will be easier for the sailor to get more rail into the water. But it is the sailor that does the pushing. For someone at my level, this can only be a good thing, but it's probably why the pro sailors with really heavy bottom turns (like Jason, Levi, Kevin, etc) feel that twin-fin boards lack some drive. They also bury the full rail on a single fin board, so they'd probably have to hold back a bit so as not to overpower a comparable twin-fin board! This would also explain why you can upsize a twin-fin board a bit. You get more



Magnus: I think the best thing about my two twin-fin boards is that they are so loose. You don't have to push so hard to keep them in the water and to turn them. Tight 180-degree turns are amazing in all sizes of waves, and in the beginning I often ended up doing 270-degrees! You get a really tight carving small radius turn without too much muscle effort – the board just carves on a dime, and it's a true controlled carving turn rather than a 180-degree slash/slide as with most of my traditional boards. If you push too hard you can spin out of a top turn on a flatter part of a wave, but other than that they're very easy to use and encourage me to sail in a more radical fashion. Upwind and planing is at least as good as comparable single fin boards I've used before. Bottom turns are also nice, and they almost never slide out in the bottom turn, even at higher speed. This gives me the foundation for trying radical turns into critical sections. I can focus on the wave rather than the board in the turn.

leverage over the outline and the rail, so you can handle some extra width or thickness.

This phenomenon is also partly at work in the top turn, but there's another factor now. A top turn is more back foot oriented, using more fin and less rail. It's part drive and part hook. Drive is the board carving along the arc of the turn, and hook is when you sort of twist the board around the pivot point defined by the fin(s). A sharp top turn at slow speed generally involves a lot of the hooking part; you set the fins in the top of the wave and then really twist the board around. A high speed carving top turn usually involves mostly drive (as of course, does a bottom turn).

With a twin-fin setup you'll have the fin(s) right under your back foot. It's not hard to visualise how this makes the hooking, rotational part of the turn easier. A fin in the back will have lots more leverage to keep the board to its set arc, and the faster you go and the harder you drive, the bigger this leverage will become. With a twin-fin board, even during a very drivey top turn, you can still easily apply some hook to get you out of trouble or to add some flair to the turn. Add the reduced side-to-side leverage from the shorter fins and the easier recovery from a slide, and you might understand why most sailors that try twin-fins think they're in top turn heaven.

Conclusions

Theory over, what does it mean in practice? Should you rush out and buy a twin-fin board

right now? As already said, unfortunately it's not as simple as thinking of waveboards as single or twin-fin, as there are so many other design factors at play that have a major influence on upwind, planing, speed and other straight-line performance oriented aspects. During my time on Maui, I had access to several good twin-fin boards, yet I sailed my trusty Starboard Evo 70 on more than half of the sessions – particularly when the waves got really big, the wind got really light, the water got really choppy or when conditions were particularly gnarly. It wasn't because the twin-fins didn't work in those conditions, but nothing beats having a board you're really in tune with. It's also possible that some sailors will prefer the way you can drive a single fin board.

That said, twin-fins really do offer a twist on things. The added leverage you get on the rail effectively lets you use a bigger board, which opens up some interesting possibilities in good waves and light wind (but may not be as good for control in lots of wind). Overall, the top turn is also easier, which is almost always a good thing. If I were to design my dream board it would be kind of hard not to make it a twin-fin at this stage. Any intermediate to expert sailor with a focus on wave riding in search of a new board should certainly include some twin-fin boards on their short list. But as said, just make sure it meets your other requirements.

It's not all in the fins... 

About the Author

When he's not out trying some new waveboards on Maui or at some of his favourite breaks back home in Sweden, Ola Helenius works as a mathematician. He is sponsored by Hot Sails Maui and Starboard.