

Hydrovane in the Southern Ocean

In an article titled *Let the Wind Take the Helm* published in the 2024 issue of *Ocean Voyager*, Nico Walsh expresses his preference for Hydrovane (he obviously had never experienced a servo-pendulum system).

He writes:

"Many sailors considering vane steering may be persuaded by the prevalence of Hydrovanes in the 2022 Golden Globe Race. Twelve of the 16 entrants chose Hydrovane".

No wonder: rules of the race specify that all boats must carry an emergency rudder (the GGR is limited to boats with keel attached rudders and no boat in sailing history has ever lost a keel attached rudder!) And Hydrovane happens to be a sponsor of the GGR!!

Of those twelve, Walsh signals that three failed: *"Simon Curwen dropped out of the GGR when the top mounting of his Hydrovane sheared off in a vicious knockdown (he was in the lead and this cost him victory) The shaft of Damien Guillou's Hydrovane fractured just above the rudder. (...) Ian Herbert-Jones' drogue warp snagged the Hydrovane rudder."*

Is a 75% success ratio to be proud of?

Nico Walsh writes: *"Proponents of servo-pendulum gears assert that an auxiliary rudder may be inadequate to keep the boat on course in high winds - that there is no better way to steer a yacht in a gale than with its own rudder."*

Is it?

"For Race winner Kirsten Neushäfer, one Hydrovane feature stood out. With a servo-pendulum gear, the rudder is tied into the vane system via lines to the wheel, so it is not possible to shift quickly from vane steering to hand steering and back again. Because the Hydrovane is entirely independent to the yacht's wheel and rudder, one may, in heavy weather, stay at the wheel and allow the Hydrovane to steer, but when necessary, override the Hydrovane by turning the wheel. In bad weather, Kristen found this technique invaluable.

I had the same experience. Toward the end of my 2023 double-handed transatlantic on Far and Away, our Cabo Rico 34, we encountered a gale. Running in 40 knots and big seas (...) one of us generally stayed at the wheel, and when an especially awkward sea reared up astern, we used the wheel to ease the yacht's way".

Demonstration made: there is no better way to steer a yacht in a gale than with its own rudder!

CapeHorn in the Southern Ocean

Before the CapeHorn was put on the market, a prototype had been tested through the Southern Ocean by its designer, Yves Gélinas, aboard his Alberg 30 *Jean-du-Sud*; he did not make it non-stop, having been capsized and dismasted in the Pacific; yet, under jury rig, the CapeHorn gear was still steering! In 28 000 miles, he never had to touch the tiller.

He was not the only one to trust CapeHorn through the Southern Ocean. French sailor Pierre-André Huglo recently sailed single-handed non-stop around the world aboard his

Contessa 32 *Fresh Herring* It was his second non-stop circumnavigation using the same CapeHorn gear. American sailor Donna Lange also did this twice (with one stop) aboard her Southern Cross 28 *Inspired Insanity* also steered by the same CapeHorn gear.

CapeHorn is not only good in heavy weather: it is the only self-steering gear on the market that can steer downwind in light air (the most difficult point of sail for a self-steering gear) wing on wing, without a pole on the genoa. This is documented in the last moments of the (multiple award-winning film- available on Vimeo, Netflix, TheSailingchannel) *With Jean-du-Sud Around the World; Jean-du-Sud* sails up the bay of Gaspé under this sail combination after having steered 28 000 miles.

CapeHorn gears need no spare parts. It is also the only self-steering gear on the market to be guaranteed for one circumnavigation or 28 000 miles against any damage caused by wind or sea.

You want an independent opinion? Read this letter by naval architect Chris B. McKesson who shares his experience of both CapeHorn and Hydrovane with his fellow sailors.

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Chris B. McKesson, PhD, PE

Naval Architect - Specialist in Unconventional Projects

23 November 2024
San Carlos, Mexico

To: My fellow sailors

Shipmates, please let me tell you about my Cap Horn wind vane.

I installed the Cap Horn in 1999, twenty-five years ago. Since then it has performed flawlessly, across a wide range of conditions.

My wife and I are coastal cruisers, not circumnavigators, but our cruises have taken us from 52° N to 17° N. We have something like 15,000 miles under our keel. Throughout those years the Cap Horn has been a wonderful shipmate. Indeed I've reached the point where I have hardly left the marina or anchorage and I'm engaging the vane – He steers better than I do!

I keep expecting something to wear out, but nothing has. I replace the tiller control lines every few years, and the little pieces of bungee cord, but that's all. I have even opened it up expecting to find some hidden part that is wearing, and nothing found.

Other Vanes

My years with the Cap Horn have set my expectations. I just recently bought a new boat, and she came equipped with a Hydrovane. Expecting the performance I was used to I set out and engaged the Hydrovane. And was greatly disappointed. Here are the problems I had with the Hydrovane:

1. Installing the rudder really requires the use of the dinghy. I think that, with experience, one might learn a way to ship and unship that large and heavy rudder from on board, but it won't be easy. Once the rudder is installed you're not going to be removing it any time soon.

2. It fought with the main helm. When motoring, the hydrovane was idle. If I left it free then it would chatter most annoyingly in the boat's propwash. If I locked it, this completely eliminated the chatter, but it also made the ship VERY hard to steer. The Hydrovane rudder acted so strongly as "tail feathers on the arrow" that it took a lot force and a lot of helm on the ship's main rudder just to steer.

Of course, if I could have easily unshipped the Hydrovane rudder this problem would have gone away, but see my Complaint No. 1.

3. Tacking was absurd. With the Cap Horn I tack by a simple twist of the vane tower: Swing the wind vane over to the new heading, and then I am free to attend to sheets in the cockpit while the Cap Horn swings the boat through the wind.

By contrast with the Hydrovane one has only the fine tuning knob on the vane, and it will take dozens of turns to accomplish a 90° course change. Completely impractical, I'm sure my boat would stop in irons when head to wind, because of the very slow speed of the maneuver.

Of course, that was a moot point with my new boat, because she is a yawl. The Hydrovane's air vane is so tall that mizzen boom won't clear it. Instead, to tack, you have to first remove the air vane, and then reinstall it on the new tack. The tack itself being accomplished not by the Hydrovane, but by using the ship's main helm

(I did exercise my engineering creativity to see if I could design a new low-profile air vane that would generate the same force but clear my mizzen, but the vane on the Hydrovane was so large that there was no practical solution.)

Caveats

The Hydrovane is a robust and well-made piece of gear, and many owners are extremely pleased with their units. As I said at the outset: My expectations were set by twenty-five years of experience with a Cap Horn. Perhaps my complaints about the Hydrovane are really complaints about *any* non-servo-pendulum vane. I have no data to compare.

Conclusion

I have greatly enjoyed having the Cap Horn on my previous boat. It has performed flawlessly. Indeed, one memorable passage was running before a gale for three days, with the vane as the only helmsman, in complete security. A more pleasant passage was a 12-hours spinnaker run singlehanded, including a gybe at about 3:00 a.m. Thank heavens the vane was on the helm!

If anybody reading this is considering the purchase of a Cap Horn, my experience is that you won't be sorry.

See you out there. Maybe we can share an anchorage together.

A handwritten signature in black ink, appearing to read 'Chris B. McKesson', with a long horizontal flourish extending to the right.

Dr. Chris B. McKesson
Naval Architect