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Photos: Christophe Favreau

A purposeful new centreboard design for most cruising waters, the Ovni 430 on test proved adept at silent motorsailing in light breeze

DAWN OF A NEW ERA

MORE AND MORE BOATBUILDERS ARE OFFERING ELECTRIC OR HYBRID PROPULSION AS AN OPTION, BUT IS IT VIABLE YET FOR A HEAVY ALUMINIUM YACHT?

RUPERT HOLMES

Where: Les Sables d'Olonne, France
Wind: Cross shore max 6 knots, with on-shore swell
Test boat: Hull No1, with classic saloon and mainsail. Hybrid propulsion system with OceanVolt AXC24 24kW motor, 28.8kW lithium-ion phosphate battery capacity, plus 11kW Fischer Panda diesel generator

The concept of rugged aluminium centreboard boats is well proven, but can a boat displacing 14 tonnes when loaded sail well in the light airs that predominate during summer in cruising areas such as the Med, northern Europe and even the Arctic?

And can hybrid propulsion work in that context? The chance to jump on the first Ovni 430 to leave the yard during September's heatwave provided clear answers to both questions.

First impressions are of very practical and seamanlike arrangements, with acres of flat deck space, deep bulwarks, plus solid metal handholds, mostly near waist height. There are also plenty of mooring cleats, a capacious deep chain locker and our test boat was also fitted with substantial granny bars at the mast.

The standard of finish on deck is high, with welds ground perfectly smooth, neat paintwork and the general feel of a well specified, comfortable yacht. It's a marked contrast to Ovni's trademark raw aluminium topsides that resist knocks and dings so well.

We set out from Les Sables d'Olonne in a dying southerly breeze, under mainsail and an all-purpose gennaker in just six knots of true wind. Not so long ago most yachts of this size and weight would most likely have needed at least 10 knots of wind to get moving. But not in this case – we consistently made just over four knots, representing an impressive 70% of true wind speed.

The 430 is Ovni's first model with an additional chine in the bottom of the hull, which reduces wetted surface area. The twin angled rudders are mounted well outboard on this chine and the steering has been re-engineered to give a more direct response.

Despite the very light conditions, and the boat's substantial weight, the helm felt positive at all times. Even with boat speeds as low as two knots, it was responsive and predictable, without oversteer and with a directness of feel that belies the hefty displacement. ▶

‘Just 3.3kW of electric propulsion doubled boat speed’

This is all the more impressive given the necessity for the rudders to be relatively short, with a low aspect ratio, to enable the boat to dry out on its flat bottom.

By the time we swapped to the Code 0 the wind had died to less than four knots, with boat speed under sail struggling to get much above half that.

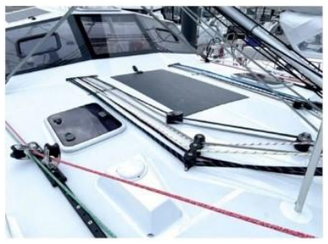
But adding a small boost from the electric motor – our test boat is the first-ever Ovni with hybrid propulsion – made a huge difference.

A SILENT NUDGE

Just 3.3kW of propulsion power more than doubled boat speed to 4.4 knots, markedly improving range before needing power from the range-extending 11kW Fischer Panda diesel generator. Unlike motorsailing with a diesel propulsion engine, the only audible sound is a very low level from the gearbox – a noise that’s normally drowned out by the racket of even the best soundproofed internal combustion engines.

With this combination of sail and motor, we could have continued for more than six hours before depleting the 28.8kW lithium-ion phosphate battery bank and resorting to the generator, despite there being only four knots of true wind.

The genset is far quieter than any diesel propulsion engine thanks to a soundproof box and very soft mounts. The hybrid arrangement also allows for a smaller propulsion battery to be specified than for electric-only boats. Yet the expectation is it will rarely be used – the test boat has 900W of solar, while the electric motor’s regeneration mode produces 300W when sailing at 4.5 knots, a figure that increases exponentially with speed. There will be many occasions, therefore, in which the batteries can be fully replenished while on passage.



Expansive foredeck is emphasised by full bow sections and a wide sprit that can take two anchors, while the sugarscoop and arch add more useful space

A large technical area includes plenty of space for genset and electronics

A highly protected cockpit. Note the davits built into the stern arch with a Highfield aluminium rib on the test boat, plus a shallow companionway

STEP CHANGE IN STYLE

This boat is a development of the Ovni 400, launched only three years ago, which itself was a big move for the yard. Its step change of style, with near-vertical topsides, a rounded reverse bow and proportionately longer waterline represented major changes compared to earlier generations. The 430 uses the same hull with a few modifications, including wider sections in the forward two-thirds of the boat that increase both form stability and volume in the owners cabin.

As well as the additional chine in the lower part of the hull, builder Alubat changed to what it calls ‘semi thick’ construction for the 430. This uses 10mm aluminium for the bottom plate, 8mm for the rest of the hull and 6mm for deck and coachroof. By contrast, earlier models, including the Ovni 400, used 8mm alloy plate throughout. The 430 therefore has a lower centre of gravity and greater stability, yet the important bottom plating is thicker and more resistant to damage.

As standard the 430 has a conventional pin-head mainsail, with an 8m^2 larger square-top sail as an option. Running backstays are needed for this configuration, though spreaders are well swept back, giving the rig support when gybing in lighter airs. In stronger breezes, with the first reef tucked in, the sail clears the runners, so both can be kept in tension. There’s a choice of a permanently rigged roller reefing staysail, as on our test boat, or a sail set flying on a furler that can be removed when not needed.

Two easy steps behind each helm station lead to the side decks. Cap shrouds are taken to the outside of the hull, via substantial aluminium chainplates welded to the structure, while lower shrouds terminate next to the coachroof sides, leaving a clear passage along the side decks. However, trips to the foredeck in anything other than comfortable conditions should be rare.

Most controls, apart from jib, staysail and spinnaker sheets, are handled at the companionway, under the protection of the optional solid aluminium doghouse fitted to the test boat. This offers great protection from the elements, yet doesn’t interfere greatly with visibility from the twin helm stations.

Alubat offers a number of options for mainsail reefing, with the boat I sailed having a single line system for the first two reefs, plus separate leech and luff pennants for the third. Decent roller bearing cars for the luff track further ease the effort associated with handling the mainsail.

Three electric winches also help minimise physical ▶

Left: both the deck saloon and the classic saloon option of the test boat (pictured) include a raised navstation (below).

Right: wider forward sections increase space in the owner's cabin

Below right: comfortable guest quarter cabin

effort. These include both primaries, which are ergonomically mounted inboard on pedestals aft of the seating around the cockpit table. The starboard companionway winch is also electric and is used for both the main halyard and the 700kg ballasted centreboard.

There are plenty of pockets for rope tails in the coamings, and under the inboard winch pedestals. Unlike earlier Ovni models the mainsheet is no longer taken to the stern arch, but still uses the same concept of identical systems port and starboard that are led to the coachroof instead. This works well, giving control of sail shape while also stabilising the boom. A smaller arch aft supports the dinghy davits, plus some of the solar panels and is more neatly integrated with the pushpits than on the 400.

MANAGEABLE VOLUME

With one exception, changes to the interior of the new model are mostly minor compared to the 400. These include more volume in the forward owners cabin, plus a greater amount of stowage throughout. The wider forward hull sections allowed the front of the coachroof to be widened by 235mm, creating a greater feeling of space in the saloon without compromising side deck width.

At the same time, freeboard is reduced by 9cm, lowering the boat's centre of gravity and making it easier to step off onto a pontoon. A step down into the forward and aft cabins from the saloon means this was achieved without reducing headroom. The boom is also slightly lower and headsails are tacked a little lower, increasing sail area without adding air draught.

The big change for the interior of the 430 is a new deck saloon option. This variant has the same exterior dimensions and structure as the classic saloon on our test boat, but has a raised dining area that allows a view through the coachroof windows. By contrast, in the classic model when seated you can only see out through a single hull window each side in the saloon. Both versions also have a neat raised navstation that allows a view out of the coachroof windows.

Despite its bulk and weight the 430 proved responsive

The large linear galley to starboard, which benefits from good stowage and worktop space, is also common to both. Our test boat was equipped with a GN Espace marinised induction hob, electric gimballed oven, as well as space saving and ergonomic sinks and Gastronorm storage units and utensils from the same company.

A useful technical area aft of the heads includes a single bunk with an aluminium base under the mattress, allowing this area to double as a workbench. It also gives access to all the electrical components and the generator.

Returning to port using 4.2kW of electric propulsion at an average speed of 4.5 knots gave plenty of time to pack the boat away, without depleting the battery bank more than necessary. At this point the OceanVolt display showed 82% charge remaining, with around 4.5 hours range left at that speed.

Above modest speeds wavemaking resistance increases exponentially, so boat speed of a shade over six knots required 22kW of power, equating to little more than an hour of range under electric power alone. Running the generator would double this and a larger genset could be installed to extend range at higher speeds to a level where diesel tankage is the key constraint.

The first boat's Canadian owners, who bought an Ovni to fulfil a long-standing ambition of sailing across the Atlantic, are very happy with the system and installation. They have yet to need to run the generator in anger, though point out the Oceanvolt throttle control lacks the feel of a conventional unit, even though electric car manufacturers have solved this issue.

VERDICT

The Ovni 430 is a new interpretation of a successful concept and a significant update, while still representing evolution rather than revolution. The changes may not appear major on paper, but they add up to a boat that's easier and more appealing to spend long periods of time on board. It's more manoeuvrable, yet also more reliable thanks to elements such as a tunnel bow thruster in place of a retractable unit, and the rope system for lifting the centreboard instead of hydraulics.

In addition to well appointed arrangements on deck and neatly installed systems, the comfort factor is a very important attribute for Ovni's customers and has been addressed successfully.

Add in the low maintenance unpainted topsides and you get a very appealing result.

As for the hybrid propulsion system, once more owners experience the benefits at first hand – including the quiet odour free operation, potential for significant range with long periods of autonomy, plus reduced maintenance – many more will surely opt for it. ■

OVNI 430

SPECIFICATIONS

LOA 12.90m 42ft 4in • **Hull length** 12.28m 40ft 3in
LWL 11.54m 37ft 10in • **Beam** 4.36m 14ft 4in
Draught 0.85-3.40m 2ft 10in-11ft 2in
Displacement: 11.900kg 26,240lb
Ballast 3,330kg 7,280lb
Centreboard weight 700kg 1,550lb
Water tank 510lt 112gal • **Diesel tank** 510lt 112gal
Mainsail classic 44m² 473ft²/square top 52m² 560ft²
Genoa 41m² 441ft²
Standard engine Volvo Penta D2-50 (50hp)
Naval architects Mortain & Mavrikios/CBA
Price ex VAT from €485,000 or €695,000 for a well equipped version
www.alubat.com

ALSO CONSIDER

BOREAL 44.2
There are few aluminium centreboarders under 45ft, but this Breton yard has updated its well proven 44. From €698,525.
boreal-yachts.com

GARCIA EXPLORATION 45
Design with a great heritage and chosen by immensely experienced owners including Pete Goss and Jimmy Cornell. €705,063 ex VAT.
garciayachts.com

BESTEVAER 41
A larger, custom version of the new 36 (see page 66 for more), which starts at €475,000, so expect pricing to be double that.
bestevaer.com