

## Fountaine Pajot chooses EODev's technology to launch the manufacturing of hydrogen powered yachts

- Fountaine Pajot, the world's number two designer and manufacturer of cruising catamarans, becomes the first major shipyard to integrate hydrogen as an energy solution on board its boats with EODev's REXH2® (Energy Observer Developments).
- Designed to replace diesel gensets, EODev's REXH2® will power on-board systems with clean electricity.
- For its first step in the pursuit of a strategy to develop emission-free products, the Fountaine Pajot shipyard trusts EODev to pave the way and demonstrate the relevance of electro-hydrogen hybridization on board its catamarans.

As part of its strategic development plan, called *Odyssey 2024*, Fountaine Pajot is launching the first project integrating alternative energy solutions into its range of sailing catamarans and has chosen EODev's hydrogen technology.

Fountaine Pajot's ambition is to combine the power supply of its 59-foot sailing catamaran, SAMANA 59', with EODev's hydrogen power generator, REXH2®, developed around Toyota's Fuel Cell (FC). This system will then be integrated by Alternatives Energies, partner of EODev, ideally located in La Rochelle, just a stone's throw away from the Fountaine Pajot shipyard.

The hydrogen solutions developed by EODev have many advantages over traditional installations, particularly diesel, but also "all electric". Beyond the zero emission and zero noise environmental objectives, the compact design and reduced weight of a REXH2® allows total modularity while optimizing the response to energy needs.



## Living on board quietly

No matter the type of propulsion: wind or diesel, the energy needed for the hotel load on board the SAMANA 59 will be of electro-hydrogen origin, the objective being to be able to operate all on-board appliances, from lighting to the galley, and the air conditioning, without the need of a noisy and polluting diesel generator. It is thus the ideal solution when the boat is at anchor - allowing the passengers to enjoy the sea and swimming in total quietness.

In addition to a significant weight, and therefore energy consumption, saving, the advantage of the hydrogen-electric combination in comparison with a 100% electric system, is to allow the management of the energy needs depending on the use, thanks to the continuous power of the fuel cell, while being able to instantly use the batteries for occasional peak power requirements. The hydrogen powering this system is compressed and stored at 350 bar, the standard pressure used by hundreds of buses around the world.

## A hybrid technology with a record energy density

In this first configuration, the SAMANA 59' will have a REXH<sub>2</sub>® able to supply up to 70kW and a 44kWh LiFePO (Lithium Iron Phosphate) battery approved for maritime use, designed by EVE Systems and Alternative Energies. The hydrogen system will consist of a battery, its cooling system, a distribution board, the hydrogen supply line, and a tank with a capacity of 7.5kg of hydrogen. If necessary, depending on the user profile, additional tanks may be optionally integrated into the boat in order to offer extended range. The overall management will be ensured by an automated Power Management System specifically developed by EODev, which calculates the remaining range according to the user profile, in the same way as in a car.

The absence of moving parts in the fuel cell will guarantee simplified and predictive maintenance, for a service life of at least 15,000 hours. Finally, the REXH<sub>2</sub>® being a "plug and play" solution, there will be no need to be a hydrogen engineer to operate the boat. As in modern cars, the system will be fully automated and connected, with data from all components being collected and archived remotely.

The first SAMANA 59' equipped with EODev's technology will be launched at the beginning of 2022. Fountaine Pajot will thus be able to test the entire system in real conditions on boats which are intended to sail over long distances, in order to improve their autonomy without reducing their environmental performance or the space available for life on board. The next step will be the integration of EODev systems in other units, with different sizes and user profiles.



*We are delighted that a French shipyard has decided to take the plunge. Trusting our solutions is one thing, convincing that they are accessible and relevant for the yachting market is another, while many continue to rely on diesel generators 'because it is simple and cheaper'. It is thanks to collaborations such as the one with Fountaine Pajot that the acceleration of the energy transition in the maritime sector will be achieved more quickly. And it is urgent. Fountaine Pajot's response is up to the challenge, and the long-term vision offered by the shipyard is the perfect demonstration that the future of the sector is being shaped now. »*

**Jérémie Lagarrigue, CEO, EODev**



*In the context of environmental transition, which is an integral part of our 2024 strategic plan, Fountaine Pajot is demonstrating here its positioning as an innovation platform. The choice of EODev's technology is the illustration of our desire to bring together experts in solutions that benefit everyone, and to give substance to our ambition to achieve zero carbon emissions by 2050, whether for the production of boats or their use. We are proud and happy to be among the pioneers, and are eager to take further steps in the deployment of clean solutions. »*

**Romain Motteau, CEO, Fountaine Pajot**

## About EODev

Created in March 2019, EODev (Energy Observer Developments) is the result of the unique experience acquired on board Energy Observer: the first clean energy self-sufficient hydrogen ship, developing innovative solutions for the environment. The company's mission is to accelerate the energy transition by offering sustainable, reliable, efficient, and affordable industrial solutions. EODev's expertise and products address the entire energy value chain with zero-emission hydrogen power generators for land (GEH2<sup>®</sup>) or marine and river (REXH2<sup>®</sup>) use, and mobile floating hydrogen production and refueling stations (STSH2). In addition to its industrial activities, EODev supports its clients in the design of customized solutions for a successful energy mix thanks to its energy consulting department: Energy Designer, and facilitates the deployment of hydrogen mobility with its H2360 application. EODev's recent fundraising and the signing of partnerships with leading industrialists have enabled the company to launch the industrialization and marketing of these innovative solutions.

## About Fontaine Pajot

Fontaine Pajot has been involved in sustainable development for more than 15 years. Today, our Group has entered a new dimension of environmental commitment. So, with the design of this model and the next ones that will be launched early next year, we are taking one more step towards reducing the impact of our sailing catamarans on their environment.

Sailing towards the horizon, without constraints and in complete freedom: this is the valuable approach we want to continue to share with our Owners. Today, more than ever, we are combining our energies to wear high the colors of the Fontaine Pajot brand by offering a unique sailing experience in harmony with nature.

## About the RexH<sub>2</sub><sup>®</sup>

With a footprint of barely one cubic meter, the REXH<sub>2</sub><sup>®</sup> equipped with the latest generation of Toyota Fuel Cell (FC) is today, the most compact and efficient marine generator in the world in terms of power delivered. The R&D carried out by the teams of EODev and Toyota has enabled the REXH<sub>2</sub> to be perfectly adapted to the extreme conditions of the marine environment, while reaching powers of 70 kW per unit, and up to 1MW when stacked. This modularity and versatility make the REXH<sub>2</sub> the ideal vector for customized hydrogen solutions for propulsion and decarbonized energy supply at sea.

## About SAMANA 59'

A perfect alchemy of space and proximity, the Samana 59', the new 59-foot luxury catamaran and the flagship of the Fontaine Pajot shipyard, brings charm to life on board, with emotional power blending calm, luxury, and voluptuousness. Its large 27.5sqm cockpit, its foredeck and its modular area for sunbathing, its 30sqm flybridge - the largest in its category - or its large cabins create many opportunities for gatherings, in dynamic or soothing atmospheres. By encouraging moments of communion in its large, elegantly designed reception areas, or in its fully equipped galley, the Samana 59' epitomizes the French art of living, made of subtlety and *carpe diem*.

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