Case Study

Owners of High-Tech Serial-Hybrid Narrow Boat Go Green with Fischer Panda UK

Bellmarine electric motor and Fischer Panda generator solution is enabling quiet and environmentally-friendly cruising for Ortomarine-built 61-foot Hunky Dory





Before Mel and Phil Wood embarked on a new life afloat, minimising their impact on the environment was high on the list of priorities when planning the build of their 61-foot narrow boat with Ortomarine. The couple are passionate about protecting the UK's waterways and relished the prospect of experiencing all the benefits of going green, especially quiet cruising surrounding by beautiful countryside.

Hybrid drive boats are becoming increasing popular, as the technology improves and becomes more affordable. Owners can opt for a parallel hybrid system, in which the prop is turned by either the engine or the motor, while others select a diesel electric hybrid system or 100% battery system. The right solution for each vessel will depend on the type and size of boat, cruising plans and on-board requirements. Whether it is for a new build or refit, it is essential to find an experienced partner who will discuss individual needs and customise the best system to maximise efficiency and on-board comfort.

Mel and Phil first started talking to Fischer Panda UK at Crick Boat Show and, with the team's expert help, were able to find the right path to achieving their electric dreams – a serial hybrid system with a Bellmarine electric motor to turn the prop and a Fischer Panda generator to charge the batteries. Although all-electric was their original aim, they decided it was not possible for living onboard and cruising due to a lack of charging points on the canal system.

"To minimise our carbon footprint and environmental impact, it was important to find an electric solution to keep as close to zero emissions as possible to reduce air pollution, diesel fumes and noise, especially in locks. We wanted a serial system, an electric motor with generator back up, and Fischer Panda UK seemed the best choice for us due to the proven brand, reliable Kubota engine, small size, lightweight and quiet operation of the generator with acoustic housing, plus 5-year warranty."

Mel and Phil Wood, Hunky Dory owners





Providing complete system solutions for the marine, vehicle and defence sectors. Fischer Panda generators and systems; HRO, Village Marine and Sea Recovery watermakers; Dometic air-conditioning; Mastervolt power electronics; CZone digital switching







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Named after the owners' favourite David Bowie album, Hunky Dory is notable both for its advanced technical fit-out and also for its striking all-white exterior, dark blue detailing and unique sign writing, complete with stick figures. Mel and Phil selected builders Ortomarine because of their reputation in electrics and electronic controls. The boat is unusually long, but still able to navigate to Leeds, Liverpool and the Yorkshire Ouse.

As reported in Canal Boat magazine's test, Hunky Dory's Fischer Panda UK-specified serial hybrid system and everything needed to drive the boat is in the engine hole under the back deck. The solution features a large 48-volt electric motor by Bellmarine, enabling Mel and Phil to cruise and explore widely, providing 10kw of power, with a 15kw burst mode. The Fischer Panda UK sound-proofed 12000x PVMV-N generator vehicle set (suitable for keel or skin tank cooling) is rated at 12kva and can be activated from inside the boat, from the stern deck or from a mobile phone.

Fischer Panda UK also specified 24 lead carbon batteries by Leoch Battery UK, which total 1000Ah at 48 volts, allowing about seven hours' travel on one charge. There is also a huge solar array on the boat's roof, with 12 panels, each of 160 watts, for a total of 1.9kw. The all-electric boat also has a 10kva 48-volt Victron inverter charge for a 240-volt supply. There is also a VETUS brushless 65kgf bow thruster.

According to Canal Boat magazine: "It goes without saying that travelling under electric power is quiet. You can hear the prop through the water, and water rippling along the boat. Instead of a big Morse control, this boat has a very neat stainless steel control. On the column below is a touch screen which shows how much electricity is being used, and what proportion of the motor's power is being used. Even during our trip on an autumn day, the solar was putting into the batteries more than the motor was taking out. The generator can also be turned on using this screen. We tried it out during the test and it started fine. Once running, it's also pretty quiet."



"The Fischer Panda team took time to explain their product and then worked with our boat builder to deliver and meet our requirements. The generator performance is good and quiet when running, better than expected, and we are happy with the overall performance. We recommend Fischer Panda products as good quality and reliable, and also recommend electric. The power drive is very responsive, making the boat easy to manoeuvre."



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