Case Study

Fischer Panda UK's silent inland waterway cruising on live-aboard narrowboat

Fischer Panda UK's full-system capabilities and service support offering was chosen by narrowboat owner, Eric Cheshire when he began his project to renovate and install a reliable, cost-effective electric drive aboard 65ft Aqualine, *Valkyrie*.















Valkyrie was built and commissioned in 2014 and came into Eric's hands in 2017 with his vision of improving the boat to his personal specifications. Valkyrie has become the permanent home for Eric's life on the canal network so it had to meet the exacting standards and requirements to enable Eric to do this.

Eric began his search for a reliable and efficient system which included a generator and decent battery bank to power the motor. *Valkyrie* already had solar power of 1340watts in flexible panels mounted on the roof. After some thorough research, Eric was satisfied that Fischer Panda UK could supply all the items required for the retrofit and offer full support with any issues arising during the project. After a meeting at Crick Boat Show, Eric progressed his plans with Fischer Panda UK's expert team, and the project was agreed.

The installation would be carried out in stages to give time for Eric to to research, prepare and test at each step.

"The ability to have almost silent cruising became an option that I could not stop considering. I had become aware of the increasing amount of narrowboats electrically powered, an attractive option; no noisy engine or fumes and what would be far more pleasing when cruising the canals, on my own?"

Eric Cheshire, Valkyrie owner



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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Stage 1 Preparing the bow triangle window to accept water cooling radiator for the generator

Eric wanted to install the generator in the bow for balance, space saving and noise reduction. FP generators are world renowned for their sound efficiency. The generator selected contained its own water cooling system on a closed circuit much like a car, generators that pull cooling water from the canal are prone to system blockages from canal debris.

Stage 2 Convert and install the battery power to 48 volts

This stage included a new inverter, rewiring the solar for 48 volts, a new mppt and an Orion for converting 48 to 12 volts for the existing low voltage items on the boat. These modifications also necessitated the installation of a conduit to run the full length of the boat uninterrupted to allow for the power cables to run from the generator to the inverter. Time consideration was necessary to consider at this stage because once carried out, the existing diesel engine and it's alternator would no longer charge the 48 volts batteries, only the solar energy.

The final stage - engine refit

This stage included: removal of the diesel engine; trial fit of the electric motor; remove all unnecessary components from the engine room; relocation of some items; complete repaint of the engine room and install of the new motor and operation controllers. Valkyrie was now ready to dry run the motor ahead of relaunching back into the water.

Along with his marina connections, Eric had Fischer Panda UK's support throughout the project which helped him consider each stage of the work in detail and eliminate potential problems before they arose.

Eric is now enjoying the canal network aboard Valkyrie with a few last modifications and additions planned; radio control for forward and reverse propulsion and left and right with the bow thruster, which will enable further simplicity when operating locks and make operation much safer.





"To any person considering a similar conversion, I would recommend Fischer Panda UK. Their knowledge and customer care/service has proven to be a huge help along the entire project, culminating in two visits to sign off and commission both the generator and battery/Victron installation and the electric motor installation."

Eric Cheshire, Valkyrie owner



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