

PUMP THE BOAT

Over last winter Team *White Magic* bit the bullet and Keith set about designing and installing an electric pump system. We wanted a system with enough battery capacity to run two in-line pumps simultaneously for up to 8 hours with enough battery redundancy to cope with the rougher sea conditions which can be found just about anywhere around the coast of the UK and Ireland. As we all know the Squib can ship a large volume of water particularly if there is a long sail to the race area and back to the marina afterwards and as we intended to completely remove the manual pumps, it was essential that we fitted a system which was up to the task. Adopting our usual OCD approach hours were spent testing pumps and batteries. Eventually we settled on fitting two Rule submersible inline pumps powered by an Exide lithium ion battery. The battery is lightweight and easy to use with a status monitor on top and fits in the bilge in a waterproof box.

Over the years we had improved the pump manifold by fitting plastic conduit at the lowest part of the bilge along either side of the keel box which we drilled with holes at about 1 inch intervals to ensure that the water pick up was as effective as possible. The electric pumps have been inserted at the front end of these pieces of conduit and the tubes from the bilge to the discharge points in the topsides replaced by smaller diameter tubing. Everything taken out, including all the paint and grit removed, was carefully weighed, as was everything we put in, and the whole exercise was virtually weight neutral.

The system can be operated via a switch on the centreline under the cuddy lip, or by the crew remotely while hiking. With a season of use behind us, including a couple of days with big seas at this year's Nationals at Torquay, the system has been thoroughly proved and works brilliantly!

PR Systems Marine Electronics supplied the battery and all the components. Contact Keith if you would like a kit (Kd Davies666@hotmail.com)

David Wines



