

GEAR UPDATE

NASA CLIPPER SPEED

It had to happen, something broke – and it was my fault. When we power-washed the bottom of *Ngairé* as part of the Micron Extra antifouling trial, we forgot to remove the NASA Clipper Speed paddlewheel and transducer unit. It was wonderfully clean when we finished, but it didn't work.

"You've probably blown one or both of the magnets out of the paddlewheel, or removed the resin sealing cap off the end, which means they won't work," said NASA. "All you want is a new paddlewheel and retaining pin." Somewhat relieved I ordered the new part – £4.50 plus p&p. It was delivered the next morning.



The tip of this magnet has been exposed...



...and in this blade it has been removed completely



The retaining pin is easy to withdraw with pliers



New paddlewheel and retaining pin ready to fit

On the paddlewheel, two of the four blades have ribs, which are actually small tubes. A minute magnet is glued into each and, as it whizzes round, it sends magnetic pulses via a chip in the transducer head back to the main instrument. What we had done was blow one magnet right out and stripped the protective coating off the other.

The replacement took 10 minutes to fit. Drive out the retaining pin with a hammer and fine spike then pliers; clean up and install new unit. This now records a tidal flow as low as 0.4kn. So, beware, some paddlewheels won't withstand power washing. Funnily enough, though, the same unit on Colin Jarman's old boat was undamaged by similar treatment.

Other than this, the Clipper instruments have all performed reliably, have been easy to operate and adjust and, with their red night-vision-saving backlight, are first class at night.

Garth Cooper