



# Michael Horsman's e-bike

*Lacking the energy for long tours due to age and disability, CTC member **Michael Horsman** had some extra power bolted to his bike*



● Rather than buy a new e-bike, Michael adapted the one he had

Cycling had become increasingly hard. I'm in my mid-60s and suffer from Hereditary Spastic Paraplegia, a nerve degeneration condition that is reducing my control of, and power in, my legs. I can't run and I walk with difficulty, but I can still cycle. Over the last decade, I have cycled thousands of miles in Britain and abroad. The long touring rides that I love were getting much tougher, however.

My wife made it clear that if I wanted to continue as a touring cyclist, I had to get an electrically-assisted bike. I didn't want to invest in a new, unfamiliar and possibly heavy e-bike, so decided to get my own bike adapted. A firm called Saddlesoar fitted a motorised front wheel and a lithium-ion battery-pack on the rack. The rest of the system was simple: wiring and a throttle.

I experimented with the new e-bike and found that, so long as I used the motor as a

supplement to pedalling when extra power was needed – climbing hills, for example – the battery would last about 40 miles. I was contemplating daily rides twice that long so bought a second battery.

I got the modified bike in mid-July, ready for an Italian tour at the end of August. I cycled 864 miles in 14 days with Bike Adventures, riding from Pisa in Tuscany to Catania in Sicily. The trip went well, despite 40-degree temperatures, lunatic Italian drivers, and some badly surfaced – and sometimes unsurfaced – roads.

Along with 40 others, I made it all the way to Catania. As we rode for up to 80 miles

**“As we rode for up to 80 miles a day, I took two batteries, carrying the spare in a pannier”**

a day, I took both batteries, the spare in a pannier. I changed to the second battery when the first ran out. This meant that if both batteries went flat, I had to cycle the last few miles with a deadweight of about 12lb. That was hard work, but it happened on only four days out of the fortnight and accounted for about 30 miles in total. Every night, after the day's riding, the batteries were charged up in my room.

The electrics were amazingly robust. In addition to the general problems of the bad roads, the temperature, and the crazy drivers, I had two crashes. The first time, I hit a pothole; the second, I was knocked over by a nutcase on a scooter. The electrics didn't falter. Nor were they fazed by steep hills. This performance was particularly good given the relatively low weight of the batteries. The plastic housing holding the batteries was a lot less robust. It cracked first and then tore off the rack altogether. I made do by strapping it back on with tape and luggage straps.

Saddlesoar have since sent me a new plastic casing and I'm happily buzzing around England again. I still use tape and straps for extra security now. But apart from that and some corroded electrical connections, which have had to be replaced, the e-bike is going well. I can now hope to extend my cycling life for years to come, which not long ago looked very unlikely. ●

## Tech spec: Michael Horsman's e-bike

**BIKE NAME/MODEL:** Handbuilt by Velo Ecosse of Edinburgh. Modified by Saddlesoar. **FRAME & FORK:** Aluminium frame. I changed the original carbon fork for a steel one, as I was apprehensive of the effect of motor vibration on carbon fibre. **WHEELS:** Standard road bike rear wheel. Front wheel with motor supplied by Saddlesoar. **TRANSMISSION:** Although it's a road bike, this uses mountain bike derailleurs, chainset and cassette to give me a wider range to help with my disability. **BRAKES:** Standard sidepull brakes, which seem adequate since the motor won't take me above 15mph. **STEERING & SEATING:** Standard **ACCESSORIES:** Pannier to carry spare battery! **CONTACT:** Saddlesoar 01903 816173, [enquiries.onyourelectricbike@gmail.com](mailto:enquiries.onyourelectricbike@gmail.com)

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