Tech Briefs

Electric Assist Kit Fits Inside Stealth Seat Tube

WORGL, Austria—Gruber's electric-assist, 200-watt motor is designed to fit within a 31.6-millimeter seat tube and drive a custom Hollowtech II-style bottom bracket axle through bevel gears. As long as the seat tube is straight and meets the bottom bracket shell close to the middle, the system will work. Since the system drives the crankset, it integrates seamlessly with a bike's drivetrain. The motor assist is turned on and off with a switch on the end of the handlebars. The entire drive unit—motor, transmission, electronic control—weighs about 900 grams (two pounds). The NiMH battery weighs 1,700 grams (3.75 pounds) and fits into a conventional saddlebag. A modified Truvativ or Cane Creek seatpost integrates the battery and on/off switch with the motor unit. According to the company, the system is able to provide electric assist for 45 to 90 minutes, depending on the load. Gruber is currently testing its system with carbon fiber seat tubes.

Shimano Tool Simplifies Di2 Troubleshooting

IRVINE, CA—Owners of bikes equipped with electric Dura-Ace, Di2, can scoot into their nearest mechanic for a plug-in diagnostic test with Shimano's SM-EC79 tool. "It's a quick and easy way to troubleshoot any issues that are not related to adjustment and isolate a component or wiring harness," said Devin Walton, public relations manager at Shimano. But the tool also has the ability to reprogram the button functions for the shifting, so a rider could re-assign the buttons to shift in a configuration that is most suited for them. "Naturally, the shifters come from the factory set up to most closely mimic the mechanical systems," Walton said. With a suggested retail of $430, Walton doesn't think the tool will appeal to garage mechanics. But dealer cost is much lower. The tool makes any Di2 warranty returns easier since Shimano says it provides a definitive diagnosis. "We could have integrated some sort of mileage-related system warning, but the best indicator of service is if the bike is shifting well or not, so we decided not to go that route for now," Walton said.

Zinn's Breakaway Stem Ideal for Bike Travel

BOULDER, CO—Nothing frustrates Lennard Zinn more than having to fiddle with handlebars or forks and headsets when traveling. Since he's known for offering up to four S&S couplers on his tall traveling bikes, why not add an S&S coupler to his traveling stems? "Anyone who travels with their bike knows the problems of taking handlebars out of the stem. It's hard to get at bolts with cables and computer wires running everywhere, easy to lose the bolts in transit or strip them when attaching the bar again, ruining a trip. And it takes a short ride to get the handlebar back to where it was," said Zinn, founder of Zinn Cycles. Sliding the stem off the steerer is no better. Not only does the headset need to be properly adjusted again, but it's easy to lose spacers, and the bars have to be realigned with the wheel. With Zinn's S&S coupled stem, users only need to tighten the connector and go—handlebars are where they should be. The custom stems cost $875 in titanium and weigh 250 grams for 110-millimeter length. Steel versions are $575. "I just built up a stem for Scott Molina with two extensions—one for a drop bar and one for his aero setup. It makes everything so quick to set up," Zinn said.