THE PACE RESEARCH RC-100 -THE ULTIMATE TERRAIN BIKE?

Now that All Terrain Bikes have proved themselves to be the fastest growing sector of the bike market, the chunky-wheeled monsters are a familiar sight everywhere, on city streets and out in the roughest country. But just when you thought you'd seen every shape and size of ATB, along comes a brand new one with revolutionary looks and a specification that rewrites the book: the Pace Research RC-100. This is the bike that swept the board for Madison at the 1989 Cyclex prize-giving - and the story behind it turns out to be every bit as unusual as the bike's appearance.

Adrian Carter and Duncan Macdonald are motorcycle enthusiasts, specialising in cross country competition. In their enthusiasm for the sport they got into the habit of training with mountain bikes.

"MOUNTAIN BIKING AND CROSS COUNTRY MOTORCYCLE RACING ARE VERY CLOSE "

says designer Adrian Carter. "But the motorcycles we use are at a very advanced technological stage - we'd been spoiled by them and we wanted mountain bikes that would perform just as well". So Carter, in conjunction with engineer Macdonald, set about looking at the conventional mountain bike with a critical eye. Their early attempts to improve fork performance soon made them realise that piecemeal improvement was not the solution. "We decided that the only correct way to do it was to look at the complete machine " says Carter. "We wanted nothing less than a totally -integrated off-road package".

So in 1987 they set to work in their West Yorkshire factory. The outcome is the RC-100, a machine which advances ATB technology with four radical new features: a TIG-welded box-section aluminium frame; a fork and steering assembly of entirely new and improved design; a hydraulic braking system; and an American Bullseye crankset.

"THE BOX-SECTION TUBING RESPONDS IDEALLY"

The heart of the RC-100 is the aluminium alloy frame. The box-section tubing responds ideally to all the major stresses put on a bicycle frame - and by using a computer with a sophisticated stress analysis program, Carter and Macdonald were able to pare away selectively all unnecessary thicknesses from the tubing, leaving a frame of supreme strength and lightness.

A unique steering assembly (in which a one-piece stem goes straight through the steering head tube to be clamped by the yoke) allows individual fork-blade replacement - and greatly simplified steering head adjustment.

But perhaps the most dramatic difference is the integration of Magura hydraulic brakes. As Duncan Macdonald explains "We think that all bikes could eventually go over to hydraulic brakes. They started fitting them to motorcycles about five years ago and they've since become standard equipment."

The two-piece US-made Bullseye crankset - with its box-section crankarms and hollow axle - completes the basics of this highly unusual package. Everything else - from the Shimano Deore XT

Hyperglide system to the carbon-fibre seatpin - testifies to the uncompromising nature of the Pace Research machine. But as Adrian Carter says "We tried not to re-invent the bicycle - we just wanted to take the best aspects of the traditional design and

AVAILABILITY

The Pace RC-100 is expected to be available later this summer. Specified as illustrated it is likely to cost about £1400. Less expensive, more standard component specifications may also be available. Please ring Mike Groves (our bike sales manager) for further details.



bring the best possible technology to bear to make the ultimate ATB". And what about the prize-winning machine's appearance? "Well," Carter adds, "if you try to solve a problem in a professional way using the very best technology, that process somehow pervades the machine. In the end, it just looks right".