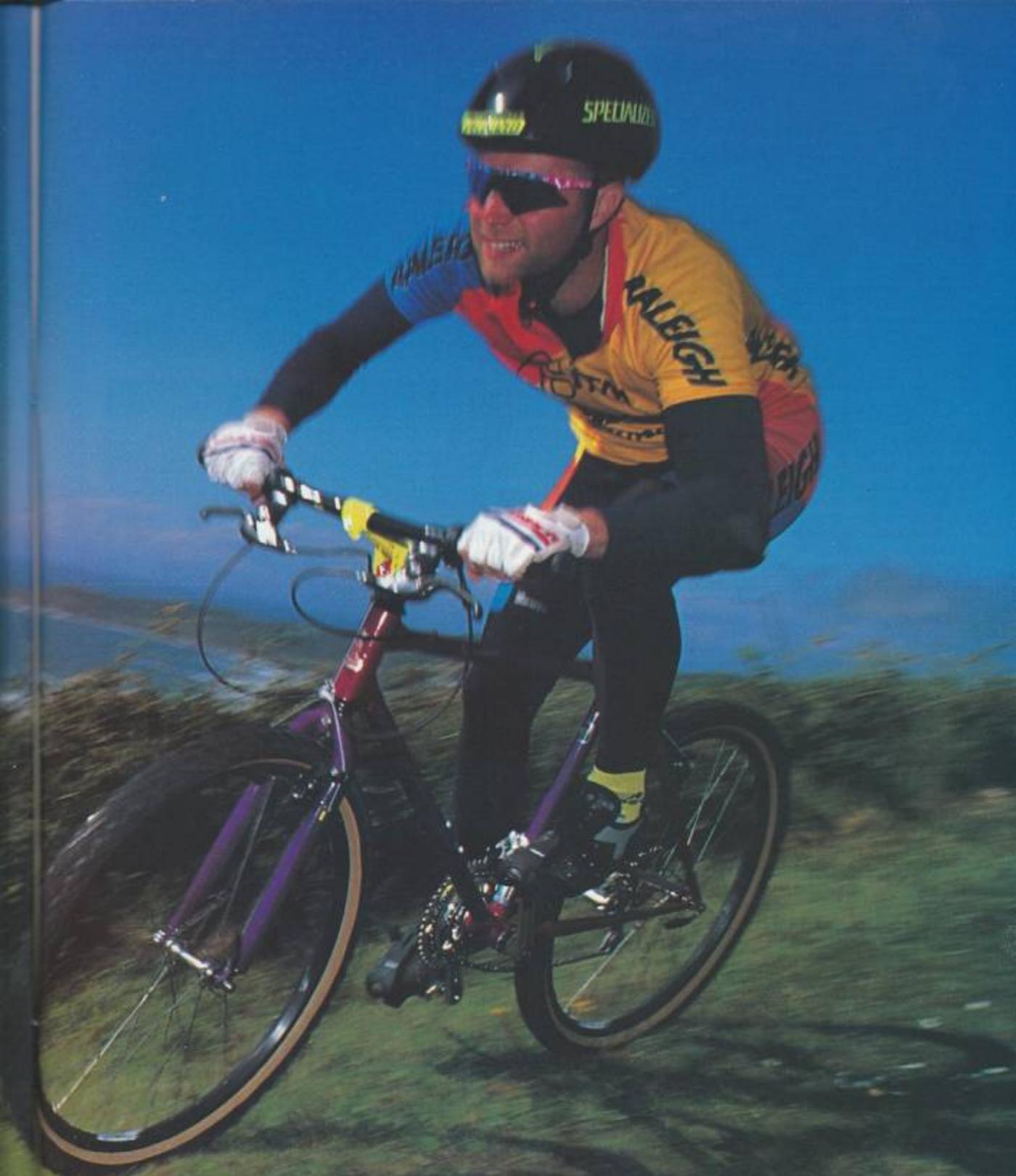


DYNATECH



RALEIGH ENDEAVOUR

Raleigh's Dyna-Tech process of bonding frame tubes into bulge-formed aluminium lugs is now into its second year and moving ahead apace. Huw Williams takes a look at the top of the range Endeavour. Pics: Geoff Waugh.



For a company whose reputation is based firmly in tradition, Raleigh's departure into the world of Dyna-Tech was both adventurous and welcome. Just over a year ago you would see a

lot of Raleighs on the street - they've always been masters at cornering the low end market - but now, thanks to Dyna-Tech, you also see them where they belong, in the dirt, on the trails and increasingly at

race venues.

The theory behind Dyna-Tech is simple: bonding tubes into lugs at a temperature of 200 degrees C does not affect the tensile strength of the tubes to any significant degree. Other forms of

frame assembly (ie, brazing) require such extremes of heat that up to 20% of the inherent strength of the tubes can be lost in the joining process. This allows Raleigh to make stronger frames without

going way over the top in terms of extra weight.

If the theory is simple, the realisation of it has proved complex, with the Special Products Division at Raleigh spending much time and money in exploiting the latest in adhesive technology to hold the frame together under the pressures of off-road riding.

On removing the Endeavour from its box I was struck by its weight - our test model tipped the scale at an ounce or two over 29lb. In this price range the Endeavour is competing with many top-end lightweights and that is just too heavy, but Raleigh are working on this.

The race team has always proved an invaluable testing ground for Raleigh and having recently examined Caroline Alexander's bike - a later model - a trimming off of significant amounts of weight is on its way.

The bike has a beautiful deep purple and maroon finish which reflects every bit of its cost. Closer inspection soon reveals a machine geared to high performance. A forward mounted Q/R seat binder, no carrier eyelets. The half chainstay bridge of some Dyna-Techs, which acts as a mudguard rest, has here been omitted. A Girvin Flexstem and Campagnolo air cushion saddle (pump supplied) extravagantly finish off a bike aimed at some serious off-road competition.

The top tube is not too long at 21.5" and, combined with head and seat angles of 71 degrees, the riding position is not as stretched out as some, but you do feel very balanced and shifts in bodyweight are easy, especially off the back.

The chainstays measure in at 16.8" and in a layout utilising wishbone seatstays and back end is nice and flex free for good climbing performance.

The groupset is Campagnolo Centaur with Bullet Grip Shifters which look the business and cut down impressively on the mass of spaghetti, hanging off the front of the bike. But left me with serious misgivings about the performance.

Although the chain moved smoothly enough across the rings both front and rear it was the difficult to achieve the change at the handlebar mounted Twist Grip. Under heavy riding conditions the amount of work needed to change gear was alarming and on a couple of occasions both hands were required to change

up at the front (don't try that one at home). Despite a trip to my local mechanic where we cleaned, lubed and tweaked the whole system, improvement was only marginal. This is the last thing you need when racing as all your energy and concentration should be aimed at propelling the bike forward.

When the mud started flying and the whole groupset was drenched matters deteriorated further and a couple of hard training rides were sadly interrupted by the problems.

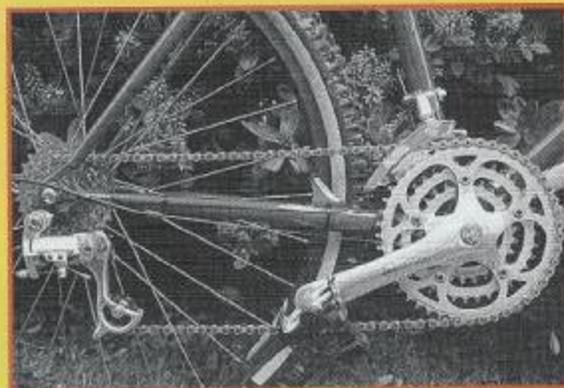
Elsewhere in the groupset the brakes provided excellent stopping, and look very smart as both lever and block ends. All cabling is neat, slotted and direct enough to give quick response.

As you would expect from a Reynolds steel-framed bike which has not lost its strength due to heat processes the ride is plenty stiff and the trade-off against the weight is the impression of stability and durability that the frame imparts when ridden. The massively oversized aluminium lugs create joint areas so large that the stress at the front end is spread wide and therefore less damaging.

Combined with the Flexstem, which nicely offsets the harshness of the ride, you get the impression of a bike which will handle anything and after only a few minutes familiarisation I felt confident and safe at high speed thrashing.

The straight blade tapered forks are strong, giving instant and accurate steering response. In conjunction with Trail and Mud Dawg tyres on Campag's excellent 32 hole Thorr rims the bike has a nice balance between drive and grip. It will fly over the ground while retaining good manoeuvrability.

Conclusions
At £1,395 the Endeavour is aimed at the serious rider and the shortcomings of the groupset at this price are difficult to accept. The frame however is excellent, so you might consider the £975 Odyssey which has an XT groupset but no Flexstem. Spend the difference on your preferred form of suspension and you will have a fine bike indeed.



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