

# tech talk

Dave Yates comes up with the business for time trials with his 653 — a bike Luke Evans is happy to call superlight



HOW light can you make a frame built with a mid-price conventional steel tubeset? That question was put to Dave 'have a go hero' Yates sometime last year and, after a few time trial and road race excursions, it now rather urgently befalls your correspondent to pronounce on the Geordie man's answer to the question.

First off, out of the box as a frame and then fully built up, the Yates 653 Superlight is a cracker of a bike with a slow-burning appeal that derives from a blend of traditional frame-building craft and Campagnolo's nicely sorted Ergo Power equipped '97 Athena groupset. With a lightweight pair of 28-spoke sprints, tubulars and Hope hubs, the result is a machine tipping the scales under the magic 21lb.

As you may have guessed, the frame is built with Reynolds' trusty 653 tubes. The poor stuff's been criminally upstaged just recently by lightened oversize and exotic steel newcomers from lands afar but its mix of 531- and 753-derived tubes are ballpark light, of standard size and more resistant to knocks than most. There is no 653 Superlight, ahem, I made that one up myself and I reckon it suits the complete bike which has a slightly Eighties, retro service course look to it.

Lugless usually means creamy-fat, seamless joints — nice to look at but with a weight penalty over TIG-welding

in the fillet material required. To save the half-pound that is the difference between this and a standard lugless frameset, Yates laid a lighter, smaller fillet, leaving the joint looking halfway between TIG-welded and fillet-brazed. It's not as smooth as a normal lugless joint but the result is race-ready functional.

Seat stays are shot in to the pinch bolt lug, the bottom bracket shell lugs are cut away, and the tubes then brazed in with a substantial fillet. Yates reinforced the head tube with thin waisted sleeves to leave just enough meat for the headset top and bottom, and filed away material from the dropouts. All contribute to a frame-without-fork weight of about 1620g, only 70g more than a recently-tested TIG-welded frame built with the much lighter Columbus Nemo tubeset.

If you're wondering whether all that dieting results in a frame with plasticine joints, relax. Despite Yates's reservations concerning the wisdom of lightening work — 'to finish first, first you have to finish' is his motto — it's plenty stiff, there's little or no effect on a frame by such lightening work, and the qualities of Reynolds 653 — light, strong and dent resistant — are unaltered. Handling is secure, even around a tight crit circuit, and on the hills you thank Yates for all that extra work.

As with any weight-conscious bike project, care was needed in the choice of wheels, and a handbuilt pair of 28-spoke sprints from Paul Hewitt Cycles looked to be just the ticket. Sprint rims by FIR with stainless spokes crossing three laced to British-built Hope hubs are significantly lighter than the deep rim Campagnolo Zondas which came

with the Athena groupset.

As a habitual clincher user it pays now and again to remind oneself just how great tubulars are. The feel-good factor registers a 10 when you roll along on a zingy pair of pliant tubulars, like the Vittoria Atlantis fitted. These are a cheaper, vulcanised version of the Atlanta Gold CS tub as used by the kind of rider who gets them free. In yellow the Atlantis are certainly eye-catching, although a puncture on their first outing put paid to a more public showing. They were replaced with a pair of all black Clement Solos — like a Criterium but with vulcanised sidewalls. They looked great on Laurent Jalabert's yellow LOOK bike and they are the absolute multinational blitzz.

Apart from one less sprocket and the relevant bits and bobs, Campagnolo's 1997 Athena groupset is the same as this year's nine-speed gruppo. It doesn't shift with the uncanny managed precision of Shimano's equivalent but riders who remember friction shifting will appreciate Campag's more earth-bound tactility. The brakes, too, have a weightier feel than their far-eastern cousins — you can bang them on without fear of an immediate lock-up in other words.

On anything but the smoothest, flattest roads I found the Zonda wheels too stiff and, at the rear at least, too heavy in the rim. Each wheel has just 16 bladed spokes, all radial, except the gear side which crosses once. They are almost exactly the same as the original Shamal, Campag's top wheel at the time. The stiffness is primarily in the rim, which hardly gives at all and transmits every hit right up through the

## information

**MODEL:** Dave Yates 653 (Superlight).

**MANUFACTURER:** Dave Yates

**DISTRIBUTOR:** Dave Yates

**PRICE:** £450 (Joe Waugh Gold Metal 631) plus £150

**WEIGHT:** 9.25kg (20.3lb)

**FRAME:** Reynolds 653

**FORKS:** Reynolds 653

**SIZE RANGE:** Custom

**GROUPSET:** Campagnolo Athena '97

**DEVIATIONS:** seatpost

**GEAR RATIOS:** 53/39 with 13-23

**RIMS:** FIR Mizar

**TYRES:** Vittoria Atlanta

**BARS:** ITM Pro 260 Anatomic

**STEM:** ITM Eclyse

**SADDLE:** San Marco Squadra

**SIZE TESTED:** 57cm

**B/B HEIGHT:** 27cm

**STANDOVER HEIGHT:** 93cm

**performance:**

**value:**

**for:** light, steel, low-key racer

**against:** harsh Zonda wheelset



frame to your hands and behind. Additional unwelcome weight is also carried in the rims and this makes them harder to accelerate as well as increasing the gyroscopic effect at speed, and making the steering feel weird at times. Use them for time trialling, but something lighter and softer is better for road racing and training, and better suited to the feel of the frame. Now that 653 is defunct, Yates would build a similar frameset using the new Reynolds 631 tubeset, with the work adding about £150 to the cost of a standard frame.

## bike test: Dave Yates 653