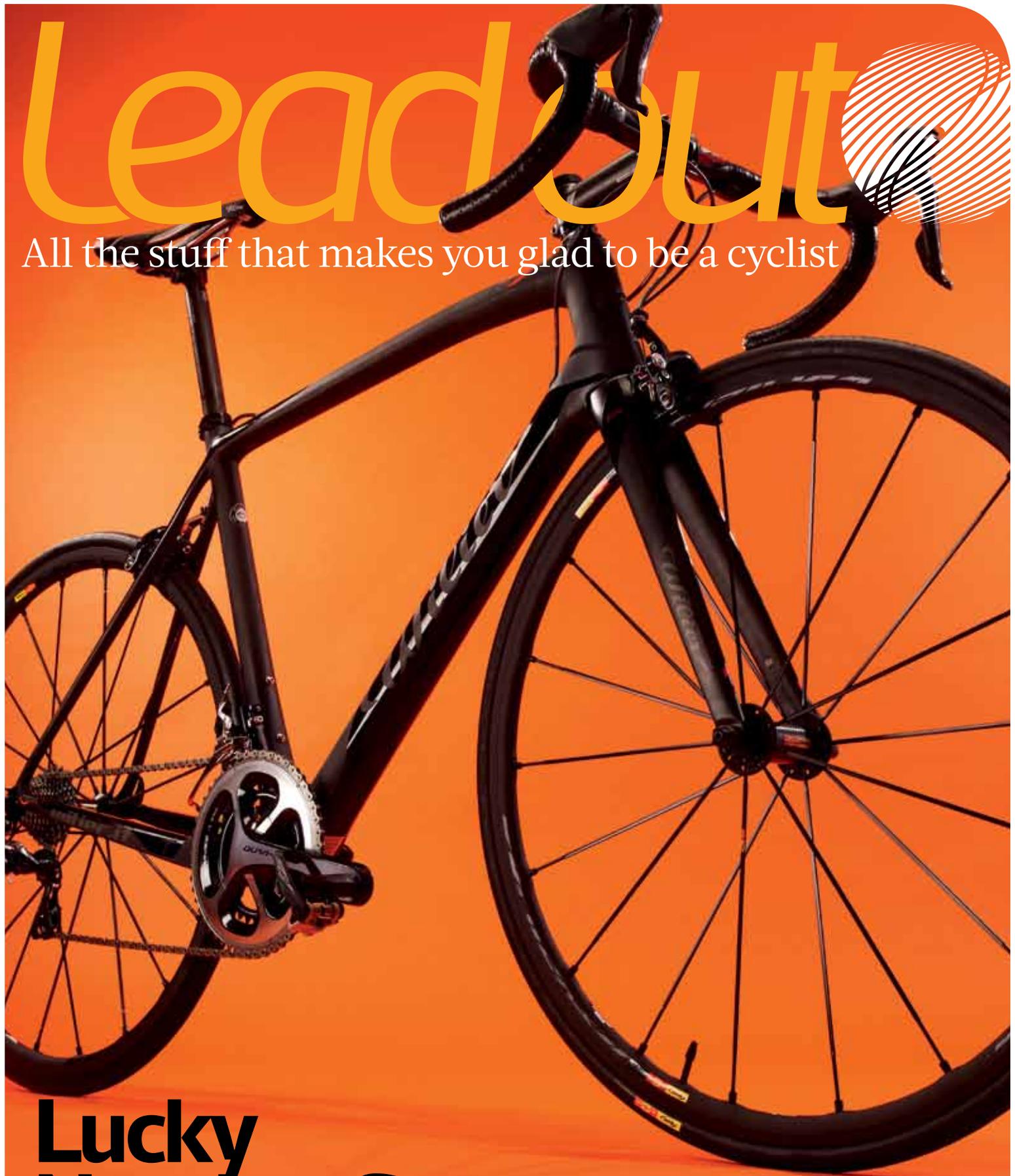


Lead out

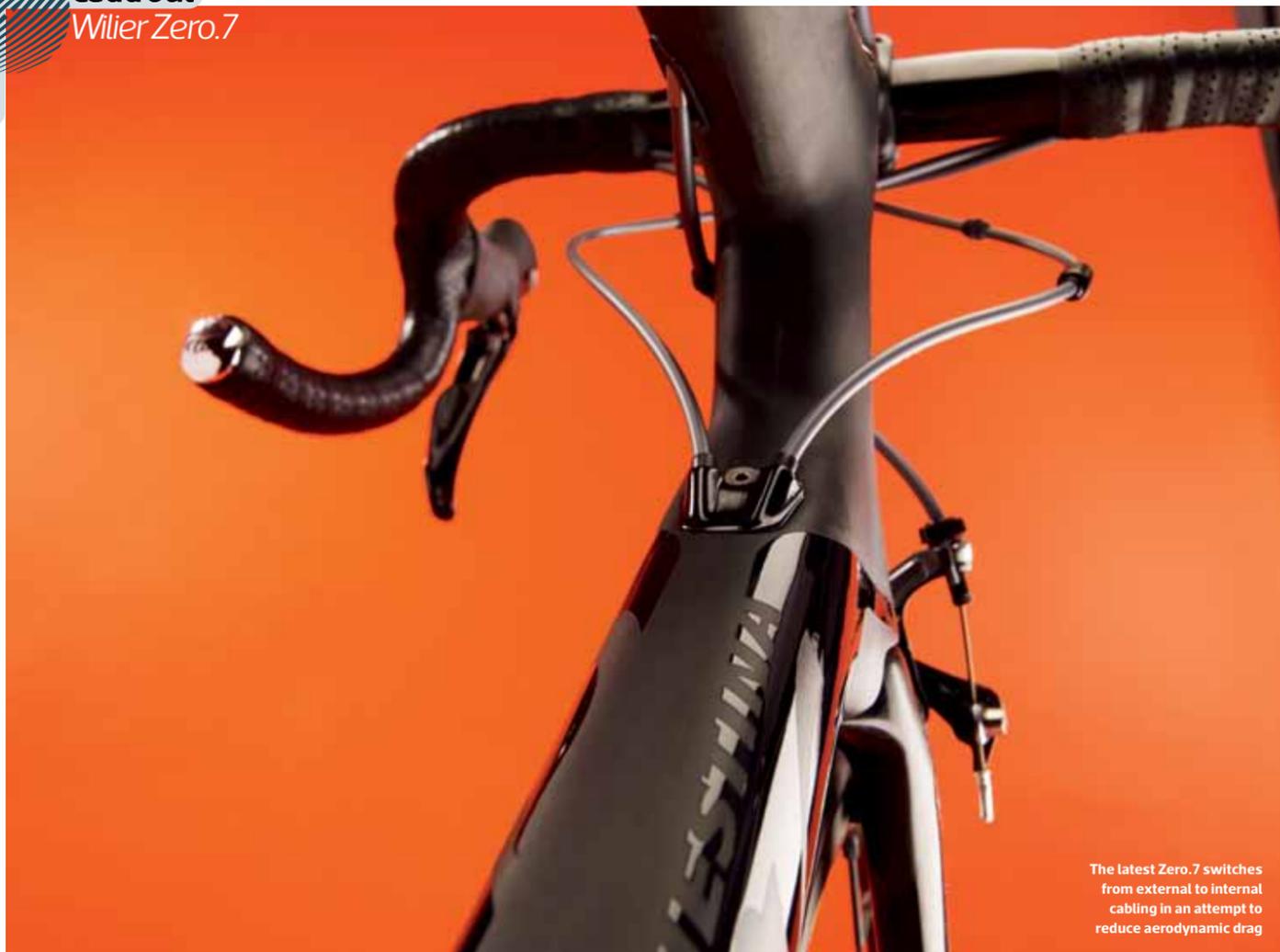
All the stuff that makes you glad to be a cyclist



Lucky Number Seven

Wilier updates its lightest bike to make it more aero... and even lighter ◦

Words **PETER STUART** Photography **DANNY BIRD**



The latest Zero.7 switches from external to internal cabling in an attempt to reduce aerodynamic drag

Of all the records in cycling, Wilier holds one that will probably stand until the end of time (albeit with an asterisk beside it). It was on a Wilier K2 that

Marco Pantani completed an ascent of Alpe d'Huez in 37mins 35secs in 1997. While it may be some time before a rider climbs the infamous Alpe in anything close to that time, it hasn't stopped the Italian brand from taking its flagship climber back to the drawing board in the hope of facilitating ever-easier ascents.

Most new bikes are touted as having either reduced weight or increased aerodynamic efficiency but, with its new Zero.7, Wilier is claiming to have both. Immediately obvious is the switch from external to internal cabling, a design feature that Wilier claims has played a big role in reducing aerodynamic drag. The cables for the front and rear derailleurs now enter the down tube in an 'inverted' fashion, curling around the head tube and disappearing into the top of the down tube, where before they clung to the underside. As well as being more aero, this approach does away with the common irritation of cable rub on the head tube.

Wilier has then used a cable guide at the bottom bracket to cross the cables over one

'The narrow head tube and arched top tube contribute to a more aerodynamic profile, and are perhaps a surprising addition on a bike that is mainly concerned with weight'

another, putting them back on the correct side. It might seem like a lot of engineering for a simple problem, but Wilier says the straighter cable paths make for cleaner aesthetics and smoother mechanical shifts.

Compared to the previous Zero.7, which used round tubes, the tubes on the new model have a more Kamm-tailed shape – like a teardrop with the sharp edge sliced off. The narrow head tube and arched top tube also contribute to a more aerodynamic profile, and are perhaps a surprising addition on a bike that is mainly concerned with weight. Generally speaking, introducing aero tube shapes and internal cable routing adds weight to a frame as a result of the extra material required, but somehow Wilier has managed to include all these wind-cheating details while reducing the weight of the frame to a claimed 750g (the previous Zero.7 had a claimed weight of 799g).

Wilier's Claudio Salomoni says the weight loss is thanks to a new production process. 'We have introduced an internal liner made of

a special thermoplastic material, into which an expandable bladder is inserted,' he explains. 'This internal liner helps to create a uniform and equal pressure along the inner carbon walls of the frame while it's being moulded. This means an additional cost to each mould, but produces a superior and lighter end result.'

Changing channels

Much of the new aerodynamic design has been borrowed from last season's Cento Air, Wilier's aero road bike. For example, the bike has inherited the 'integrated fork' aero design, which channels air underneath the head tube to smooth airflow and improve handling. More critical to the overall design of the bike, though, is the 'virtual head tube', which also comes from the Cento series.

'A long head tube is a good thing in terms of stiffness, but in terms of geometry there's a limit to how far you can push that,' says UK distributor Kevin Izzard. With that in mind, Wilier has loaded carbon behind the fork junction



to extend the depth of the head tube and consequently improve stiffness and handling without creating a tall overall head tube height. 'They call it a virtual head tube as all this extra carbon stiffens the head tube up,' Izzard says.

Wilier prides itself on the handling of its bikes, and has increased the stiffness of the Zero.7 fork to make further improvements.

The company has also targeted improved comfort, going as far as honing the sounds of the bike in motion. To this end, the bike uses an SEI layer within the carbon layup – a viscoelastic film that aims to dampen the buzz from the road. The film also increases impact strength and crack resistance. It's not new technology, and has transferred to the bike industry from aeronautics and motoring, but it firmly places the Zero.7 as a cobbles-compatible frame despite its undoubted climbing ability. Wilier claims the SEI layer, coupled with the new position of the cabling, reduces noise over rough terrain and contributes to the sensation of smoothness.

The new Zero.7, then, looks to be a very different beast to its predecessor. A decisive verdict on how it rides is scheduled for an upcoming issue of *Cyclist*.
Wilier Zero.7, £6,599, atb-sales.co.uk

Assos T.tiburu Shorts_s7

£159.20, yellow-limited.com

Sixteen years of meticulous tweaking, chamois-sculpting and Assos-Man posing preceded the unveiling of Assos's top-end S7 bibshorts, successor to the long-standing S5s. The S7 line-up began life a year ago with four options, ranging from expensive to *really* expensive, and now there is another addition to the family.

These new T.tiburu shorts are a heavier, winter-ready version, with a soft fleece lining and a water-repellent outer fabric to provide more comfort in colder weather. Other tweaks include the 'integrated front pad protection' system within the chamois, which means that while the pad retains the floating design of the S7 (it's not stitched into the shorts at the sides), there are even fewer stitched areas on the T.tiburu, meaning fewer seams and more freedom to move.

Then there's the 'BlasenSchutz' technology, which uses windblock fabric from the crotch to the abdomen. As Assos puts it, 'This ensures your bladder is not exposed to chilly winds, which reduces the need to urinate while riding.' They've thought of everything.

