

The Maker 35mm wheelset MANUFACTURER: Wheelworks; RRP: \$2700

Hagiographers of Team SKY often pinpoint the recruitment of trainer Tim Kerrison as the moment the team transformed from a poorly performing extension of the parent company's marketing department into a Grand Tour-winning juggernaut.

What's fascinating about Kerrison is that he's not a cycling guy, he's a physiologist. From his point of view there was nothing special about cycling as an athletic performance. Fundamentally, it required the same things as any other: a quantified, scientific assessment of what it takes, measured down to the Watt, of what is actually needed, to win a particular event.

So when he started with SKY, for an entire year Kerrison sat doing nothing but observing, measuring, calculating and acquiring rider data on a previously unexplored scale.

The specialised changes subsequently imposed by Kerrison on his team threw decades of assumptions and superstition about training methods onto the scrap heap. He was laughed at of course, right up until his riders started commanding Yellow throughout July.

Now after nearly a decade of producing hand-built wheels, Wheelworks of Lyall Bay, Wellington have developed their own in-house, still hand-built, wheelset - a carbon clincher called the Maker. The Maker is the inspiration of Wheelworks' founder Tristan Thomas. And while Thomas is most definitely 'a cycling guy', underneath all the lycra and Canadian geniality rests the mind of an engineer.

The result in my view, like Kerrison's entry into pro cycling, is that same thing you get whenever talented people who think differently apply themselves to old challenges.

Wheelworks describe the Maker as "the culmination of seeing what works and what doesn't".

They say: "We've studied the minutiae of each and every step in the process to minimize error and inconsistency..." Starting to sound familiar? Only instead of re-engineering rider performance, they've rethought the formation of hand-built wheels.

So how does the Maker wheelset actually ride? I tested the 35mm rims and they felt stiff, secure and invoked confidence. On the same bike they felt more solid and had less flex than a deeper 46 mm carbon wheelset from a well-known high-end brand. That level of security, in my view, can only come from the build quality and the attention to detail.

Each wheelset is made at Wheelworks in Lyall Bay. That enables Wheelworks to make some admittedly bold claims: "We have a lifetime guarantee on the Maker because we know it will last. You'll never break a spoke. Unless you whack something really hard, the wheel will never go out of true." They put the lifetime of the wheelset at about 50,000 kms. Should you ever actually have a problem, there will be an accountable, real staff member from Wheelworks to deal with directly. Not some online form and a call centre somewhere you've never heard of.

The Maker is also packed with the detail you expect from a set of hand-built wheels with custom designed rims: Each rim has angled spoke holes to direct the spokes towards the hub flange creating a more durable spoke. The rim width is molded precisely to make tyres easy to get off. God knows I've kicked and sworn my way through enough wheel changes on the side of a rainy highway to deserve that.

While other brands offer a supposedly aero angled rim, the Maker brake track on each rim is dead parallel to offer the strongest possible brake performance. Even the quick releases were redesigned in-house to produce a better clamping force with the least possible effort. Again, try prying one of those gawdy race quick releases open with cold hands in the rain and tell me the little things don't make a difference.

Having thrashed a pair, there can be little doubt that, in terms of performance, a hand-built set of Makers easily rivals the major after-market wheel producers. On top of that, you get to choose from a mind-bending list of options: Hubs, hub colours, rim depth, spokes, spoke colours, decals. Most buyers customize them with their existing or planned bikes and keeping their particular riding needs in mind. Plenty of guidance is offered if you are left unsure about what will work best for you.

And the result of all the attention to detail is an aesthetic that speaks for itself, just see some of the stunning pics on the firm's website.

Standing back, a company that offers a lifetime warranty on something as finicky as a wheelset must be a company that backs itself. Because, put bluntly, the cost of any failure to live up to such claims is going to fall squarely on them. However, having done my worst to the test wheelset, I get the feeling there aren't going to be many returns. JAMES MAHUTA-COYLE

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