

LIGHTWEIGHT NEWS - 23

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Back in the good old days, when men were men, I always used have the ends of my gear and brake cables soldered to stop the cables fraying. Being the world's worst solderer, I could start with a coil of solder and a join to make; within minutes I would have run out of solder with ne'er a drop on the wire or cable I was working on. I would by then, however, have the best pair of metal toecaps on my shoes which had caught all of the 'drips'! Luckily my father was a wireless 'ham' and could be press-ganged into sealing the cables. On reflection, this is about all he ever did for me as he was into amateur radio above all else, and I was into bikes so our paths rarely crossed. It does amaze me that I used to build up bikes from scratch using a handful of very basic (hammer featured a lot) tools I wouldn't give garage space to now.

Undaunted, I have tried to use my canny soldering skills to seal cables in this, my second childhood. Unfortunately my skills haven't progressed. I do wonder if an additional problem is that the new cables are stainless as I still can't get the ends sealed. Being a perfectionist I don't use the dinky little alloy caps which all new machines use, except on my new bikes of course.

I came across an interesting snippet in *Sporting Cyclist* of July 1959. It concerned an incident in the Scottish cycle racing world. Hector Mackenzie had been selected to represent Scotland in the Isle of Man 1952 Manx International race, one of the most prestigious in the UK in those days. Three of the team of five had represented Scotland before and so already had their national team jerseys. However, Mackenzie and Fred Davie were newcomers to the SCU team and were told to borrow jerseys from someone else and to make sure they gave them back as they weren't entitled to keep one, even though they both lost time off work and received no compensation for it. Both riders felt that this was not on and complained so they were promptly dropped from the team. Amazing to think that in this era international selection depended on the cost of a jersey.

Since the last newsletter we have been to the Hetchins and Granby Weekend which was run for the last time by David and Shirley Hinds at Kingsland near Leominster. Next year it will return to Tibberton on 9, 10, 11 July.

The weekend is a great time to meet old friends and new as well as having two days of well-designed rides to suit all levels. There was a broad range of Hetchins on show from 1937 to the latest models built by Dave Miller. We managed to join good groups for each of the rides we did although our 'group' on the Sunday consisted of just three riders as we were the only ones to tackle the 'King of the Mountains' ride in Little Switzerland – the name gives it away. I rode my Magnum Bonum on Saturday and a 1954 Mercian Vincitore with slightly lower gears on the Sunday. Patricia rode her 1970 Hetchins Spyder and was able to compare it with a later Spyder at the ride which was quite different as it had 'shot-in' chainstays that met the seat tube a few centimetres below the seat cluster. Patricia's Spyder has wrap-over seatstays. Although Patricia took a Gillott with mudguards she stuck with the Spyder for both days as it had lower gearing and better brakes for the steep hills on Sunday's ride.

Hetchins Weekend: Someone left behind a fine shooting stick/umbrella in the hall. If they contact David Hinds and can identify the colour and name of the sponsor printed on it he will return it.

Someone recently pointed out to me that the 1936 Holdsworth *Aids to Happy Cycling* claims that their Fiamme sprint rims are 'British Made Throughout'. It doesn't look like a misprint either.

I have often said that there are two types of classic enthusiasts, the ones who sincerely believe that nothing of any worth has been produced since the days of Chater Lea chainsets and hand-filed lugs, and the others who feel the same about the days of the classics as we know them but have also maintained an interest in cycle build and design as it progresses to where it is now. The former is exemplified by the collector who said, "why on earth would she want that", when he heard that someone's wife had acquired a state of the art new Colnago. Being of the second group my reaction was to throw my toys out of the pram and scream until I get one too. Having said that I have yet to ride a carbon fibre machine although I do own a titanium-framed machine,

Bearing this in mind I was delighted to get my hands a book entitled, *Custom Cycles – A passionate pursuit* published in Australia by The Images Publishing Group ([www. images publishing.com](http://www.imagespublishing.com)). This publication is a snapshot of custom-built cycles from around the world. It is a real coffee table hardback some 26cm by 26cm and is beautifully produced with fantastic images. Although it provides details of custom-built machines of today it is also an indication as to where the genre is heading with beautifully crafted steel, titanium and stainless frames. One builder even fashions frames from bamboo and has a workshop piled with carefully selected canes to suit the part of the frame built. See details at <http://www.imagespublishinggroup.com/>

Our local fast boy is Michael Hutchinson who lives just outside Cambridge and rides a lot with the Cambridge club although, as a sponsored rider, he competes under his sponsor's colours. This year he has won the National Time Trial Championships at 10, 25, 50 and 100 miles. Hutchinson's 100 time was a startling 3hours 27minutes 26 seconds although this wasn't the fastest time to date. In 2003 K Dawson recorded 3h 22m 45s. This got me thinking about outstanding records of my time. There was the first 4-minute mile in athletics taken by Roger Bannister with a team of pacers for the first three laps. The next big 4 was the first under 4-hour 100-mile out-and-back time trial by Ray Booty in 1956, this being 25mph+ for the whole distance.

Michael is now approaching the magic 30mph+ for the hundred mile out-and-back record but the time needed of three hours 20 minutes is not quite so romantic as the magic four hour target was. I guess the emphasis this time will be on the speed rather than the less newsworthy timing.

Enthusiasts looking for the history of classic lightweights often use what is now called *Cycling Weekly* as a research tool. This weekly publication was first published in 1891 and has used the titles, *Cycling*, *Cycling and Mopeds* and *Cycling Weekly*. It has always been the major seller in the UK and currently has a circulation of some 27,000 weekly copies.

In some ways this success has detracted from its use as a source of information. Usually one would find much information amongst the adverts at the front and back of the periodical. With its strong circulation figures the publishing company was able to demand high rates for this advertising and this resulted in most of the entries being from the producers at the mass-production end of the market. Ironically not many of the true enthusiasts purchasing the weekly would have had the slightest interest in what was being advertised but I suppose there must have been a number of new entrants to the sport who may possibly have started with such machines. One exception to this was Claud Butler who was large enough to justify this expensive advertising and often had half-page adverts. Most of the other smaller builders would have to be satisfied with a few lines in the

classifieds or maybe a small panel from time to time. To this day, *Cycling* is known to all cyclists as *The Comic*. I never found out when this started although it was many years ago.

Another problem with *Cycling* is that yearly bound volumes come onto the market from time to time and the bad news here is that many of the binders stripped the advertising from front and rear of each edition in order to get a one-year volume into one binding. A point worth remembering if you consider purchasing a bound set.

In 1956, Jack Wadley was regarded as one of the best writers on the cycling scene and he decided to produce his own publication, *J B Wadley's Coureur*. This was produced quarterly and came as a breath of fresh air to the world of cycling. J B W had a breadth of knowledge of road racing here in the UK and what is more on the Continent – this contrasted strongly with the rather fuddy-duddy outpourings in *Cycling* which spent a lot of its effort on the establishment –based world of UK time trialling and touring articles. You could look at a hundred images of racing in *Cycling* and never get a clue as to what machine the rider was using unless, of course, they were on Hetchins, Bates, Flying Gate or other 'unusual' machines. The main reason for this was the insistence of the NCU that the make of a frame must never be shown. If it was, the rider was liable to suspension from the racing world. *Coureur* was also printed on much better paper which allowed for greater detail in the images and it was possible to see what components were on the machines.

Sadly, Jack only managed to produce four of his quarterly magazines before being compelled to go in with larger publishers, partly due to a dispute over the name *Coureur*. He went in with the Charles Buchan Publication company and the title was changed to "*Coureur*" – *the magazine for the SPORTING CYCLIST* which was published monthly. Buchan also published magazines such as *Football Monthly*, *Sporting Record* and *Disc* (a musical weekly). I am always on the lookout for copies of Jack's first four publications and hope one day to compile a set. At the moment I only have a rather scruffy Autumn 1956 copy.

Jack's publications catered for a very specialist market and as a result never reached high circulation figures. Thanks to this, the advertising was much cheaper and many of the smaller lightweight builders advertised, making this publication a very valuable source of information as they often announced new models, components etc.

One such edition from November 1959 carried adverts showing that Merlin were at the same address as Bob Jackson (Jackson purchased the rights to the name), also that Rotrax were at Witcomb's address rather than at Southampton. There were also adverts from Ross Cycles, Fred Dean, Hobbs of Barbican, Uppadine, Southern, Carpenter, Ken Ryall, Duckett, Ted Gerrard, Allins of Croydon, Mal Rees, Rory O'Brien, Cyril Wren, Witcomb, Sid Mottram, Condor, Wilsons, Heylett, Holdsworth, Mercian and Carlton. This is in addition to several adverts from accessory manufacturers such as Constrictor.

Sporting Cyclist was published monthly until early 1968 when it was incorporated in with *Cycling* and entitled *Cycling and Sporting Cyclist* for a while but the name soon resorted again to *Cycling*. The *International Cyclist* then took over as the monthly colour magazine for cyclists with an interest in road racing from then on.

Oval Chainrings by Steve Griffith

I wonder if any other subscribers to LN have had any experience of oval chainrings. It is claimed that they improve pedalling efficiency by reducing drastically the dead centre which is particularly noticeable when climbing and thus an aid to hill climbing I had always viewed them as a fad and

merely in the case of Shimano Biopace a successful marketing ploy. However, I recently had an opportunity to try a number of oval chainrings and thought readers might be interested in my findings.

I trialled a number of different oval rings:

1. Elan, originally a French design from the 1930's sold by Cyclo in the UK. Only made in one size, 48t, which was claimed to be equal to a 44t round ring, i.e. you increase your gear without extra effort
2. Shimano Biopace from the early 90's (the shape a rounded rhombus)
3. Egg Rings: custom made oval rings (ellipse) by Highpath Engineering in Wales.

Oval rings date back to Victorian times (maybe a case of nothing new under the sun). In the 1930's there was also the Belgium Thetic, in the 1970's Durham in the USA, and in the 80's and 90's Sugino and Stronglight made them ,presumably to compete with Biopace

Using an oval ring for the first time feels strange, the pedalling feels uneven and distinctly odd. However, I found after about 10 miles this disappeared. I wouldn't claim the test was scientific but I sought to get up the same steep hill in the same gear using the different rings.

My conclusions were as follows. Biopace was a merely a very successful marketing tool and fails to improve pedalling efficiency at all. In fact I understand why a number of riders say they could not notice any difference at all. Presumably this is why Shimano dropped the idea in the early 90's. The Egg rings by contrast were a revelation: hill climbing became decidedly easier. The ideal would be to have the rings becoming more oval as they get smaller and indeed Highpath recommend this. I agree with Highpath's conclusion that Shimano's are designed incorrectly and indeed could reduce pedalling efficiency. The Elan ring I found improved hill climbing but much less than the Egg. Perhaps this was due to the ovality being less.

Oval rings can be used with a single speed or hub gear but this would require the use of a chain tensioner .

So will I be converting all my bikes to oval rings? Probably not even though Highpath will make rings to fit any PCD. However, I am seriously thinking of converting my touring bike to oval rings. If you do convert you need to consider gear capacity for your front mech as oval rings essentially demand a greater range.

Ref: Cyclo 1938 Catalogue p.44

Useful technical information on Oval rings can be found on www.highpath.net

Steve Griffith

TA Chainrings: resolving the confusion – another piece by Steve Griffith

I really rate TA. The chainrings have an incredibly long life and are still useable even when the teeth have been worn and sharpened to needle like points! Also they made odd size rings rather than most makers who just do even or popular sizes. The cranks were made in increments of 2.5mm from 160 to 180mm - no other manufacturer made such a range! This piece is a guide to the different chainrings

Chainrings

TA started making rings in 1948. Up to the early 60's the cut-outs were done by hand (look for the saw marks). The earliest rings have on the outside the French aluminium trade mark: 'forge duralinium cedegur' within an oval and the early TA logo, a chainwheel with T above and A below. Sometime in the 1950's the two were incorporated into one logo. On the inside of the ring is the size between: 'Made in' and 'France'. At some point, I think in the 70's, the cedegur trade mark was dropped. Due to lack of space many smaller rings are only marked with the size and 'Made in France' on the inside. More recent rings have the size on the outside and are marked 'Specialities TA'. None of the adapters are stamped at all

Double/Triple rings

TA made the following models with the inner(s) ring attaching by six arms to the outer:

1. Cycletourist 5 pin the most common for double or triple range 26 to 56, although large rings could be made to special order. Inner 80 PCD. Aimed at tourists but widely used by other riders.
2. Randonneur: 5 pin and 3 arm the standard continental size (Inner 116 PCD) for double or triple, range 36 to 43 inner and 44 to 68 outer.. Described as for club riders. These are the rarest rings to find. The 3-arm outers were initially made with six bolt holes so they could be used with 3 or 6-arm inners.
3. Criterium : 5 pin and 3 arms (Inner 152 PCD) for double or triple range inner 43 upwards and 47 to 68 outer. Described as for amateurs of all categories. Extremely unusual in the triple version as few riders would bother with a triple with an inner ring of 43 or above.

In the 50's TA developed the adaptor system aimed at Professional / Independent riders which enabled rings to be changed without the need to remove the crank from the bottom bracket, as is the case with the above rings. All adaptors are designed for 6-arm rings, the same as the Criterium inner ring PCD (152mm). The range of rings was also the same, 43 to 68. Adaptors were made from about 1953 as follows:

5 pin: single or double/triple

3 arm: single or double/triple

For all the above types the outer rings are countersunk on the outside, inner on the inside.

TA single rings:

- 5 pin 26 to 68, 3/32 and 1/8. NB all TA 1/8 rings are stamped on the inside with a '3'. Also inch pitch 20 to 34.

All single rings are only drilled for the crank attachment.

There was also a Cyclo X model which was a standard single 5 pin ring but with a protector disc bolted on either side at 6 points at 152mm PCD.

The larger size rings are useful for small wheel bikes, e.g. Moultons.

- 3 arm 36 to 68 3/32 and 1/8 and inch pitch 20 to 34

Crank identification:

1. Early cranks have the cedegur trade mark on the front and the rear of the pedal thread is blanked out except for a tiny oil hole There is no TA black and white transfer, the fluting is left bank.
2. Cranks marked W are British thread
3. Cranks marked G are tandem so check the pedal threads on these as all bar one right hand crank will be reverse threaded
4. Later cranks (90's) are marked BSC and a letter number eg F2 or M7. I think this is a year /month code but I am unable to confirm this.
5. The most recent cranks have TA laser etched on the front rather than the transfer. TA last made a batch of these cranks in 2007 for their 60th anniversary.

Starting in 1979 TA made a Campagnolo copy (144 PCD) marketed under the Tevano trademark, both cranks and rings.

Chainring bolts

These were originally acorn headed on the crank side but was changed to a flat 8mm bolt. The various types:

Ref 25 crank to outer/single ring

Ref 43 3 arm crank to single ring

Ref 64 inner to outer ring for Cycletourists, Randonneur and Criterium doubles

Ref 85 inner and middle to outer ring for Randonneur and Criterium triples

Ref 87 ditto for Cycletourist triple

Ref 62 for Professional doubles i.e. with Adaptor

Ref 84 for Professional triples

There was also a pair of extended bolts which fitted either side of the crank to prevent the chain jamming in the event of it derailing.

TA rings can be used with the Stronglight 49D cranks (indeed for many years this was the classic combination) although the TA bottom brackets are not always the right length. Zeus made a copy but annoying with slightly different PCD so the rings are not interchangeable.

TA was very closely associated with Ron Kitching in the UK, who to his credit imported the entire range. My 1970 'Everything Cycling' has a picture of Ron holding the smallest ring, a 26, and the largest a 100 made for a world record attempt on rollers. In fact the relationship was so close that Ron was able to register the TA trademark in the UK.

Some of Kitching stock was bought by Spa Cycles in Harrogate who still have a good stock of Cycletourist rings, cranks and bolts. Finally TA stands for Traction Avant ,an ill-fated attempt at a front wheel drive system.

References :

Ron Kitching: *Everything Cycling* is the best references. I have used 1963, 1970 and 1983 in researching this article.

Steve is looking to match some odd cranks and if you can help with the following it would be much appreciated, contact him at steve.y.griffith@royalmail.com

TA lefts: 165, 167.5 and 170 & right 170 early type with pedal back blanked out and cedegur chainring trademark. TA stamped Tevano left 170

Magistroni right hand 170. **Milremo** special course (name written in box) left crank 170

BSA plain crank left 165

Williams C1200 (thin) 170 x 2 left. Double fluted right 170 x 2

Pairs: Stronglight 49A (steel cotterless) and TA cotted

Illustrations



1st generation ring stamping (40's early 50's) 2nd generation stamping late 50's

The Red Kite Chilterns Ride - Sunday 20th September 2009

Organiser: Martin Vincent (01491 638307; 07737 146671; martin@vincent55.fsnet.co.uk)

Start and finish: Stonor farm, Stonor, Henley-on Thames, Oxon RG9 6HB

Time: Meet from 9:30am. Leave for ride at 10:00am.

A ride of about 40 miles for classic lightweights through the beautiful Chiltern countryside on mainly traffic free lanes. It is named the Red Kite Ride because of the great number of these impressive birds to be seen in the area.

For all 'classic' lightweights of any age.

We will meet from about 9.30am for tea and coffee at my house at Stonor and aim to leave at 10:00am on a figure-of-eight route through the Chiltern Hills. The ride covers different types of terrain including beechwoods, open farmland, a riverside towpath and a short stretch of roughstuff (this can be avoided for those with tubs).

This is obviously a hilly route but all the climbs are moderate. I have ridden the route on a single speed machine (66in gear) but multiple gears are strongly advised. If the hills are too steep or too long, we don't mind using the 24in gear - two feet!

Directions to Stonor Farm. From Henley, travel west along the A4130 for 1 mile (take cycle path if riding). Fork right onto B480. After 2.5 miles you will arrive at Stonor. Follow road through village, past Flying Pig pub (on right), and Stonor Farm is a white cottage on the left. It is about 300yds past the pub and is the last drive on the left before the minor road (also on left) signposted Maidensgrove.

The route:

Stonor - Turville Heath - Skirmett - Hambledon - Mill End - Henley
(TEA and COFEE STOP at Henley)

Assendens - Stonor - Maidensgrove Common - Swyncombe - Ewelme - Ipsden
(LUNCH at King William PH at Ipsden)

Stoke Row - Highmoor - Bix - Middle Assenden - Stonor