

Why Rohloff hubs?



Interview with Thorn's designer Andy Blance

By Anne Eggsbert

AE *Andy, you have designed some classic bikes over the years, I have respect for your ability to design a perfect frame for any given task, so I won't ask you too much about your frames but I do want to know why all of the new Thorn bikes seem to be designed around Rohloff hubs. You must feel very confident about their reliability.*

AB Yes, in nearly ten years and 30,000 hubs produced, Rohloff have never reported an internal failure.

AE *That's very encouraging but there has to be more to them than that. I mean fixed wheel is also very reliable, much more simple and much less money!*

AB I agree. If I was strong enough to ride the roads I wish to travel using fixed, I would be very happy... I take my hat off to all those cyclists in the past who managed to get to all four corners of the planet on fixed... I take my hat off and bow to all those who, given the choice of multiple gears, still manage to outperform me using a single gear. But I couldn't emulate them and neither could most of the rest of us. I have always used very low gears to climb... I need them but now, thanks to Rohloff, I don't need derailleurs any more! I have the same spread of gears and more usable gears with my 14 speed hub than I used to have with the 27 speed mountain bike transmission on my touring bike. What's more I can change from 1 to 14 on

a single shifter and I don't even need to be pedalling to do it!

Derailleurs with all their quirks and foibles, their mess, their vulnerability to damage, the need to buy a cassette, when all you really need is a chain, the way the required part always seems to be obsolete... I could go on, I used to use them... because I had no option. Now I have a better alternative... so I don't need them anymore!

AE *You make the Rohloff hub seem too good to be true. I will ask you more detailed questions later, but tell me do you see a future for derailleur gears?*

AB I believe that there is most certainly still a future for derailleur gears. Not everybody can afford £1099 for a Raven Tour, so there will always be a market for cheaper bikes... even though a Rohloff hub will cost less in the long run. I do mean long run; a service life of 80,000+ Km is the minimum you can expect! I can't imagine a Rohloff hub on a road racing or time trialling bike. The ratios on the Rohloff are slightly closer than the typical MTB-based touring bike but there are many cyclists who prefer a narrow overall range with even closer ratios, as obtained with derailleurs and road racing cassettes... I'm not one of them... I need a wide overall range of gears! Also many cyclists have become hooked on integral brake and gear levers on their drop-bar bikes; we can fit the Rohloff shifter to drop bars but it works best with "straight" bars.

AE *Yes Andy, I was going to ask you about that, I didn't think it was possible to fit the shifter to drop bars, are you saying that you've managed it?*

AB Yes we can fit the shifter to the centre of dropped bars... it is expensive and difficult to do and because the bars need to be $\varnothing 22.2\text{mm}$ instead of the normal $\varnothing 23.4\text{mm}$ we need to use a special bar, a big clamping shim and a length of hardwood dowel for good measure... it is also quite heavy! Not only that but the bars are not anatomic and there is a very long stretch from the tops to the hoods, supposing you are happy with

Rohloff twist grip mounted on Thorn's accessory bar, leaving room for a barbag, lights or computer



all of this, where do you put your computer, your light and your bar bag?

We can also fit the shifter into the end of a conventional dropped bar of the customer's choice, which may suit some people but the cable exit is not ideal, so the best way, in our opinion, of using Rohloff with dropped bars is to fit the shifter to an accessory bar mounted on the steerer. This is not ideal but it is much easier to reach than stem mounted levers or down tube shifters ever were and the use of an accessory bar gives you multiple options for computers, lights and bags.

AE *But you say you prefer "straight" bars for Rohloff... do you use straight bars yourself Andy?*

AB Yes, after 150,000 miles on dropped bars I have actually come to prefer "straight" bars. The bars I use were designed by my partner and cycling companion, Fiona... she is a Senior Physiotherapist and lifelong cyclist... her mother bought her a bike when she was eleven and told her never to ask for a bus fare again!

In fact all Fiona has done is to re-invent an old favourite, variously called the "North road bar" or the "Allrounder" or simply "Touring bars" in previous incarnations. The 18° degree sweep of the bars alleviates the wrist problems often associated with straight, straight bars.





Thorn's Carbon anatomic bar ends, only 44 grams each!

AE Are you happy to have just one handlebar position?

AB On my fast touring bike, I have mounted a pair of anatomic carbon bar ends inboard of the brake levers, triathlon style... this is a very comfortable and aerodynamic position, it is an alternative to the "on the grips" position. The conventional position allows me plenty of control, to use very powerful V brakes, or to change gear at a moment's notice.



AE Do you change gear more frequently on your Rohloff than you would with derailleurs?

AB I change gear about three times as often, because it is so easy to do. I have also changed my riding style... I frequently change gear without pedalling, this is useful when off-road, in traffic, whenever I stop in the wrong gear or at times when situations take me by surprise... click, click... pedal... it is instant, well almost, it takes one hundredth of a second for the hub to complete the change, whether it is one gear, two gears or thirteen! If unexpected things occur when using a derailleur, I have to get out of the saddle and push the gear I'm in. This means that the Rohloff feels easier on my knees too... click, click... pedal!

AE So, to summarise, is it fair to say that you are happy and comfortable with your straight bars and that you feel that you don't get all the benefits of the Rohloff hub if you use drop bars?

AB That is correct, but drop bars and Rohloff still make a lot more sense for many people than drop bars and derailleurs.

AE What about maintenance, what is involved?

AB The oil needs changing every 5000Km. The internal cables should be replaced every 20,000Km and obviously you need to look after your chain and keep it reasonably tight... that's it!



Rohloff two stage oil change kit.

AE How easy is it to change the oil and change the internal cables?

AB The new, highly detailed and illustrated manual, that now comes with the hub, makes everything very easy... the most difficult thing is coming to terms with how easy it is... perversely that is what will take you time, the first time you attempt it. If you never got to grips with all the nuances of derailleur maintenance you will find the Rohloff very easy to service, there is no skill required to make the gears index correctly... the indexing takes place inside the hub and doesn't need adjusting. There are no return springs to fail... the hub uses two cables, one to change down, the other to change up. If you are a bicycle expert, you will need to come to terms with the fact that much of your accumulated lore is now obsolete.

AE What about sprocket, chain and chain ring life?

AB The steel sprockets are the hardest steel I have ever seen, service life depends upon road conditions, I would expect to get 16,000 – 20,000km from a sprocket and then all you need do is turn it round... it's reversible... so you wear it out twice! Because Rohloff did this, we decided to make our chain rings reversible too, turn the ring around when you turn the sprocket, add a new chain and away you go again! The special vertical dropouts allow the more convenient OEM version of the Rohloff hub to be used... this means that there is no torque arm to release to remove the rear wheel. The chain-adjusting



Rohloff Speedhub 500/14 CC OEM 1735g

eccentric bottom bracket, found on all of our Raven frames, is simple, tried and tested tandem technology and means that you could replace the chain at any time, without it skipping... try that with a derailleur!

AE Special dropouts, eccentric bottom bracket... are you saying that you need a special frame to use the Rohloff?

AB No, you can fit an after-market kit to most frames, I am saying that to get the best out of a Rohloff hub, the frame should be designed specifically for it. Without a specific frame you have to use a chain tensioner, unless you have long track ends, the tensioner is like a rear derailleur, so this will still allow the chain to jump and possibly fall off... you won't get every last bit of potential use out of the transmission. Without our stainless steel Rohloff-specific dropouts you will need to use a torque arm to prevent the hub from turning in the frame, rather than turning the wheel.

AE Andy, you make many different bikes with Rohloff hubs, please tell me about them, how they came about and what you think they are for.

AB Fiona and I have multiple cycling interests but above all else we love cycle camping in remote, preferably mountainous, areas. We like to travel off the main routes, often this involves dirt roads and hard cycling with big loads... we call this "Adventure touring". After many communications with Rohloff I decided to build us a pair of Adventure touring bikes with Rohloff hubs. To cut a long story short, the tour of Tasmanian gravel roads was so successful on these bikes, and the flights there and back were so easy, with no derailleur to get knocked off, that we decided to produce the Raven Tour, an economical version of the bikes we had used. Whilst we were waiting for our cast stainless dropouts to be made, Fiona and I tried out the fantastic hubs on lighter weight day to day machines... these were also superb, so easy to live with, that

we decided to make some of these at the same time as the Raven Tour. The Sport Tour was born. Either bike can be used as everyday transport, all year round. The Tour will carry much more weight and can be mistreated much more than the Sport Tour. The Sport Tour is lighter, slightly more comfortable, more nimble and more expensive than the Tour.



AE But you also make mountain bikes don't you?

AB Yes that was the next thing, I said we have multiple cycling interests and it was soon obvious that what the Rohloff would really excel at, was what it had originally been made for... muddy mountainbiking! I built prototypes and tested them on long off-road rides, I tested the pre-production prototype on the Newnham 90km Enduro... a few tweaks and I was there. The "Raven Enduro" is built for serious long distance off road use... only the best components are fitted... including Hope disc brakes and Fox Forx... it has a small, but very useful, luggage capacity. The bike worked so well that I made a V brake version of it, which has a larger luggage capacity, making it more capable as a touring bike without sacrificing much as a mountain bike. The "Raven Catalyst" has also been built to be able to tow a BOB Yak trailer... which, according to Cass Gilbert and Cara, it does very well indeed. They have just come back from taking them on a three month tour in the high Himalayas.

AE So you have four very different higher volume solo machines available, what else is available?

AB We have the capacity to make custom built Rohloff versions of our eXp, a Rohloff Audax or an ultra short wheel base courier-type bike... the Mercury, at our Bridgwater frame shop.

AE Anything else in the pipeline?

AB Yes, we will have 300 of our new Rohloff Tandems available for sale mid to late March next year.

AE A Rohloff Tandem? Is the hub suitable for a tandem? Surely a tandem needs more than 32 spokes?

AB Rohloff say the hub is suitable for tandem use. They can show that a 32 spoke wheel, built dishless into a hub with widely spaced flanges is stronger than a conventional tandem hub spaced 145mm with 48 spokes! We have also sent prototype tandems out into the world. Alan and Maggie Pendleton took one to Patagonia earlier this year... they were delighted! Setting up the front mech to work properly with derailleur gears has never been easy, the equipment available today makes it more difficult than ever... the Rohloff removes this problem altogether!

AE When it comes to fitting two people on a bike you need lots of different sizes, how many sizes will you make?

AB We will make eleven different sizes, each one will be available with or without S+S couplings and all the options will be available in three different colours!

AE Andy, the mind boggles! You guys certainly pick up the ball and run with it. Tell me, the Rohloff hub must have some faults; there must be something you don't like.

AB I wish that they were run in when they arrive from Rohloff... it takes about 1000Km (but can vary) to become quieter and smoother... they never become really quiet in seventh gear... that can be a nuisance, especially when you are new to Rohloff. It doesn't really bother me anymore... I've geared my bikes so that if I'm in seventh, I'm going up a noticeable hill or into a severe gale! If I encountered seventh for long periods on the flat it would probably irritate me more than it does.

I wish that you didn't need to ease off when you change gear, especially seventh to eighth or eighth to seventh, but you do... that never goes away... you do get used to it though. When you think how many allowances you have learned to make for derailleur gears, it is not much to complain about. I've got fully used to it now... I ease off completely for a split second and all is sweetness and light.

AE So Andy apart from these small issues, are you saying nothing has ever gone wrong with a Rohloff hub?

AB No I am not! There have been oil leaks in the past, these have been rectified free of charge by Rohloff. I am told that this problem should have been cured, or at least minimised, by the new seals, which, like any modifications to current or future specifications, are retrofittable to all Rohloff hubs no matter what their age... there has only ever been and probably will only ever be, one Rohloff hub.

The apparently different versions are all convertible to (or from) each other... Shimano are you listening? People have damaged the hub when removing sprockets with the incorrect tool... Rohloff have helped these people with this problem... even though it was not a fault with the hub. There are a very few instances where difficulty is experienced with shifting between three and four and/or ten and eleven... these are malfunctions not failures and they are very rare and in all cases, swiftly rectified, free of charge, by Rohloff... I believe that Rohloff changes the thickness of the shims in these hubs to restore function.

In my opinion a failure means that forward progress via the pedals is not possible... Rohloff say that this failure has never occurred.

AE Andy, what are your three favourite features of the Rohloff hub?

AB Reliability, the ability to change through all the gears on one shifter without needing to pedal and easy maintenance.

AE Andy, you have convinced me to try the hub... why should I choose one built into a Thorn Raven?

AB We make a range of Rohloff specific frames in many sizes and colours. We can advise you on which of our frames is the most suitable for your requirements. We can build your bike up to your exact specification. You can then ride it and see if Rohloff is for you... you may ride it for 100 days and if you don't wish to keep it, we will be very surprised, but perfectly willing to refund you all your money and collect the bike. Now let me ask you a question... can you think of a reason for buying one from anybody else?

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