

SPEZI 2007

The twelfth SPEZI was the hottest yet – both in climate and in the ‘buzz’ in the industry. This show in the Southern German town of Gernersheim attracts the vast majority of the specialised cycle manufacturers in Europe, and it’s also a great one-stop shop for visitors to try out a range of machines on the test track, to see the latest developments, and to meet the manufacturers in person.

One trend was clear: trikes are the Next Big Thing in mainland Europe, with a slew of new models coming onto the market. For years seen as ‘for the disabled’ it seems that trikes are now acceptable – cool even. Much credit must be due to the Hase/HP Velotechnik Trike Race, which takes fast-paced racing on three wheel around a string of events and trade shows, challenging preconceptions and giving triking a positive, youthful and exciting showcase which, at the SPEZI, attracted some great regional TV coverage. And of course today’s trikes are much closer to ‘sports car’ than ‘mobility equipment’ anyway...

Our thanks as ever to SPEZI organisers Hardy and Wolfgang. For details of next year’s event, see www.specialbikesshow.com – and meanwhile, on with the report!

Peter Eland



UPRIGHTS

Bike Friday Tikit

Perhaps the most significant new appearance at the show was the much anticipated Bike Friday Tikit folder. We hope to be doing a full review shortly, but for now just some first impressions.

It’s got an incredibly fast fold: knocking the seatpost forwards releases the rear end, which when swung under releases the stem lock via a cable system – two standard brake cables (for redundancy) run via a



ball-bearing guide up through the stem to pull the stem clamp tight. So essentially just one action releases the whole bike. When folded it can be easily trolled along on the front wheel. There’s space for luggage too – that front rack and also a basket or saddlebag behind the seatpost. The lump on the main frame

is a fold-out bag permanently attached to the bike.

The rear triangle is, thankfully, pretty much standard, so the German importer was offering it in derailleur, 8-speed hub gear and Rohloff versions.

A quick ride showed that it’s a well behaved bike, too. Overall I was very impressed, and can’t wait to try it more thoroughly.

See: www.bikefriday.com or www.bikefriday.de



The Bike Friday Tikit rear swingarm uses the flexibility of the metal plates to hold it in place on the boss (with Allen bolt head visible) on the main frame. Below you can see the anchors for the stem release cables, and to the left is the foam-covered handle for ‘trolley mode’.



Biketec Flyer

Our electric bike tester Paul Robison (see elsewhere in this issue) was at the SPEZI too, and adds this report:

The Flyer from Biketec in Switzerland (below) is a well-established brand in Switzerland and northern Europe (but sadly not in the UK), so it was a treat to be able to borrow one for the 6-ish mile journey from the SPEZI to the hotel. I enjoyed it so much that I did the trip six times in the 12 hours I had the bike (and the battery just



about lasted, even driving the powerful lights for two of the journeys). Even though this isn’t their fastest model (limited to 35 km/h), you really do fly along, so much so that I very nearly ran over a deer on the lovely woodland track. Never mind, next time he’s venison!

The motor sits behind the bottom bracket and pulls at the slack side of the chain after it’s left the chainwheel. One advantage of this approach is that you can use a hub gear. When riding, it is totally silent and intuitive and the controls are simple ‘Hi’ or ‘Lo’ (or ‘off’ if you’re some kind of masochist). In fact, without assistance this is a good solid town bike which is still nice to ride on the flat. Apparently, the Swiss-regulations version is sold in Germany but you have to have a little licence plate on the bike (€60 per year, a small price to pay for the extra speed).

Paul Robison

Van Raam Viktoria trike

This upright trike from Van Raam (left) caught my eye – what’s that pivot on the front cross-beam for? After a bit of head-scratching and turning the steering it became clear that this is a leaning trike: as you steer into a corner the linkage both turns the wheel and very slightly tilts the entire main frame into the bend. It should help increase stability and handling. As with many of their bikes intended for special needs use, this one is fitted with electric assist.

Tel +31 315 257 370 or see: www.vanraam.nl

HOME-BUILDERS



Uwe Carstens' Harlequin

It's hard to know where to start with this bike. Endless questions from onlookers must have tried the patience of its builder, Uwe Carstens from Varel, Germany, as he tried to explain its many clever features.

Most obvious, perhaps, is the shaft drive system, which uses bevel gearing from two industrial angle grinders to transmit the drive to a heavily modified Rohloff hub gear – Uwe needed to essentially remake the hub body to accommodate his gearing system.

The main frame pivots in the middle as you steer, and Uwe demonstrated how this allows hand-off riding. There are also handlebars (which fold for transport) for full control. The bike also has full suspension, with ride height adjustable at the rear.

Uwe pointed out two other neat ideas: a spring-loaded rear view mirror on one handlebar end, so it'll move rather than be damaged by knocks. And he'd saved the complication of a magnet and sensor for the cycle computer – instead he'd used just two diodes and resistor to allow the computer to sense the pulses as the hub dynamo (for the lights) rotates... very clever stuff!



Wood bike

Next to this wooden bike was a pile of leaflets advertising a (German-language) book all about how to build your own bike from wood. It's *Holz Fahrrad im Eigenbau* by Michael Heinzlmann, ISBN 978-3-88190-765-4, available in bookstores or via www.vth.de

Ulf Krollmann's child carrier

An ingenious child transport system was brought along by Ulf Krollmann from Maierhöfen, Germany. He'd built it using the main frame of a low-rider recumbent, married to the rear end of a mountain bike. It isn't obvious from the photo, but the rear end can swivel round to make the bike compact enough for transport by train.

The child 'box' can lift off the frame, and the plastic wheels fold down to make it into an easily-wheeled pram. Note also the neat carrier rack for panniers just below the box.

Ulf has left the front of the original recumbent frame in place rather than saw it off so that in future years he can replace the 'pram box' with a recumbent seat and add a crankset and pedals.

VELOMOBILES

Velokit

A rather different approach to the velomobile concept comes from Velokit in the USA, whose fabric-bodied kit can be attached to most recumbent trikes – here it's fitted to a Greenspeed. It's nicely made and light weight – and can be removed quickly from the bike



and folded up for transport. Ventilation should also be good with the open underside. On the downside, it's not as aerodynamic as some, and some onlookers were concerned that it prevents the use of mudguards on some models, which might cause 'splatter' up the sides. But at under US\$1000 it's definitely a lot more affordable than a full velomobile!

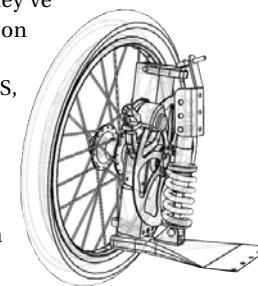
See: www.velokit.com



Fietser.be

Belgian velomobile manufacturers Fietser.be had plenty of news for the show. They've developed an ultra-light version of their main model, the WAW velomobile, and they've also been working on a new generation machine, the BRIES, to be unveiled in September. This will employ a new double-wishbone suspension system which can use any MTB shock unit. They're trying to interest other velomobile makers in adopting the system as a new standard.

See: www.fietser.be



Ped-3

New to the SPEZI and to me was the Ped-3, a velomobile from Slovenia. It's built around the chassis of a Berkut trike from Russia, and costs from €4300 plus shipping.

See: www.ped-3.com



Cabrivelo

4 Seasons Velos from Germany build their 'Cabrivelo' around the Sinner Comfort recumbent trike from Denmark, often with electric-assist. The resulting machine is quite imposing, and as the name suggests has a clever 'cabrio' feature. The windscreen and roof fold away into a recess in the 'bonnet' when the weather's fine – and it can be quickly changed between the two configurations without the rider even needing to get up.

Tel +49 9825 927 9834 or see www.4sev.de



COMPONENTS

Schwalbe Winter

In Issue 21, Wolfgang Grabmer described for us how studded tyres can transform winter cycling. At the time, though, there were no studded tyres available for small wheel users. Now Schwalbe have come to the rescue with this 20" (406) studded tyre, the Winter. It'll be available from around September this year, and is also available in various larger sizes. Cost per wheel is expected to be around €50. At around the same time their new lightweight 20" Kojak slick will be available – they say that at 220 g it will be the fastest 20" tyre they make.

See www.schwalbe.com



Ventisit Windcheetah pad

Owners of Windcheetah recumbent trikes may be interested to see that Netherlands seat cushion specialists Ventisit offer a pad tailor-made to fit that trike's seat. It's displayed here by Ventisit founder Bart van Crasbeek.

Tel +31 251 671022 or see www.ventisit.nl



Brompton models

These fine silver models of the Brompton (below) are available from Voss Spezial-Rad at a price 'to be confirmed'. They're made by Master Goldsmith Adam Biewald, and the level of detail in the spokes, mudguard stays and chain is most impressive.

Voss: Tel +49 4821 78023 or see www.voss-spezialrad.de

InoLED

The InoLED headlight (below left) has been getting some rave reviews in the European press, but I hadn't really twigged before just how clever it is. The optics are unusual, with the single LED (1W or 2W depending on version) pointing upwards at a mirror rather than directly forwards – this lets them shape the beam very precisely. But what makes it really clever is that it will take just about any electric input you can throw at it – the alternating current you'd get from a dynamo, or direct current as from a battery, making it supremely versatile. There's also an output for a tail light, and a standlight is built in as standard.

InoLED: Tel +49 7352 921230 or see www.inoled.com



RECUMBENTS



Greenspeed/AZUB Anura

The SPEZI was a welcome chance to catch up again with Ian Sims of Greenspeed, who had come over from Australia both to announce a new partnership with AZUB and to show off the new Greenspeed Anura trike.

The deal with AZUB means that Greenspeed trike frames will be sent over direct to the AZUB base in the Czech Republic, where they'll be finished and assembled. They'll then be distributed to dealers from there. This new arrangement should mean more affordable prices (from around €2590 for a GT3) and faster delivery for European customers, who should continue to order via the Greenspeed dealers listed on the website.

Ian had brought a late prototype of the Anura delta trike to the show, as the first production frames hadn't quite arrived in time. We are promised one for review next issue, so I won't spoil the surprise too much. But the final specification (as pictured) sounds very appealing, with a differential, Schlumpf Speed-drive and disk brakes as standard. We're looking forward to comparing against the Kettwiesel in price, weight and ride...

See: www.greenspeed-europe.com and www.greenspeed.com.au

Challenge trike and Mistral Travel

As usual Challenge had a good display at the SPEZI. In the light of the Issue 25 review I was particularly keen to see and try the new under-seat steering version of their trike. In contrast to the direct-steer version which I'd tested it



was a far more stable and relaxing ride, and really quite on a par with the best of the rest. It was also good to see the rather heavy duty rear carrier. They were also exhibiting a prototype of a suspended version with a 20" wheel, using a swing-arm from one of the bikes. It'll be beefed up for production, though, to take account of the greater side loads on a trike rear wheel.



Also new on the stand was the Travel Mistral, which packs down into the big suitcase for transport. All together the weight was 23.9 kg (bike, trailer and case) although they hope to edge that down soon with some new wheels and axles for the trailer. It already looked pretty light with its carbon-fibre tubes and alloy joints. Packing it away only took a few minutes, as they were probably quickly getting tired of demonstrating...

See www.challengebikes.com



MadMaxEvo 1

The MadMaxEvo 1 from Bike Revolution and Steintrikes is one of the few full suspension trikes on the market, and with prices from €2890 and weight 'from 21.5 kg' it's neither much more expensive nor that much heavier than most non-suspended models. The robustness of the system was put to the test with repeated demo-riding down steps, and by some hard riding in the trike races.

Bike Revolution/Steintrikes: see www.bike-revolution.at or www.steintrikes.com



KMX

UK trike makers KMX had been ringing the changes for the SPEZI, and were showing a line-up of revised trikes which will be available later this year. Changes include a move to direct steering – this makes everything simpler, and with the KMX's steep kingpins, the hand motion is pretty much front-back rather than the 'weaker' side-to-side. It also leaves the bottom of the trike completely smooth, so 'grinding' (sliding the frame along obstacles) becomes possible. An all-new seat is under development – we've pictured a prototype – and this should be more comfortable than the previous version, especially for on-road use. Finally, the trikes are due to be renamed (Storm, Tornado, Viper and Venom were proposed) with high-end and entry-level models in both adult and child sizes.

KMX: Tel 02392 379 333 or see www.kmxkarts.com

ICE to launch bikes!

Trice makers ICE are, as we revealed on the *Velo Vision* website shortly before the SPEZI, about to go from three wheels to two with a new range of recumbent bikes to add to their trike line-up. Could the move be a response to bike makers Challenge and HP Velotechnik moving into trikes?

In any case, the two prototypes on display at the SPEZI clearly showed how ICE have re-used many of their trike components and re-packaged them into bike mode: there's the familiar seat, rear swing-arm and boom, along with a new central section and handlebar.

The two versions at the SPEZI were deliberately set up at two extremes of specification: one was aimed at more conventional fast touring, with hard-shell seat and narrow tyres and rigid forks. The second was a bruiser, with Big Apple tyres, a mesh seat and with full suspension. The ICE crew were happy to demonstrate riding this one down the steps outside the show hall...

I was a little more cautious when I got to test-ride the bikes – again this is just a first impression, as we're expecting to do a proper review next issue. There was still some tweaking of the steering geometry required, especially with the Big Apple bike, as it tended to 'flop' – but ICE were well aware of this and had a solution in hand. Otherwise they rode confidently with no obvious vices. There's sure to be much interest from current trike owners looking for a new thrill as these reach production.

ICE: Tel 01326 378848 or see www.ice.hpv.co.uk



FN-Trike

This new leaning recumbent trike weighs just 20 kg or so, much lighter than the first commercial leaning trike, the Tripendo, which works on the same general principle. The idea is that by leaning into corners you can keep the loads in line with the wheels, as on a bike, meaning that large wheels (which would otherwise be less able to withstand the side loading imposed by a trike) are possible. This should make the trike faster, and the leaning should also make it more comfortable: the rider should just be pressed into the seat, rather than being thrown sideways off it in corners. This trike was neatly constructed in carbon fibre and aluminium.

Incidentally the Tiefflieger leaning trike which we mentioned in last year's report (Issue 22 page 16) wasn't there, although the website seems still active (www.tiefflieger.de). That was also around the 20 kg and €5000 mark.

FN-Trike: see www.fn-trike.de



Hase TretsTrike

For some years Hase have made the Trets trailertrike, which attached behind a towing bike just like a normal trailer, and gives the child rider a recumbent seat, pedals and a proper geared transmission. After a number of requests they've now taken the obvious step and developed a version which can also be used as a child's stand-alone trike. But they've also left the drawbar attachment in place, so with the front wheel removed it can quickly be returned to trailer mode.

Also on the Hase stand were some neat custom bags for the Kettwiesel AL which we reviewed last issue: a big bag for between the rear wheels, and some very handy 'side bags' which tuck in just above the rear mudguards, easily accessible as you ride along.

Just as we went to press we heard from Hase that the record for the 'longest tandem in the world' – previously held by a 92 m long chain of 62 Kettwiesel trikes – has been broken during the 'Extraschicht' festival in Hase's home town of Waltrop. No fewer than 93 trikes linked together on 2nd June to set a new world record.

Tel +49 2309 782 582 or see: www.hasebikes.com



Is this a trend? Two trike manufacturers, both carrying young ladies on the back... here we have as chauffeurs Carl-Georg Rasmussen, maker of the Leitra velomobile, and Frank Schliewert, designer of the Tripendo leaning trike. See www.leitra.dk and www.tripendo.com



Wolf Trust and Friends

When we met Wolf Liegerad-und Spezialradtechnik last year (see Issue 22 p. 15) they had a single short-wheelbase recumbent on show. Fast forward a year, and they're also exhibiting two new tandems – both with a little more than you'd expect at first glance.

The 'Friends' is a sociable design, with two riders seated side by side (and for family outings 'up to three childseats can be fitted', they say). Two or more can be linked together, or a child trailer attached behind. Each rider has an independent drive-train. Readers with long memories might be interested to note that the inventor had never heard of Peter Ross or the GEM – which was a somewhat similar-looking sociable from, I think, the mid-'90s. You'll find a picture in *Velo Vision* Issue 2, page 38.

Wolf's other bike is an up-down tandem, the same layout as the Hase Pino. But their bike has, as you'll see from the picture, transmission systems down both the left and right-hand side of the rear wheel. A hub gear is concealed below the front rider's seat, and a chain runs from there to a sprocket attached to the disk brake mounts on the rear hub. This does mean that the final run of chain is always in motion, adding a bit of friction when freewheeling perhaps, but it also gives each rider a completely independent drive train. A version with more conventional tandem transmission is also available.

Tel +49 171 986 2500 or see: www.wolf-liegerad-spezialradtechnik.de



He's a braver man than me! Davide from Italy tries out the Horizontal Bike...

Also worth a mention

Catrike: the US trike makers were there for the first time, represented by an enthusiastic young German company. See www.catrike.de

Liegerad magazine: the first edition of this German-language recumbent magazine was on sale at the show – we wish them the best of luck! See www.liegerad.com

Pacy: The makers of this folding bike were pleased to report that their 20"-wheeled model (see Issue 22 p. 17) had won a six-way folding bike test by the major German publication *Aktiv Radfahren*. See www.pacy.net

Shortbike: this neat utility trike design was back with an electric-assist version: ingeniously the key to turn on the electrics also lock or unlocks the front wheel. See www.shortbike.de

Le Tandem Associatif: This device to create a tandem from two solo bikes from French company Sonnefraud (see Issue 22 p. 18) has been further improved since we pictured it last year and is now in full production. See www.sonnefraud.fr

Ergodynamik Busch: An interesting special-needs operation who offer a complete service from ability analysis through to custom engineering and test rides. They had a number of modified cycles on display, including one with a novel linear-peddaling drive. See www.ergodynamik-busch.de