

Velo Vision Sample Article



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If you have any comments, problems or suggestions about the magazine in general, or this PDF in particular, please email me at howard@velovision.com

I hope you enjoy the read!

A handwritten signature in black ink that reads 'Howard Yeoman'. The signature is written in a cursive, flowing style.

Howard Yeoman

Editor and publisher, *Velo Vision* magazine.

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COVER: Oliver Taylor of London Recumbents baring the classic trike 'grin' while riding the Hase Kettwiesel Evo. Read all about it on page 28.

OPPOSITE: The Workhaus Artist's Bike on display at the Bespoked 2015 Constructors Challenge, designed and built by Duncan Henderson for his friend and artist Sam Hewitt. Read more in the Bespoked show report on page 37.
Sam Hewitt. samhewittpaintings.com

PHOTOS: Howard Yeomans.

4 News

Sinclair bike, Challenger velomobile relaunch, a striking 'tinplate' cargo trike, news, events and more.

10 SPEZI

A comprehensive show report from the German Special Bikes Show, including all that caught our eye from the manufacturers and home builders.

22 Review: 8 Freight

We test the esoteric cargo bike. Has a final move to modern manufacture brought the best of the unusual design, or diluted its characteristic appeal?

27 Short reviews

- RoadRing: the bright, amber indicator you wear on the finger.
- Yepp Cargo Cosmo: a large rubber basket with a one-second fold.

28 Review: Hase Kettwiesel Evo FS with Steps

Hase, a manufacturer renowned for thinking of everything, appear now to have built the trike with everything. We test the new Kettwiesel with full suspension and Shimano electric assist.

33 Book review: Bicycle Design

34 Bespoked 2015

Another report from the growing Bristol-based show. While the bikes get no less polished, new entrants on the fringe also shine a path towards more specialisation.

40 Readers' bikes

- 40 Separable Circe Helios: The 20-inch

tandem now splits in two. Read the designer's reasoning and how it works for the riders.

- 43 Ian Bloys Roulandt: A rust-covered discovery in Australia is returned to better-than-full health and to the continent from which it originated.

- 46 Lecicle: The wooden velomobile built like a boat to serve the mobility needs of a city-bound family.

48 Review: Loopwheels for trikes

We test a set of these in-wheel suspension wheels, fully redesigned for recumbent trikes.

51 Spin London

Mike Burrows endures a day in a disused underground car park at the capital's new urban bike show. He says it was so good, they already demolished the venue.

52 Dropping in on dealers

We visit the Cargo Bike Company, a custom-build manufacturer in Derby to see how a British builder delivers on cost and performance.

54 Letters

A selection of letters, including a reader's big wheel folding bike, a Noomad quad and surprise birthday wishes.

58 Subscribe to *Velo Vision*

How to subscribe, back issues and details of our distributors worldwide.

58 Advertisements

The first place to look for specialist products and services. Please support these advertisers, who support this magazine!

Fresh fields

My first issue is finished and 'under my belt'. We've had some busy months, relocating *Velo Vision*, virtually and literally, to pastures new – note the new contact address! May I first thank Peter for a great deal of support this year and, naturally, for his sterling work: first, in setting up this amazing publication and, second, for running the magazine. Fourteen great years – congratulations, Peter!

Peter and I attended two productive trade shows this year – SPEZI and Bespoked – where we gathered much material. Also, I was delighted to meet so many enthusiastic

readers at the York Cycle Rally in June.

To complement the news and reports, we also bring you the essential reviews. In future issues, I aim to maintain the established balance of content, unless you tell me otherwise – your opinion is the one that matters, so please do tell me what you think. Your inventions and designs, too, are always welcome, so if you want to share anything, small or large, please write in.

Finally, I'm sorry for the delay in publication. We're learning as we go, so we'll continue publishing at a rate of two issues per year. I'm working on Issue 50 already!

Howard Yeomans

FAST FREIGHTER FULLY FINISHED





After years of development, manufacture of the 8 Freight has shifted up a gear and production has moved overseas. Whilst faithful to the original design, this all-new version has been revised in nearly every respect. We tested one of the first bikes to return to the UK to see if it's finally 'full steam ahead' for this unique locomotive of the cargo bike world.

BACKGROUND

Previously built in small batches and hand assembled in England, the 8 Freight design first made its appearance in 2002 and since then, developed in an evolutionary fashion at the hand of its creator, Mike Burrows. Availability to the non-UK market looked likely to remain restricted until rumours of mass production circulated around 2012. After what turned out to be a longer than average development phase for any bike, the 8 Freight has been through a total redesign for larger-scale production and is now built in Taiwan.

The extent of the recent changes affect every part, from the frame and mono-fork down to the smallest component. Looking back at the first model we featured in Issue 7, the basic concept has stayed constant throughout: a 2" main tube extending from the head tube to the rear axle, cantilever supported drum brake hubs, a frame around the cargo area, and an impressive automatic stand. In this model, all these features have been retained and, in some cases, improved.

The bike we tested is the one and only bike in the range – half a world away from a similar bike called the 'Black 10' which is, strictly speaking, not the same bike. The Black 10 is still hand-built by Mike and shares with the 8 Freight only the general arrangement, having a different frame, castings for disc brakes and completely different components. Anyone hoping for a straightforward



Mike Burrows, engineer and designer in his machine shop.

guide to Burrows cargo bikes should skip reading now, because the Black 10 is invariably painted green while the 8 Freight has always been black, but is occasionally finished in yellow or red!

FIRST IMPRESSIONS

Light falls into the surface of the black aluminium frame and fork so when unwrapping, it was my fingertips that noticed the first significant change – all of the smaller diameter tube has been enlarged by about 5 mm compared to the previous models.

Chunky aluminium castings are bonded into the main tube and fork leg and the whole frame appears to then have been powder coated in one go. The method is the most efficient approach to production and the all-black look is a significant visual change to the previous models.

Usefully, a one-coat approach to finishing will, I expect, keep corrosion from getting under the coat. During our test, the finish proved remarkably tough

when the bike took a few knocks from the pedals of nearby bikes and, thankfully, it never chipped anywhere.

During the build procedure, which will usually be completed for a customer by the dealer, I noticed that the rear axle has a bigger diameter than on previous models, increasing strength and stiffness. I found it almost effortless to slide the wheels onto the axles and fasten each with a single chunky hex bolt. The wheel bearings are sealed cartridge bearings driven into the hub shell and likely to last for around 5–10,000 miles of normal use, requiring no adjustment throughout their life. All that said, due to the single-sided wheel support, most users are unlikely to ever need to remove a wheel, even for puncture repair or tyre changes.

Looking over the controls and other components, for example the mudguards and derailleur, one starts to appreciate the thought and attention to detail applied by the designer. Cables are neatly externally routed, controls are well situated and components generally all appeared lined-up and straight where necessary. There was nothing in the build process that could be considered unusual, or in any way beyond the ability of a competent bike mechanic, a point worth noting if asking for maintenance at a bike shop. In fact, most of the components are already relatively low maintenance, in particular the brakes, and when using the twin leg stand, the machine is remarkably easy to work on.

The frame is sized to accommodate a wide range of rider heights, with its low seatpost clamp with quick release and a medium step-through height. I imagine riders especially short in the leg will appreciate being able to move forward off the saddle at a stop to comfortably touch the ground. However, an unusually generous seat to head tube distance results in a posture that, for most people, is quite forward leaning, offering encouragement to a faster style of riding, but perhaps not to everyone's liking.

The long reach frame is complemented by a short stem, so



ABOVE: The essential chainguard and twin leg stand that always secured our loaded bike.

LEFT: Offset rear wheel complemented by derailleur and cassette.

BELOW LEFT: Overall body width is no more than the handlebars.

BELOW: Velo Plush saddle is standard. The new frame benefits from a triangulating central frame member.



the adjustment at the handlebar is restricted – rearranging spacers and inverting the stem gives only a 30 mm vertical range.

THE RIDE

I first took the unladen bike a swift nine miles and, once rolling at speed, the bike felt firm, not flexible, and without any twist in the frame. The addition of a diagonal frame member in the centre of the bike may serve well to remove any unwanted vertical compliance.

The out of line nature of the rear wheel is unnoticeable when riding and although the single-sided hubs may never fail to draw attention from 'naysayers', there is no doubt in my mind that they do the job and offer some advantages over conventional forks and stays. This may be a non-standard bicycle but the engineering principals are entirely proven and trustworthy.

Riding any cargo bike can feel unusual to the unacquainted. With some similarity to riding a tandem bike, most unladen cargo bikes seem to have a strange way of feeling lighter than their visual signature would indicate. The 20" (406) wheels, steep head tube angle, and a zero offset mono-fork bring the front wheel contact patch close to the rider, resulting in quick and responsive steering. Compact 'U' turns felt fairly easy, and predictable given that the wheelbase is the limiting factor.

Once underway, the 24.0 kg bike encouraged spirited riding, until the aerodynamic drag of the rearward section became a limiting factor. Perhaps it is the jogging equivalent of taking a sheet of expanded polystyrene for a run – easy at first, but you soon realise you are unnecessarily pushing against a wall.

Progress was easier after settling down to a more relaxed ride, poised in the fairly neutral riding position with weight shared between the contact points and hands on the firmly padded wrap around handlebars. Our tester noted how the posture gives a good view of the road ahead and the weight on the bars a stabilising influence on the whole machine.

LOADING UP

The real fun of using a cargo bike comes when you realise how suitable it is for carrying all those things you previously considered problematic. With a relatively large flat containment area always close to hand, you get into a happy state of forgetting all about how much you can't carry or the challenges of moving unwieldy or delicate items by bike. Welcome to a new dimension of practical cycling!

The bike becomes the equivalent of the car boot, throw things in and you can all too easily forget about them. Actually the temptation to carry extra things 'just in case' works to your disadvantage as the weight adds up so some cargo bike users regularly purge their container of the bungees, straps, locks, extra clothes and spare tubes that seem to accumulate. One difference between a car and the 8 Freight that may be important to some is how the cargo is open to the weather and perhaps vulnerable. Several solutions are offered with the bike, in the form of waterproof lids and boxes.

Fortunately, during our test, the weather stayed fine and our goods were chosen mainly for their bulk and weight, starting off with a load of about 75 kg of garden compost. I left the cycling to my test rider on that occasion and he remarked on the stability of the bike compared to using his own cycle trailer. He later explained that he felt no sensation of towing anything, comparing the bike to the adverse push-pull effects of bike and trailer.

We did not transport any greater loads even though items like motorcycle engines and water containers could easily fit inside the load bed and exceed the 100 kg maximum load rating. The limit need not be as restrictive as it sounds, even for conscientious riders aware of fatiguing any bike frame, as many loads can be split in two.

Loading and unloading was undramatic, thanks to the combination of locking brake levers and the sturdy twin leg stand, effectively standing the bike on four contact points.



EQUIPMENT

The components chosen for 8 Freight are sincerely understated and functional. All the parts look durable and set to be long lasting – hubs, chainset with 165 mm cranks and brake levers are all from the Sturmey Archer catalogue. The derailleur combination of SRAM Grip Shift and Shimano Altus worked excellently and despite the long cable run.

The transmission provides only eight ratios from 25 to 73 gear inches and on our test, we took the empty and full bike up some steep hills, both remarking how we could use some lower gears to ease our progress. The bike handles extremely well at low speed when ridden 'standing out of the saddle', but a crawler gear of about 15" would be very useable, such is the stability of the bike.

Home mechanics, take note – modifications to the bike do not look straightforward – a standard front derailleur cannot easily be fitted due to seat tube alignment and diameter, but an adapter is not out of the question. Other options to

extend the gear range may be to try a bottom bracket gear, like those of Schlumpf, or potentially, Efineo.

The gas piston actuated stand is one of the signature items of the 8 Freight. Possibly the first time such a mechanism has been used on a bike, the piston propels the steel two-legged stand down into place and holds it there. Tucked neatly away from curious fingers under the



MDF cargo base, the mechanism is cable operated by a firm squeeze of a second brake lever, deploying with a satisfying 'hiss' noise. To reverse the operation, you need to push the stand back up with your foot, which can be done from either side of the bike. The force needed to do this is considerable, but it seems to get easier with practice. The stand will not drop accidentally because, at the top of its travel, it is 'over centred', so the piston is doing the job of holding it up. This design is a marked improvement on earlier versions, where a mechanical catch could be easily damaged but this version can now be deployed by pushing the leg down with your foot, if you prefer.

We found the brakes more than adequate with our heavy load, and progressive too, perfect for stopping heavy rider and bike in any hilly location. Heat build up in the drums should not be a concern, as it can be with disk brakes. In the long term, the brake shoes of the XL SD 90 mm hubs will probably last for many years and require only occasional cable adjustment. The hubs are, naturally,

connected to double wall rims in a 'two cross' pattern spreading almost tangentially from the hub flange, perfect for transmitting braking force to the rim. Tyres were 50 mm Schwalbe Big Apples, which we inflated to around 40 psi, effectively reducing high frequency vibration when unloaded and absorbing some of the shock from bigger bumps when load carrying, protecting the frame somewhat.

Partly due to its doggedly esoteric design, even some standard bike accessories (a bottle cage, for example) will not simply bolt on or are plainly incompatible. Fortunately, mudguards are provided, with small rubber end flaps; the one-sided stays are especially heavy gauge to stop rattles and vibration. Also, at the front of the head tube, is a pair of bolts for fastening a Klick Fix bracket to attach a bar bag.

A plastic chainguard is a welcome lightweight accessory, which eliminates the risk of oil on clothes and keeps that triple-length chain cleaner, too. However, further modifications, like extending the gear range, already mentioned, are not trivial. Dynamo lighting, perhaps the ultimate practical lighting solution, using a 'bottle' generator, could be added, but a frame mounting will be needed.

One little extra, we did like was a long pocket in the side of the polyester-coated bag, which adds useful storage for an inner tube and the like. One final component detail concerns the saddle and, whilst many riders will be happy with the soft and compliant Velo Plush fitted, I needed to revert to my Brooks, as seen in most of the photos. Saddles are, of course, a personal thing and its impossible to please everyone.

On our rides, the bike was generally silent in use and nothing



ABOVE: Underside view of the cable-operated stand release.

started to loosen, rattle or squeak. We did treat it with care, though, and I thought it necessary to mention to my helper that he should be careful wheeling the bike down off a kerb otherwise a crunch of derailleur on tarmac could result! This happens because of the low derailleur height combined with the offset mounting and is something one gets used to. One other feature of the offset rear wheel is that particularly fast cornering to the right can easily ground the stand and the pedal, unless you raise it. The same does not apply to left-side cornering.

CONCLUSIONS

Everyone who tried it was very satisfied with the new 8 Freight and admired its high quality build and performance. The newly-

RIGHT: Bolts on the head tube accept a KlickFix bar bag mount.

BELOW: Lockable Strong Box, made from honeycomb composite panels and a wicker basket with leather handles both accessories made in the UK.

designed bike has been improved significantly in this latest chapter of the 8 Freight story, in particular with its stiffer frame and more rugged stand design. Given how long my own model has lasted so far, I'm wondering how long this model could be expected to perform – surely decades of good use, and longer with care.

Any temptation to take the plunge into 'cargo bike world' is perhaps, for many, down to practicality of storage and whether they think they will get use out of the bike. I would assure anyone that, after buying one, a cargo bike can become the most used bike of all, possibly endangering an argument to keep any other bike, with the possible exception of a folder! Storage issues can be resolved when there's a strong incentive to do so, and, without a shed or garage, I have myself used a waterproof cover for many years. Depending on lifestyle priorities,

storage indoors is an option and, at 60 cm wide, the 8 Freight will fit easily through most doorways. Cost is also a factor, but when a bike like the 8 Freight has so much potential life and a potential to save money otherwise spent on alternative transport modes, the initial price is less significant.

The bike, as tested, retails at £1895, plus delivery, and a selection of storage accessories, including a basket, lockable box and a plastic lid called the 'shower cap', none of which we had a chance to review, can be seen on the website.

Anyone considering the advantages of hub gears or electric assist should probably take a look at other bikes that are more adaptable. It could be argued that a more conventional design, so as to enable upgrades, would have been a wiser move for 8 Freight, but that would have spoiled the simplicity and some of the charm of this unusual vehicle.

Any cargo bike will attract attention, mostly in the form of praise and wonderment and the 8 Freight does so perhaps more than most, because the engineering features frequently draw comment. This is no bike for the introvert, unless they want to be drawn into conversation, but I never grow tired of singing the praises of practical cycles!

Howard Yeomans

Manufacturer: 8 Freight.
See the website for details of dealers (currently UK only) and global shipping.
www.8freight.com UK tel 07973 670 494 or email sales@8freight.com.





Yepp Cargo Cosmo

This folding basket was originally designed to ease congestion in busy Dutch bike racks. Slimline when folded, it complemented our Dawes Kingpin, which is usually stored in 'flat mode' by turning the handlebars. The one-handed fold is simple and fixed shut with a Velcro band. A similar material is also used between the halves of the basket, which includes a reflective strip.

When opened, it has a large volume and the insides are soft and smooth, offering some protection to groceries, for example. There are a few drain holes for rainwater, but I can't imagine items being lost through the holes or hinges. We found the bright latex made finding stuff in the dark easier.

The Cargo is meant to be front rack mounted, but we did not have one, so put it on the back instead. Fitting with the allen bolts and wide cable ties provided was easy. Valuables on display behind the rider may be a slight security worry, but the Cargo carries a fair amount when closed: I counted in 25 copies of *Velo Vision*, but mind the 5 kg weight limit.



The basket stays fixed to the bike by the cable ties, and, whilst there's no easy way to remove the basket when parked, for some locations, I'd consider swapping to Jubilee clips for peace of mind.

Yepp also makes two specific front racks: a traditional fork crown version and a cantilever rack that fixes on the head tube for bikes with a suspension fork, both at £15.95. The Cargo Cosmo is available in black and lilac at £49.95 + delivery from CycleMiles, UK tel 02392 455 355 or see www.cyclemiles.co.uk.



Roadring indicators

Hand-mounted indicators have always sounded to me like a good idea for use in dim and dark conditions. The Roadring shows LED brightness has now reached a level where they are useful in the daytime, too. In the dark, the whole body is brightly illuminated, including the palm side; while in daylight, the three topside LEDs are still very noticeable (see left).

The ring can be fitted to any finger and is triggered with a protruding switch by straightening the finger – one soft click for on and one click for off. A main power button

below the ring prevents accidentally switching on when in storage. All parts, including the switches, looked well sealed from the elements, and parts inside the latex body should stay dry. We did not, however, have enough rain to test water-resistance in use.

With a new lithium button-cell, the ring flashed happily (and brightly) for about 40 minutes which must equate to a lot of turns.

Comfortable to use and quick to fit too, I'll definitely use them through the next winter.

Currently only available by mail, one ring cost \$30 (Australian dollars) including postage.

See www.roadring.com for details.

