

## HP Velotechnik Scorpion fx Eurobike trade show Friedrichshafen 08/26 - 08/29/2015



### New for 2016: Three reasons for wanderlust on three wheels

**The classic 'Scorpion fx' trike from HP Velotechnik profits threefold from the space frame technology: stiffer frame, better power transmission and more space for luggage**

**(Summary)** FRIEDRICHSHAFEN. In launching the completely revamped Scorpion fx touring trike, the recumbent manufacturer HP Velotechnik has significantly honed its performance in the field of touring trikes. Findings made by designers during the construction of their electric speed pedelecs have been incorporated in the new chassis. The result in brief: a significantly stiffer frame, better power transmission and a considerably higher load capacity – all with virtually the same weight. The comfortable and elegant classic can be experienced by visitors at the HP Velotechnik stand (west foyer, booth FW 300) at the Eurobike trade fair from 26 to 29 August.

"The key feature of the new Scorpion fx is the use of the space frame technology", explains Daniel Pulvermüller, the recumbent specialist's chief designer. By this, he refers to the way in which the rear end is connected to the main frame and seat. The strikingly shaped space frame structure enables rectilinear chain run through the full-suspension rear end. "This enabled us to significantly reduce the impact forces of the drive on the overall framework." The result is a 17 per cent stiffer chassis, which can now withstand loads of up to 308 lb instead of 287 lb.

The front section was also redesigned. The bottom bracket has been raised by five centimetres to enable a noticeably sportier, more efficient pedal movement. The seat position remains virtually unchanged. Compared to other medium-height trikes, it guarantees what recumbent cyclists especially value: unrestricted all-round views and a streamlined design.

A key factor for globetrotters is also the convenient and safe storage of large amounts of luggage. The 'Scorpion' carries up to 110 lb; the load can be distributed, for example, over the four large rear wheel panniers from Ortlieb. Despite of all these changes, the core features of the series remain unchanged. The trike can still be compactly folded in just a few simple steps without tools, ready to be transported by train or car. The modular system permits customised features, such as a shifting system with 81 speeds or an E-motor with a reverse gear and smartphone connectivity.

The Scorpion fx is available in specialist stores from September 2015 at a cost of 3,390 Euros for the basic version in the standard colours of Pearl orange and Blue shade grey. For more details, please visit [www.hpvelotechnik.com](http://www.hpvelotechnik.com) or call + 49 61 92 - 97 99 20.

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**(Long version)** FRIEDRICHSHAFEN. There is no other category of cycles in which riders make such contradictory demands as with touring bikes. They should be able to carry as heavy loads as possible, while still being small and light to transport. Maximum riding comfort is desired for longer rides, but the technology must also be robust and low maintenance. And great aerodynamics would be fantastic, but not at the expense of an auspicious seat position. Fortunately the bicycle engineers have already invented the panacea: the touring recumbent that can do even more thanks to being a trike. It is so stable on its three wheels that even riding along mountain trails with a lot of luggage will no longer be scary. And if cyclists want to take photos and films as they ride this is no problem! They no longer need to watch out for every stone and rut, and can even mount the equipment wobble-free in several positions on the frame for spectacular perspectives. HP Velotechnik displays the epitome of such a versatile travel companion with its completely revamped Scorpion fx for the 2016 season. You can see the newly designed touring classic at the recumbent manufacturer's stand (FW 300) in the west foyer of the Eurobike trade fair from 26 to 29 August.

For Paul Hollants, Managing Director of HP Velotechnik, redesigning the touring trike was only logical. "After introducing a very unique vehicle class for rehab patients and senior riders in the form of the Scorpion plus in 2014, we have now been able to even more closely define the area of application for the Scorpion fx series". It initially worked as a base to provide a high seat position and the ability to get onto the trike easily. This role has now been taken on by the series' broader and higher 'comfort' models Scorpion plus 20 and 26. "That gave us the room to significantly hone the profile of the Scorpion fx as a classic touring bike". The result in brief: a far stiffer frame, better power transmission when pedalling and a considerably higher load capacity – and all with virtually the same weight.

This has been made possible by new technical processes, as Hollants' partner Daniel Pulvermüller explains. Since the Hessian company presented the first touring Scorpion in 2006, the world of multi-track lightweight vehicles has been reinvented in various respects. New welding and moulding processes have been incorporated together with the findings made while designing various recumbent trike models, the range of which has become ever more differentiated over the years,

culminating in to the S-pedelec. "The key feature with the new Scorpion fx is the use of the space frame technology", comments the manufacturer's chief engineer. The designers were able to completely redesign the chassis based on the design tried and tested on their speed pedelecs. The strikingly shaped framework enables rectilinear chain run through the rear end. To ensure good ride comfort, the rear suspension is also fitted with the 'no squat' technology developed by the recumbent specialists. This minimises pedal kickbacks. "The new chain guide allowed us to significantly reduce the impact forces of the drive on the overall framework." The result is a 17 percent stiffer chassis, which can now withstand loads of 308 lb instead of 287 lb.

Combined with other design changes, the stiffness becomes twice as important. The bottom bracket has been raised by five centimetres to enable a noticeably sportier, more efficient pedal movement. Hard-core recumbent riders are aware of the central function that results from the difference in height between the seat and the bottom bracket. On an upright bike, this would equate to the difference between a road bike frame and that of a Dutch bike. A high bottom bracket virtually means pedalling out of the saddle while still squatting.

Nevertheless, the seat position of the Scorpion fx is still essentially classed as medium height. This provides riders with both clear visibility in traffic and great panoramic views as well as good tipping stability when dynamically rounding bends. A key feature of the seat culture of the trikes from Kriftel is their sophisticated ergonomics. Riders can choose from five different basic types, all of which are individually adjustable: the sporty BodyLink bucket seat (height: 1'1"), the standard-height (1'2") or high (1'7") ErgoMesh mesh seat or these two mesh seats in broad and long XL versions.

A second advantage of the rather upright position is the measurably larger amount of space for your luggage. "The revamped bracket above the rear wheel means that the Scorpion fx is not only able to carry 110 lb, but also offers plenty of room to do so", reports Pulvermüller. Not many bikes would be able to hold four large rear wheel panniers from ORTLIEB. And, this still does not affect the folding function. As before, the patented folding joint can easily be operated with one hand. To transport it by train or car, simply fold the

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trike with a few manual movements and no tools to a compact 2'11" x 2'9" x 3'2" (L x W x H). The open wheel carrier developed by HP Velotechnik also comes in handy for those who want to make the Scorpion still smaller. The front wheels can be removed in 90 seconds, reducing the dimensions to 3'3" x 2'4" x 2'2".

Like all other vehicles from the recumbent manufacturer, the Scorpion fx can still be customised using the highly flexible modular system. Optional features include a shifting system with 81 speeds and a powerful electric motor with a reverse gear plus a second battery. The advanced premium model from GO SWISSDRIVE also offers innovation in terms of functionality. For example, not only do the colours adapt to the brightness of the ambient light, but the control unit can also be remotely operated. With a little practice, it is no longer necessary to focus on the display – except if specifically using it as an external screen for your smartphone. Thanks to the Bluetooth interface, the digital all-rounder can therefore remain safely stored in the luggage, while still sending the data to the display via an app. According to the Swiss drive manufacturer, it will also be possible to display navigation functions in future.

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#### Technical data Scorpion fx

Basic model, other components on option

Frame:	Scorpion fx (Alu 7005 T6) 10 years warranty
Color:	Perl orange or Blue shade grey; other colors on option
Tires:	Tryker by SCHWALBE (20")
Seat height / angle:	from 1'1" (BodyLink hard shell) up to 1'7" (ErgoMesh HS plus mesh seat)
Seat angle:	35 – 44°
Pedal axle height:	1'3" – 1'6"
Suspension:	DNM DV-22 80 mm (rear wheel)
Brakes:	2 x AVID BB7 disc brakes (front, individual application to each wheel)
Gear system:	SRAM Dual Drive 24 speed
Length:	5'5" – 6'7" (adjustable for riders with height from 5'2" – 6'7")
Wheelbase:	3'6"
Width/Track width:	2'9" / 2'7"
Ground clearance:	5.5"
Turning circle:	14'5"
Weight:	from 36,5 lb
Max. Payload:	up to 308 lb
Package measuring:	2'11" x 2'9" x 3'2" (LxWxH)
Price:	starting from 3.390,- €, with motor from 5.980,- €
Available:	from September 2015

sion in the standard colours of Pearl orange and blue shade grey. For more details, please visit [www.hpvelotechnik.com](http://www.hpvelotechnik.com) or call + 49 61 92 - 97 99 20.

#### (Only for the desk:)

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**Hint for editors:** You will find the press release in a download version at [www.hpvelotechnik.com/presse/neuheit-liegerad-scorpion\\_fx\\_e.html](http://www.hpvelotechnik.com/presse/neuheit-liegerad-scorpion_fx_e.html)

#### HP Velotechnik at the trade shows:

**Eurobike:** August, 25th 2014 (DemoDay, only trade visitors and press): Fair Friedrichshafen, Parking Area East 1, booth DD-514

26. – 29. August: Fair Friedrichshafen, Foyer West, booth FW-300; E-Trike test parcours: Eastern Outdoor Area, booth FG0-106

**Interbike:** September, 16 – 18, Mandalay Bay Convention Center in Las Vegas, NV, booth 4151

#### Background information on HP Velotechnik

HP Velotechnik was founded by Paul Hollants and Daniel Pulvermüller in 1993. Its production site in Kriftel near Frankfurt employs 35 people (including four trainees) and manufactures approximately 2,000 recumbents per year, making it the European market leader. The bikes are individually built to order by hand and sold via specialist bike dealers. Signs of growth are evident: The recumbents are sold in Germany and Europe; increasing numbers are also being exported to more distant regions such as U.S.A., Australia, and Japan.

HP Velotechnik has developed 14 recumbent models across the entire class spectrum from everyday bikes to racers. All models are available with powerful electric motors on request. Recently, the fullsuspension trikes of the Scorpion class won three times in a row the renowned Eurobike Design Award: In 2012 the speed pedelec Scorpion fs 26 S-Pedelec, in 2013 the mountain trike Scorpion fs 26 Enduro, and in 2014 the SUV trike Scorpion plus 20.

Even as students, the company founders Hollants and Pulvermüller were national champions with their cabin trike in the Association of German Engineers' 1992 JUTEC youth and technology competition. This provided the foundation stone for their development from a garage laboratory to one of Germany's most innovative bike companies. During the last ten years, HP Velotechnik was repeatedly named as one of Germany's three best bike manufacturers by the bike industry association VSF. For further information, please visit [www.hpvelotechnik.com](http://www.hpvelotechnik.com)