

## **HP Velotechnik Scorpion plus 20** **Eurobike trade show Friedrichshafen 08/26 - 08/30/2014**



### **New for 2015: Stylish Trike for Power Rehabilitation**

**The „Scorpion plus 20“ from HP Velotechnik sets new standards in terms of comfort and functionality / High seat for extremely easy mounting / New electric motor with reverse gear / System accessories expanded to include a footrest, hand rests and walking aid attachment**

**(Summary)** FRIEDRICHSHAFEN. Vehicles from HP Velotechnik offer a key advantage over conventional bikes: the trikes are 100 percent stable. This is a decisive factor for many people who still want to lead an active lifestyle despite mobility problems. The recumbent manufacturer claims that the trikes are „the perfect partner“ in this regard. Furthermore, the new „Scorpion plus 20“ model shows that ergonomically optimized technology can not only work fantastically but also look great. From 26 – 31 August, Eurobike visitors can see the benefits for themselves in the west foyer (FW 300).

The key to the new innovation was the harmonious symbiosis of comfort, functionality and design. Never before has it been so easy to mount a trike in the typical HP Velotechnik design with two front wheels. This has been achieved by completely re-designing the frame and making it far higher and wider than on previous models. However, the „Generation Plus“ is certainly not forgetting its roots. It remains true to the core range of multi-award-winning sporty Scorpion models with features such as the full-suspension, foldable chassis. The benefit of the 20-inch rear wheel: the trike remains compact and offers plenty of space for transportation. With the lowrider installed, four bags (up to 50 kg / 110 lbs luggage) fit on the wide platform luggage carrier.

With the greatly expanded „Comfort and Ability“ options segment, the modular system promises highly functional accessories for 2015. Ergonomically designed foot- and hand-rests make it possible to make versatile adjustments in line with special needs. The new hook and loop spring fastener featuring a highly functional snap mechanism, is a real eye-catcher. Users are also awaited by other brilliant innovations such as the walking aid bracket with one-handed operation.

HP Velotechnik is also presenting a real masterstroke in the field of electric motors: a reverse gear for the electric bike. At the push of a button, the vehicle can roll slowly backwards. This is where the structural stability of the trikes truly comes to the fore, making turning maneuvers a real breeze. However, the most astonishing thing about the larger Scorpion is that the frame's new geometry now also enables far smaller riders with heights from just 1.49 meters (4'11") to easily climb onto the elegant vehicles and start pedaling.

The „Scorpion plus 20“ comfort trike will be available from specialist dealers from January 2015 in Sahara silver or Magma red. Price: from 3,890 Euros (US \$ 4,750) in the basic model or from 6,380 Euros (7,840) with motor. Further informations: [www.hpvelotechnik.com](http://www.hpvelotechnik.com) / +49 61 92-97 99 20.

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**(Long version)** FRIEDRICHSHAFEN. Despite often being regarded as mutually exclusive, the German bike manufacturer HP Velotechnik displays how ergonomics and design can be successfully combined with its new „Scorpion plus 20“ model. The trike, together with an brand new accessories line, was specially designed for people with special needs. As a result, age-induced mobility problems, physical handicaps or rehabilitation following an injury no longer prevent you from getting out on a bike. From 26 – 31 August, Eurobike visitors can head to the west foyer (FW 300) for a first-hand insight into the many ways in which the new collection can be combined and optimized to meet the broadest range of requirements.

The core item in the specialized product segment is a brand newly designed frame for the Scorpion plus series. This is about ten centimeters (3.5") higher and wider than that of previous models. The result: Never before has it been so easy to mount a trike in the typical HP Velotechnik design with two front wheels. The comfortable mesh seat at a height of up to 57 centimeters (22") gives the impression of a comfortable deckchair on wheels. According to Managing Director Daniel Pulvermüller, this is a pleasant and desired side-effect of operation comfort: „Unlike our company's sporty recumbents, the seats on the Scorpion plus are so high that riders can not only get on easily but also have a clear view in traffic.“

According to Pulvermüller, however, the real design plus only becomes clear on taking a closer look: Unlike on sporty members of the Scorpion family such as the Enduro or the S-Pedelec, the seat edge on the generation plus model appears to move forward to the frame cross-members. We say „appears“ as actually, in relation to the design as a whole, the seat is positioned further back. This was necessary to optimize the center of gravity and enable the high vehicle to achieve its impressive tipping stability.



To still enable users to mount the trike easily, the developers have made major changes to the geometry of the front wheel axles. The two support elements on the main frame now strain powerfully forward and act like open arms, inviting users to take a seat with a single movement. The wishbone and stabilizer system were also radically overhauled for the comfort model: In line with the contours of the frame cross-member, they are swept forward to create more space between the wheel and the frame, enabling users to mount the trike easily. An extra bonus from „operation comfort“: The permissible maximum load has increased from 140 to 150 kg (330 lbs).

Yet the most astounding thing about the larger Scorpion plus is that the new geometric design now also enables far smaller riders with heights from just 1.49 meters (4'11") to easily enter the stylish trikes and start pedaling.

**New model as a versatile platform**

But despite all these changes, the vehicles have in no way lost their classic Scorpion genes. The trike is a full-suspension model that uses the same tried-and-tested McPherson chassis as the rest of the „Scorpion fs“ range. Thanks to HP Velotechnik's patented quick-folding hinge, the trike can be quickly and easily folded to just 81 x 91 x 83 cm (32" x 36" x 33": L x W x H) and fits in most car trunks. Thanks to the trike manufacturer's broad modular system, the equipment can be configured in line with customer desires and offers one decisive new feature: The „Scorpion plus 20“ has been optimized as a platform for offering people with special needs a highly versatile vehicle.

Pulvermüller's co-partner Paul Hollants explained the reasons for taking the new direction: „We have noticed growing demand for solutions for people with mobility problems – and have also seen that there is a fair amount of room for improvement in the field of muscle-driven vehicles.“ The German company has also received support for this approach from Dresden Technical University (TU Dresden). In the Department of Diagnostics and Prevention, Professor Carmen Hagemeyer has been working on the topic of cycling for many years. In 2014, a dissertation was written about the image of trikes, involving a survey of 1,220 adults. One of the findings by the academics: „People don't want a vehicle that stigmatizes them,“ commented Hagemeyer. If trikes were associated with the idea of their owners being 'old and decrepit', it would be tough for such bikes to be „socially accepted“. Hollants see this conclusion as sup-

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porting his company's aims: „Good technology also has to look great – clean, tidy and functional.“

The academic confirmation of the importance of sophisticated designs motivated the developers to take the ideas that they had collated over time and develop a new „Comfort and Ability“ options product line. On the one hand, this includes classic aids such as footrests, hand rests and walking aid bracket. On the other hand though, the team with head designer Pulvermüller also regarded it as at least equally important to offer new solutions in the booming field of electric mobility.

#### Back to the future with a new motor

The most spectacular new feature was designed in cooperation with the premium supplier GO SWISSDRIVE: the motor with an electric reverse gear. The trikes can take advantage of their structural stability reversing at speeds of up to 3 km/h (2 mph): they are so stable that maneuvers can now be made at the push of a button without getting off the trikes. Yet this is not all that the 250 W hub motor from the Swiss company can do: The new remote control is attached directly to the handle. All switching can be done intuitively with a thumb on the remote control, rather than having to look at it, though the large new TFT color display (3.2") does allow for easy overview and control. Furthermore the unit is very flexible: Ready for Bluetooth 4.0 communication it allows phonecall visualization during the ride. Service data exchange is possible via app. In addition the USB connector enables the rider to charge USB devices up to 5V / 1A.

A key factor for people with special needs: the motor can be individually programmed with different software profiles. For example „Start Power“ offers a powerful boost with limited required leg power, which can be very useful for MS patients, for example. The „Interval“ option provides an equally powerful boost even if the leg power is applied very unevenly, as is often the case

for people after a stroke. All this requires a fair amount of „juice“ – something that is not a problem for the enhanced Li-Ion rechargeable battery (36 V): With 558 Wh, it now offers 25 percent more capacity. On the twin battery model offered by HP Velotechnik, with two rechargeable batteries positioned under the seat for an optimally balanced center of gravity, this means that the trikes can achieve ranges of up to 260 km (162 miles) using low levels of electric assistance. There is also plenty of „fuel in the tank“ for an enjoyable day trip when the drive is turned up full.

#### System accessories for hands and feet

At a first glance, the new products in the classic aids area do not appear to be anything extraordinary. However, HP Velotechnik is also offering innovations and exciting detailed solutions here: the footrest and hand rest are equipped with the new hook and loop spring fastener featuring a highly functional snap mechanism. One tug on the fastening – and the hand or foot is released. The width-adjustable footrest can be easily clipped into conventional clipless pedals (SHIMANO SPD). The benefit: the adjustable trigger on the safety binding en-

#### Technical data *Scorpion plus 20*

Basic model, other components on option

Frame:	<i>Scorpion plus 20</i> (Alu 7005 T6) 10 years warranty
Color:	Plain Sahara Silver or Magma Red with front boom and chainstays in black; other colors on option
Tires (front):	<i>Tryker</i> by SCHWALBE (20")
Seat height:	from 43 cm ( <i>BodyLink</i> hard shell) up to 57 cm ( <i>ErgoMesh HS plus</i> mesh seat)
Seat angle:	35 – 44°
Suspension:	HP Velotechnik McPherson strut with stabilizer system (front 60 mm); DNM DV22 steel spring/oil (rear 80 mm)
Brakes:	2 x AVID BB7 disc brakes (front, individual application to each wheel)
Gear system	SRAM <i>DualDrive</i> 24 speed
Length:	168 – 200 cm (adjustable for riders with height from 149 – 200 cm)
Wheelbase:	110 cm
Width/Track width:	91 cm / 86 cm
Ground clearance:	16 cm
Turning circle:	4.75 m
Weight:	from 18,8 kg
Max. Payload:	up to 150 kg
Package measuring:	81 x 91 x 83 cm (LxWxH)
Price:	starting from 3,890 €, with motor starting from 6,380 €
Available:	from January 2015



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sures that this opens reliably in the event of an accident. Or the vastly enhanced transport device: even bulky loads can easily fit on the new, wide, platform luggage carrier. With the lowrider installed, four bags (up to 50 kg / 110 lbs luggage) can be positioned beneath this. One particular benefit in relation to luggage is the brand new quick-lock bracket for walking aids. The design is similar to that used for garden tool accessories. However, the German designers have decisively modified the principle for their trikes with a stainless steel safety clip: Crutches can be pushed in, securely clipped into place and pulled out again using just one hand.

The manufacturer assures that that various options are also available for the bigger brother: The „Scorpion plus 26“ with larger structural dimensions for the smooth-running 26-inch rear wheel does not have a platform luggage rack. Thanks to the modular system, however, the manufacturer can quickly add further equipment to the bike for people with mobility problems.

However, the managers in Kriftel do not regard the new product field as conflicting with their image as a manufacturer of bikes with sporty and tour-oriented designs: „Ergonomics have always played an important role for us.“ According to Hollants, the company has been working with experts in this field since the mid-1990s. It is for good reason that standing-up aids, one-handed operation and a higher seat have long been available as accessories. It is also little wonder that orthopedic and urology doctors have long-since advised the use of the comfortable recumbents.

However, the real „trigger“ for expanding the product range came in the form of feedback from specialist dealers, with whom the manufacturer has always worked very closely. Hollants: „Our dealers have clearly indicated to us that there is already great demand in this area.“ In view of two social developments, he also sees „great potential“ that goes far beyond the innovations announced for 2015. Public opinion on private transport is changing, with people are moving away from cars to



conventional or electric bikes. People are also getting older but want to remain fit and active.

The „Scorpion plus 20“ is available in the new elegant color scheme of Sahara Silver or in Magma Red. It will be available from specialist dealers from January 2015 with a starting price of 3,890 Euros (US\$ 4,750). With the premium GO SWISSDRIVE motor, the bike costs 6,380 Euros (US\$ 7,840); with the optional BIONX 250 W motor, the overall cost is reduced to 5,380 Euros (US\$ 6,640). For further information please visit [www.hpvelotechnik.com](http://www.hpvelotechnik.com) or phone +49 61 92 - 97 99 20.

**A large range of press photos** is available for download from: [www.hpvelotechnik.com/SPS\\_Reha\\_Foto](http://www.hpvelotechnik.com/SPS_Reha_Foto) or [www.hpvelotechnik.com/SPS\\_Foto](http://www.hpvelotechnik.com/SPS_Foto)

**Hint for editors:** For separate press release on the other new „Scorpion plus“-model, the „Scorpion plus 26“, see [www.hpvelotechnik.com/presse/Neuheit-Liegerad-Scorpion\\_plus\\_26\\_e.html](http://www.hpvelotechnik.com/presse/Neuheit-Liegerad-Scorpion_plus_26_e.html)

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**HP Velotechnik at the trade shows**

**Eurobike:** 26.08.2014 (DemoDay, only trade visitors): Fair Friedrichshafen, Parking Area East I, Stand DD-514

27. – 30. August (27th – 29th only trade visitors / open to the general public on 30th): Fair Friedrichshafen, Foyer West, booth FW-300;

E-Trike-test parcours: Eastern outdoor area, booth FG0-109.

**Interbike:** September 10 – 12, Mandalay Bay Convention Center in Las Vegas, NV, booth 3061.

**Background information on HP Velotechnik**

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 30 people (including four trainees) and manufactures approximately 1,700 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 15 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 e-trike Scorpion fs Enduro caused a sensation and won the renowned Eurobike Design Award 2013.

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. In 2012, HP Velotechnik was once again 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)