

EDITORIAL









Mobility needs joy. We offer both.

The specialized bikes and trikes from HASE BIKES in Waltrop, Germany, are magnificently versatile partners for self-powered mobility. Riding fun included. With 20 years of experience in the development and building of tandems and trikes – and a passion for continuous innovation – Marec Hase and his team of 40 employees are "mobilizing" more and more people of all abilities. HASE BIKES offer a unique combination of amazing versatility and out-

standing riding enjoyment, be it in everyday use or on tour. And this is no accident: almost everyone who helps design or build our bikes, or works with HASE BIKES' dealers and customers, is a genuine cycling buff. Their valuable practical experience — with everything from the occasional shopping trip to the daily commute — is helping shape the future of mobility. The EFBe institute in the new HASE BIKES building tests every bike and trike prior to series production for a new, modern, and sustainable approach to mobility.

Structural change? We've been working on it. For 20 years.

The term has many meanings: producing new things, setting new goals, living in a changing world. Ultimately structural change comes down to changing your life and your world. Today, this concept has a special significance for us in the Ruhr region of Germany. Here, major changes in economic and social structures have already been taking place since the end of the last century.

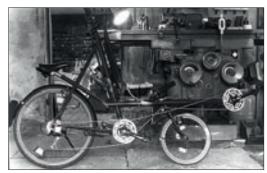
Our story about LEPUS-fanatic Ulrich Trappmann came from Hörde – a district of Dortmund with a steel-making past and a vision for a future in which a healthy environment, sustainability, and human living spaces once again play a more important role. Those of us who can follow, experience, and possibly even have a say in the changes being made in our surroundings, little by little, face a great challenge, as well as an opportunity. Our portraits of individuals in this catalog tell many stories of "private structural change" – of development and personal transformation.

We've also BEEN the change. For 20 years.

Bochum has been one of the most important sites in the European automotive industry for more than half a century. An identity whose days are numbered, as this industry will soon have to completely rethink its vision for the future and redefine itself. This is also "structural change" – in global contexts.

However – as is demonstrated by our stories – this doesn't mean that history is destroyed. It's just shifting direction. Often with new stakeholders.

Marec Hase founded HASE BIKES 20 years ago in Bochum. In this car-manufacturing city, the foundations were laid for a completely new concept of mobility. One that is much more concerned with both our future and our children's future. And still values the element of fun. Among insiders, our KLIMAX series has become a rolling symbol of sustainable, future-oriented transport and riding enjoyment in any situation. And let's not forget: a new mobility for people with disabilities. Riding fun and







the joy of self-powered movement is a tremendously important factor in this area as well. In 1989, Marec Hase won the state youth science and technology competition "Jugend Forscht". On this page, you can see some of his first bikes and recumbents, the ancestors of today's HASE BIKES.

This year, we're celebrating our 20th anniversary – but not just as a personal success. Our motivation and aims are connected with an evolving global mindset. Whether it's for traffic, transport, and mobility or social issues.

EDITORIAL













bygone age in the Ruhr region and presented them in contrast to our concepts for a new mobility – in thought-provoking images. Some of the photos were taken in Wulfen Barkenberg, a city that was once planned as the model for a completely new kind of living environment, specially adapted to the world of coal-mining. Long before the era of structural change.

Let's keep changing! A "love of the load" and other innovations.

The ever-increasing versatility of each new PINO version even surprises us at times. Like its predecessors, the PINO PORTER has created even more exciting mobility options: the cargo bag takes the place of the front pedaler, offering more space for those XL loads. But as always with HASE BIKES: versatility is queen. It takes a mere 3 minutes to transform the tandem to a heavy-duty hauler – see the section starting on page 18.



A "structural change" in the literal sense: our new adult seats. The seat bottom and back can now be adjusted for completely individualized comfort. Additional highlight: a new front-wheel motor for the KLIMAX 2K and the e-versions of the LEPUS and Pino. Silent, with 250 watts and torque peaks of 60 Nm, and yet more powerful than the old model. After all, we're always on the lookout for better ways of moving forward.

Your HASE BIKES team



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20 YEARS OF HASE BIKES

















Mobility in Progress

Turning 20 is amazing: you're grown up but still full of youthful energy and ambition. And you can already look back with a touch of nostalgia at how things came to be ...

I: The start of a new phase of mobility.

Seventeen-year-young Marec Hase with his tandem-trike (a "side-by-sider") — winner of the youth science and technology competition "Jugend Forscht" 1989.

2: Why not two wheels for a change?

This recumbent-bike prototype with extremely small wheels was designed in 1990; Marec can be seen here taking it for a test spin.

3: Garage with history.

This so-called "carriage house" of an art nouveau villa in Bochum was the first HASE BIKES headquarters.

4: First employees, first logo.

The dawn of a new era: this photo was taken in 1997 – the company had only six employees. Third from left: Marec Hase, beside him: Igor Paviltchenko, his first employee and still at HASE BIKES; right: Kirsten Wilke (now: Hase), today co-managing director.

5: The cool and laid-back way to cruise.

LEPUS's ancestor, the full-suspension Easy Glider from 1994.

6: Handmade in Bochum.

The first KETTWIESEL frames were soldered together by hand in the HASE BIKES workshop.

20 YEARS OF HASE BIKES

















7: Going green.

The PINO was assembled in 1999 in the custom-designed "greenhouse" addition to the carriage house.

8: Shared enjoyment.

Even more unusual than the name was the fact that the comfortable Periskop, predecessor of the PINO, was built for two people, but neither of the riders had a normal bicycle saddle (1994).

9: Double the fun, and almost double the speed.

The racing version of the PINO on the velodrome in Kaarst-Büttgen near Neuss.

10 & 11: KETTWIESEL-nauts.

At the opening of the IFMA 1999 in Cologne, the world's largest bicycle trade show at the time, three HASE BIKES employees pedaled over the Rhine on floating trikes. The KETTWIESELs on floats attracted a new kind of media attention.

12: Built for speed.

From 2007 to 2009, the PINO was also available in a sophisticated titanium version: weighing in at a mere 30.2 lbs (13.7 kg) and therefore an extraordinary sprinter.

13 & 14: The world's longest tandem.

In 2003, Marec Hase hitched together 63 KETTWIESELs; then, in 2007, he set another world record with 93 trikes. With this KETTWIESEL worm, the 93 riders pedaled 1.9 miles (3 km) through the grounds of the historic coalmine Zeche Waltrop.

15 & 16: Stunts make an impression.

The KETTWIESEL not only swims: it also flies. At least when our daring stuntman takes the controls: Andreas Dunsche always draws a crowd.

CHALLENGE WEEKS



HASE BIKES keeps kids with disabilities moving ... and vice versa.

It all began in 2012 as a project in Lauffen that inspired everyone involved. The students of a school for the mentally and physically disabled experienced new levels of joy, more development potential for physical and mental abilities, and a higher quality of life — through cycling. In 2013, HASE BIKES developed the event series Challenge Weeks to demonstrate the opportunities created through independent cycling mobility.

A schoolyard reverberates with the animated voices of children. "Go, go, go!" shouts a boy; a bright-eyed girl is running alongside one of her schoolmates on a recumbent trike. At the Helen Keller School, it's the final day of the first Challenge Weeks event. Echo Online in Darmstadt published an article with the headline "Specialized Bikes Wow Students and Teachers." Two PINO tandems, three TRIX trikes, and one TRETS trike were loaned to the school for three weeks. In their sports and road-safety classes, the students could use them to

explore, for example, their own neighborhood of Königstädten. The school principal declared the event a complete success: "The children were able to really engage with the bikes and trikes. They were especially excited about the Trix trikes – even students with impaired balance." Since the event, the school has begun thinking about investing in a few bikes and trikes like these. They already own two therapeutic trikes, but the classic upright three-wheelers are often technically inappropriate or not safe enough.

CHALLENGE WEEKS



















The idea for the project didn't come out of the blue: in the summer of 2012, we visited the Kaywald School in Lauffen. Thanks to a highly motivated booster club, the school owns two PINOs and two TRIX. There are also two students who use their privately owned TRIX at the school. In the cycling club, which is led by two highly committed teachers, you can see the effects that cycling can have on development, even for children with very severe disabilities: motor skills and body awareness are trained through the movement and muscular activ-

ity that go hand in hand – or foot in pedal – with cycling. The social component is at least as important: acting autonomously and accepting responsibility – for example, with the PINO tandem, where the captain at the controls learns to watch out for the front passenger. "We've noticed significant improvements in physical consciousness, self-esteem, and social skills," explained Thomas Rienth, one of the founders of the Kaywald School's cycling club.

Institutions that take part in the Challenge Weeks, like the Helen Keller School, are free to decide how the vehicles should be used: for cycling clubs, sports classes, mobility training, physical therapy, or simply during recess. Local HASE BIKES dealers provide technical support; and if there are any questions, the HASE BIKES headquarters are just a phone call away.

During the Challenge Weeks, the students of the Helen Keller School in Rüsselsheim had loads of fun. This was easy to see. They also had the chance to learn more about themselves and their relationships to others in a playful manner. Achieving this is a

challenge in itself. And we at HASE BIKES will continue accepting the challenge of building and improving fun and functional bikes for riders of all abilities.



Structural change means: new ways of thinking. And showing your true colors.

The world is changing. Today's fresh ideas from Germany's Ruhr region look different. And they sound different. Intelligent. Sustainable. And with a whole lot of built-in fun for everyday life.

Recommended for

000000

Tour/Fun

Commuting

Characteristics very maneuverable

· foldable fairing

(in Germany)

· road traffic licensing with small

• regen braking = energy recovery, reduced brake wear e-motor – 28 mph (45 km/h)

license plate (in Germany) requires Class S driver's license

Rehab

Family

Five hundred watts in the front wheel, two pedals, speeds of up to 28 mph (45 km/h). Sounds straightforward. The difference to other commuting concepts: it actually works and is even loads of fun. The twist-grip throttle on the handlebar lets you control the power coming from the hub motor. You

decide whether and how strongly to pedal along.

With the Crystalyte motor in the front wheel, you can hightail it to your destination. Even longer-distance commutes are no problem with the 540-watt-hour rechargeable battery (with a voltage of 48 V). But beware: you may make some drivers jealous when you zoom off from the stoplight. In city traffic, you're not computer. There is even a USB port that proonly faster, happier, and more environmentally friendly: you also stay just as dry in the rain as your gas-guzzling peers.

The specially developed HASE BIKES Foldable Fairing keeps you warm and dry in any

weather: and it just takes a few seconds to "put the top up" ... and down again. For cloudbursts, the poncho can be quickly snapped into place to keep your collar dry. And thanks to the central console, you'll have everything under control and in view: batterycharge status, motor assistance level, speed, and data from the integrated Trelock bike vides your GPS or MP3 player with power from the battery.





Technical data:

Total length: 63"-81" (160-205 cm) **Total width:** 34" (86 cm) Total height with fairing: max. 3'6" (107 cm) Turning circle: left 10'10"(3.30 m). right II'6" (3.50 m) at mean length

Bottom bracket height: 18½"(47 cm)

Wheelbase: 46"-64" (116-162 cm) Frame/Fork: 7046 aluminum Front boom: 6061-T6 aluminum Max. load: 265 lb (120 kg) Weight: 83 lbs (37.5 kg)

Seat height: 18" (46 cm)

Pack size for Foldable Fairing: 26"x II" (67 x 29 cm)



Commuting with a natural high

It was an easy decision. Stephan Deininger bought the very first KLIMAX 5K. His reasons were purely pragmatic: length of commute, price, costs per mile. But there was a bonus he hadn't factored in: phenomenal fun.

He'd done the math: purchase price, power consumption, and maintenance versus fuel consumption, inspections, repairs, taxes. Stephan Deininger lives in Allensbach, near Konstanz, and commutes every day 18½ miles (30 km) to Switzerland, his native country.

"When it comes to finding solutions, the Swiss are known for their rationality," he says, implying clearly that he is no exception.

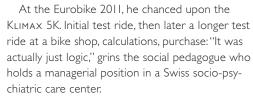
This was the basis for his decision in 2012:"I wanted to find an alternative mode of transport."

Costs were only one side of the coin: "I didn't want to waste my time sitting in a car. Time that, as a father of two, I never seem to have enough of.

And I wasn't getting enough exercise," said the wiry, athletic 38-year-old. "I also wanted to save time by avoiding the traffic jams," he remembers. Anyone familiar with the region around Konstanz would understand this concern. And then there was his environmental consciousness. He had made the trip a few times by bike, but weather issues and the added time made it unfeasible.







The car has since been sold. Every day, Stephan Deininger rides 7 miles (11 km) to the Swiss city of Kreuzlingen – passing the customs officials, who are all familiar with the curious vehicle by now – locks up the trike at the train station and travels the





remaining 12 miles (19 km) by train. Sometimes he speeds all the way to his office by trike.

"It's just like I imagined," he says. "Reasonable costs, acceptable travel time; out of town, I can ride on bike paths – passing the traffic jams – and I can use the trip as exercise whenever I choose." After all, the 5K can be ridden with and without pedal assist. "Rain is no longer an issue," he says happily, explaining that he rarely uses the optional poncho that snaps onto the fairing as additional rain protection: "The fairing is almost always sufficient."



A complete success in terms of practicality. But there's even more to the story: for Stephan Deininger, the KLIMAX is a daily source of pleasure. And on that subject, the soft-spoken man reveals a little more emotion: "It's amazing fun to ride," he grins. "It gives you such a natural high! I'm always in a good mood when I get to the office. If I'm tired after a long day, I just ride with more motor assist. When I need to unwind, I do some rigorous pedaling to clear my head — fantastic! And at the stoplight, if I really open it up, I can leave the cars in



the dust...," he says with sparkling eyes. "And furthermore, I think it's fascinating how you can get from A to B in a completely different yet completely practical way!"

And his wife? "She's very understanding," grins Stephan Deininger: "She told me to do it if the numbers added up and it was good for me." It sure seems to be.



Features and equipment:

Brakes: Rear: Tektro Auriga Twin hydraulic disc brakes, Front: Avid BB7 mechanical disc brakes

Wheels: 20", Hubs: Hase Bikes Quickstick, Rims: double wall with eyelets, Spokes: Sapim, Tires: Schwalbe Energizer Plus 47 x 406

Gears: 8-speed internal gear hub Shimano Nexus Premium with twist shifter

Crankset: Truvativ Touro 52 tooth

Lighting system: Taillight: Universal Tri-LED with standlight, E-tested, Headlight: Philips, SafeRide E-Bike 60 lux

Motor: Crystalyte, 500 Watt front hub motor, Battery: litchium-ion, Capacity: II.25 Ah, Voltage: 48 V, Max. power V/Ah: 500 W, Recharge cycles: 500–800, Charge time: 2.5 h, Range: 25 miles (40 km) at 50 % muscle power, Battery weight: 9 lbs (4 kg), Battery guarantee: 6 months, Auto power-off at: 28 mph (45 km/h), insurance and road traffic licensing required in Germany

Foldable Fairing: red

Special features: 2 side bags 2.3 liter Colors: RAL 7023 concrete gray / powdercoated



Tektro brakes: Smooth and crisp The hydraulic Tektro Auriga Twin on the KLIMAX rear wheels offer superior modulation. But they can also bite down hard if the need arises. One brake lever controls the two discs on the rear wheels. Low maintenance included.



Splash Guard: Dry duds, dude! It turns the KLIMAX 5K into a true all-weather sprinter: your trousers stay dry, even when the path is peppered with puddles. It also keeps dirt and moisture away from the drive train - which reduces maintenance requirements.



Central Console: Cockpit controls
Everything under control and in view:
battery-charge status, assistance level,
speed, and data from the integrated
Trelock bike computer, all at a glance.
A USB port provides your GPS or MP3
player with power from the rechargeable
battery.



Foldable Fairing: What rain?
The Fairing developed by Marec Hase's team: in rain, it can be taken out of the bag and mounted in seconds. For getting in and out of the seat, it opens as easily as a gull-wing door. For winter and downpours, just snap on the optional Poncho.



High-tech folding fairing joint
A lot of fine-tuning went into its design:
the Fairing's most important feature
allows for ingeniously easy mounting and
versatility in wind and weather. Thanks
to its robust construction, the Fairing is
extremely durable and low maintenance.



Headlight: Let it shine...
Brand new from Philips: with its 60 lux of light, the SafeRide for fast e-bikes not only offers optimum lighting power; it also illuminates the street with an especially clear and homogeneous circle of light. The on/off button is located on the console.





AVAILABLE ACCESSORIES



Poncho: Staying totally dry Zip up for consummate coziness. With the Rain Poncho, everything from your neck down will remain absolutely dry, even in a downpour. Just snap it onto the Fairing and climb in. Adjust using the magnetic zipper – finito.



Fairing Bag: Rain insurance You're on tour, and the rain clouds roll in: with the super-slim Fairing Bag, rain protection is always on hand. The bag has a special pocket for your keys and wallet, and it even offers enough additional space to store a jacket for those cooler hours ...



Luggage Bag: A miracle of space The insatiable 42-liter KLIMAX Luggage Bag from Ortlieb in black or white. For XL tours or the week's groceries. Hangs securely from the seatback. The low center of gravity makes your KLIMAX even more solid in the curves (with licenseplate holder).



Rearview Mirror: Eyes forward... An extra portion of safety: vibration-free, infinitely and easily adjustable. Can also be mounted on the right upper edge of the Foldable Fairing. Goodbye blind spot!



Additional Battery: Energy bar Double your mileage with motor assistance? No problem. The additional rechargeable lithium-ion power pack has more weight onto the front wheel withthe same properties as the standard battery. The extra 9 pounds (4 kg) are a piece of cake for the KLIMAX 5K. And one more energy bar never hurt.



Lowrider: Low and be held Even more space for your luggage and supplies on tour: our Lowrider shifts out affecting the handling. Major advantage over standard luggage racks: lots of space between the pedals and panniers!



Recommended for Tour/Fun Rehab Commuting () () () Family Characteristics very maneuverable foldable fairing • e-motor - 15 mph (25 km/h)

In a world of straight lines, sometimes the best solutions are well-rounded.

With our 250 watts under the hood, you'll usually get further faster than in one of the many 100 kW vehicles sitting in traffic jams. And you'll be just as dry. But ultimately, our transport choices are based on fun. As they should be.

Until now, it was almost impossible to combine sustainability, all-weather mobility, and fun under one unified transport solution. With our KLIMAX series, we even got it all under one fairing. And according to German road traffic laws, the 2K is just a bike with three wheels, requires no license plate, and can be used on bike lanes. Shopping trips, cycling tours, daily commutes: the 2K does it all – in any weather. The HASE BIKES Foldable Fairing can be easily mounted for staying dry in rain and snow – and if worse comes to worst, the Rain Poncho seals you in completely and opens with the Fairing like a gull-wing door for easy mounting.

The hub motor provides three levels of assistance, starting as soon as you hit the pedals and switching off at 15 mph (25 km/h). You'll even enjoy riding up steep hills and pulling a trailer – as well as staying active and physically fit without overexertion. The 266 Wh rechargeable battery can be "tanked up" in any power outlet – in just over four hours. And when it comes to sportiness and fun: the 2K is the electro-brother of the Kettwiesel. That says it all.



Technical data:

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Bottom bracket height: 18½"(47 cm)

Seat height: 18" (46 cm) Pack size for Foldable Fairing: 26"x I I" (67 x 29 cm) Wheelbase: 46"-64" (116-162 cm) Frame/Fork: 7046 aluminum Front boom: 6061-T6 aluminum Max. load: 265 lb (120 kg) Weight: 68 lbs (31 kg)





KLIMAX 2K



Halvar in the Batmobile

Waldemar Kobus is an actor with a wide repertoire: theater, the comedy series Alles Atze, Crime Scene episodes, Vicky the Viking films.

He's always been a cycling fan. Now, with his KLIMAX 2K, he has even become a convincing ambassador for alternative transport.

"For years, I was looking for the right sports car," says the man who is immortalized on celluloid as Halvar, the father of Vicky the Vicking. "It was disappointing!" he complains. "Italian, English, German racers — all just disappointing. OK: getting into the driver's seat is always sporty, a tight squeeze," says Waldemar Kobus. "However, the driving: according to the speedometer, lightning fast but the performance: real sluggish! It's just the opposite with the KLIMAX: disappointingly unsporty, even comfortable, to get in through the gull-wing door. But the driving dynamics: super!" he laughs. This is what the actor calls his comic explanation for why he bought a 2K.

The serious explanation: he is an avid recreational cyclist who would do everything by bike if he could – and wants to be physically active in his limited free time. So after two long, cold winters, he'd had enough. He began looking for a vehicle that was also fun and safe to ride in the winter and defies the cold. Luckily, at the time, the first 2Ks were rolling out of the manufacturing facility in Waltrop. And luckily, Marec Hase and Waldemar Kobus have been friends since the HASE BIKES boss gave the hitchhiking actor a ride on his tandem in Bochum in 1995. We met with the witty giant on his 2K at the very place where Waldemar Kobus was performing theater back then – in Bochum, when Leander Haußmann was the theater director.

Today, as a freelance film actor, he travels a lot. "But I'm not the hotel type," he explains. Instead of checking into a hotel room, he takes along his RV, which he parks at the destination, "and once it's parked, it stays there," says Waldemar Kobus resolutely. "It isn't fired up just to fetch some rolls!" For all of his trips — to the film set, for shopping, or during his free time — the KLIMAX 2K is waiting in the garage compartment of the motorhome. Just roll it out and go. "The KLIMAX is becoming an increasingly multifunctional trike," he points out. "Even the shopping — which, for me, can be quite a substantial load — fits in the trunk bag!" But he also has loads of fun with the KLIMAX on tour: "The e-bike motor has cured my fear of hills. Now I

KLIMAX 2K



even take on remote, steep side streets in the

Alps," he says in the same authoritative tone of

Waldemar Kobus is a man of conviction, as he

through German metropolises. "With the trike, I

feel absolutely at ease wherever enough space is

Hamburg. Crowded cities with bike paths squeezed

behind rows of parked cars – there, it can be more

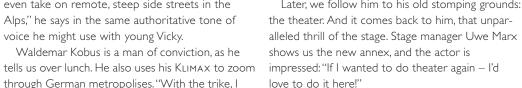
reserved for bikes and trikes - like in Berlin or

tricky," he explains, playfully wagging a finger.

voice he might use with young Vicky.







It's especially nice for the "local hero" to be travelling the streets of Bochum again with his KLIMAX. However, it's usually not Vicky's famous father that turns heads, but his vehicle: "Eh, cool! Look, the batmobile!" the children scream in awe.









Awe is also what we see on the face of an old acting colleague – an inspector from the Cologne Crime Scene – who Waldemar Kobus meets at the stoplight right after the KLIMAX photo session. He wants to take a spin, too. And is bedazzled.

It might not be long before the Crime Scene investigators are also switching to other official vehicles. "The SPORTY ones, with the comfortable gull-wing doors," laughs Waldemar Kobus heartily, while his colleague heads off for another ride around the block.

17











Features and equipment:

Brakes: Rear: Tektro Auriga Twin hydraulic disc brakes, Front: Avid BB7 mechanical disc brakes

Wheels: 20", Hubs: HASE BIKES QUICKSTICK, Rims: double wall with eyelets, Spokes: Sapim, Tires: Rear: Schwalbe Big Apple 60×406, Front: Schwalbe Marathon 47×406

Gears: 8-speed internal gear hub Shimano Nexus Premium with Centera twist shifter Crankset: Truvativ 32 tooth

Lighting system: Dynamo: B&M Dymotec 6, Taillight: Philips SafeRide LED, standlight, Headlight: Philips SafeRide 40 lux

Motor: Heinzmann Directpower hub motor, Battery: lithium-ion, Capacity: II Ah, Voltage: 36 V, Max. power: 250 W, Recharge cycles: 500–800, Charge time: 4.5 h, Range: 25 miles (40 km) at 50 % muscle power, Battery weight: 7 lbs (3.2 kg), Battery guarantee: 24 months, Auto power-off: 16 mph (25 km/h), with startassist function max. 3.7 mph (6 km/h)

Foldable Fairing: blue

Special features: Side bag 2.3 liter **Colors:** RAL Effect 190-4 / powder-coated



Hub motor: It's watts inside that counts

The extra oomph that turns your daily route into a joyride. With 250 W and up to 60 Nm of torque, the front wheel pulls you toward your destination as soon as you start pedaling. You choose how much support you need.



LCD Display: Perfect overview

Speed, battery-charge status, assistance level – all route and drive data viewable at a glance; even in sunlight. Easy fingertip operation: you don't even have to take your hand off the grip.



Splash Guard: Dry duds, dude!

It turns the KLIMAX 5K into a true allweather sprinter: your trousers stay dry, even when the path is peppered with puddles. It also keeps dirt and moisture away from the drive train - which reduces maintenance requirements.



Gear Hub: Transmission talent

Eight speeds in one high-tech shell. The Premium version of the Shimano Nexus is the perfect transmission for our commuter trike: can be shifted when stopped, smooth running, dirt resistant, and maintenance free. Easy-to-use twist shifter.



Foldable Fairing: What rain?

The Fairing developed by Marec Hase's team: in rain, it can be taken out of the bag and mounted in seconds. For getting in and out of the seat, it opens as easily as a gull-wing door. For winter and downpours, just snap on the optional Poncho.



High-tech folding fairing joint

A lot of fine-tuning when into its design: the Fairing's most important feature allows for ingeniously easy mounting and versatility in wind and weather. Thanks to its robust construction, the Fairing is extremely durable and low maintenance.

KLIMAX 2K





AVAILABLE ACCESSORIES



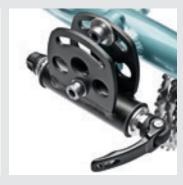
Universal Mounting Bracket: Clever clamp

Information is everything, especially with the miles flying by under your seat. If you are fond of facts and figures: the bracket can be used for mounting any type of bike computer or GPS unit. Or ... Fits $\frac{5}{8}$ "-2 $\frac{1}{3}$ " (15-60 mm) tubes.



Lowrider: Low and be held

Even more space for your luggage and supplies on tour: our Lowrider shifts more weight onto the front wheel without affecting the handling. Major advantage over standard luggage racks: lots of space between the pedals and panniers!



Universal Coupling: Get hitched!

This multifunctional coupling will hitch as easily to your cargo trailer as to the TRETS or a child trailer. And a true tandem can be created by attaching the fork of a second KETTWIESEL. Also Weber and BOB Yak systems: just hitch and go!



Poncho: Staying totally dry

Zip up for consummate coziness. With the Rain Poncho, everything from your neck down will remain absolutely dry, even in a downpour. Just snap it onto the Fairing and climb in. Adjust using the magnetic zipper – finito.



Luggage Bag: A miracle of space

The 42-liter Luggage Bag from Ortlieb in A list of all available accessories can be black or white can swallow a whopping 15 kg. Enough space for XL tours or the site. week's groceries. Hangs securely from the seatback. The low center of gravity makes your KLIMAX even more solid in the curves.

Additional accessories:

found on pages 66-67 and on our web-



Recommended for 00000 Tour/Fun Rehab 000000 Commuting 000000 Family **Characteristics** recumbent-upright combination makes communication easy • good visibility for both riders • freewheel: ideal for families and rehab · maneuverable owing to short wheelbase optional suspension • two-part frame • e-motor option

Treats "to go". Sometimes the "going" itself is a treat. Especially if you never have to go it alone.

The deserted ice cream parlor at the market square: a relic of fond memories melted into the past. In contrast: the dynamic PINO in front, a symbol of the future: moving forward together ... sustainably.



Half recumbent, half upright tandem, on the whole, an unbeatable concept: the PINO is one of the most versatile shared mobility options for duos or trios. The captain in the second row has the same unhindered view as the stoker, and the tandem is incredibly adjustable, making it possible for passengers

who (still) can't pedal to sit on the comfortable front seat: for example, children from 3'3" (100 cm) in height (with optional Children's Crankset) or people with special needs. Front-seat riders have an even more comfortable sitting position than the helmsman. They can lean back and enjoy the panorama at their feet, with the suspension fork beneath them ironing out any potholes. And, thanks to the second freewheel, they can even take a break and let the captain pedal alone for a while.

This nimble tandem can also be taken practically anywhere: thanks to its ultra-stiff tube



joint, not only can the Pino handle extremely heavy loads. Its two frame halves can also be quickly disassembled. The Luggage Rack and

optional Lowrider carry supplies for the whole family – and the hydraulic disc brakes ensure that, even in critical situations, everything stays under control when the going gets ... wild. And with the versatile PINO, this is sure to happen often ...



Technical data:

Total length: 83"-93"(210-237cm) Total width: 25" (64 cm) Total height: 41"-43" (104-110 cm) depending on seat adjustment Seat height, front: 25" (64 cm)

Bottom bracket height, front: 241/2" (62 cm) Wheelbase: 57" (145 cm) Two-part frame: 7005 aluminum Front boom: 7005 aluminum Max. load: 495 lb (225 kg)



For the love of the load!

"Does it work as well in real life as in theory?" Julian Grenz is an assembler at HASE BIKES. With pretty exacting standards. One of the products he builds — with a passion for detail — is the new PINO PORTER: our multifunctional tandem that now offers more mobility because it can even haul a week's worth of groceries or beverage crates for party night. But can it really do the things Julian builds it to do? He puts it to the test.

Julian, 26, lives in Bergkamen in the Ruhr region. When it comes to cycling and bikes, he really knows his stuff. Since his 14th birthday, he's competed in "pretty much every downhill race in Germany," he explains, motioning to his personal machine parked in front of his house: a monster mountain bike with a beefy suspension fork that tells you at a glance it means business. Julian lives on an estate at the outskirts of town with his girlfriend, Sonja, their son, Jaden, and her daughter, Diane. The PINO PORTER prototype is being

prepared for the seven-year-old Diane: "I wanna ride the tandem, too!" Julian lifts her into the seat, adjusts the Children's Crankset to her leg length, attaches it with the quick-release, and pulls the chain around the sprocket. "Can I start pedaling now?" asks Diane as Julian disengages the kickstand. Deffo. They take a spin around the courtyard, returning with a satisfied grin on Diane's face.

Now for the serious stuff: shopping ... big time. Fetch the PORTER BAG. Wrong: the mobile shopping bag is already here. It's stowed – practically

PINO

















invisibly – behind the seatback. Lift it up – rotate it 180 degrees - place it over the seat - pull forward, and then unfold. The giga-shopping cart is ready for action.

And with more space underneath: Julian unfolds the wings of the PORTER RACK under the front seat and loads up two crates of empty bottles. He straps them down with a bungee, and hops on the saddle.

First stop, beverage shop. Trade the empty bottles for full ones, secure the load, and on we go.

"Now for the real test!" Julian heads to the supermarket. We check out with a shopping cart full of groceries. Everything in the PORTER BAG? It fits. A volume of 80 liters swallows a lot of cereal boxes. The zipper closes effortlessly.

Too much weight? A quick call to chief developer Marec: "What's our maximum load?" "Forty kilos, both top and bottom." Quick guesstimate ... still well within the limits. Time to head home – but with a test ride through the fields on the way! Julian's first observation: "The

groceries aren't pedaling at all!" And how is the handling? "Just as easy as in tandem mode," says the like a charm!" comments Sonja. She prefers the tanpassionate downhiller. The ride is smooth and stable; thanks to the suspension fork, the groceries are unfazed by the bumpy path through the fields. The beverage crates stay put. Superb! Homeward bound.

A break? No way: Sonja's waiting for her turn in the front seat. Time to transform the station wagon back into the dynamic duo's "chat-mobile". Julian folds up the wings of the RACK and stows the

folded BAG out of sight behind the seat. "Works dem to solo-biking. "With two people in the pedals, you can really burn some rubber," she explains. Understandably: she was drag racing souped-up cars long before she met Julian.

Conclusion: The PINO PORTER keeps its promises. Julian is satisfied. With himself and his boss, who developed the bike out of a love for the load.



AVAILABLE ACCESSORIES

Children's Crankset: Kid power! The Children's Crankset can be easily

mounted to the frame and adjusted to your child's leg length with a quickrelease mechanism. Just pull the chain around the chainring, and zoom off with kid power. Min. height: 3'3" (100 cm). Safety harness included.



Pedals with Toe Clips and Straps: Firm footing

As an alternative to cleat systems: these pedals hold the front portion of the foot with a brace, guaranteeing the correct foot position, while the elastic strap around the heel prevents slipping. Children's version also available.



Safety Belts: Safe seating

Shoulder harnesses and lab belts gently secure riders with motor disorders to the recumbent seat. The harness is also an excellent safety option for children in the front row.



Double Kickstand: Wobbleproof

Developed by HASE BIKES, loved by touring cyclists everywhere. The bicycle is braced for packing and unpacking and absolutely untippable, even when the front passenger has the fidgets: Can hold a total of 220 lbs (100 kg), including "lively loads".



Lowrider Rack: Tutti completi!

The Lowrider Rack under the recumbent More movement seat carries one small and one large pannier on each side – which, with the rear wheel rack, brings the total capacity to 6 panniers! And the low position of the load between the axles means safe and easy handling!



Freewheel Switch-off:

In rehabilitation, it is often sensible not to interrupt movement. This is where our Freewheel Switch-off comes in: this little mechanism keeps legs in motion. Simple principle, major effect.



AVAILABLE ACCESSORIES

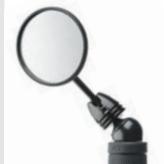
Universal Mounting Bracket: Clever clamp

Information is everything, especially with the miles flying by under your seat. If you are fond of facts and figures: the bracket can be used for mounting any type of bike computer or GPS unit. Or ... adjust the handlebars. Fits $\frac{5}{2}$ "-2 $\frac{1}{2}$ " (15-60 mm) tubes.



Double Grips: Sporty or ergo ... your choice!

Whether joy ride or competition: with the additional handlebar grips, the pilot can alter his or her position as desired for optimal comfort - without having to



Rearview Mirror: Eyes forward...

An extra portion of safety: vibration-free, infinitely and easily adjustable. Can also be mounted on the right upper edge of the Foldable Fairing. Goodbye blind spot!



PORTER BAG: Voluminous, versatile, and even vanishable

The base stats: rainproof, dustproof, and an 80L capacity, which, thanks to an extra zipper in the cover, can even be expanded to 120 L. The entire BAG weighs a mere 3.5 lbs (1.6 kg) but can hold 88 lbs (40 kg). Ingenious features:

the BAG can be divided into sections or used with a single compartment able to accommodate objects up to 35" (90 cm) in length. When fully loaded, the handling is no different than with a front rider. And its design? As sleek as the PINO itself.

Features and equipment:

Fork: suspension fork Spinner Grind I, reinforced version with steel shaft

Brakes: Avid Code R hydraulic disc brakes Wheels: 26" rear, Hub: DT Swiss 340, Rim: double wall with double eyelets, Spokes: Sapim; 20" front, Hub: SON 20 R with tandem approval for HASE BIKES, Rim: double wall with eyelets, Spokes: Sapim; Tires: Schwalbe Marathon front 47 x 406, rear 50 x 559

Gears: Shimano 27-speed derailleur Deore XT with Dura Ace triple crankset, Dura Ace bar end shifters

Crankset/Bottom bracket: Stronglight Z'lite Tandem with integrated freewheel mechanism, Rear 170 mm 30-39-51 Tooth, left 36 tooth, front 165 mm 38 tooth

Lighting system: Hub dynamo SON 20 R with disc brake mount, Taillight: Philips SafeRide LED, standlight, Headlight: Philips SafeRide 40 lux, LED, standlight

Fenders: SKS

Luggage rack: Tubus Logo, Max. load: 88 lbs, (40 kg)

Lowrider: HASE BIKES Pino Lowrider Rack 12 mm aluminum tubing, Max. load: 55 lbs (25 kg)

Seatpost: Airwings Evolution suspension Kickstand: HASE BIKES Double Kickstand,

Max. load: 220 lbs (100 kg)

Weight: 55 lbs (25 kg)

Colors: RAL 9005 deepblack / powder-coated



Additional accessories:

A list of all available accessories can be found on pages 66-67 and on our web-



Features and equipment:

Fork: suspension fork Spinner Grind I, reinforced version with steel shaft

Brakes: Avid Code R hydraulic disc brakes

Wheels: 26" rear, Rim: double wall with double eyelets, Hub: HASE BIKES Tandem Hub, Spokes: Sapim; 20" front, Rim: double wall with eyelets, Hub: HASE BIKES Tandem Hub, Spokes: Sapim; Tires: Schwalbe Marathon, Front: 47×406, Rear: 50×559

Gears: Shimano Deore 27-speed derailleur, Front derailleur: Microshift FD-R539 cold forged, Bar end shifter: Microshift

Crankset/Bottom bracket: Stronglight for tandem with integrated freewheel mechanism, Rear: 170 mm 28-38-48 tooth, left 36 tooth; Front: 165 mm 38 tooth

Lighting system: Dynamo: B & M Dymotec 6, Taillight: B & M Toplight Flat Plus, Headlight: Philips SafeRide 40 lux, LED, standlight

Fenders: SKS

Luggage rack: Racktime Addit, Max. load: 66 lbs (30 kg)

Luggage system: PORTER BAG, Volume: 80 L, Max. load: 88 lbs (40 kg); PORTER RACK foldable carrier with double kickstand, Max. load: 88 lbs (40 kg); PORTER RACKBAG waterproof bag, Volume: 80 L

Weight: 55 lbs (25 kg)

Colors: RAL 6029 mint green / powder-coated



A love of the load – and still 100% tandem

The PINO PORTER comes with a license to shop. The weekend groceries, a case or two of beverages for DVD night, and still enough space for dad's gardening supplies: the PINO PORTER is the logistics expert among tandems.

The huge PORTER BAG above, an extremely stiff RACK below, and nevertheless full tandem functionality: just detach the BAG from the frame, fold it up, lift it off, and reattach it behind the seatback. Grab your partner, and off you go!



PORTER BAG: Voluminous, versatile, and even vanishable

The base stats: rainproof, dustproof, and an 80L capacity, which, thanks to an extra zipper in the cover, can even be expanded to 120 L. The entire BAG weighs a mere 3.5 lbs (1.6 kg) but can hold 88 lbs (40 kg). Ingenious features:



the BAG can be divided into sections or used with a single compartment able to accommodate objects up to 35" (90 cm) in length. When fully loaded, the handling is no different than with a front rider. And its design? As sleek as

the PINO itself.



PORTER RACK: Impressive loadability, super handling

Like the PORTER BAG, the foldable RACK under the seat can also carry 88 lbs (40 kg) of cargo. An especially stiff double kickstand is built-in. Thanks to the low center of gravity, the PINO still handles like a dream.



PORTER RACKBAG: All-embracing

On shopping day, there's no such thing as bad weather with the PORTER RACKBAG. It creates a dry zone, encasing the unfolded rack and all its cargo. The kickstand remains fully functional.

PINO | CUSTOM



Technical data for model shown:

Fork: suspension fork Spinner Grind I, reinforced version with steel shaft

Brakes: Avid Code R hydraulic disc brakes Wheels: 26" rear, Hub: Rohloff, Rim: double wall with double eyelets, Spokes: Sapim; 20" front, Hub: SON 20 R with tandem approval for HASE BIKES, Rim: double wall with eyelets, Spokes: Sapim, Tires: Schwalbe Marathon, front 47×406 , rear 50×559

Motor: Heinzmann Directpower hub motor, Battery: lithium-ion, Capacity: 11 Ah, Voltage: 36 V, Max. power: 250 W, Recharge cycles: 500-800, Charge time: 4.5 h, Range: 25 miles (40 km) at 50% muscle power, Battery weight: 7 lbs (3.2 kg), Battery guarantee: 24 months, Auto power-off: 16 mph (25 km/h), with startassist function max. 3.7 mph (6 km/h)

Gears: Rohloff I4-speed internal gear hub

Crankset/Bottom bracket: Stronglight for tandem with integrated freewheel mechanism, rear 175 mm 52 tooth, left 36 tooth; front 165 mm 38 tooth,

Children's Crankset: 114 mm 38 tooth, incl. 3point safety harness and elongated side handles Lighting system: Dynamo: B&M Dymotec 6, Taillight: B & M Toplight Flat Plus, Headlight: AXA Pico 30-T Steady Auto, standlight Fenders: SKS

Luggage rack: Heinzmann

Additional handlebar grips: HASE BIKES

Kickstand: HASE BIKES Double Kickstand, Max. load: 220 lbs (100 kg)

Weight: 60.6 lbs (27.5 kg)

Color: RAL 1014 beige / powder-coated, other colors available upon request.

AVAILABLE OPTIONS



Shifting with XT and Dura Ace

Whoever has had the pleasure of riding A fingertip, and you're in gear: for all with Shimano's finest, the Deore XT rear derailleur and Dura Ace front derailleur, will know: the accurate and smooth shifting is almost addictive. At the same time, these components are also the most robust...



Bar End Shifters: Cool clicks

derailleur systems, we offer Bar End Shifters from Shimano or Microshift. The ultimate in smooth shifting.



Suspension Fork II: Comfort de Luxe

Comfort tuning: the fork's 80 mm of travel make any tour feel like a glide. The ultra-light aluminum Suspension Fork from White Brothers is air damped and can be finely tuned to the weight of all, should also have a comfortable seat. the riders.



Suspension Seat Post: Our boss's chair

Comfort for the captain: the finely tuned Suspension Seat Post from Airwings lets the boss cruise smoothly over the most uneven surfaces. The "overseer", after



Tubus Luggage Rack: Fully loaded

Narrow, strong, lower lying: the chromoly steel rack is ultra-stable and can carry an impressive 88 lbs (40 kg) of luggage. The low positioning of the rack stays ensures a low center of gravity - which means optimal stability and handling, even when fully loaded.



SON Hub Dynamo: Mini generator

The optimal light source for tours or daily commutes: SON's specially designed hub dynamo for 20-inch wheels. Light and smooth-rolling, powerful and completely reliable in all weather conditions. The eco-power outlet for the road.



Tour/Fun 00000 These metal huts were once home to sleeping cars. 00000 Commuting 💍 We must have been sleeping, too, Family if we're only now noticing that their time has **Characteristics** very maneuverable, smooth-riding long since passed. high level of safety thanks to low center of gravity space-saving when parked on end

"Mobile" usually comes behind "auto". But a new dynamic – in our minds and bodies – can't emerge until we start to move ourselves instead of being moved. Vehicles like the KETTWIESEL can motivate us to FUNdamental change.



Recommended for

e-motor option

usable in tandem and with trailer



One wheel in front, two behind, and you in the you need it most. When parked on end, the middle: thanks to its design, the Kettwiesel is the most maneuverable trike on the market. And it makes the city asphalt jungle just as fun to navigate as remote nature paths or untamed obstacle courses.

Some love the sport-and-fun factor of the lightweight cornering machine. Others rave about the special mobility: exceptional stability from the low center of gravity and three wheels, comfort – how many cyclists can put their feet up at the stoplight? - and of course the cozy and adjustable mesh seat. But it's the details that make this trike such a

versatile "whizz kid": with the quick-adjust frame, you can change the seat-to-pedal spacing without shortening the chain. For people from 4'3" to 6'7" (1.30-2.00 m) in height, the KETTWIESEL fits like a glove.

The two disc-stoppers on the rear wheels bite down hard and guarantee safety when trike even has a small footprint for storage. And for transport, it can be transformed into a compact package – in a flash, thanks to the HASE BIKES QUICKSTICK hubs, which let you pop off the wheels with a few easy twists and turns.







Technical data:

Total length: 63"-81"(160-205 cm), without front wheel 54" (137 cm) Total width: 34" (86 cm) Total height: 31" (80 cm), with seat folded down: 21" (53 cm) Turning circle: left 10'10" (3.30 m), right 11'6" (3.50 m) at mean length adjustment Seat height: 18" (46 cm)

Bottom bracket height: 18 ½" (47 cm) Pack size: 63"-81"x 21"x 34" $(160-205 \times 53 \times 86 \text{ cm})$ Wheelbase: 46"-64" (116-162 cm) Frame: 7046/7005 aluminum Fork: 7046/7005 aluminum Front boom: 6061-T6 aluminum Max. load: 265 lb (120 kg)

KETTWIESEL



Mobility without movement? Impossible!

Eco or not, Anke Dallmann and Phil Hensel find the purely ideological view of mobility "too extreme". Both have a handicap that makes walking difficult. "Mobility is also a sensible decision," they say, smiling. And enjoy their KETTWIESELs.

They live in the "epicenter of the eco-republic," as the newspaper *taz* once called Vauban, a neighborhood of Freiburg in Baden-Württemberg. Here, every other house is at least a so-called "passive energy house"; solar panels can be found on not only the roofs but also pretty much any conceivable structure with a sun-facing surface. And the first thing little kids learn is to turn off the hall light.

For some, it's just a little too eco here. Others see the residential paradise as the future for energy-use and sustainability. Anke Dallmann has a

sober view — especially when it comes to mobility. "No question: for me, it always comes down to whatever fits the best," says the 31-year-old.

She's been riding a KETTWIESEL as her "work vehicle" for one and a half years. Anke Dallmann works full time at the district government offices, where she is responsible for a German-French project for the re-deployment of difficult-to-place workers. She also serves as a city councilwoman on a volunteer basis and is therefore always on the move in spite of a serious disability – she can only

KETTWIESEL











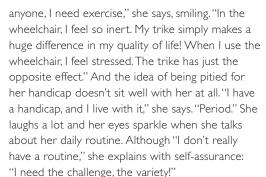


The photos from our photography crew are simply brimming with the joy of this bright, lively woman and her 28-year-old boyfriend Phil Hensel—who also has difficulties walking.

And Phil Hensel's story also hits the mark: "When I was a kid, I also had a classic rehab tricycle and could hardly wait to turn 18 and get my driver's license. Finally mobile! Then, at some point, you start to miss the physical activity, and the KETTWIESEL is the perfect compromise! Why didn't I think of it sooner?"

walk short distances at a time. "When I take the wheelchair, I'm not really mobile, and I can't use it for longer trips." So it's out of city hall, onto the Kettwiesel, and off to the next on-site meeting or an appointment at some event. A city councilwoman who cycles at least 5 miles (8 km) a day in the city — what could be more convincing and citizen-oriented? "Cool wheels!" Anke Dallmann hears all the time.

But there's yet another compelling reason for choosing the trike over a car or wheelchair: "Like





Features and equipment:

Brakes: Avid BB7 mechanical disc brakes with parking brake mechanism

Wheels: 20", Hubs: HASE BIKES QUICKSTICK, Rims: double wall with eyelets, Spokes: Sapim, Tires: Schwalbe Marathon 47 x 406

Gears: 9-speed Shimano Sora, SRAM with Centera twist shifter

Crankset: Truvativ Touro 52 tooth

Lighting system: Dynamo: B & M Dymotec 6, Taillight: B & M Toplight Flat Plus, Headlight: AXA Pico 30-T Steady Auto, standlight

Fenders: SKS

Weight: 39.4 lbs (17.9 kg)

Colors: RAL 3002 carmine red / powder-coated

AVAILABLE ACCESSORIES



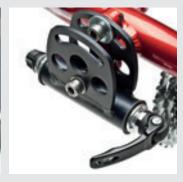
Universal Mounting Bracket: Clever clamp

Information is everything, especially with the miles flying by under your seat. If you are fond of facts and figures: the bracket can be used for mounting any type of bike computer or GPS unit. Or ... Fits %"-21/3" (15-60 mm) tubes.



Side Pouch: Packs a bunch

The Side Pouch safely stores small, everyday objects within arm's reach: with plenty of space for your keys, driver's license, business cards, and cell phone. Fastens effortlessly to the fender - ideal for short trips without the Luggage Bag.



Universal Coupling: Get hitched!

This multifunctional coupling will hitch as easily to your cargo trailer as to the TRETS or a child trailer. And a true tandem can be created by attaching the fork of a second KETTWIESEL. Also Weber and BOB Yak systems: just hitch and go!



Extra-long fenders: Extra dry legs

Now it's even more fun to ride the KETTWIESEL in tandem – especially in the rear: with the extended rear-wheel fenders, you'll stay clean and dry, even in wet weather – and the KETTWIESEL couple can plow through puddles without the spray.



Foldable Fairing and Rain Poncho Fairing Bag: Rain insurance

Rain? Bring it on! Well-stowed and always on hand in its separate bag, the Foldable Fairing can be mounted in a flash. And when drizzle turns to deluge, just pull out the Rain Poncho: Attach it to the Fairing, slip through, zip up the collar - done! Cool look included!



You're on tour, and the rain clouds roll in: with the super-slim Fairing Bag, rain protection is always on hand. The bag has a special pocket for your keys and wallet, and it even offers enough additional space to store a jacket for those cooler hours ...



Features and equipment:

Brakes: Avid BB7 mechanical disc brakes with parking brake mechanism

Wheels: 20" rear, Hubs: HASE BIKES QUICK-STICK, Rims: double wall with eyelets, Spokes: Sapim; Tires: front Schwalbe Marathon 47 x 406, rear Big Apple 55 x 406

Gears: 8-speed internal gear hub Shimano Nexus Premium with twist shifter

Crankset: Truvativ 170 mm 32 tooth

Lighting system: Dynamo: B & M Dymotec 6, Taillight: B & M Toplight Flat Plus, Headlight: AXA Pico 30-T Steady Auto, standlight

Fenders: SKS

Weight: 43 lbs (19.5 kg)

Color: matt black / powder-coated

AVAILABLE ACCESSORIES



Lowrider Rack: Low and be held More touring luggage: our Lowrider Rack puts more weight on the front wheel without affecting the handling. The advantage over standard lowrider racks: mounts behind the seat-back. The low plenty of clearance between the panniers and the pedals! (Not compati- KETTWIESEL even more solid in the



Luggage Bag: A miracle of space The insatiable 42-liter HASE BIKES Luggage Bag from Ortlieb is available in black or white. Just hang it onto the center of gravity will make your ble with suspension forks, I 6-inch forks.) curves.



Always with you Just place the walking sticks or cane in the holder, secure them with the clamp, and hit the road. Multifunctional. Fits tubes %"-21/3" (15-60 mm) in diameter.

Holder for Walking Sticks:



Headrest: Stable backing Craving a little extra support? The flexible Headrest makes triking even more enjoyable. Lean back during pit stops and soak in some rays.



Tow Bar: Follow me! Lame name, fine piece of equipment: with the Tow Bar, even standard bikes can be used as towing vehicles for the KETTWIESEL – with a safety bonus: the integrated overrun brake works automatically. When the towing bike brakes, the KETTWIESEL brakes.

Additional accessories: A list of all available accessories can be

found on pages 66-67 and on our web-



Technical data for model shown:

Brakes: rear: Tektro Auriga Twin hydraulic disc brakes, front: Avid BB7 mechanical disc brakes with parking brake mechanism, Single-hand Controls left

Wheels: 20" rear, Hubs: HASE BIKES QUICK-STICK, Rims: double wall with eyelets, Spokes: Sapim, Tires: Schwalbe Marathon 47 x 406

Gears: 8-speed internal gear hub Shimano Nexus Premium with twist shifter

Crankset: Truvativ 170 mm 32 tooth

Lighting system: hub dynamo SON 20 R with disc brake mount, Taillight: Philips LED BikeLight SafeRide, standlight, Headlight: Philips SafeRide 40 lux, standlight

Additional equipment: Differential, Armrest, Special Pedals with Calf Support

Weight: 51.8 lbs (23.5 kg)

Special color: RAL 502I water blue / powdercoated, other colors available upon request.

OTHER OPTIONS



Brake Coupling: 2 in I

For people with reduced mobility in one hand. The coupling connects the two disc brakes with a single brake lever. Precision hydraulics and the ergonomic design of the lever guarantee full braking power and excellent modulation, singlehandedly.



Spinner Grind I Front Suspension: Why gallop when you can glide? The optional Spinner suspension fork in

its reinforced version (steel shaft) will even satisfy comfort connoisseurs. Forget the pothole slalom: from now on, it's easy gliding over every road.



Coaster Brake: Legwork

When the legs are more mobile than the hands, the coaster brake ensures full braking power – with high tech: pedaling backwards transfers the leg power to a hydraulic disc brake.



Electric Motor: The power pack

For long and hilly commutes or just a little extra speed and comfort: the Protanium motor transforms the KETTWIESEL into the Rohloff is the best gear hub on the a trike hybrid. The 250 W package on the front wheel powers along when you start pedaling. Otherwise it travels incognito - in hub disguise.



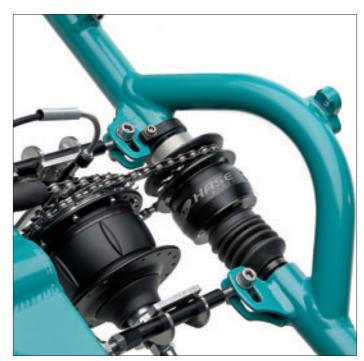
Rohloff Speedhub: A true paradigm shift

With 14 speeds in one high-tech shell, market. It can also be shifted when stationary. Gear changes are as crisp as a derailleur. Extra-wide gear range, and 100% dirt and rain resistant.



More choice: 27-speed gearing

Sporty trikers and tourers know what a huge difference fine-tuned gears can make. The derailleur option comes with a whopping 27 gears, covering everything from the steepest slopes to full speed ahead. A little click is all it takes.



Differential: Power for two

It's the invention that made the car possible: the differential. And on the KETTWIESEL, it's the final ingredient for ultimate riding fun, especially on loose gravel or sand. Specially designed by Marec Hase for the KETTWIESEL, the Differential transfers the pedal power to both rear wheels. It shows its true colors on rough terrain or muddy slopes, where others skid out.

Single-hand Controls: Join forces A single grip with all control elements! Using a special adapter, two brake levers can be mounted on one side. This allows the rider to shift gears and control both brake levers using a single hand.





Armrest: Take a load off If your arm needs a little support for steadiness, this comfortable armrest ensures a relaxed arm position.

Additional options:A list of all available options can be found on pages 64-65 and on our website.



Heinzmann e-motor: It's watts inside that counts

The extra oomph that turns your daily route into a joyride. With 250 W and up to 60 Nm of torque, the front wheel pulls you toward your destination as soon as you start pedaling. You choose how much support you need. And enjoy



complete control via the control unit and LCD display: Speed, battery-charge status, assistance level – all route and drive data viewable at a glance; even in sunlight. Easy fingertip operation: you don't even have to take your hand off the grip.



SON: Amps to go

The light and smooth-rolling SON 20 R hub dynamo is the most reliable electricity source for bikes and trikes. Constant power supply in any weather, maintenance-free, and durable. The best ecopower for outdoors.



Bar End Shifters: Cool clicks
A fingertip, and you're in gear: for all
derailleur systems, we offer Bar End
Shifters from Shimano or Microshift.
The ultimate in smooth shifting.



Handlebar Extensions:
Put up your dukes
Putting the steering unit within reach:
the KETTWIESEL can be equipped
with up to 80 cm handlebar extensions.



Crank Lengths: The right arms for your legs

Crank length should always be appropriate to the rider's leg length. A standard crank fits most riders. For kids or shorter adults, however, cranks from 115 to 170 millimeters in length are available as custom options.



Recommended for

Tour/Fun 000 000000 Rehab Commuting 👸 😭 Family

Characteristics

- · high level of safety thanks to low center of gravity
- · adjustable seat height
- easy mounting
- suspension
- foldable
- · e-motor option

When it comes to comfortable transport, our standards keep getting higher. And rightly so.

Compact cars? So yesterday! The concepts for individualized transport are changing: we want more sustainability and independence in the way we get around – without sacrificing comfort. Time for the LEPUS.



Take a seat and enjoy the ride. With the LEPUS, this is possible – even for people who have never spent much time on a bike or trike. Who are simply looking for a practical option for self-propelled mobility – or a way to become mobile again. It all begins with the lowered front boom for easy mounting: just

sink into the comfortable mesh seat, which can be adjusted to a height of 20" to 28" (50-70 cm) and offers superb visibility in traffic. You will enjoy riding with excellent stability – far surpassing that of conventional rehab trikes – and gliding down the road on a twist shifter. And the robust Avid disc brakes pillow of soft suspension. Or just leaning back in your seat at the stoplight without having to at your command. dismount.

or the supermarket: behind the seat is enough space for everything – and in the voluminous, waterproof bag (accessory), your supplies will make it from A to B without getting wet.





Comfort, low maintenance, and user-friendliness are also qualities of the gear system: with the 8-speed, smooth-running Shimano Nexus Premium hub, you can change gears in any situation – with a click of the easy-to-use ensure that the sedan will come to a safe halt

And when the wanderlust hits: with a few Whether you're travelling to an event, the office, twists and turns, your LEPUS can be folded into an easily transportable unit that fits into practically any compact car.

Technical data:

Total width: 33" (85 cm) Total height: variable 32"-43" (82-110 cm) Seat height: adjustable from 20"-28" (50-70 cm) Pack size: 27"x33"x42" (69 x 85 x 107 cm) Wheelbase: 48"-65" (122-166 cm) Frame: 25 CroMo4 Max. load: 265 lb (120 kg)

LEPUS



"Something really snazzy with a motor!"

Ulrich Trappmann has spent his whole life in the Ruhr region.

He's sentimental about the past – but still appreciates the many things that are now possible thanks to modern technologies.

After a heart-valve operation, he began a second life — thanks to a lot of exercise. Both on and off his LEPUS.

Dortmund-Hörde is changing. The goliath Hermannshütte steelworks was once the most dominant feature of this former town, both before and long after its incorporation into Dortmund in 1928. The architecture still echoes this past, with many working-class housing estates. Its people have the typical "Ruhrpott" charm: not very talkative, but straightforward, warm-hearted, and dependable.

This description also fits quite well to Ulrich Trappmann – even if "in his former life" he wasn't a steelworker but a computer scientist. The 67-year-

old has lived in Dortmund for practically his entire life, returning to Hörde two years ago. His visitors can learn a lot about the history of this changing district, and even some things about Trappmann himself.

His walls are adorned with historical photos; he can even show off a machine or two from "back in those days." He feels a strong connection to the history of the objects and photos. He keeps the memories alive. There are even daguerreotypes, photographic images from the early days of













photography; some show ancestors from four generations back.

At the same time, the physically fit pensioner happily embraces many aspects of modern life – in a way, he's had to. "Working fulltime with volunteer activities at night; you don't get home until about 11." All that dedication and constant stress eventually took its toll on the stoutly built Dortmunder: in 2000, he needed an artificial heart valve. "After the surgery, it took a long time for me to start feeling better." With more exercise, the vitality finally

returned. "And then I said to myself: from now on, you're only going to do things that are good for you. I decided to buy myself something fun and healthy, snazzy and comfortable: I wanted to get in and out of the seat with ease — and really enjoy the ride. That was the most important thing. And I wanted it to be rideable for many years, even if someday my sense of balance isn't so good." To make a long story short: he bought a LEPUS.

And he rides it every day, as long as the temperatures are not too close to freezing. A

cushy suspension and e-motor support in the front wheel – "that was a must," he smirks.

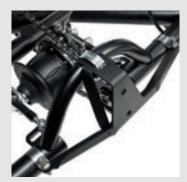
Today, Trappmann makes practically all of his day-to-day trips by trike. But the errands are only an encore: "The most important activity is my daily tour: I can always get in at least 30 to 40 kilometers," he explains enthusiastically. For longer excursions, he swings by his sister's place to charge his battery over a cup a coffee. And he often rides along the lakefront: where the Hermannshütte once dominated the view, a huge new district is

being built around the artificial Phoenix Lake. The east side will be a modern, "life-stylish" residential area with recreational activities; and in the west, a modern industrial complex is being built with companies from the microsystem-technology sector. "Every time I ride the LEPUs along here, I discover something new," says the pensioner with a smile. He remembers every detail of the past landscape, and can't wait to see how it evolves in the future.

LEPUS | COMFORT



AVAILABLE ACCESSORIES



Adapter for Universal Coupling: Hitch and go!

This adapter can be used on the LEPUS As an alternative to cleat systems: for attaching the Universal Coupling, which can handle anything: a cargo trailer, the HASE BIKES TRETS, KETTWIESEL, and TRIX, or any child trailer with a Weber coupling.



Pedals with Toe Clips and Straps: Strap in and go

these pedals hold the front portion of the foot with a brace, guaranteeing the correct foot position, while the elastic strap around the heel prevents slipping. Children's version also available.



Seat or Seatback Extension: More space, more comfort

More than just adjustable: with the optional extensions for seat bottom and back, the surface area is increased, meaning that pressure is even better distributed. For people with disabilities or tall/heavy riders.



One-sided Leg Support: Comfort

A solution for people with paralysis on one side of the body or a disability. The healthy leg pedals while the other is safely strapped into a comfortable support. Infinitely adjustable. Mounts behind the bottom bracket.



Headrest: Stable backing

Craving a little extra support? The flexible Headrest makes triking even more enjoyable. Lean back during pit stops and soak in some rays.



Total length: 67"-84" (169-213 cm)

Bottom bracket height: low 13" (33 cm), high 15" (39 cm)

Front boom: 25 CroMo4, lowered by 21/3" (6 cm)

Fork: 16"steel

Brakes: Rear: Tektro Auriga Twin hydraulic disc brakes with parking brake mechanism, Front: mechanical V-brake with parking brake

Wheels: 20" rear, Hubs: HASE BIKES QUICK-STICK, Rims: double wall with eyelets, Tires: Schwalbe Marathon 47 x 406, 16" front, Rim: aluminum, Tire: Schwalbe Big Apple 50 x 305, Spokes: Sapim

Gears: 8-speed internal gear hub Shimano Nexus Premium with twist shifter

Crankset: Truvativ 170 mm 32 tooth

Fenders/Luggage rack: SKS/HASE BIKES Cargo Net, Max. load: 66 lbs (30 kg)

Suspension: air shock

Lighting system: Dynamo: B & M Dymotec 6, Taillight: B & M Toplight Flat Plus, Headlight: AXA Pico 30-T Steady Auto, standlight

Luggage bag (optional): Ortlieb/HASE BIKES

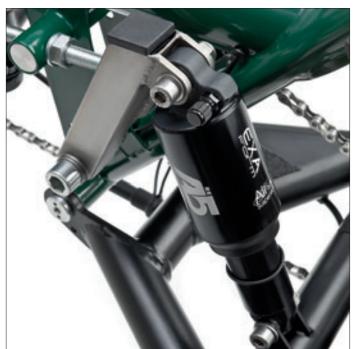
Weight without bag: 56 lbs (25.5 kg)

Colors: RAL 6005 moss-green / powder-coated

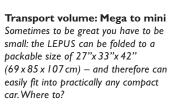


LED Turn Signal System: Show the way

Even more passive safety – and not only for people with handicaps. The batterypowered Turn Signal System is operated intuitively with the simple touch of a button. And with its inconspicuous looks, it blends right in with the design of your trike.



Air Shock:
Why ride, when you can glide?
Even the standard air shock for the
LEPUS COMFORT can be easily
adjusted to the rider's weight using a
pump. And you'll float down the road —
literally — on a cushion of air.







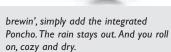
home without it!
The Ortlieb Rack Pack keeps groceries fresh and dry-cleaning dry. One-hand closure thanks to practical magnetic snaps — exclusively from HASE BIKES. With shoulder strap and carrier handles, it's just as handy for toting gear on foot.

Ortlieb bag: You'll never leave



Lepus Foldable Fairing: Comfort climate to go

With its portable climate protection, the LEPUS is an all-weather, all-round, feel-good trike: when rain is in the forecast, the Fairing can be unpacked, unfolded, and clipped on in less than two minutes. And if it's a storm a





Fairing Bag: Rain insurance

You're on tour, and the rain clouds roll in: with the super-slim Fairing Bag, rain protection is always on hand. The bag has a special pocket for your keys and wallet, and it even offers enough additional space to store a jacket for those cooler hours...



Universal Mounting Bracket: Helpful holder

Information is everything, especially with the miles flying by under your seat. If the holde, you are fond of facts and figures: the bracket can be used for mounting any type of bike computer or GPS unit. Or ... diameter. Fits 5"-21/3" (15-60 mm) tubes.



Holder for Walking Sticks: Always with you

Just place the walking sticks or cane in the holder, secure them with the clamp, and hit the road. Multifunctional. Fits tubes 16"2" (15-60 mm) in diameter.



Special Pedals with Calf Support: Braced to race

In addition to the secure positioning of the foot on the Special Pedal, the calf brace provides stability for the lower leg and the angle of the ankle. Also available in a children's version.

LEPUS | CUSTOM



WEITERE OPTIONEN



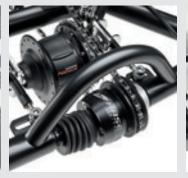
Heinzmann e-motor: It's watts inside that counts

The extra oomph that turns your daily route into a joyride. With 250 W and up to 60 Nm of torque, the front wheel pulls you toward your destination as soon as you start pedaling. You choose how much support you need.



DT-Swiss shock: Float like a butterfly...

The optional DT Swiss M 212 suspension strut is the ultimate in air shock technology: extremely sensitive and responsive, wide range of adjustment, ultra-lightweight. Or simply: wellness on wheels.



Differential: Power for two

It made the car possible; and on the LEPUS, the differential offers even more safety and stability on loose road surfaces — especially uphill. It transfers the power to both rear wheels — and carries you over paths where others throw in the towel.



Rohloff Hub:

14 gears in a high-tech shell A hub with great qualities: changing gears with a twist of the wrist, exceptional shifting comfort, extremely low maintenance, and unbeatable durability. Rohloff packs it all into a special HASE BIKES housing.



Bar End Shifters: Cool clicks

A fingertip, and you're in gear: for all derailleur systems, we offer Shimano Bar End Shifters instead of twist shifters. The ultimate in smooth shifting.



Total length: 70"-87" (177-221 cm)

Bottom bracket height: low 20" (50 cm), high 22" (56 cm)

Front boom: 25 CroMo4

Fork: 20" aluminum

Brakes: Rear: Tektro Auriga Twin hydraulic disc brakes with integrated parking brake, Front: Avid BB7 mechanical disc brakes

Wheels: 20" rear, Hubs: HASE BIKES QUICK-STICK, Rims: double wall with eyelets, Spokes: Sapim, Tires: Schwalbe Marathon 47 x 406

Gears: 8-speed internal gear hub Shimano Nexus Premium with twist shifter

Crankset: Truvativ 170 mm 32 tooth

Fenders/Luggage rack: SKS / HASE BIKES Cargo Net, Max. load: 66 lbs (30 kg)

Suspension: air shock

Lighting system: Dynamo: B & M Dymotec 6, Taillight: B & M Toplight Flat Plus, Headlight: AXA Pico 30-T Steady Auto, standlight

Motor: Protanium hub motor, Battery: lithium-ion, Battery Capacity: 10 A/h, Voltage: 24 V, Power: 250 W, Recharge cycles: 500–800, Charge time: 4.5 h, Range: approx. 25 miles (40 km) at 50 % muscle power, Battery weight: 61bs (2.7 kg), Battery guarantee: 12 months, Auto power-off at 15 mph (24 km/h), with start-assist function max 3.7 mph (6 km/h)

Turn signal system: HASE BIKES, LED

Weight without bag: 75 lbs (34 kg)

Colors: RAL 9005 jet black / powder-coated, other colors available upon request.



Crank Lengths:

The right arms for your legs

Crank length should always be appropriate to the rider's leg length. A standard crank fits most riders. For kids or shorter adults, 115 and 145-millimeter cranks are available as custom options.



Electric Motor: The power pack For long and hilly commutes or just a little extra speed and comfort: the Protanium motor transforms the LEPUS into a trike hybrid. The 250 W package on the front wheel powers along when you start pedaling. Otherwise it travels incognito—in hub disguise.

Holder for Walking Sticks: Always with you

Just place the walking sticks or cane in the holder, secure them with the clamp, and hit the road. Multifunctional. Fits tubes 5"-21" (15-60 mm) in diameter.





LED Turn Signal System: Show the way

Even more passive safety – and not only for people with handicaps. The battery-powered Turn Signal System is operated intuitively with the simple touch of a button. And with its inconspicuous looks, it blends right in with the design of your trike.

Additional options:

A list of all available options can be found on pages 64-65 and on our website.



SON: Amps to go

The light and smooth-rolling SON 20 R hub dynamo is the most reliable electricity source for bikes and trikes. Constant power supply in any weather, maintenance-free, and durable. The best ecopower for outdoors.



XXL Seat: Invitingly expansive

The new HASE BIKES seat is also available in XXL. In addition to its extensive adjustability, the seat has 2¾ extra inches (7 cm) of space to comfortably accommodate riders of all shapes and sizes.



Speed Drive: More is more

Double your gears with the press of a button: the Schlumpf Speed Drive has earned cult status among bike-tech freaks. Activated with a simple click of your heel, the Speed Drive turns an eight or nine speed gear system into a fully tour-ready 16 or 18 speed transmission.



XXL Rear Wheels: Phat and fun

The 60 mm-wide Schwalbe Big Apple tires offer even more comfort for the LEPUS pilot. The extra width means a resilient cushion of air and additional safety on all surfaces. And they give the LEPUS a stylish, sporty look.



Coaster Brake: Legwork

When the legs are more mobile than the hands, the coaster brake ensures full braking power — with high tech: pedaling backwards transfers the leg power to a hydraulic disc brake.



16" Front Wheel and Fork: Small wheel, big difference!

With the 16" version of the front wheel and fork, the front boom of the LEPUS is lowered by about 2" (5 cm). Not much, but a huge difference when it comes to easier mounting for people with disabilities. (standard on the LEPUS COMFORT)





We're all born originals and can keep our free spirit - if we're given the chance to explore our world as intensely as possible.

The multifunctional TRETS trike-trailer-jogger is somewhat like a kid itself: there is always something new to discover, and it never gets boring. And for adults, the TRETS' versatility is pure luxury.



Playgrounds always have a fence or a wall. The TRETS has no such borders; and children of all ages are welcome. With the infant carrier, even the tiniest passengers can sit safely in the Trets logger, Buggy, or Trailer. Later, from a height of about 3'3" (100 cm), they can pedal along – or even zoom around the block

on their own three wheels. And the fun goes on until about 4'II" (I.50 m).

But with truly functional versatility, it all comes turbo, and the twist shifter makes shifting as down to details. Like adaptability: the handlebar length can be adjusted to the arms of the whether hitched or freestyle, the TRETS' low young pilot, and in the Buggy or logger version, it doubles as a push bar with fully functional brakes.

Or transportability: just pop off the front wheel and steering column, fold down the seatback - and the TRETS fits easily into any trunk. Because you'll never want to leave the trike at home! And usability: young TRETS pilots shift like the pros. The gear





system – either 7-speed SRAM derailleur or 8-speed gear hub - turns the trike into a easy as do-re-mi. And most importantly: center of gravity and ingenious geometry make it so safe to ride that every young adventurer will feel secure on the adjustable mesh seat.

The special model TRETS REH supports children with disabilities or in rehabilitation. Furthermore it's now officially recognized as a medical aid in Germany, which makes it more affordable for parents (see page 48).

Technical data:

Total length: Trike: 56"-69" (142-176 cm) Trailer: 35"-54" (90-138 cm) **Total width:** 30" (75 cm) Total height: 34"(87 cm) / 20"(52 cm) seat folded Seat height: 141/2" (37 cm) **Bottom bracket height:** 13" (34 cm) Wheelbase: 35"-49" (90-124 cm)

Pack size:

43"-56"x 30"x 20" (109-143 x 75 x 52 cm) without front wheel / Trailer: 40"-54"x 30"x 20" (102-136 x 75 x 52 cm) without drawbar

Frame & front boom: aluminum Max. load: 143 lb (65 kg) / 88 lb (40 kg) when used as trailer Height of rider: 3'3"-4'11" (100-150 cm)

TRETS



Developmental turbo boost on three wheels

Doctors have known for years: cycling is excellent for a child's development.

Both motor and mental skills are trained, or at least stimulated.

And the right vehicle can even open up whole new worlds. As Konrad's smile will tell you.

Konrad Ulbrich is riding his TRETS With gusto! Confidently, he zooms past pedestrians and our photo team in the market square – full throttle but always navigating with great care. It's obvious he's got his vehicle under control. But this is a recent development.

The bright-eyed five-year-old with a wild mop of flaxen hair under his colorful helmet has osteopathia striata. This rare disease caused by a genetic defect is often associated with secondary conditions that can delay mental development and

lead to an array of other disorders. Konrad doesn't have much feeling in his legs; his shoes with special orthopedic supports are held securely in the toe clips so that his feet can't slip off. He occasionally needs a ventilator to help him breathe. "Which is another reason for the Trets," says his mother, Cordula Ulbrich. "We can keep the ventilator in the bag behind the seat." As an engineer, she did extensive research into the various options for shared mobility. "I, myself, have always been a huge bike fan," she says, "and I didn't want to give up being

TRETS















able to cycle as a family." In the beginning, this was only possible with a trailer. Which is how they got around with Konrad's brother, Marvin, who is now 25 years old and shares the same disorder. Then a year ago, they bought a TRETS. "At first, we either pushed the trike or used it as a trailer in which he could also help with the pedaling," she explains. This is how Konrad became familiar with almost all variations of the TRETS.

Since the end of 2012, Konrad has been "flying solo" on the trike. And he's made huge progress in

his development: the ventilator – which connects directly to his windpipe below the voice box – is now only needed sporadically. As a result, he's also finding it easier to speak and, in many areas, is now on the same level as his peers in kindergarten.

"They think my TRETS is cool!" says Konrad when he talks about his friends there. The fair-haired bundle of energy is slowly discovering a whole new world and even more of his independence — especially in the time when he's not on the ventilator. After all, he also has various other activi-

ties and interests: right beside his playground is the "Athlete's Hall" – Konrad spends time in this sport's club working on his strength and endurance. And before the workout, they always stop in town for his favorite ice cream: a "Blue Smurf."

When we arrive, the kids at the ice cream parlor marvel at his Trets, and the magic word can be heard: cool! Konrad is unfazed, taking it all in stride. He's used to the attention he gets in public. But he can't resist showing off his keen riding skills, coming

to a screeching halt just inches from the steps to the ice parlor. He's now able to do just about everything the other kids can do and is having fun exploring his world. The TRETS helps him do this. The ability to be independent on wheels comes with a huge dose of joy — which he always shares generously with others.



The TRETS REH was specially developed for children with disabilities

The Trets Reh is ideal for children with neuromuscular conditions, such as cerebral palsy or muscular dystrophy, who, owing to their disability, are unable to use conventional children's bicycles or vehicles, even with supporting wheels. The Trets Reh is also suitable for children with coordination difficulties, balance disorders, and restricted movement, e.g. associated with spasticity, paraplegia, dysmelia, amputations, etc. The Trets Reh is now officially recognized as a medical aid in Germany, which makes it more affordable for parents.

Features and equipment:

Brakes: Avid BB7 mechanical disc brakes with parking brake mechanism

Wheels: 20" rear, Hubs: HASE BIKES QUICK-STICK, Rims: aluminum double wall with eyelets, Tires: Schwalbe Marathon 47 x 406, canvas spoke protectors with 3M reflective print, Spokes: Sapim; front 12", Rim: aluminum, Tire: Schwalbe Big Apple 50 x 203

Gears: 8-speed internal gear hub Shimano Nexus Premium with twist shifter

Crankset: aluminum 115 mm 32 tooth **Pedals:** Children's Pedals with Toe Clips and Straps

Lighting system: Dynamo: B & M Dymotec 6, Taillight: B & M Toplight Flat Plus, Headlight: AXA Pico 30-T Steady Auto, standlight

Weight: 39.6 lbs (18 kg)

Colors: RAL 1028 melon yellow/powder-coated

AVAILABLE ACCESSORIES



Special Children's Pedals: Your child's sole mates

The feet of children with motor disorders can be strapped securely into these pedals, stabilizing them in an anatomically correct position. Sophisticated, but nevertheless easy to use.



Guide Bar: Switching to autopilot...

Moms can give a hand to their rookie – or simply weary – trikers. With the Guide Bar, you can steer the TRETS for your child, turning over the controls as soon as the little pilot is ready to go it alone.



Fixed Gear Hub: More movement

The trike becomes a fixie with a single gear. With the Fixed Gear Hub, the pedals of the TRETS remain in motion as long as the trike is moving. Especially sensible for physical therapy patients and kids with limited mobility (with friction clutch).

Always by Just place the holde and hit the fits tubes diameter.



Holder for Walking Sticks: Always with you

Just place the walking sticks or cane in the holder, secure them with the clamp, and hit the road. Multifunctional. Fits tubes \%"-2\%" (15-60 mm) in diameter.



Pendulum Pedal: In the swing

These pedals can help children with severely limited mobility slowly regain flexibility and strength. The trick: pedaling is possible with very little bend to the legs. Adjustable to allow for more movement as leg strength returns: beneficial training effect.



Crank Shortener: Perfect fit

For children with legs of different lengths or restrictions in leg mobility... but also for kids. The pedals can be slid individually along the crank for separate adjustment, optimizing rehabilitation training or allowing the crank length to grow with your child.

TRETS | CUSTOM



Technical data for model shown:

Brakes: Avid BB7 mechanical disc brakes with parking brake mechanism

Wheels: 20" rear, Hubs: HASE BIKES QUICK-STICK, Rims: aluminum double wall with eyelets, Tires: Schwalbe Marathon 47 x 406, canvas spoke protectors with 3M reflective print, Spokes: Sapim; 12" front, Rim: aluminum, Tire: Schwalbe Big Apple 50 x 203

Gears: 8-speed internal gear hub Shimano Nexus Premium with twist shifter

Crankset: aluminum 115 mm 32 tooth

Lighting system: Dynamo: B & M Dymotec 6, Taillight: B & M Toplight Flat Plus, Headlight: AXA Pico 30-T Steady Auto, standlight

Weight incl. drawbar: 41.9 lbs (19 kg)
Colors: RAL 4008 signal violet / powdercoated / other colors available upon request
In RAL 6017 may green available as topseller



OPTIONS AND ACCESSORIES



Hitch up and hunker down

Pedaling support welcome. The trailer function transforms the TRETS plus towing bicycle into a parent-child tandem. Simply hitch and zoom off. With slumber option for tired young powerhouses ...



Brake Coupling: 2 in I

For children with reduced mobility in one hand. The coupling connects the two disc brakes with a single brake lever. Precision hydraulics and the ergonomic design of the lever guarantee full braking power and excellent modulation, singlehandedly.



Infant Carrier: Kiddy compatible

With the infant carrier, even the tiniest tots can experience the unique fun and freedom of the TRETS. The carrier comes with a mesh footrest, which can later be used with the normal seat until the child's legs can reach the pedals.



Seat Support: Snug as a bug

The Seat Support can be used if the TRETS pilot has outgrown the Infant Carrier but isn't big enough to sit without slouching. The head and torso are supported for safe napping. The height of the head support is adjustable.



Foldable Fairing: Rain kids

Whether pedaling along or zonked out: your child will be sure to stay dry, warm, and clean behind the ingenious TRETS Foldable Fairing. Thanks to the large, panoramic window, the little copilot can also enjoy the scenery passing by — or simply watch Mom or and

Dad singing ... and pedaling in the

More options and accessories:

Complete lists of compatible components can be found on pages 64–67 and on our website.



Recommended for

Tour/Fun 0000 000000 Rehab



If you compare it with a conventional rehab trike, you'll notice immediately what makes the TRIX more versatile and fun: the sturdy, brightly colored frame, the peppy spoke guards, and the list goes on and on. But there's a lot more to the TRIX than cool looks. Whoever's experienced the intuitive controls and smooth handling knows exactly why the TRIX has been officially recognized as a medical aid in Germany. This means: no time-consuming bureaucracy when applying for reimbursement. The decision of the GKV. Germany's national association of statutory health insurance funds, was presumably an



Life is a fun and sometimes challenging journey. But those who move become their own motors of joy.

With the TRIX, young people with disabilities can develop dynamism and experience self-powered mobility and movement. A whole new world waiting to be explored!



easy one: significantly more stability than conventional rehab trikes, excellent maneuverability, a high level of active safety thanks to the disc brakes on the rear wheels, and easy operation. In no time at all, it can be ergonomically adjusted to any rider from 4'1" to 6'3" (1.25-1.90 m) in height. What luck that the HASE BIKES designers still had a few TRIX up their sleeves!





Technical data:

Total length: 63"-81"(160-205 cm), without front wheel 54" (137 cm) Total width: 34" (86 cm) Total height: 31" (80 cm),

with seat folded down: 21" (53 cm) Turning circle: left 10'10" (3.30 m). right II'6" (3.50 m) at mean length adiustment

Seat height: 18" (46 cm) **Bottom bracket height:** 161/2" (42 cm)

Pack size: 63"-81"x21"x34" $(160-205 \times 53 \times 86 \text{ cm})$ Wheelbase: 46"-64" (116-162 cm)

Frame: 7046 / 7005 aluminum Fork: 16"steel

Front boom: 6061-T6 aluminum Max. load: 265 lb (120 kg) Weight: 43 lbs (19.5 kg) Height of rider: 4'I"-6'3" (125-190 cm)

Accessories:

A list of all available accessories can be found on pages 66-67 and on our website

Features and equipment:

Brakes: Avid BB7 mechanical disc brakes with children's brake levers and parking brake mechanism Wheels: 20" rear, Hubs: HASE

BIKES OUICKSTICK, Rims: double wall with eyelets, Spokes: Sapim, Tires: Schwalbe Marathon 47 x 406, canvas spoke protectors

with 3M reflective print; 16" front, Hub: HASE BIKES, Rim: aluminum, Spokes: Sapim, Tire: Schwalbe Big Apple 50 x 305

Gears: 8-speed internal gear hub Shimano Nexus Premium with twist shifter

Crankset: 140 mm 32 tooth Pedals: Adult's Pedals with Toe Clips and Straps

Fenders: SKS

Lighting system: Dynamo: B & M Dymotec 6, Taillight: B & M Toplight Flat Plus, Headlight: AXA Pico 30-T Steady Auto, standlight

Color: RAL 1028 melon yellow / powder-coated



Happiness has wheels

There are moments when we realize what life is actually about, what is meant by the term "happiness". Moments like these are unique and have a lasting effect. We experienced them on an excursion with the cycling club from the Kaywald School for people with disabilities.

Friday morning in the town of Lauffen am Neckar. Their laughter and shouts can be heard from afar. "Floor it!" shouts a child repeatedly; another is singing loudly as she tears around the curves. A wild horde of ten "bikers" between the ages of nine and 19 is conquering the world, which can be whopping fun, as we discovered when we joined them.

The "wild horde" is from the Kaywald School for the mentally and physically disabled in Lauffen am Neckar. The school has a special motto: "As much autonomy and self-reliance as possible, as much support as necessary." The school's cycling club, which was started several years ago by Thomas Rienth and Thomas Wörner and organizes fun-filled tours for pupils, accomplishes exactly that: the disabled pupils can ride their vehicles independently but are also given help when needed. "For example, as a front passenger on the PINO," says Thomas Rienth, who has been a cycling fanatic for as long as he can remember. "After the cycling club's maiden voyage, everyone wanted to join." Nineteen-year-old Normann on the recumbent seat of the tandem shrieks so loudly and incessantly with excitement that it makes us want to join in with a "yippee!"

The effect that cycling - when properly organized, like the club of Rienth and Wörner – can have on pupils is unbelievable. In spite of the worldconquering energy of the young daredevils, these Friday tours, which tend to grow longer over the course of the school year, are absolutely risk-free. The other teachers – and sometimes even the parents – are surprised at how much the children accomplish. "It really works! The pupils experience the satisfaction that comes with autonomous action. They decide whether to steer left or right and how fast they ride," explains Thomas Rienth. "Usually they spend their days being told what to do by their parents, teachers, and other people around them. Experiences like this give them a sense of responsibility and teamwork." This starts with the youngest kids – with some road-safety education and the first practice rides on the sports field."We cycle year round, be it summer or winter," says Thomas Rienth proudly. Anyone who's seen these kids master a trike, some of whom like little Nico with his TRIX – aren't even able to speak clearly, know the true meaning of "awe"!

Cycling can affect the pupils in many different ways: "When I was first testing the PINO tandem for our club, I rode to school with Nico in the front passenger seat," explains the trained carpenter. "In the early morning hours, we cycled through a magnificent sea of yellow rapeseed flowers; Nico,















who rarely speaks and prefers to be in front of a game console, suddenly said: 'Wow, there!' The combination of nature and movement and the intensity of the experience engages the senses in a completely different way — and it has such a positive effect!'' Rienth is still in awe when he describes the experience.

The TRIX is one of two HASE BIKES models in the school's fleet of vehicles – and it's especially popular with the bikers; kids love it because it looks cool and is tons of fun. It's also the only vehicle that

everyone is able to ride. There are even two pupils who have since purchased their own TRIX and use them for the club's tours: their parents decided to buy the trike once they had seen how much fun their children were having "trixing" – and what a strong impact independent cycling can have on their development. Like Daniel, a pupil with Down syndrome who can always be heard expressing his joy by describing what he sees and feels while riding.

"On this day, it really became clear to us what it means to be able to live happily," explains Kirsten

Hase later. "What a big difference cycling can make in this respect – and also, how wonderful it is to be building bikes and trikes that make people happier!"

One thing that wasn't so clear on this hot May day in Southern Germany was who were more inspired: the teachers by their pupils, the pupils by their tour, or the photo crew by their experience of seeing the real-life impact HASE BIKES can have.

In any case, it was incredible fun for everyone. Especially people like Kevin, who is generally engrossed in his own internal world and always seems oblivious to the people and events around him – but who, on his TRIX, is fully present and can navigate his right rear wheel so well that not a single puddle is left untouched. Wow!



Recommended for 0000 000000 Rehab Commuting **Characteristics** very maneuverable high level of safety thanks to low center of gravity good traction with differential (for trike) · easy transition from wheelchair e-motor option

My home, my garden, my mobility. Which of these is most important?

Mobility is priceless. And no one knows this better than those of us with physical challenges. But it's always possible to create the optimal conditions for staying mobile with a disability. The best options are those that put the "fun" in functional.



Mobility is one thing. Being able to get everywhere you need to go and have fun on the way is another. This is what differentiates Hase Bikes Handbikes from wheelchairs with attachable handcycles. And our Handbikes offer practically all the same qualities as their sister models Kettwiesel, Lepus, and Pino: comfort,

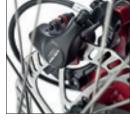
maneuverability, and safety, along with mobility at reasonable speeds. After all, being there is what counts.

But trike genes give the HANDBIKE a whole lot more: for example, an ingenious geometry and countless sophisticated details, like the handcrank assembly, which can be folded forward for especially easy mounting and dismounting. Or the Schlumpf internally geared crankset, which transforms the nine-speed Shimano gear system into a transmission with 18 gears, making the mountains "barrier-free". Or choose the 14-speed universal shifting whiz Rohloff Speedhub. For braking, the









powerful hydraulic Tektro disc brakes get the job done. And of course, even when changing gears, both hands stay where they belong: firmly on the handles.

HANDBIKE



It's the taking part that matters. Regardless of "ability."

The Free Handi'se Trophy is the Tour de France for team players. Competitors race 500 miles (800 km) through France on tandem trikes and canoes; in 2013, the strenuous and exciting course stretched from Lyon to Paris. Fifty-two men and women, with and without disabilities, demonstrated the power of teamwork. Jean-Philippe Maffioletti competed in 2012, returning to support the 2013 tour as a volunteer. And fan.

Jean-Philippe Maffioletti sits on a HANDBIKE, grinning from ear to ear. The peloton of Trophy participants is shooting past. More than a dozen tandem trikes blaze around the curve. "They're strong!" says the Frenchman in awe. And he should know: for the inaugural race last year, he was a competitor.

The teams are passing through the commune of Grez-sur-Loing on their 500-mile (800-km) journey to the French capital. Although the Tour de France is sometimes described as the "tour of suffering," a more appropriate nickname for the Free Handi'se

Trophy would be "tour of teamwork" – and not because it's any less challenging: anyone who's seen the daredevil men and women on their tandems knows how strenuous the course can be and how the competitors push themselves to their limits – on both land and water. Each group of four competitors splits into two double teams consisting of one racer with a disability and one without. The teams compete on tandem trikes for the road portion of the race, and in canoes for the water portion. All of the teams come from companies that

HANDBIK€













support the event. HASE BIKES supplies the special tandem trikes: each consists of either two Kettwiesels or a Kettwiesel-Handbike combo. The essence of the race: team spirit!

This essence is also what inspired Jean-Philippe to return in 2013. This time as one of the many volunteers, who not only help guarantee safety along the route when the Trophy passes through a commune but also race to the racers' aid in the case of accidents or technical problems. "Unfortunately, I never finished the race," he laughs. "We went into a together as a team. This cation, with words and e 47-year-old. And this is to "The concept of compet is the strength of the Trophy passes through a commune but also race to the racers' aid in the case of accidents or technical problems. "Unfortunately, I members as vice versa!"

tight curve with too much speed and lost control." But this incident gave him even more motivation to return for a second year. "Here, we experience a unique form of cooperation — everyone works together as a team. This requires a lot of communication, with words and eye contact," explains the 47-year-old. And this is the spirit of the whole race. "The concept of competing with two teams of two is the strength of the Trophy. And able-bodied racers are just as dependent on their disabled team members as vice versal"

If you saw him standing on the roadside with his cane, you'd never suspect: Jean-Philippe Maffioletti has a rare illness that sporadically causes him to lose movement in his legs. But this doesn't dampen his enthusiasm for the sport. Which is why he is using his free time to tell this year's competitors all about the Kettwiesel Handbike. They only know the trike as part of the race's special vehicles, known as "V.R.A.I.s": an abbreviation for their French name meaning "specially adapted and essential adventure bikes."

At the event, the spirit of teamwork is omnipresent. It's this spirit that makes it possible for people with and without disabilities to push themselves beyond their limits. And the vehicles from HASE BIKES are the perfect tools for showing what can be accomplished by working together.



AVAILABLE ACCESSORIES



Spoke Guards: Safety can be stylish

Many of us know them from wheel-chairs: Spoke Guards keep fingers out of the wheels. But they also look sporty, weigh practically nothing, and are rattle-free – a very important consideration.



Holder for Walking Sticks: Always with you

Just place the walking sticks or cane in the holder, secure them with the clamp, and hit the road. Multifunctional. Fits tubes \(\frac{5}{2} - 2\frac{1}{2} \) (15-60 mm) in diameter.



Seat or Seatback Extension: More space, more comfort

More than just adjustable and adaptable to every need: with the optional extensions for seat bottom and back, the surface area is increased, meaning that pressure is even better distributed.



LED Turn Signal System: Show the way

Even more passive safety — and not only for people with a disability. The battery-powered Turn Signal System is operated intuitively with the touch of a button. And it blends right in with the design of your trike.



Luggage Bag: A miracle of space

The insatiable 42-liter HASE BIKES Luggage Bag from Ortlieb is available in black or white. Just hang it onto the mounts behind the seat-back. The low center of gravity will make you even more solid in the curves.



Safety Belts: Buckle up

Technical data:

front wheel 54" (137 cm)

Total width: 34" (86 cm)

Total height: 37" (95 cm)

Total length: 63"-81" (160-205 cm), without

Turning circle: left 10' 10" (3.30 m), right 11'6" (3.50 m) at mean length adjustment

Seat height: 18" (46 cm)

Pack size: 63"-81"×21"×34" (160-205 ×53×86 cm)

Wheelbase: 46"-64" (116-162 cm)

Frame/Fork: 7046/7005 aluminum

Front boom: 6061-T6 aluminum

Max. load: 265 lb (120 kg)

Weight: 50.7 lbs (23 kg)

Features and equipment:
Brakes: Tektro Auriga hydraulic disc brakes
Wheels: 20", rear Hub: HASE BIKES QUICKSTICK, Rims: double wall with eyelets, Spokes:
Sapim, Rear tires: Schwalbe Big Apple
55×406, Front tire: Schwalbe Marathon 47×406
Gears: 9-speed Shimano Sora, Centera twist
shifter, Schlumpf Mountain Drive
Hand crank: HASE BIKES 174 mm
Additional equipment: Differential
Lighting system: Dynamo: 8 & M Dymotec 6,
Taillight: B & M Toplight Flar Plus, Headlight:
AXA Pico 30-T Steady Auto, standlight
Colors: RAL 3002 carmine red / powder-coated

Shoulder belts and lap belts gently secure riders with motor disorders to the recumbent seat.

Additional accessories:

A list of all available accessories can be found on pages 66-67 and on our website.

HANDBIKE | KETTWIESEL CUSTOM



Technical data:

Total length: $63^{\circ}-81^{\circ}$ (160-205 cm), without front wheel 54° (137 cm)

Total width: 34" (86 cm)
Total height: 37" (95 cm)

Turning circle: left 10'10" (3.30 m), right 11'6" (3.50 m) at mean length adjustment

Seat height: 18" (46 cm)

Pack size: 63"-81"x 21"x 34"
(160-205 x 53 x 86 cm)

Wheelbase: 46"-64" (116-162 cm)
Frame/Fork: 7046/7005 aluminum
Front boom: 6061-T6 aluminum
Max. load: 265 lb (120 kg)
Weight: 51.8 lbs (23.5 kg)

Technical data for model shown:

Brakes: Tektro Auriga hydraulic disc brakes Wheels: 20", rear Hub: HASE BIKES QUICK-STICK, Rims: double wall with eyelets, Spokes: Sapim, Rear tires: Schwalbe Big Apple 55 x 406, Front tire: Schwalbe Marathon 47 x 406

Gears: 8-speed internal gear hub Shimano Nexus Premium, Schlumpf Mountain Drive

Hand cranks: HASE BIKES 174 mm
Additional equipment: Differential

Lighting system: Dynamo: B & M Dymotec 6, Taillight: B & M Toplight Flat Plus, Headlight: AXA Pico 30-T Steady Auto, standlight Colors: RAL 9016 white / powder-coated /

Colors: RAL 9016 white / powder-coated other colors available upon request

AVAILABLE OPTIONS



Spinner Grind I Front Suspension: Why gallop when you can glide?

The optional Spinner suspension fork in its reinforced version (steel shaft) will even satisfy comfort connoisseurs. Forget the pothole slalom: from now on, it's easy gliding over every road.



150-millimeter Hand Crank: Extra ergonomics

Ergonomics are especially important on handbikes. HASE BIKES offers a 150 mm handcrank as an alternative to the standard 174 mm version. After all, efficiency and well-being should always go hand in hand.



Differential: For all-terrain

Specially developed by Marec Hase for the KETTWIESEL, the differential guarantees even more riding fun because it transfers the power to both rear wheels. Which can make a world of difference, especially on steep, gravel paths.



SON: Amps to go

The light and smooth-rolling SON 20 R hub dynamo is the most reliable electricity source for bikes and trikes. Constant power supply in any weather, maintenance-free, and durable. The best ecopower for outdoors.



Heinzmann e-motor: It's watts inside that counts

The extra oomph that turns your daily route into a joyride. With 250 W and up to 60 Nm of torque, the front wheel pulls you toward your destination as soon as you start pedaling. You choose how much support you need.



XXL Seat:

More space, more comfort

Our "extra-wide seat" option offers more roominess behind the wheel. Riders come in all shapes and sizes — but they all agree: comfort needs space.



Total length: 70"-87" (177-221 cm)

Total width: 33" (85 cm)

Technical data:

Total height: variable 32"-43" (82-110 cm)

Seat height: adjustable from 20"-28"

(50-70 cm)

Pack size: 27"x 33"x 42" (69 x 85 x 107 cm) Wheelbase: 48"-65" (122-166 cm)

Frame: 25 CroMo4

Front boom: 25 CroMo4

Fork: 20" aluminum

Max.load: 265 lb (120 kg)

Weight without bag: 61.7 lbs (28 kg)

Technical data for model shown:

Brakes: Rear: Tektro Auriga Twin hydraulic disc brakes with integrated parking brake, Front: Avid BB7 mechanical disc brakes

Wheels: 20" rear, Hubs: HASE BIKES QUICK-STICK, Rims: double wall with eyelets, Spokes: Sapim, Tires: Schwalbe Marathon 47 x 406

Gears: 8-speed internal gear hub Shimano Nexus Premium, Schlumpf Mountain Drive

Hand cranks: HASE BIKES 174 mm

Fenders/Luggage rack: SKS / HASE BIKES Cargo Net, Max. load: 66 lbs (30 kg)

Suspension: standard air shock

Lighting system: Dynamo: B & M Dymotec 6, Taillight: B & M Toplight Flat Plus, Headlight: AXA Pico 30-T Steady Auto, standlight

Colors: pearl gray / powder-coated / other colors available upon request

AVAILABLE OPTIONS



Electric Motor: The power pack

For long and hilly commutes or just a little extra speed and comfort: the Protanium motor transforms the LEPUS Rohloff is the best hub on the market: into a trike hybrid. The 250 W package on the front wheel powers along when you start pedaling. Otherwise it travels - spacing, 100% dirt and rain resistant. incognito - in hub disguise.



Rohloff Speedhub: A true paradigm shift

14 speeds in one high-tech shell: the shifts when stationary or under load, extra-wide gear range, even gear



DT-Swiss shock: Float like a butterfly...

The optional DT Swiss M 212 suspension strut is the ultimate in air shock technology: extremely sensitive and responsive, wide range of adjustment, ultra-lightweight. Or simply: wellness on wheels.



Differential:

Turns the HANDBIKE into an ATV Specially developed by Marec Hase's team of engineers, the differential transfers the power to both rear wheels and keeps you going where others throw in the towel, like on steep, gravel paths.



XXL Rear Wheels: Phat and fun

The 60 mm-wide Schwalbe Big Apple tires offer even more comfort for the HANDBIKE pilot. The extra width means site. a resilient cushion of air and additional safety on all surfaces. And they give the LEPUS a stylish, sporty look.

Additional options:

A list of all available options can be found on pages 64-65 and on our web-

HANDBIKE | PINO CUSTOM



Technical data:

same as Pino (see page 21)

Technical data for model shown:

Fork: aluminum, rigid

Brakes: Avid Code R hydraulic disc brakes

Wheels: 26" rear, Rim: double wall with double eyelets, Hub: HASE BIKES Tandem Hub, Spokes: Sapim; 20" front, Rim: double wall with eyelets, Hub: HASE BIKES Tandem Hub, Spokes: Sapim, Tires: Schwalbe Marathon, front 47 x 406, rear 50 x 559

Gears: Shimano Deore 27-speed derailleur, Front derailleur: Microshift FD-R539 cold forged, Bar end shifter: Microshift

Crankset/Bottom bracket: Stronglight for tandem with integrated freewheel mechanism, Rear: 170 mm 28-38-48 tooth, left 38 tooth; Front: 165 mm 38 tooth

Hand cranks: HASE BIKES 174 mm

Lighting system: Dynamo: B & M Dymotec 6, Taillight: B & M Toplight Flat Plus, Headlight: AXA Pico 30-T Steady Auto, standlight

Fenders: SKS

Luggage rack: Racktime Addit, Max. load: 66 lbs (30 kg)

Kickstand: HASE BIKES Double Kickstand, Max. load: 220 lbs (100 kg)

Max. load: 495 lb (225 kg)

Weight: 62 lbs (28 kg)

Colors: RAL 9016 white / powder-coated / other colors available upon request

AVAILABLE OPTIONS



150-millimeter Hand Crank: Extra ergonomics

Ergonomics are especially important on handbikes. HASE BIKES offers a 150 mm handcrank as an alternative to the standard 174 mm version. After all, efficiency and well-being should always go hand in hand.



Suspension Seat Post: Our boss's chair

Comfort for the captain: the finely tuned Suspension Seat Post from Airwings lets the boss cruise smoothly over the most uneven surfaces. The "overseer", after all, should also have a comfortable seat.



Suspension Fork: What pothole?

Be it cobblestones or potholes: the Spinner Grind Suspension Fork irons out the bumps – meaning even more comfort, especially for the partner in the front seat. But beware: the extra comfort makes it even harder to call it a day.



Puncture-resistant tires: Tough treads

For everyday use in Glass-Shard City or tours over sticks and stones: the Schwalbe Marathon Plus withstands the worst road conditions. An additional layer beneath the tread ensures that they'll roll on ... and on and on.



Rohloff Speedhub: A true paradigm shift

With 14 speeds in one high-tech shell, the Rohloff is indisputably the best gear hub on the market. It can also be shifted when stationary. Gear changes are as crisp as a derailleur. Extra-wide gear range, and 100% dirt and rain resistant. Always in noble black for the HASE PINO.

Additional options:

A list of all available options can be found on pages 64-65 and on our website.



Special Steering / Shoulder Steering Unit: Twist and turn Mobility for people with no arms or short arms. The width of the steering unit is fully adjustable. A coaster brake is used for stopping, and the Shimano Nexus automatic hub gears, for shifting.

Coaster Brake: Legwork

When the legs are more mobile than the hands, the coaster brake ensures full braking power — with high tech: pedaling backwards transfers the leg power to a hydraulic disc brake.

Additional special options: A list of all available options can be found on pages 64-65 and on our web-



OTHER OPTIONS



The trike becomes a fixie with a single gear. With the Fixed Gear Hub, the ped- hand. The coupling connects the two als of the KETTWIESEL or TRETS remain in motion as long as the trike is moving. Especially sensible for physical therapy patients and people with lim-

ited mobility (with friction clutch).

Fixed Gear Hub: More movement Brake Coupling: 2 in I



For people with reduced mobility in one disc brakes with a single brake lever. Precision hydraulics and the ergonomic design of the lever guarantee full braking power and excellent modula-

tion, singlehandedly.



Single-hand Controls: Join forces A single grip with all control elements! Using a special adapter, two brake levers can be mounted on one side. This allows the rider to shift gears and control both brake levers using a single hand.



Elbow grease and efficiency For people with a disability, it's often the only option for self-propelled mobility. The HASE BIKES Hand-crank Assembly can be folded forward for easy mounting and dismounting and has incredible torsional stiffness as well as excellent efficiency.

Hand-crank Assembly:



In perfect reach The KETTWIESEL and LEPUS can be equipped with handlebar extensions of up to 311/2" (80 cm) in length. This makes the trikes accessible for people with very short arms or without arms.

Handlebar Extensions:

16" Front Wheel: Makes mounting as easy as pie The use of a shorter fork and smaller front wheel lowers the bottom bracket. This makes mounting, dismounting, and even pedaling even more effortless.



Pendulum Pedal: In the swing

These pedals can help people with severely limited mobility slowly regain their flexibility and strength. The trick: pedaling is possible with very little bend to the legs. The pedals can be adjusted to allow for more movement as leg strength returns, creating a beneficial training effect.





Tow Bar: Follow me!

Lame name, fine piece of equipment: with the Tow Bar, even standard bikes can be used as towing vehicles for the KETTWIESEL — with a safety bonus: the integrated overrun brake works automatically. When the towing bike brakes, the KETTWIESEL brakes.

OTHER ACCESSORIES



Crank Shortener: Perfect fit

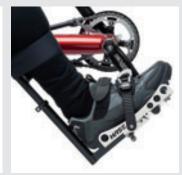
For people with legs of different lengths or restrictions in leg mobility... but also for kids. The pedals can be slid individually along the crank for separate adjustment, optimizing rehabilitation training or allowing the crank length to grow with your child.



Special Pedals: Solid footing

With these pedals for people with motor disorders, the feet can be secured in the correct position and prevented from slipping. Precision positioning pure.

Also available in a children's version.



Special Pedals with Calf Support:
Braced to race

In addition to the secure positioning of the foot on the Special Pedal, the calf brace provides stability for the lower leg and the angle of the ankle. Also available in a children's version.



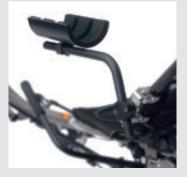
One-sided Leg Support: Comfort

A solution for people with paralysis on one side of the body or a disability. The healthy leg pedals while the other is safely strapped into a comfortable support. Infinitely adjustable. Mounts behind the bottom bracket.



Freewheel Switch-off:
More movement

For children in physical therapy, it's often sensible to keep muscles moving over a longer period of time. This is where our Freewheel Switch-off comes in: this little mechanism keeps legs in motion. Simple cause, major effect.



Armrest: Take a load off

If your arm needs a little support for steadiness, this comfortable armrest ensures a relaxed arm position.

Additional special accessories:

A list of all available accessories can be found on pages 66-67 and on our website.

OUERUIEW | OPTIONS

O = Option included in base price X = Option available at additional charge	PINO	KETTWIESEL	LEPUS	TRETS	HANDBIKE	HANDBIKE
	сиѕтом	сиѕтом	CUSTOM	CUSTOM	KETTWIESEL CUSTOM	LEPUS CUSTOM
Rigid Fork 12"				0		
Rigid Fork 16" steel, lowers the bottom bracket by approx. 2½" (6 cm), ideal f. lowered front boom		X	X		X	X
Rigid Fork 20" aluminum	0	0	0		0	0
Spinner Grind I Suspension Fork 45 mm of travel, reinforced version with steel shaft	X	×	×		X	X
White Brothers RC 80 Suspension Fork 80 mm of travel	X					
Straight Front Boom		0	0	0	0	0
Lowered Front Boom lowers the bottom bracket by approx. 4" (10 cm)			×			X
Standard Air Shock rear			0			0
DT Swiss M212 Air Shock rear			×			X
7-speed Derailleur System with twist shifter				0		
9-speed Derailleur System with twist shifter		0	0		0	0
9-speed Derailleur System with bar-end shifter		×	×			
27-speed Derailleur System with twist shifters		×				
27-speed Derailleur System with Microshift bar-end shifters	0					
27-speed Derailleur System with Dura Ace bar-end shifters	X	×				
Deore XT 27-speed Derailleur System rear derailleur with Microshift bar-end shifters	×					
Deore XT 27-speed Derailleur System rear derailleur with Dura Ace bar-end shifters	×					
Nexus 8-speed Gear Hub with twist shifter		×	×	×	X	×
14-speed Rohloff Gear Hub with long twist shifter	X	×	×		X	X
Speed Drive 2-speed Planetary-geared Crankset overdrive of 1:1.65		×	×			
Mountain Drive 2-speed Planetary-geared Crankset underdrive of 2.5:1		×	×		0	0
Fixed Gear Hub I-speed, rider must pedal while wheels are moving (with friction clutch)		×		×		
HASE BIKES Tandem Crankset with integrated freewheel	0					
Stronglight Z'light Tandem Crankset with integrated freewheel chainring	X					
Tandem Crankset rear 170 mm, additional front crankset options 115, 140, and 155 mm	X					
Standard Crankset 170 mm		0	0			
Crankset with 115, 140, or 155mm cranks (for all gear systems except Schlumpf)		X	X			
Crankset with 115mm, 125mm or 140mm cranks				×		
Crankset Cut to Customer's Specifications 38 tooth, black, max. 170 mm, cut surface uncoated		X	X	×		
Manual Drive Hand Crank length 174 mm	X				0	0
Manual Drive Hand Crank length 150 mm	X				X	X
Single-wheel Drive right rear wheel is driven		0	0	0	0	0
Differential both rear wheels are driven		Х	X		X	X

O = Option included in base price X = Option available at additional charge	PINO	KETTWIESEL	LEPUS	TRETS	HANDBIKE	HANDBIKE
	CUSTOM	CUSTOM	CUSTOM	CUSTOM	KETTWIESEL CUSTOM	LEPUS CUSTOM
Schwalbe Marathon Tires front and rear	0	0	0	0	0	0
Schwalbe Big Apple Tires 55 mm, rear		X	X	X	X	X
Puncture-resistant Schwalbe Marathon Plus rear	X	X	X		X	X
Puncture-resistant Schwalbe Marathon Plus front and rear	X					
HASE BIKES Tandem Hub front and rear	0					
DT Swiss 340 Tandem Hub rear	X					
Protanium Motor front wheel hub motor	X	X	×		X	X
Heinzmann Directpower front wheel hub motor	X	×	×			
Avid BB7 Mechanical Disc Brakes with parking brake mechanism		0		0		
Avid Elixir 3 Hydraulic Disc Brakes (Tektro Auriga for manual drive)		×		Х	0	
Hydraulic Brakes Coupling		×	0	X	X	0
Coaster Brake (with this option, the trike cannot be pushed backwards)		X	X	X	X	X
Standard Seat seat width 17" (44 cm), seatback height 19" (48 cm)	0	0	0		0	0
XXL Seat 2¾" (70 mm) wider		×	×		X	X
Standard Handlebar Height 10¼" (26 cm) from bend to tip	0	0	0			
XXL Handlebar 4" (10 cm) higher	X	×	×			
Extra-long handlebar up to 15¾" (40 cm)		×	×			
Shoulder Steering Assembly steering sensitivity adjustable		×	×			
Rigid Seatpost length 440 mm	0					
Seatpost Airwings Evolution suspension, length 440 mm, black	X					
Fender front and rear (incl. cargo area for LEPUS)	0	0	×	0	0	X
Extra-long Fenders front and rear, specially designed for Kettwiesel tandem-use		X			X	
Lighting System B & M Dymotec 6 bottle dynamo, B & M Toplight Flat Plus, etc.	X	×	×	X	X	X
Lighting System SON 20 R hub dynamo, Philips SafeRide LED etc.	X	×	×		X	×
PINO PORTER RACK foldable carrier for up to 40 kg, incl. double kickstand	X					
PINO PORTER RACKBAG for the PORTER RACK lower carrier	X					

HASE BIKES Custom models: Mobility with individuality

Free time and mobility are even more fun when the vehicle fits perfectly to the expectations and needs of the rider. This is why we also offer Custom versions of all our models. With many options to choose from, you can design your own customized bike or trike.

This table provides you with a clear overview of the additional options that are available for our Custom model bikes and trikes. The left column lists all optional features and equipment, from suspension forks and gear systems to special, hightech lighting systems. Along the top, the individual Custom models are shown. Where model and

option intersect, you will find an "X" or an "O". The "X" means: option available at additional charge. The "O" indicates: this option can be ordered at no extra charge. An empty box means: the option is not relevant to this model. You can also equip your Custom HASE BIKE with accessories (see table on the following pages).

OUERUIEW | ACCESSORIES

O = Accessory included in base price X = Accessory available at additional charge	KLIMAX	KLIMAX	PINO	PINO	PINO	KETTWIESEL	KETTWIESEL	LEPUS	TRETS	TRETS	TRIX	HANDBIKE
	5K	2 K	ALLROUND	TOUR	PORTER	ALLROUND	COMFORT	COMFORT	REH			KETTWIESEL
Adapter for Universal Coupling not with Cargo Net								X				
Armrest						X	X	X				
Children's Crankset			X	X	X							
Children's Pedals with Toe Clips and Straps incl. heel straps			X	X	X	Х	X	X	0	X	0	
Crank Shortener		X	X	X	X	Х	Х	X	X	X	X	
Differential	X	×				X	Х	×			X	0
Ergo Handlebar Grips			X	Х	×							
Fixed Gear Hub with friction clutch						Х	X		X	X	X	
Footrest										X		
Free-wheel Switch-off			X	Х	×							
Guide Bar									X	X		
HASE BIKES Double Kickstand max. load: 220 lbs (100 kg)			X	0								
HASE BIKES Foldable Fairing	0	0	X	Х	X	Х	X	X			×	
HASE BIKES Foldable Fairing Bag	×	0	X	X	X	Х	×	X			×	
HASE BIKES Foldable Fairing Trets										×		
HASE BIKES Rain Poncho for Foldable Fairing	×	X				X	X	X			×	
Headrest cannot be used with the Rain Poncho		X				Х	X	X			×	X
Holder for Walking Sticks cannot be used with the Rain Poncho		X				Х	X	X	X	×	×	X
Humpert Double Kickstand			0	Х								
Infant Carrier with footrest										X		
Jogger Kit (for attachment of handlebar behind seatback)										×		
Lap Belt		×	X	X	X	X	×	X	X	×	×	0
Lithium-ion rechargeable battery 36 V for Heinzmann hub motor		X										
Lithium-ion rechargeable battery 48 V	×											
Lowrider	×	X				X	X					X
Lowrider PINO			X	0								
One-sided Leg Support		X	X	X	X	X	X	X			×	
Open Aheadset Cap						X	X	X			X	X
Ortlieb Luggage Bag 42 liter	X	X				X	X		X	X	X	X
Pedal Pendulum incl. Crank Shortener	X	Х	X	X	×	X	X	X	X	X	X	
Pedals with Toe Clips and Straps incl. heel straps	X	X	×	X	X	X	X	×	X	X	X	
PINO PORTER BAG 80 liter			X	X	0							

O = Accessory included in base price X = Accessory available at additional charge	KLIMAX	KLIMAX	PINO	PINO	PINO	KETTWIESEL	KETTWIESEL	LEPUS	TRETS	TRETS	TRIX	HANDBIKE
	5K	2K	ALLROUND	TOUR	PORTER	ALLROUND	COMFORT	COMFORT	REH			KETTWIESEL
Rack Pack Ortlieb Bag 49 liter								X				
Racktime ADDit Luggage Rack			0	X	0							
Rearview Mirror	0	0	X	X	×	X	X	X		X	X	X
Seat Support incl. footrest										X		
Shoulder Harness incl. Lap Belt		×	X	X	×	Х	X	X			X	X
Side Pouch 2.3 liter	0	0				X	×		X	Х	X	Х
Single-hand Controls		X				X	×	×	X	Х	X	
Special Children's Pedals adjustable at sides of feet			X	X	×	X	×	×	X	X	X	
Special Children's Pedals with Calf Support			X	X	×	X	×	×	X	Х	X	
Special Pedals adjustable at sides of feet	X	X	X	X	X	X	X	X			X	
Special Pedals with Calf Support adjustable at sides of feet		X	X	X	×	X	×	×			X	
Spoke Guards		X				X	×	×	0	0	0	X
Trailer Kit for pulling a Kettwiesel, incl. overrun brake						X	×				X	
Tubus Logo Luggage Rack				0								
Turn Signal System (cannot be used with the Rain Poncho)		×				X	X	X			×	X
Universal Coupling		Х				X	×	×			Х	X
Universal Mounting Bracket	X	×	X	X		X	×	X	×	X	X	Х
Weber Coupling Model E axle-mounted										X		
XXL Seat or Seatback Extension	X	X	Х	X		X	X	X			X	0

Something for everyone. HASE BIKES accessories

HASE BIKES also offers everything you need to equip your bike or trike for special uses. Accessories include the Luggage Bag for groceries, the Foldable Fairing for all-weather cycling, and so much more. This table will show you what fits where.

Not all accessories are important for everyone – but for many people, one or two certain extras can make all the difference. The commuter needs the Fairing Bag, and the touring family the Universal Coupling.

In this table, you can easily see which accessory is compatible with your top-seller. After all, who

needs a Differential for a PINO, or a Jogger Kit for a KETTWIESEL? The "O" in our table means: possible as accessory and included in the purchase price. The "X" stands for: accessory possible at an additional charge.

