

English



No slogans - 14 facts!

"Quicker than the surf"

France 1994. The atmosphere at the "Tour de France" was exhilarating and working with the teams and mechanics was exciting too. Our Rohloff SLT-99 chan has proven a success with its reliability! So at last, a couple of quiet days on the Atlantic coast. Why not take the Mountain bike on the beach?! Crazy idea, yes! Riding exactly where the surf runs out! After just 200m, total stand still! The rear wheel is stuck fast in the wet sand. Changing the gears impossible! Derailleur gears won't work when you are stuck! The next wave came and both rider and bike received the first salt-water shower. Chain and sprockets are grinding full of fine sand. The next wave came - now nothing works. The waves were rolling in faster than we could change gears.

Still, it must feel great to have the waves roll out under the bottom-bracket. This idea didn't let go of me.

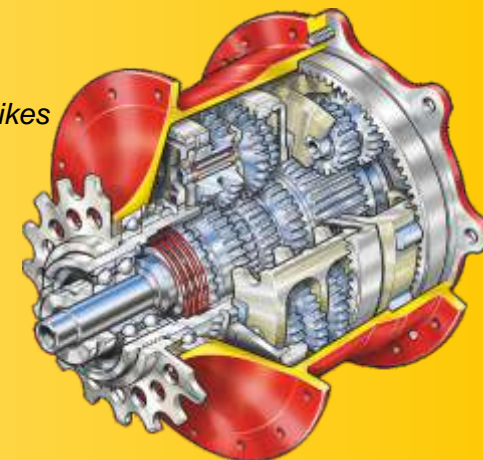
From now on the lights were burning bright and late into the night. The construction department in the Rohloff Company was working overtime. Successful gear changes and sprocket combinations were investigated. Mountainbike, downhill, touring and everyday riders were asked along with sports physicians: How many gears do you need and what has a gear hub got to be capable of in order to achieve maximum riding fun? 1997: findally we had our answer and put it to the test! Guess where...

The rear wheel is stuck fast in the wet sand. The first wave is coming. Change the gears down while stuck. 1st gear, gentle on the pedals, riding further - 2nd - 3rd - 4th... These gears are quicker than the surf!

30km of beautiful sandy beach lay ahead of us. It is a great feeling to have the waves roll out under the bottom bracket!

Bernhard Rohloff

1. **The 14-speed, high performance gear hub**
The modern efficient bicycle gear system - made in Germany
2. **Is suitable for performance sports**
MTB, Downhill, Freeride, Dual and Marathon
3. **Comfortable for everyday use**
City, Trekking, Fitness, Fun, Handbikes, Recumbants and Folding bikes
4. **Proved successful for tandem use**
Tour, Off-road, High speed
5. **Light running like a derailleur gear system**
Working efficiency of 95 - 99%
6. **With the effective gear number of a derailleur gear system**
14 effective gears - no overlapping gears
7. **Quicker and more positive shifting than all other systems on the market**
Shifting from gear to gear or over several gears in just one turn
8. **With even increases between the gears**
Increases of 13.6% between all gears, 526% overall range of gears
9. **Only one shifter for easy use**
Shifting gears whilst stationary and in all riding situations
10. **Adjustment and maintenance free over thousands of kilometres**
Through modern gear technology and the encapsulated oil bath
11. **Functional reliability and a long life like a Swiss watch**
Succesfully in use worldwide for the hardest of races and in the remotest regions
12. **Is the lowest priced gear system for the active rider**
Maintenance costs over 10,000km: SPEEDHUB 500/14: 0.63 €cent/km - Derailleur gears: 2.7 €cent/km
13. **An optimum weight / stability ratio of approx. 120g per gear**
27-speed derailleur system: approx. 100g per effective gear, 7-speed gearhub: approx. 250g per gear
14. **An extremely stable wheel with just 32 or 36 spokes (clamp width of 135mm)**
Symmetrically built wheel with high hub flanges. Fits to nearly all bicycle frame types.



... NEW TIMES ... NEW DEMANDS ...

The right gear system plays a very important role in making bike riding fun. The difference between the largest and the smallest gears (range of gears) and the size of the increases between them play a large part in deciding which riding situation the gear system has been tailored to (e.g. High speed racing, MTB, Downhill).

The size of the increases between gears will determine how smoothly the flow is from gear to gear. The shifting between gears in all riding situations (also whilst stationary) must then be made as light and intuitive as possible in order to maximise the riding fun.

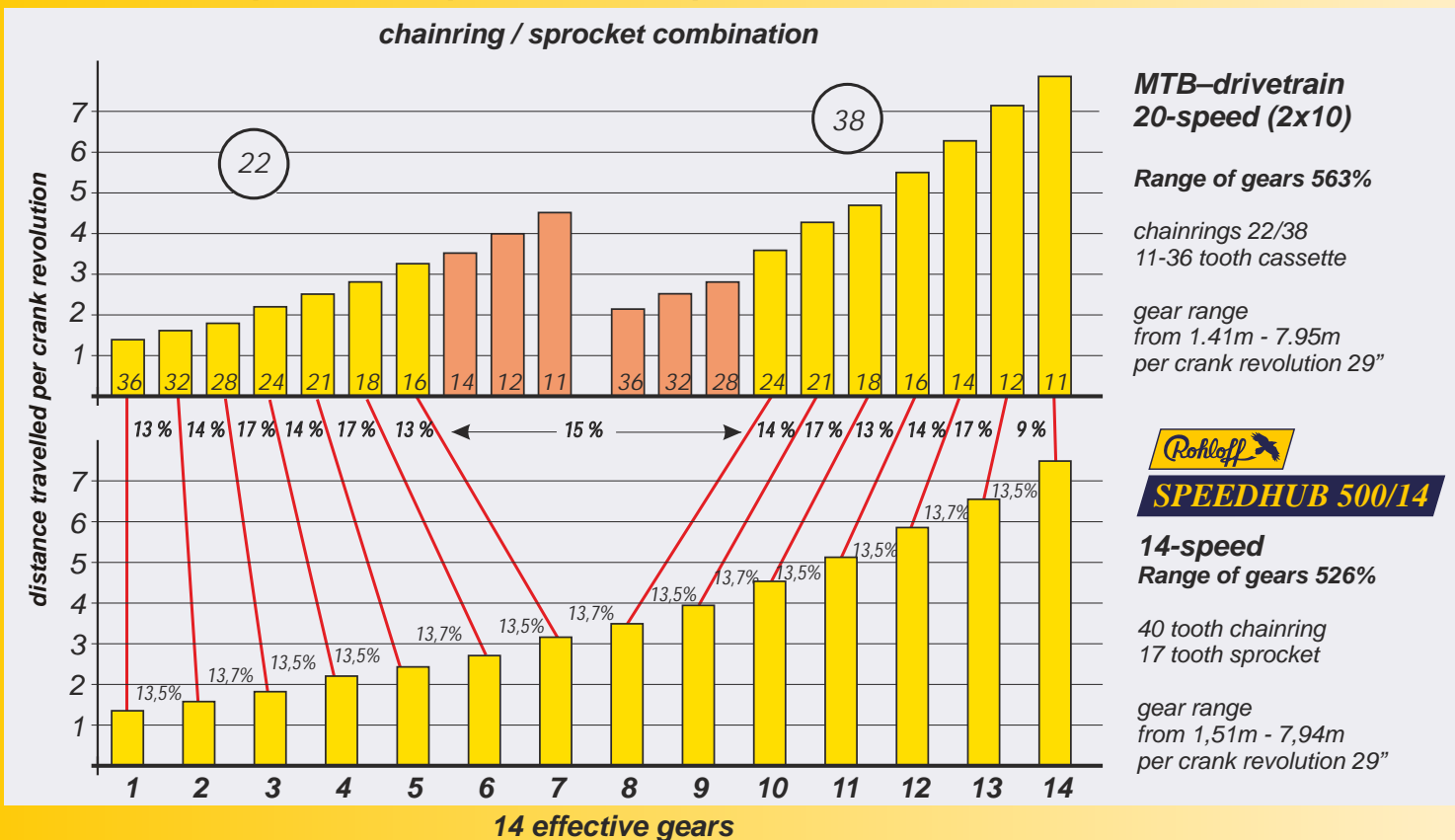
When the range of gears lies over 500% and the increase between these gears lies under 15% but remains evenly spaced out, then the sports rider as well as the hobby rider has the ability to change gears at the precise moment when

needed, regardless of the current riding conditions and without changing the comfortable crank rotation speed. This is only possible with the **Rohloff SPEEDHUB 500/14**.

The diagram below shows a comparison between a 20-speed (2x10) derailleur gear system & the **Rohloff SPEEDHUB 500/14**. The overall range of gears & number of effective gears is almost identical however contrary to the derailleur system, the **Rohloff SPEEDHUB 500/14** offers optimum, evenly spaced gear increments. It is impossible for any derailleur gear system to offer the same number of gears and match the shifting speed plus ability to shift through all gears with just one shifter - whilst stationary and whilst pedaling.

Just like the derailleur system, the **SPEEDHUB** gear range can be tailored to suit the cyclists individual requirements simply by swapping out the external sprockets for different sizes.

20 possibilities equals 14 different speeds (red gears are doublets)



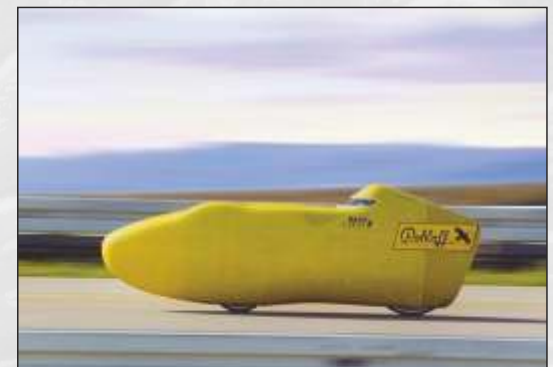
... For Winners ...



Andreas Kofler and Petra Dibiasi achieved 2nd place in their class riding the Transalp Race.



Christiane Rumpf, German downhill champion and winner of the extreme downhill race "Megavalanche".



Dirk Hentschel, winner of the European championship with his high-speed bicycle.

Success through ...

The possibilities of an alternative gear system had been thought over by Rohloff for a long time. All aspects of the derailleur system (low weight, high working efficiency, large range of gears, etc.) were held against with the known disadvantages like high maintenance, low level of dirt resistance, short wear time, etc.

As the result of many years research and development, the high performance gearhub with 14 speeds was at the end of 1996, finally ready for testing. After intensive investigation and thorough testing, the production started in 1999. Since then, thousands of **SPEEDHUB 500/14**'s have left our production facilities annually which totalled to approximately 215,000 units in use worldwide at the end of 2014.

Professional and hobby riders alike have learned to trust the substantial properties: High reliability, optimum gear increments, wide overall gear range, carefree and easy use, quick shifting, low weight and a high working efficiency. This combination is sure to leave no rider's wish unfulfilled.

Close to the technology of the car industry, the fully encapsulated gear mechanism runs within an oil bath to guarantee a long life for the hub even under extreme riding conditions.

The indexing of the gears is controlled within the gear-unit itself, and so this allows the **SPEEDHUB 500/14** to run adjustment and maintenance free for thousands of KM's. The even gear increments of 13.6% ensure that the rider can always ride at their optimum performance level. The large overall range of gears (526%) ensures that there is always the correct gear available for every type of riding situation. Pure cycling fun is guaranteed!

The rider will enjoy the extraordinary technology for over thousands of kilometres. Only the typical humming of some gears in D major

... variety with



SPEEDHUB 500/14

SPEEDHUB 500/14 CC (Cross Country)

With a quick release axle; pictured with external gear mech **EX** and **OEM** axle plate to support the torque on frames with OEM dropouts. It works in conjunction with a rim brake and is also available with the internal gear mech and/or the long torque arm to support the torque. The Q/R method of securing the hub to the bike frame allows a quick and tool free wheel removal even under race conditions.

Technology



SPEEDHUB 500/14 gearbox

The different types of the **SPEEDHUB 500/14** are based on a modular parts system. The main part is the 14-speed gearbox, which is constructed around a threaded **TS** or a Q/R **CC** axle. Every version of the **SPEEDHUB 500/14** is sold with either a long torque arm or an **OEM** axle plate to support the torque. It is also available with a hub cap for disk brake use. Each **SPEEDHUB 500/14** is available in silver (anodized), red or black (anodized). It comes with an internal gear mech with bayonet connectors or external (**EX**) cable box as shown above. Look up the best version for your bike under:

www.rohloff.de>speedhub finder

Tandem:

All hub versions are also for tandem use. Marked with a "**T**" they come equipped with 2.5m shifter cables.

SPEEDHUB 500/14 CC



SPEEDHUB 500/14 CC EX OEM silver

DB



SPEEDHUB 500/14 CC DB OEM2 black

SPEEDHUB 500/14 DB (Disk Brake)

Pictured with a quick release axle and a disk brake mount along with the **OEM2** axle plate. **DB** versions are also available as **TS** versions but all are delivered with the external gear mech. Due to the unique 4 hole disk mount, a special Rohloff brake disk will be needed.

OEM2 hubs are only delivered to bicycle manufacturers! For other customers, a replacement kit is available.

TS



SPEEDHUB 500/14 TS/red

SPEEDHUB 500/14 TS, (Threaded Spindle)

Pictured with the long torque arm and an internal gear mech. This version is for use in conjunction with a rim brake and is primarily for use on frames with open ended horizontal dropouts. **TS** hubs are also available as **DB** versions and/or with the **OEM** axle plate.

... and accessories that go with it ...



Twist shifter "light-right" Art.No. 8206 "light-left" Art.No. 8207

The 2010 revamped shifter version is both slightly lighter and smaller than the previous model. A shifter is included in every Rohloff SPEEDHUB 500/14 kit. The adjustment-free gear indexing is situated in the gear-unit itself and the shifter therefore does not require any additional indexing components. The shifter enables a fast shift over singular or multiple gears in one easy wrist movement. Replacement parts for the 1st generation shifter are still available whilst stocks lasts.

We recommend an oil change carried out every 5000km or at least once every year. For this reason we have produced an oil change kit (Art.No. 8410). This kit includes: 1x Oil-change assistant fluid, 1x all season oil complete with a 50ml syringe and an oil filling tube. Oil-change assistant fluid: Separate 25ml bottle (Art.No. 8402), 250ml can (Art.No. 8407), 1l can (Art.No. 8405). All season oil: Separate 25ml bottle (Art.No. 8403), 250ml can (Art.No. 8408), 1l can (Art.No. 8404). Oil-kit 25ml (Art.No. 8411), 250ml (Art.No. 8409)

Oil change kit



Chain tensioner

A chain tensioner is necessary if it is not possible to tension the chain by pulling back the wheel within the dropouts or by using an eccentric bottom bracket. The SPEEDHUB 500/14 CC and CC DB models include the Rohloff chain tensioner as part of the original package. The Rohloff chain tensioner is also available separately when needed (Art.No. 8250).

The Rohloff Chainguide CC (Art.No. 8260) completely prevents the chain from springing off the chainring. When just riding normally with a chain tensioner in use, it is possible that the chain might momentarily lose its tension and springs off the chainring. The Chainguide CC is definitely necessary on all full-suspension bikes and for off-road use.

Chainguide CC



Brake-discs

Due to the unique 4 hole mounting pattern, a DB version will require the use of special Rohloff brake discs. These are available for nearly any type of disc brake currently on the market. Please state the type of brake, the diameter and the thickness of the disc at the time of placing the order.

OEM2 axle plate / SPEEDBONE / MONKEYBONE

Frames with disc brake mounts of International Standard (IS1999) can replace the use of the long torque arm with an OEM2 axle plate (CC Art.No.8227 or TS Art.No.8550) and support bolt. For use in conjunction with a disc brake, a Rohloff SPEEDBONE (Art.No.8228) or a MONKEYBONE postmount adapter (160mm Art.No. 8553 / 180mm Art.No. 8554) must also be used. Use of these components without approval from the frame manufacturer is entirely at the users own risk.



DH Chain tensioner and DH Chainguide

The Rohloff DH Chain tensioner (Art.No. 8245) is specially designed for use in extreme downhill conditions. Through the design of the Rohloff DH chain tensioner, it is guaranteed that the chain runs safe onto the sprocket under extreme riding conditions. The Rohloff DH Chainguide (Art.No. 8291) eliminates the chance of the chain falling off the sprocket and onto the hub shell. The Downhill Kit (Art.No. 8293) includes both components.

... for adventure ...



Tilmann Waldthaler: Over 110,000 kilometers use with the Rohloff SPEEDHUB 500/14 riding from Alaska to Patagonia. Info: www.tilmann.com



Gisela Gartmair fights through the "Tour d'Afrique" 2010 to win the womens category and achieve 2nd place in the overall standings following the 12,000km race from Cairo to Capetown. www.cycling-for-africa.com



André Hauschke (Project "Null auf 6000") breaks the world record for altitude cycling in 2010 by reaching 6085 meters on the 'Ojos del Salado' in Chile. www.exyle.de



Around the chain ...

Rohloff stands for technological developments. As an innovative family business it regularly enriches the bicycle gear technic with new inventions. All *Rohloff* products are especially suitable for extreme riding conditions due to their better functionality, high reliability and extreme durability.

The *Rohloff* GmbH was established in 1986 by Bernhard and Barbara *Rohloff* to produce and market the *High Reliability Chain S-L-T 99*.



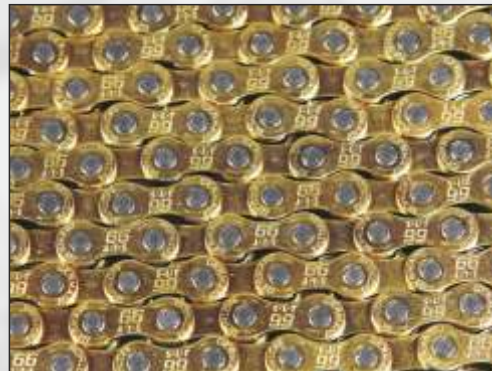
The chain building machine "The green monster" is still at the center of the *High Reliability Chains'* finishing process for all *S-L-T 99* chains.



The use of our chains at the *Tour De France* helped the *Rohloff S-L-T 99* to become internationally known. Since then, great sporting achievements have been accomplished every year thanks to the reliability of this chain. Plenty of extreme travellers riding extreme tours and expeditions through the ice of Greenland and the Sahara sand have put their faith behind the quality and long life of all the *Rohloff* products.

Rohloff would like to express their thanks to all their riders for the great and successful teamwork, without them it would be impossible for further development of *Rohloff* high reliability products.

All employees of *Rohloff* are active bike riders themselves and represent the future customers directly.



S-L-T 99 *High Reliability Chain*

The *Rohloff S-L-T 99* chain with its patented hyper link construction is still the standard to reach for derailleur gear chains. Thanks to further developments, it is available for use with all gear systems currently on the market. The following variations are still available:

For the admireres and winners

S-L-T 99 24-carat, 114 links, for 9-speed, 24 carat gold plated (Art.No. 7000)

S-L-T 99 24-carat, 114 links, for 8-speed, 24 carat gold plated (Art.No. 7001)



Revolver 3 *Chain riveting tool*

The Universal chain riveting tool *Rohloff Revolver 3* completes the functions of all previous chain closing instruments including the safe connecting of 10-speed and 11-speed bicycle chains. Only the Universal *Rohloff Revolver 3* is capable of opening and closing all derailleur and 1/2"x1/8" singlespeed bicycle chains. The chain is clamped into the tool before every procedure to guarantee exact usage. Using high quality materials and carbide where necessary, the *Revolver 3* is a professional tool for a long workshop life (Art.No. 2300).



Caliber 2 *Chain wear indicator*

An easy to use precision measuring tool that shows exactly when a chain has reached the wear line and must be replaced. The *Rohloff Caliber 2* is able to show the point of replacement for all 8-, 9-, 10- and 11-speed gear chains (Art.No. 3000).

... Service and care against the teeth of time ...



HG-Check Sprocket wear indicator

Due to the especially high level of load in MTB sport (extremely high chain force, gear-shifting under pressure, etc.) the chain causes the sprockets to wear more quickly. To ensure a safe operation of the chain the wear of the sprockets must also be monitored. This is made easily possible with the use of the **Rohloff HG-Check** sprocket wear indicator. This tool is only suitable to measure the wear of HG and IG sprockets (Art.No. 3100).



Oil of Rohloff Chain lubricant

According to the **Rohloff** - philosophy to constantly offer products of the best quality an oil was developed to withstand the high level of pressure, dirt and moisture within the chain links and also to remain environmentally friendly "biologically quick to decompose". Used economically on the chain or with the help of the **Rohloff Lubmatic**, the **Oil of Rohloff** is to date the optimum chain care.

The 50ml bottle is refillable in all good local bike stores.
(50ml: Art.No. 4200/ 1litre: Art.No. 4202/ 5litre: Art.No. 4201/ Pump: Art.No. 4300).

Merchandising and more ...

Under shop.rohloff.de you'll find our merchandising products like cycling jerseys, cycling shorts, t-shirts, the Rohloff book and more ...



Note: Illustrations without obligation - technical specifications reserved

Every new development undergoes a critical examination. Only once our downhill, our dirt, our mountain, and our everyday riders are happy with the product, we will put it into production.

The high quality of all **Rohloff** products is ensured by the special commitment and enthusiasm of our staff. Experience gained over time allows us to improve bicycle technology, solve known problems. Also the joy of development and the courage to explore a new territory will ensure that in the future **Rohloff** will broaden the market with interesting new developments.



**No slogans
just facts!**



The **Rohloff** company logo is a flying raven. The logo came to life, when in March 1995 a baby raven fell from its nest and was nurtured back to health by the company staff. Due to the tricks it played upon people, the free flying bird became famous amongst the neighbourhood. Since then, the care and nurture of other orphan ravens has become an integral part of life at the company headquarters.



Further information on our Homepage:
www.rohloff.de



SPEEDHUB 500/14

The right drive ... Every time!

fat times



winning times



rapid times



having time



taking time



sharing time



time to overcome



moving times



breaking time limits



comfortable times



modern times



Rohloff AG

Mönchswiese 11
34233 Fulda, Germany

Tel:- +49 (0)561 510 80 0
Fax:- +49 (0)561 510 80 15

E-mail:- service@rohloff.de
Homepage:- www.rohloff.de/en