

# FREQUENTLY ASKED QUESTIONS – ANSWERED!

## ABOUT MY HUB

### Conversion of internal to an external gear mech

We can convert your existing hub from internal to external gear mech.

It likely that you would be doing this if you are changing to a disc brake, see below or changing the axle plate type.

Bikes with a long torque arm and parts like mudguards, luggage carriers, kickstands make it almost impossible to place an external gear mech in a reasonable position.

If in doubt, please contact us so that we can help you out.

When using an OEM or OEM 2 axle plate, the mounting of an external gear mech is usually problem free when routing the cables via the chainstay.



### Conversion of non disc hub to the disc version

Every non-Disc version of the Rohloff SPEEDHUB 500/14 can be converted for Disc Brake use.

This conversion requires the use of special tools to ensure the vital seal surfaces are not damaged in the process.

You will need to send the hub to PureSport so that we can carry out this change.



## Weight comparison: Rohloff SPEEDHUB 500/14 - Derailleur gears

The Rohloff SPEEDHUB 500/14 is with a weight of 120g per gear, the lightest gear hub on the market. The gear range is the same as high quality 27 gear derailleur systems due to the 14 gears within the hub being evenly spaced out at 13.6% increases. With the Rohloff SPEEDHUB 500/14 there is no longer a need for the following parts:

- Front and rear derailleur
- Two shifters including shifter cables
- Rear hub with cassette
- Small and middle chainrings
- The total average weight of all these components is approx. 1600g.

The weight of a fitted Rohloff SPEEDHUB 500/14 CC OEM including twist shifter, shifter cables and cable guide is approx. 1820g.

The comparison between the Rohloff SPEEDHUB 500/14 and the derailleur system shows only a slight increase in weight. For that, the user receives a service-free, dirt-free full-encapsulated, user-friendly gear system and high reliability along with a long lifespan.

## Technical changes in the current series

The hub that you are buying today is basically the same as the first hub ever produced, there have been some running changes, these are detailed below.

The type of axle plate screws (countersunk screws) changed in June 1999, Torx (M4 - TX20) screws are now being used.

Chain tensioner spring: In late autumn 2002 the spring in the chain tensioner was swapped for a new spring with a longer arm. With this in place, the chain tensioner receives an incredible increase in performance whilst the risk of damage to the spring is also reduced to a minimum, even if the chain is not sufficiently long enough on rear suspension bikes. The new spring can be fitted to all the old style chain tensioners. The conversion kit is Part No 8248.

At the beginning of 2003, a quick change axle ring was introduced to replace the old one piece axle ring. This is easy to spot as it is now only secured in place by 5 visible axle plate screws and not 6 as before. The sixth screw is under the axle plate, holding the axle ring securely in place. The benefit of this development is that, should the hub cable need to be changed, the axle ring can stay in place making the whole job quicker and easier. The old one-piece axle ring can be easily replaced by the new, quick change axle ring

A new indexing spring took over onwards from Serial number 18100, this made shifter easier

A new generation hub and hubcap seal was fitted to all SPEEDHUBs onwards from Serial number >25300. This can be easily identified by the outer metal ring and the deep blue colour of the rubber.

Onwards of Serial number 33000, all SPEEDHUBs were fitted with a slightly over-worked shifting shaft. the 7-8 or 8-7 gear changes now run the risk of finding gear # 11 instead of gear # 14. This will however only happen if shifting very slowly or with incredible force upon the pedals.

Spoke hole revision. Updated hub shells have spoke hole diameters of 2,7mm: polished aluminium from #43559, red powder coated from #43384, black anodised from #44321

After Serial number 75000 all hub shelled are laser etched with the Serial number.

They therefore now offer an optimum protection against theft as the Serial numbers can no longer be removed without leaving visible signs.

The hub sticker may now be removed from the hub shell without any loss of guarantee.

The hub production is as follows

<b>Number</b>	<b>Year</b>
000000 - 000400	1998
000401 - 002700	1999
002701 - 006500	2000
006501 - 012000	2001
012001 - 018800	2002
018801 - 027700	2003
027001 - 038500	2004
038501 - 050049	2005
050050 - 065000	2006
065001 - 081600	2007
081601 - 100000	2008
100001 - 115900	2009
115901 - 135800	2010
135801 - 153000	2011
153001 - 171000	2012
171001 - 189000	2013
189001 - 206999	2014
207000 - 223999	2015
224000 - 241130	2016
241130 -	2017
	2018

## Transportation of the Rohloff SPEEDHUB 500/14

If transporting a bike fitted with a Rohloff SPEEDHUB 500/14, care should be taken that the rear wheel is transported in an upright position. In a car or an aeroplane, there could be great changes in the air temperature/pressure.

When the wheel lies on its side, oil could seep out of the seals because the oil is sitting directly over these seals on either the left or the right side. Transportation in the upright position will prevent the air temperature/pressure in having an effect over the Rohloff SPEEDHUB 500/14.

If it is not possible to transport the wheel in the upright position due to according packaging requirements, don't worry. The leakage of oil will not cause any damage to the hub, but it won't be good for your brakes.

## Trailer in conjunction with SPEEDHUB 500/14?

In general, the use of a trailer in conjunction with the SPEEDHUB 500/14 is entirely possible!

It could occur though, that with different types of trailers, that the torque support must be cleared.

In this case, please ensure to ask the manufacturer if there are any known problems at the time of purchase.



## Info for the tour

**The Rohloff SPEEDHUB 500/14 has proved from the start that it is the optimum gear system, especially for tours and long journeys due to its durability, long life and the strength of the final wheel itself.**

Of course, good materials should always be used, so that the other parts on the bike start out not ruined, dirty, over lubricated, worn, so that their function is impaired or even damaged.

Therefore, we suggest that in regard to poor parts on the bike you should always carry a few important tools with you.



We are happy to answer any questions and to help were possible

We endeavor to help with any technical problems and, when necessary, ship spare parts out all over the world. However, due to extremely high postage costs or lack of service in some countries, this is not always possible.

**For this reason you should take into consideration carrying spare parts (in case of accident damage or excessive wear), the handbook and also a range of tools along for the tour.**

- 2mm allen key (male/female connectors, cable pulley screws)
- 3mm allen key (drain screw)
- 5mm allen key (securing bolts for torque arm/chain tensioner)
- 8mm wrench (for turning the shifting rod)
- 15mm wrench (for axle nuts where applicable)
- Chain lubricant and grease
- Torx TX20 (all other bolts of the Rohloff SPEEDHUB 500/14)
- Oil change kit (Art.Nr. 8410)
- Sprocket tool (Art.Nr. 8501)
- Spare chain and sprocket
- Spare spokes
- Spare shifter cables
- Internal gear mech: spare hub cables (Art.Nr. 8271) or the complete axle ring set (Art.Nr. 8572)

## **Emergency repairs on the go**

Several repairs can be improvised in case of emergencies

### **Breaking of a hub cable (internal gear mech):**

Remove the axle plate and the cable pulley, then with an 8mm wrench select a suitable gear (ex. gear #7). Riding further is now possible using this one gear.

### **Breaking of a shifter cable (internal gear mech):**

Pull a hub cable until a suitable gear is found (e.g. gear #7). Riding further is now possible using this one gear.

### **Male or female connector lost or damaged (internal gear mech):**

Join the hub cable and the shifter cable together with the use of an electric cable connector or binding wire.

### **Breaking of a shifter cable (external gear mech):**

Remove the cable box and use an 8mm wrench select a suitable gear (e.g. gear #7). Riding further is now possible using this one gear. Safety ring (and pin) of the quick release on the torque arm (where applicable): Use an M6 nut and bolt or improvise by using binding wire.

### **Loss of oil:**

Loss of oil through sweat oil or the light leakage of oil through the seals is harmless. Therefore, travelling further until the next oil change (at 5000km intervals) is possible.

## **PITLOCK available for the Rohloff SPEEDHUB 500/14**

The pitlock set M10 Rohloff mono is recommended for frames which incorporate dropouts that are thicker than 8mm and use a TS axle. For this you will require the appropriate Rohloff axle plate with a longer axle stud.

8228L TS OEM2 long

8233L TS Standard axle plate long

8235L TS OEM long

Frames that utilize dropouts thinner than 7mm can use the PITLOCK Securing Set M10 Rohloff dual for mounting. Make sure that the threads protrude the dropout slot far enough to mount the securing components.

Safety-catch for (slideable) rear bolted dropouts:

This new safety-catch is for bolt-on adjustable dropouts and is designed to prevent an easy removal of your rear wheel. Despite having a PITLOCK securing the rear wheel, it is still possible that a thief may be able to steal the complete rear wheel simply by unbolting the not-protected rear dropouts. To prevent or to hinder this, it is now possible to mount this PIT-dropout security system.

All important information can be found on the homepage of Pitlock!

## **Schlumpf Speed Drive, High Speed Drive, Mountain Drive**

The Schlumpf Speed-drive works like two chainrings with a large difference in size.

With the additional transmission ratio of 1:1.65 the gear ratio of the Rohloff SPEEDHUB 500/14, when used in conjunction with the Schlumpf Speed-drive, will be increased to 868%.

When fitting a Schlumpf transmission, please bear in mind that it is still important not to undercut the smallest permitted sprocket ratios (see 'sprocket ratios').



The Schlumpf Mountain Drive is not permitted for use in conjunction with the Rohloff SPEEDHUB 500/14.

The Schlumpf High Speed Drive (1:2.5) is not permitted for use with the Rohloff SPEEDHUB 500/14 due to its standard 27 tooth integrated chainring. A number of alternative chainring sizes are however available from Schlumpf so as to not undercut our smallest permitted sprocket ratios.