

FREQUENTLY ASKED QUESTIONS – ANSWERED!

MOUNTING TO MY BIKE

Will a Rohloff hub work on my bike?

It is likely that the Rohloff hub will work on your bike as there are number of different hub configurations, the best option is to contact PureSports and let us know the make, model and year of the bike you are looking to install the hub on. Ideally send us a picture of the rear wheel taken from the disc brake side.

Read on for more details.

Is it possible to mount the Rohloff SPEEDHUB 500/14 in a combination with a thru-axle?

The Rohloff SPEEDHUB 500/14 is constructed around its axle which houses the entire shifting and indexing mechanism. Increasing axle size would increase other component size and thus weight resulting in an incredibly inefficient and unmarketable product.

The hub is available in a variety of axle widths, have a look at the table on our website This is in the Speedhub Variants section.

135mm SPEEDHUBs and 170mm SPEEDHUB XL units are available with a choice of hollow, 10mm axle (for standard quick release skewers) or a threaded (M10x1) solid axle. These hubs are not compatible with any thru-axle standards.

190mm SPEEDHUB XXL units are available with hollow, 10mm axle (for standard quick release skewers). These hubs are not compatible with any thru-axle standards.

SPEEDHUB A12 variants are available with a choice of 142mm, 148mm, 177mm or 197mm O.L.D. You can't change the standard hubs to an A12 version.

The 12mm axle supplied with each frame can be discarded and replaced with a special set of Rohloff adapter sleeves. Through these sleeves, M7 bolts will be inserted and threaded into the internally tapped A12 SPEEDHUB axle to secure the hub in position.

These adapter sleeves (available for DT, Maxle, Syntace and Shimano e-thru axle systems) are available in different configurations to ensure we have a compatible hub for the majority of frames out there.

As always it is imperative that the mounting information is correctly adhered to in order to ensure the safe, problem-free integration of the transmission.

PureSports will need to measure your frame if you want to install a Rohloff on a bike with Boost spaced frame.

The key is the 40mm diameter required on the non-drive side for the axle plate to fit.

Monkey Bone – IS - Postmount brake adapter

The Monkey Bone offers a simple method of transferring the torque from the Rohloff SPEEDHUB 500/14 to a frame through the disc brake mount. In order to use the Monkey Bone, your SPEEDHUB 500/14 will need an OEM2 axle plate, your frame must have an International Standard disc brake interface, and your disc brake caliper must have a Postmount interface. The Monkey Bone is not compatible with IS direct-mount disc brake calipers or frames with Postmount disc brake interface.



CAUTION: Use of the Monkey Bone with some frame geometry can result in the wheel being pulled out of the dropout while pedalling due to the forces exerted by the Rohloff SPEEDHUB 500/14 onto the frame. When the anchoring point of the OEM2 axle plate is located in front of a line parallel to the dropout slot, there is a component of the reaction force in the lowest gears that tends to push the axle down and out of the slot. Per Rohloff's recommendation, the Monkey Bone and OEM2 axle plate combination are not recommended for use on frames with such geometry (see page 30 of the Rohloff owner's manual for more info). Use of the Monkey Bone and OEM2 axle plate is entirely at the user's own risk. The forces applied to the disc brake mount by the Rohloff SPEEDHUB 500/14 can damage some frames. Please contact your frame manufacturer to determine whether this setup is appropriate for your frame and whether it affects your frame warranty.

PM Bone – PM - Postmount brake adapter

The PM Bone offers a simple method of transferring the torque from the Rohloff SPEEDHUB 500/14 to a frame through the disc brake mount. In order to use the PM Bone, your SPEEDHUB 500/14 will need a PM axle plate, your frame must have Post Mount Standard disc brake interface, and your disc brake caliper must have a Postmount interface. The PM Bone is not compatible with IS direct-mount disc brake calipers or frames with IS mount disc brake interface.



Can I use any type of shifter with the SPEEDHUB 500/14?

Rohloff only supply a Twist Shifter with the hub. This is an excellent piece of German engineering and does the job it was designed to do.

The Rohloff twist shifter is able to pull the two shifter cables in either direction. As the shift indexing mechanism resides inside the hub, the shifter requires no separate indexing mechanism itself.

If you don't want to use the Rohloff shifter then please talk to us about other options



Can the Rohloff twist shifter be mounted on racing bars?

The twist shifter for the Rohloff SPEEDHUB 500/14 can only be mounted upon straight or slightly bent bicycle handlebars with a diameter of 22.2mm (7/8").

Due to the shifters length of 60mm, it will not pass around the bends of drop bars.

Only special handlebars allow the Rohloff twist shifter to be mounted at the top.



Gates Carbon Drive with Rohloff SPEEDHUB 500/14

The Gates Carbon Drive system replaces the usual bicycle chain with a carbon fiber toothed belt. These carbon fibers help increase the tensile strength of this belt and prevent stretching.

This in turn provides a high working efficiency which together with the belts other qualities, proves that the system is generally suitable for the bicycle transmission.

The main benefit of the belt drive is simply that this transmission does not require any sort of lubrication. Therefore the average life expectancy of the belt drive lies approximately at the same level (if not slightly higher) than that of a high quality chain transmission.

In order to mount the Gates Carbon Drive safely onto a bicycle however, there are several important rules which must be followed exactly just as with any other carbon fiber bicycle components.

Due to the fact that the carbon fibres of the belt can be damaged through incorrect bending, twisting or through the belt ratcheting over the belt pulley, it is important when fitting, tensioning and when removing/refitting the wheel to pay special attention to the detailed instructions supplied with the Gates Carbon Drive System.

If the carbon fibers within the belt are damaged (which cannot always be externally observed) then the belt will inevitably break.

The belt drive can only be fitted to specially constructed frames.

Gates sprockets can be installed on the Rohloff using an adapter.

Any Gates Carbon Drive used in conjunction with a Rohloff SPEEDHUB must also be fitted with a Snubber, which is correctly fitted so that the belt is hindered from skipping over the rear belt pulley.



Bike Components - which are recommended? (Chains, Chain Rings, Cranks, Sprockets, Chain Tensioner, Chain Guide)

Chains:

All 1/2" x 3/32" Single speed, eight and nine speed chains are suitable for use with the Rohloff SPEEDHUB 500/14

All 1/2" x 1/8" bicycle chains are also compatible with the Rohloff SPEEDHUB 500/14 sprockets. These thicker chains however are by no means stronger and not recommended for use with the Rohloff SPEEDHUB 500/14. In addition to this, they are not designed for the high mileages achieved with a SPEEDHUB and thus are subject to faster wear. These 1/2" x 1/8" chains are also unfortunately too wide to pass through the Rohloff chain tensioner.

We stock the KMC X1 chains as these are the best chains we can find to work with Rohloff hubs.

Chain Rings:

All chain rings for a 1/2"x 3/32" chains can be used together with the Rohloff SPEEDHUB 500/14, it is best to use a single speed version as you don't need the ramps and pins required in chains that the chain moves to and from.

We stock single speed chain rings.

Cranks:

The use of threaded sprockets in the sizes 15, 16 and 17 tooth, will produce a chain line of approximately 54mm from the frame center. The Splined sprockets shifts the chain line a further 3mm outboard. These require the use of the outer chainring from triple crank sets such as Shimano (Largest chainring: 54mm, middle chain ring 47.5mm). The middle and smallest chainrings are not required and can be disposed of. After the disassembly of the middle and smallest chainrings, the bolts for securing the largest chain ring will now be too long. For this reason the Rohloff SPEEDHUB 500/14 small parts bag includes five chainring spacers to distance the original bolts. Double chainring crank sets, should definitely mount the required chainring in the outer most position.

Splined Carrier & Splined Sprockets (13-19 + 21 tooth):

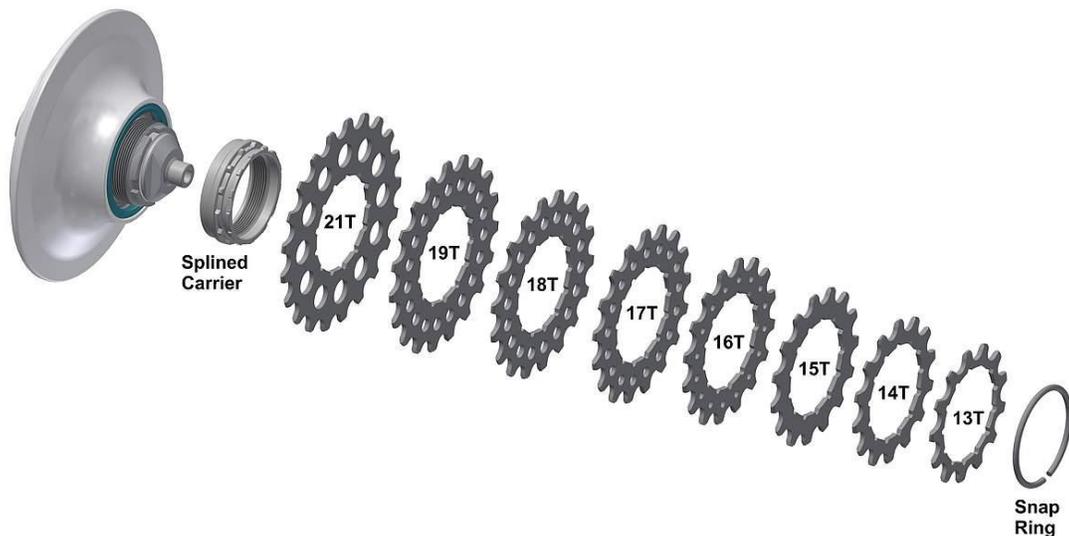
This system enables the easy, tool-free replacement of sprockets. Every SPEEDHUB version ever produced can be retrofitted to run this new splined sprocket system as opposed to the original threaded sprockets.

All Rohloff splined sprockets (13 - 19 & 21 tooth) are reversible and use a 57mm chainline.

The Splined Carrier and Splined Sprockets replace the original threaded sprockets. This upgrade shifts the chainline a further 3mm outboard so may require the use of a longer chain tensioner mounting bolt and distancing washers (if applicable) depending upon dropout/derailleur hanger thickness. Upgrading to Splined Sprocket use is possible retrospectively to all SPEEDHUBs once the Splined Carrier (Art.Nr. 8540) is mounted.

A few select special applications may be unable to utilize this wider chainline (e.g. special chain-case, chain through frame tubing, collision with rear triangle tubing etc.) so for these rare cases, we have a special, slim splined carrier (Splined Carrier S (Art.#8540S)). This carrier is exclusively for use with splined sprockets of 15 teeth or over. It is not compatible with 13 or 14 tooth splined sprockets!

Gates carbon Drive sprockets can be used in conjunction with the Splined Carrier and with the Splined Carrier Slim if mounted with the sprocket logo/text facing inwards towards the hub.



Smallest permissible sprocket ratios

The sprocket ratio on the Rohloff SPEEDHUB 500/14 (e.g. 42/16) converts the slow rotational speed at the crank into a fast rotational speed at the sprocket and thus reduces the input torque for the Rohloff SPEEDHUB 500/14 simultaneously.

To prevent overstraining the hub, a minimum sprocket ratio of 1.9 must be used. With the available sprockets these minimum possible sprocket ratios are:

~32/17, ~30/16, ~28/15 and ~26/13.

This resembles a derailleur transmission of 20/40. Larger chainrings can be used without exceptions.

Attention!

If mounting the SPEEDHUB 500/14 on a tandem or if the rider weighs over 100kg, a minimum sprocket ratio of 2.5 must be used the following sprocket ratios are the lowest permitted for use:

34/13, 38/15, 40/16, 42/17.

If you would like a comparison to your current set up please send us an email.

Rohloff chain guide CC (Art.#8290)

The Rohloff chain guide CC prevents the chain from jumping off the chain ring on all bicycles fitted with a chain tensioner.

The Rohloff chain guide is adjustable to fit with a range of different chain lines (distance between chain ring and frame center) between 52mm and 62mm.

A chain tensioner alone is not sufficient to prevent the chain jumping off chain rings under extreme riding conditions.



Rohloff Chain Tensioner (Art.#8250)

Mounting a chain tensioner is necessary on frames that don't have a way to tension the chain.

That is when an eccentric Bottom Bracket is not integrated into the frame design, or the hub is not adjustable via a horizontal rear drop out or moving rear drop outs. This is necessary because there is no other possibility to re-tension the chain as the chain wears.

The chain tensioner equally as necessary on frames with rear suspension, this reason for this being that the distance between the chain ring and sprocket varies as the suspension element moves the rear triangle of the frame.

The span capacity of the Rohloff chain tensioner is 10 links or 20 teeth. Because a slack chain can allow sideways chain movement, we recommend that the Rohloff chain guide also be fitted up front if the bicycle is used in off-road, uneven conditions.

The standard Chain Tensioner (Art.#8250) is compatible with 135, 142, 148, 170 & 177mm frames equipped with a standard derailleur hanger.

Fat bike frames with a 190mm / 197mm spacing, alternative gear hubs (non Speedhub) and single speed bicycles will all require the Chain Tensioner -10 (Art#8250-10)

If you have a direct mount derailleur hanger please let us know.



Rohloff DH Chain Tensioner (Art.#8245)

The Rohloff DH chain tensioner is specially designed for extreme downhill use.

As opposed to the regular Rohloff chain tensioner it has a shorter link arm that is hindered from moving on the mounting point.

This keeps the chain securely in position against the sprocket, guaranteeing a positive run from the chain onto the sprocket even under extreme riding conditions.

The Rohloff DH chain tensioner should be used in conjunction with a chain guide up front.



Rohloff DH chain guide (Art.#8291)

The Rohloff DH chain guide is specially designed for extreme downhill use. It completely eliminates the ability for the chain to fall off the rear sprocket and onto the hub casing.

