

O.L.D. (+/-1mm)	Chainline (+/-1mm)				Beltline (+/-1mm) Carbon Drive					
	Threaded Sprocket ≥15 tooth	Threaded Sprocket 13 tooth	SC (8540) SC-L (8540L)	SC-S (8540S)	Threaded Sprocket	Threaded Sprocket (mounted inverse)	SC (8540) SC-L (8540L)	SC (8540) SC-L (8540L) (mounted inverse)	SC-S (8540S) SC-SL (8540SL) *	SC-S (8540S) SC-SL (8540SL) * (mounted inverse)
135	54	58	57	55	56	60	55	60	53	58
142	54	58	57	55	56	60	55	60	53	58
148	51	55	54	52	53	57	52	57	50	55
170	72	75	75	73	73	78	73	77	71	75
177	72	75	75	73	73	78	73	77	71	75
190	72	75	75	73	73	78	73	77	71	75
197	72	75	75	73	73	78	73	77	71	75

SC: - Splined Carrier, SC-S: - Splined Carrier Slim, SC – L: - Splined Carrier Lock, SC-SL\*: - Splined Carrier Slim Lock (8540SL) no release date at time of press

**Attention: Important Information – Please read thoroughly!**

- **The original/current Splined Sprocket can be re-used with this new Splined Carrier**
- **The securing circlip can be discarded along with the old Splined Carrier**
- **The inner thread of the Splined Carrier L / SL has a special coating which must not be removed**
- **Please note chainline/beltline differences**  
Use the table above to note the chainline / beltline currently used by the Carrier / Sprocket combination used on your SPEEDHUB
- **Take note of the mounting position before removing Sprocket from the Carrier:**  
Carbon Drive Threaded Sprocket = Text facing inward, Carbon Drive Splined Sprocket = Text facing outward  
**A select few manufacturers deviate from this standard and mount sprockets inversely (technically possible)**  
Carbon Drive Threaded Sprocket (inverse) = Text facing outward, Carbon Drive Splined Sprocket (inverse) = Text facing inward
- **Select the correct new Splined Carrier L / SL with the help of the table above, to ensure your Splined Sprocket rests in the same position (+/-1mm) following the Carrier conversion**
- **Maximum chain thickness:**  
All chain thicknesses are compatible with chain sprockets of 15 teeth and above
- **Follow the assembly / removal instructions of the individual component manufacturer, e.g. Gates, Bosch, etc.**
- **Ensure the following prior to completion of any removal /assembly process:**  
**Shift Rohloff SPEEDHUB 500/14 into gear number 14 (highest gear)**  
**Clean hub shell, sprocket and general area carefully**  
**Only use thoroughly cleaned components**  
**Do not rest wheel driver-side facing downward with sprocket removed. Oil will leak out!**
- **Rear wheel removal / mounting**  
Refer to Rohloff SPEEDHUB 500/14 / Rohloff E-14 original Owners Manual
- **Tools required - A:**  
Chainwhip / Carbon Drive strap wrench  
Rohloff sprocket remover tool: 8508 (135/170/142/177), 8509 (148/190/197)  
24mm open wrench
- **Tools required - B**  
Chainwhip / Carbon Drive strap wrench  
Alternative should chainwhip / Carbon Drive strap wrench not be available: Hold tire / rim steady to prevent rotation  
Rohloff sprocket remover tool: Art.#8508 (135/170/142/177mm O.L.D.), or Art.#8509 (148/190/197mm O.L.D.)  
Lock-ring tool (Art.#8518)  
½" drive torque wrench



The assembly instructions are equally applicable to Rohloff Splined Sprockets (15 tooth and over) as Carbon Drive Sprockets. **We recommend however, the use of either the regular Splined Carrier (Art.#8540) or Splined Carrier Slim (Art.#8540s) for chain sprockets**, because this Carrier is compatible with all chains and Splined Chain Sprocket sizes while retaining the tool-free removal / mounting attribute of the original design!

## 1. Mount chain / Carbon Drive sprocket to Splined Carrier Lock-Ring 8540L/SL

- Place splined Rohloff / Carbon Drive sprocket over the splined interface of the carrier
- Rotate splined Rohloff / Carbon Drive sprocket in direction of drive to its bedstop. Now thread the lock-ring in arrow direction onto the carrier, until it rests against the face of the sprocket, holding it in this position
- Secure lock-ring in place with a torque of 30Nm  
Tools "B" required

## 2. Removal of Splined Carbon Drive sprocket from Splined Carrier Lock-Ring 8540L/SL

- Remove rear wheel from bicycle
- Hold chain / Carbon Drive sprocket steady and loosen lock-ring by rotating this in the opposing direction to that indicated by the arrow  
Tools "B" required
- Unscrew lock-ring completely and remove chain / Carbon Drive sprocket from carrier

## 3. Conversion from Splined Carrier 8540 to Splined Carrier Lock-Ring 8540L/SL

- Remove rear wheel from bicycle
- **Do not remove sprocket or circlip from carrier!**
- Remove the entire sprocket/circlip/carrier assembly from the SPEEDHUB driver as illustrated in the Rohloff SPEEDHUB Owners Manual for threaded chain sprocket removal  
See Rohloff SPEEDHUB 500/14 Owners Manual – "Service", chapter 3  
Tools "A" required  
**Should both the Carbon Drive strap wrench and Carbon Drive POM wrench be unavailable for removal of the Carbon Drive splined sprocket / splined carrier assembly, then remove the circlip and sprocket from the carrier, mount a splined chain sprocket, refit the circlip and use a chainwhip to remove the sprocket / carrier assembly.**
- Fully thread Splined Carrier 8540L clockwise by hand onto the SPEEDHUB driver
- Place splined Rohloff / Carbon Drive sprocket over the splined interface of the carrier
- Rotate splined Rohloff / Carbon Drive sprocket in direction of drive to its bedstop. Now thread the lock-ring in arrow direction onto the carrier, until it rests against the face of the sprocket, holding it in this position
- Secure lock-ring in place with a torque of 30Nm  
Tools "B" required

## 4. Conversion from:

- Rohloff threaded sprocket to Rohloff splined sprocket using Splined Carrier Lock-Ring 8540L/SL**
- Carbon Drive threaded sprocket to Carbon Drive splined sprocket using Splined Carrier Lock-Ring 8540L/SL**

- Remove rear wheel from bicycle
- Remove Rohloff / Carbon Drive threaded sprocket from SPEEDHUB  
See Rohloff SPEEDHUB 500/14 Owners Manual – "Service", chapter 3  
See Carbon Drive / Rohloff Owners Manual  
Tools "A" required
- Fully thread Splined Carrier 8540L clockwise by hand onto the SPEEDHUB driver
- Place splined Rohloff / Carbon Drive sprocket over the splined interface of the carrier
- Rotate splined Rohloff / Carbon Drive sprocket in direction of drive to its bedstop. Now thread the lock-ring in arrow direction onto the carrier, until it rests against the face of the sprocket, holding it in this position
- Secure lock-ring in place with a torque of 30Nm  
Tools "B" required
- Check chainline / beltline as well as Snubber and chain tensioner. Adjust if necessary

## 5. Removal of Splined Carbon Drive sprocket from Splined Carrier Lock-Ring 8540L/SL without special tools (emergency repair)

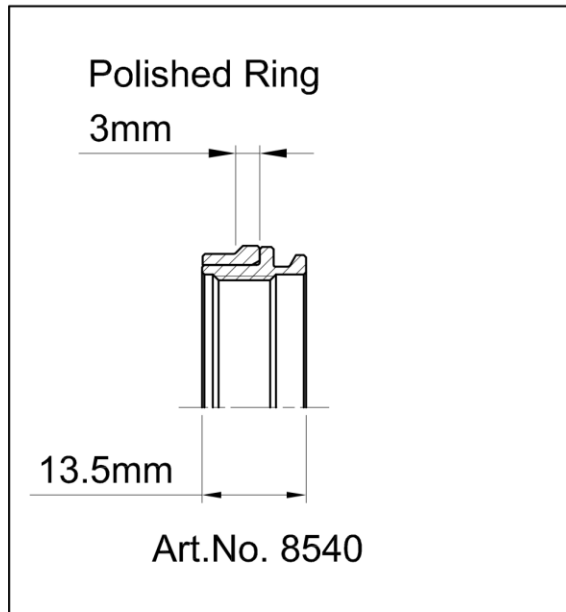
- Leave rear wheel mounted in bicycle
- Pull the rear brake with both bicycle wheels located firmly on the ground
- Apply tension to the chain / belt by pushing on the forward pedal
- Using a suitable tool (screwdriver, punch, chisel etc.) and a hammer, loosen the lock-ring by tapping this in the opposing direction to that indicated by the arrow
- Remove the rear wheel from the bicycle
- Unscrew lock-ring completely and remove chain / Carbon Drive sprocket from carrier

## 6. Mounting of Splined Carbon Drive sprocket to Splined Carrier Lock-Ring 8540L/SL without special tools (emergency repair)

- Place splined Rohloff / Carbon Drive sprocket over the splined interface of the carrier
- Rotate splined Rohloff / Carbon Drive sprocket in direction of drive to its bedstop. Now thread the lock-ring in arrow direction, by hand onto the carrier, until it rests against the face of the sprocket, holding it in this position
- Using a suitable tool (screwdriver, punch, chisel etc.) and a hammer, tighten the lock-ring by tapping this in the arrowed direction as indicated (Attention – torque value impossible to measure). Be sure to hold the tire / rim steady during this process
- Mount the rear wheel back into the bicycle

**Distinctive features between Regular and Slim Carrier variants:**

**Carrier**



**Slim Carrier**

