



## **Mounting instruction extension to Owners Manual for all A12 SPEEDHUB units (suitable for 12mm DT Maxle / Syntace X12 / Shimano E-Thru 12 thru-axle frames with an O.L.D. measurement of 142mm / 148mm BOOST / 177mm / 197mm)**

The Rohloff AG are extremely pleased that you have chosen an A12 SPEEDHUB as your next bicycle transmission system.

Please be aware that the internal SPEEDHUB transmission, as well as the outer construction and all torque anchoring apparatus remains identical to that used by all other SPEEDHUB versions. As such, information on the use, selection and mounting of these components can be located in the regular Owners Manual.

The single difference between regular SPEEDHUB models and A12 SPEEDHUB models, is the axle itself. The correct mounting process for these hubs is described/illustrated in the following paragraphs.

A12 SPEEDHUB models will only be supplied to professional workshops which have already measured the 12mm thru-axle dropouts with a special measurement kit. This kit is available on loan from our distributors upon request. Regardless of the actual result figures, A12 SPEEDHUB units will be supplied with individually selected and/or bespoke finished reduction sleeves, suitable for **the tested frame only**.

### **The A12 dropout measurement test instructions, plus the complete Rohloff SPEEDHUB 500/14 Owners Manual can be downloaded from:**

<https://www.rohloff.de/en/service/downloads/documentation/index.html>

### **There are a few vital safety aspects that need to be adhered to alongside the general safety information located within the Owners Manual. These are:**

- 1) Dropouts of 12mm thru-axle frames into which a SPEEDHUB is destined, may only be measured by bicycle manufacturers, authorized Rohloff distributors and professional bicycle retailers/workshops. The initial mounting of an A12 SPEEDHUB model into that frame, must be completed by the same company who initially tested the dropouts.
- 2) Liability:
  - a. The bicycle manufacturer, authorized Rohloff distributor or professional bicycle retailer/workshop holds responsibility for the correct dropout measurement.
  - b. The Rohloff AG is responsible for supplying the correct reduction sleeves and micro washers according to the dropout measurement test results.
  - c. The bicycle manufacturer, authorized Rohloff distributor or professional bicycle retailer/workshop holds responsibility for mounting the A12 SPEEDHUB model correctly into the 12mm thru-axle dropouts.
- 3) All A12 mounting hardware (reduction sleeves, micro washers, Nord-lock washers, M7 securing bolts) supplied by the Rohloff AG, must be correctly mounted as instructed and labelled (L/R label attached to the mounting hardware bag supplied).

- 4) The A12 mounting components may only be used to mount the supplied A12 SPEEDHUB unit into the frame initially measured. An alternative frame will require different mounting hardware and as such that frame will also need to be individually measured by a professional bicycle retailer/workshop using the special A12 dropout measurement kit.
- 5) Incorrect dropout measurement or SPEEDHUB mounting could lead to component damage and/or accidents and personal injuries.

**TIP:**

Every Rohloff SPEEDHUB 500/14 unit is supplied with an orange owners and warranty card. Please ensure this card receives a retailer stamp. This should then be completed with the date of purchase and customer details, then mailed back to us so we can complete the hub registration process.

Online registration

<https://www.rohloff.de/en/service/my-speedhub/registration>

**TIP:**

**Spare part order of A12 mounting parts**

You can order spare parts, specifically matching your SPEEDHUB A12 – bike frame combination, by using your SPEEDHUB A12 serial number (6 digits, placed on hub housing)

- at your local service point  
<https://www.rohloff.de/en/service/search/dealer-finder>
- at our importers within your own country  
<https://www.rohloff.de/en/company/worldwide>

**TIP:**

**Wheel truing**

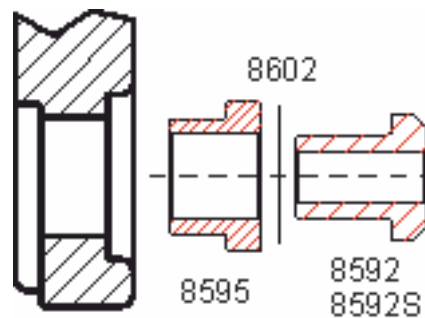
Thread both M7 securing bolts into the A12 SPEEDHUB axle so that the hub can be clamped in truing jigs. These M7 bolts can be found inside the R/L mounting hardware bags.

If the A12 SPEEDHUB is shipped to one of our authorized wheel lacing services (Germany Only), then these M7 bolts will not be required because those agents already have adapters at their facilities. Alternative wheel lacing services should be contacted prior to shipping them an A12 hub, to ensure they already possess the necessary adapters/bolts required to fit these hubs into their lacing equipment.

## Mounting Instructions:

1. Please follow the instructions within the general SPEEDHUB 500/14 Owners Manual to correctly mount the torque anchoring hardware and all accessories (Axleplate, Brake rotor, Shifter, Cables, Chain tensioner etc.).
2. Test fit the A12 SPEEDHUB first without chain/belt. Mount and tension the chain/belt later after the A12 SPEEDHUB has been correctly secured in place.
3. Hold the A12 SPEEDHUB between the dropouts and ensure the axleplate (and anchoring bone if present) are seated correctly.
4. Mounting the right-hand Rohloff A12 reduction sleeve: **R**, Sprocket side (pay attention to hardware package label).
  - a. Syntace V1:
    - i. Remove O-Ring before use.
    - ii. Insert the spacer fully into the right-hand dropout hole (Ø16mm) from the outside. Tighten the dropout clamp bolt in accordance to manufacturers guidelines.
    - iii. Slide the micro shims (if applicable) over the reduction sleeve, then insert the reduction sleeve into the spacer from outside.

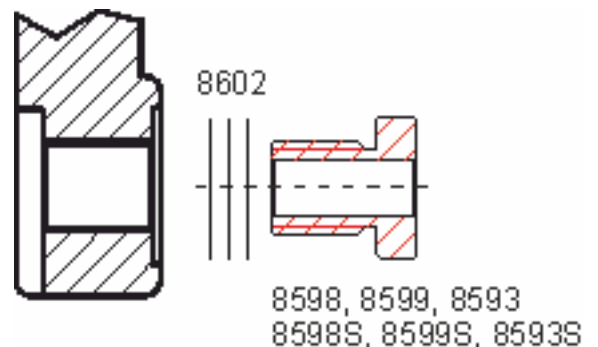
Micro Shim: Art.#8602  
 Spacer: Art.#8595  
 Reduction Sleeve: Art.#8592  
 Reduction Sleeve: Art.#8592S-x.x



### b. DT-Maxle / Syntace V2:

- i. Remove O-Ring before use.
- ii. Slide the micro shims (if applicable) over the M12x1, M12x1.5 or M12x1.75 reduction sleeve, then thread the reduction sleeve into the dropout from the outside (open 13mm wrench - tightening torque 10Nm)

Micro Shim: Art. 8602  
 Threaded Reduction Sleeve M12x1.0 Art.#8598  
 M12x1.5 Art.#8599  
 M12x1.75 Art.#8593  
 Threaded Reduction Sleeve M12x1.0 Art.#8598S-x.x  
 M12x1.5 Art.#8599S-x.x  
 M12x1.75 Art.#8593S-x.x



Technical specifications subject to change!

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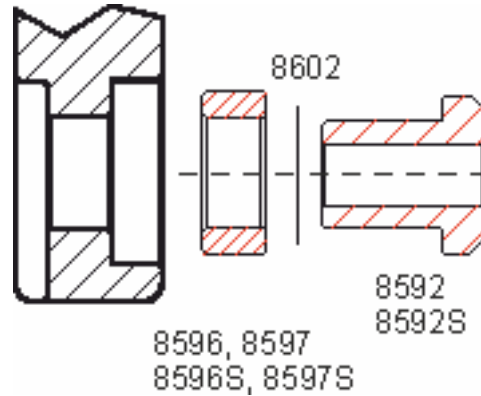
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c. Shimano E-Thru 12mm:

- i. Remove O-Ring before use.
- i. Slide the micro shims (if applicable) over the reduction sleeve, then insert the reduction sleeve into the spacer from outside.
- ii. Slide the Shimano spacer over the reduction sleeve, then insert the reduction sleeve/spacer unit into the dropout from the outside.

Micro Shim: Art.#8602  
 Reduction Sleeve: Art.#8592  
 Reduction Sleeve: Art.#8592S-x.x  
 Shimano Spacer: Art.#8596, #8597  
 Art.#8596S-x.x, #8597S-x.x



d. Skip to Paragraph 8 should the dropouts on your frame not conform to points 4.a – 4.c!

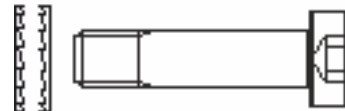
5. Ensure the Wedgelock face of the Nord-lock locking washers are correctly facing each other before sliding these over the M7 securing bolts:



6. Slide the Nord-lock locking washers over the M7x30x1-silver bolt (alternatively over the M7x36x1-black bolt (148mm Boost)). Insert unit through the reduction sleeve and thread hand-tight into the A12 SPEEDHUB axle.

Set Art.#8569: 2 x Securing Bolts M7x30x1, silver  
 4 x Nord-lock-locking washers

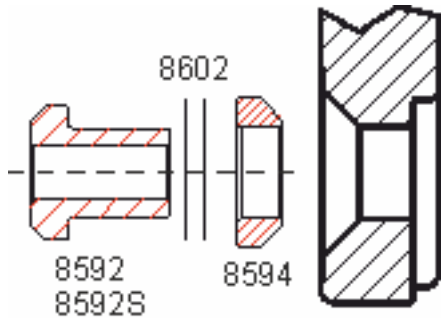
Set Art.#8569B: 1 x Securing Bolt M7x30x1, silver  
 1 x Securing Bolt M7x36x1, black  
 4 x Nord-lock - locking washers



7. Mounting the left-hand Rohloff A12 reduction sleeve: L, Gear Mech side (Pay attention to hardware package label).

a. Syntace V1 / V2:

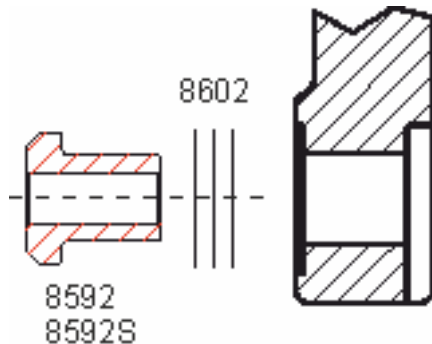
- i. Remove O-Ring before use.
- ii. Slide the micro shims (if applicable) over the reduction sleeve, then insert the reduction sleeve into the dropout from outside.
- i. Slide Syntace conical spacer over the reduction sleeve, then insert the reduction sleeve/spacer unit into the dropout from outside.



Micro Shim:	Art.#8602
Reduction Sleeve:	Art.#8592
Reduction Sleeve:	Art.#8592S-x.x
Syntace Conical Spacer:	Art.#8594

b. DT Maxle:

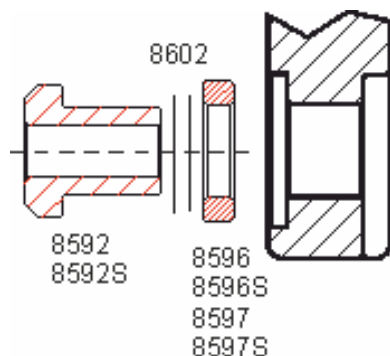
- i. Remove O-Ring before use.
- ii. Slide the micro shims (if applicable) over the reduction sleeve, then insert the reduction sleeve into the spacer from outside.



Micro Shim:	Art. 8602
Reduction Sleeve:	Art. 8592
Reduction Sleeve:	Art. 8592S-x.x

c. Shimano E-Thru 12mm:

- i. Remove O-Ring before use.
- i. Slide the micro shims (if applicable) over the reduction sleeve, then insert the reduction sleeve into the dropout from outside.
- ii. Slide the Shimano spacer over the reduction sleeve, then insert the reduction sleeve/spacer unit into the dropout from the outside.



Shim:	Art.#8602
Reduction Sleeve:	Art.#8592
Reduction Sleeve:	Art.#8592S-x.x
Shimano Spacer:	Art.#8596, #8597
	Art.#8596S-x.x, #8597S-x.x

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d. Skip to Paragraph 8 should the dropouts on your frame not conform to points 7 a – 7.c!

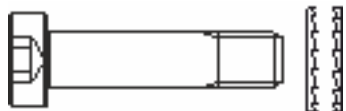
8. Exceptions/Special cases – Mounting of an A12 SPEEDHUB unit.

- a. The large variety of different 12mm Thru-axle/dropout solutions on the market will no doubt require custom combinations of reduction sleeve/spacer as described in paragraphs 4 and 7 (e.g. threaded left-hand dropout etc.). The mounting hardware package will be labelled „Custom“ in such cases
- b. Take note of the article number from the reduction sleeve row on the mounting hardware package label.
- c. Search for this article number in points 4 – 7 of this instruction manual extension. Follow the guidelines for this article number to mount your A12 SPEEDHUB unit correctly.

9. Ensure the Wedgelock face of the Nord-lock locking washers are correctly facing each other before sliding these over the M7 securing bolts:



10. Slide the Nord-lock locking washers over the M7x30x1-silver bolts. Insert units through the reduction sleeves and thread hand-tight into the A12 SPEEDHUB axle.



Set Art.#8569: 2 x Securing bolts M7x30x1, silver  
4 x Nord-lock - locking washers

11. Tighten both securing bolts (5mm Allen wrench) in series, a quarter rotation at a time until the correct torque is applied (tightening torque: 15-20 Nm)

12. Adjust chain or belt tension to the manufacturers predetermined value.

13. Check SPEEDHUB wheel rotates smoothly.

**Safety Notification:** Nord-lock locking washers must be replaced after every 4th use in order to ensure secure mounting of the A12 SPEEDHUB unit. (Art.#8574, 4x Nord-lock locking washers).

**TIP for removal and mounting the A12 SPEEDHUB in frames with adjustable dropouts or eccentric BBs:**

The gear mech of every SPEEDHUB needs to be disconnected prior to removing the wheel from the frame. After this is removed, the A12 SPEEDHUB securing bolts must be loosened (**TIP:** Nordlock locking washers will open with a clearly audible „crack“ sound) and removed. The A12 SPEEDHUB wheel can now be removed from the frame. Remove the loose A12 mounting hardware (reduction sleeves, spacers and washers) from the dropout and ensure they are retained in their correct order (left-hand/right-hand sets kept separately) to avoid confusion and possible incorrect later assembly.

Attempt to remount the A12 SPEEDHUB wheel correctly into the dropouts without lowering chain/belt tension. (e.g. adjusting dropout or eccentric BB position).

Replace the A12 mounting hardware in the correct order as removed previously.

Thread both the left-hand and right-hand securing bolts two complete rotations by hand, into the A12 SPEEDHUB. Reduce belt/chain tension and repeat should this not be possible.

Tighten both securing bolts (5mm Allen wrench) in series, a quarter rotation at a time until the correct torque is applied (Tightening torque: 15-20 Nm)

Re-apply belt/chain tension if this was reduced to aid the mounting process. Ensure the correct belt/chain tension is applied in accordance with the belt or chain manufacturer's instructions.

**ATTENTION:**

**Bicycle trailer hitches which mount directly to the 12mm thru-axle, must not be used in conjunction with an A12 SPEEDHUB 500/14 unit.** The additional thickness of the trailer hitch will hinder the specially produced M7 mounting bolt (increased stiffness) from penetrating the SPEEDHUB axle or axleplate deep enough. Threads will be stripped as there are not enough to adequately ensure the SPEEDHUB is mounted safely into the frame. A loose, insufficiently secured SPEEDHUB could lead to accidents and injuries so must be avoided.