MAINTENANCE CARDS

ROAD WHEELS

REMOVAL AND INSTALLATION OF FREEHUB BODY
WARNING!

ALWAYS wear protective gloves and glasses while working on the bicycle.

THIS TECHNICAL MANUAL IS INTENDED FOR USE BY PROFESSIONAL MECHANICS.

Anyone who is not professionally qualified to assemble bicycles should not attempt to install and operate on the components because of the risk of carrying out incorrect operations that could cause the components to malfunction with the consequent risk of accidents, physical injury or even death.

The actual product may differ from what is illustrated, as the specific purpose of these instructions is to explain the procedures for using the component.
## MAINTENANCE CARDS

<table>
<thead>
<tr>
<th>WHEELS</th>
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<th>REVISION</th>
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<tbody>
<tr>
<td>ROAD</td>
<td>CONE / CUP MOVEMENT</td>
<td>004</td>
<td>10/05/2022</td>
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### PRODUCTS ON WHICH THE PROCEDURE SHOULD BE APPLIED

<table>
<thead>
<tr>
<th>GHIBLI™</th>
<th>BORA™</th>
<th>HYPERON™</th>
<th>NEUTRON™ ULTRA</th>
<th>SHAMAL™</th>
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<tr>
<td>KHAMSIN™</td>
<td>VENTO™</td>
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(from 2013 range)

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<tr>
<th>SCIROCCO™</th>
<th>ULTRA™</th>
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(from 2014 range)

### INSERTION INSTRUCTIONS

1. **Insertion**
   - Insert the 17mm open-ended wrench onto the lock nut on the right side of the axle.

2. **Unscrewing**
   - Insert the 5mm hex wrench inside the right side hexagon of the axle and firmly unscrew the lock nut clockwise.
   - Unscrew the lock nut completely.

3. **Removal**
   - Remove the spacer with a small screwdriver.
   - Remove the Free hub body from the axle.

4. **Cleaning and Inspection**
   - Clean and inspect the ratchet ring inside the hub shell.
   - Lightly grease the teeth of the ratchet ring with syntethic grease.
   - The amount of grease applied should cover about 75% of the space of the ratchet ring.

5. **Greasing**
   - If necessary, also grease the inside of the pawls of the freewheel body. OPERATION 010.

6. **Re-installing**
   - Re-install the free hub body onto the rear axle.

7. **Final Inspection**
   - Use a small screwdriver to insert the pawls inside the ratchet ring in the hub shell.
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- **KHAMSI™ - VENTO™** (from 2013 range)
- **SCIROCCO™** (from 2014 range)

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13. Fully insert the freewheel body.


15. Screw the lock nut on the axle anticlockwise.

16. Insert the 5mm hex wrench inside the axle, hold the axle stationary and torque the lock nut with the a 17mm crow foot and a torque wrench.
- If your wheel has a quick release skewer: refer to operation 004 – Groupset: Road wheels

- If your wheel has an HH12 axle: refer to the operation below.

Insert the tool (UT-WHDB001 or UT-WHDB002) on the right of the axle. Using an 18 mm spanner, loosen the nut (Attention! The nut is left-threaded) and then remove the nut and the spacer.

At this point, proceed as described from point 5 to point 13 (page 3 and page 4): operation 004 - DISASSEMBLY AND REFITTING OF THE FREEWHEEL BODY, ROAD WHEELS.

Insert the spacer and tighten the nut (Attention! The nut is left-threaded).

Insert the tool (UT-WHDB001 or UT-WHDB002) on the right of the axle. Using an 18 mm spanner, tighten to a torque of 15 Nm (133 in.lbs).
Using a 2.5 mm Allen wrench, ensure that the clearance recovery ring nut is tightened (screw tightened to **2.5 Nm - 22 in.lbs**) so that the ring nut does not turn.

**Place a fixed 20 mm spanner on the adjustment ring nut, protecting it with workshop paper in order not to scrape it.**

**Apply a 17 mm spanner on the right side of the axle and loosen the nut (Attention! The nut is left-threaded).**

**At this point, proceed as described from point 5 to point 13 (page 3 and page 4): operation 004 - DISASSEMBLY AND REFITTING OF THE FREEWHEEL BODY, ROAD WHEELS.**

**Insert the spacer and tighten the nut (Attention! The nut is left-threaded).**

**Place a 20 mm spanner on the adjustment ring nut, protecting it with workshop paper in order not to scrape it.**

**Apply a 17 mm spanner on the right side of the axle and tighten the nut to a torque of 15 Nm (133 in.lbs) (Attention! The nut is left-threaded).**

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**PRODUCTS ON WHICH THE PROCEDURE SHOULD BE APPLIED**

| ZONDA™ DB | SCIROCCO™ DB | |

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**Rev. 10/ 05 -2022**

**CAMPAGNOLO WHEELS - TECHNICAL MANUAL**
## Maintenance Cards

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<td>SHAMAL CARBON DB</td>
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1. Insert a flat screwdriver into the slot on the axle cover and turn it to widen it.
2. Pull the axle cover outwards.
3. Lock the axle in place with a 14 mm spanner.
4. Unscrew the nut on the FW body. *Attention: left hand thread!*