

***DT* SWISS**

**240 OVERSIZE**  
[SCREWED END CAPS]  
TECHNICAL MANUAL

V2022.10

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# 1. GENERAL

## 1.1 VALIDITY

This manual describes the component specified on the front page and the footer. This manual is valid for the design of the product as of 04.10.22. Deviations are possible and all items are subject to technical changes.

## 1.2 SAFETY

The safety instructions are classified as follows:



### DANGER

...indicates a hazardous situation that, if not avoided, will result in death or serious injury.



### CAUTION

... indicates a hazard with a medium level of risk which, if not avoided, may result in minor or moderate injury.



### NOTE

... indicates a potentially hazardous situation that may result in damage to property.

## 1.3 TARGET GROUP

This manual is intended for the user of the component and dealers. This manual offers the experienced user the possibility to carry out minor service work himself. If you have any doubts about your own abilities, you should definitely contact an expert or a DT Swiss Service Center.

Any warranty claims will lapse if work is not carried out properly.

## 1.4 LAYOUT

The cover page and the footing provide information about the type of product and manual as well as the version of the manual. The DT Swiss contact details can be found on the back. A list of all DT Swiss service centers can be found at [www.dtswiss.com](http://www.dtswiss.com).

This manual is intended for being printed as an A5 booklet. Only print this manual if electronic usage is not possible.

## 1.5 DT SWISS MANUAL CONCEPT

The DT Swiss manuals are split into the following types of manuals:

- User Manual: Information for the end user on how to install and use the component.
- Technical Manual: Detailed information for the end user and the dealer on how to maintain the component, spare parts and technical data.

## 1.6 GENERAL MAINTENANCE INFORMATION

Unless otherwise specified, moving parts, threads, O-rings and sealings must be greased before assembly.

### CLEANING

For an optimal result of the maintenance work, every component that will be disassembled must be cleaned. Only use cleaners and degreasers which do not damage the components. Especially the cleaning of O-rings and sealings requires mild cleaners. Observe the instructions for use of the respective cleaner.

DT Swiss recommends the following cleaners:

- Motorex Rex
- Motorex Swissclean
- Motorex OPAL 2400, 3000 OPAL, OPAL 5000

Use soap water or similar mild cleaners for external cleaning.

### TOOLS

To ensure a damage-free mounting and dismounting of the components, only use the tools which are mentioned in this manual. Special tools are indicated at the beginning of a chapter in the table "Required material".

The use of different tools is at the discretion of the user. If components are damaged by the usage of differing tools, the user is liable.

DT Swiss special tools are precision tools. Damage-free mounting and dismounting of the components can only be ensured if the tools are working properly and if the condition of the tools are perfect. Always keep the tools in their original packaging or adequate devices to prevent damage.

## 1.7 ENVIRONMENTAL PROTECTION

The statutory regulations shall apply. Whenever possible, avoid creating waste. Waste, especially carbon, lubricants, cleaners and any other fluids must be disposed in an environmentally compatible manner. Only print this manual if electronic usage is not possible.

## 1.8 EXCLUSION OF LIABILITY

The activities listed in this manual may only be carried out by persons with sufficient specialist knowledge. The user is liable for any damage or consequential damage caused by wrongly maintained or installed components. If you have doubts, please contact an expert or your region's DT Swiss pro level service center.

## 1.9 WARRANTY

Warranty conditions, see [www.dtswiss.com](http://www.dtswiss.com)

## 2. SERVICE INTERVALS

DT Swiss recommends the following maintenance activities and intervals.

Task	Interval
Small hub service (function check, cleaning and greasing according to technical manual)	
Under normal operating conditions	3 months
In case of extreme operating conditions (regular journeys in dust, rain, snow, or in case of frequent transport while raining)	as required
Full hub service* (replacement of defective parts as required)	as required
Check the tightening torques <ul style="list-style-type: none"><li>• Brake rotor screws: 6 Nm</li></ul>	20 operating hours
Clean with soft cloth and a suitable cleaner. → Do not use a high-pressure cleaner, aggressive cleaning agents, solvents or surfactants!	After each ride
Check the hub for damage.	After each ride

### SMALL HUB SERVICE

During the small hub service, the following activities should be performed:

1. Dismount the end caps.
2. Clean the end caps and the underlying surfaces of the ball bearings.
3. Check the ball bearings.
  - The hub must turn smoothly.
  - The hub must not have any play in relation to the axle.
  - If there is play, or the ball bearings are running heavy or rough, a full hub service needs to be performed.
4. Grease the surfaces of the ball bearings.
5. Mount the end caps.

### FULL HUB SERVICE

The full hub service must only be carried out if malfunctions are present or faults are detected during the functional tests.

The full hub service includes the activities of the small hub service and additionally the disassembly of the ball bearings and assembly of new ball bearings as well as the disassembly of the complete freewheel system and the exchange of the corresponding spare parts.

### 3. MAINTENANCE OF THE FRONT HUB 240 OVERSIZE [SCREWED ON END CAPS]

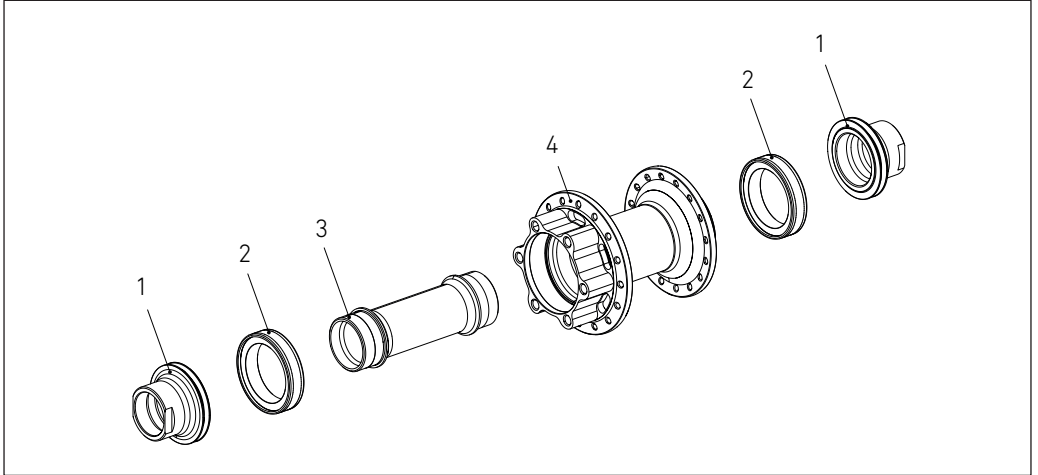
Preparatory Steps:

Link

Dismount the brake rotor

Clean the hub

#### 3.1 OVERVIEW



1 end cap

2 ball bearing




3 axle

4 hub shell


The illustration shows the exemplary construction of a 240 oversized hub. Details such as end caps and hub shell may vary.

The DT Swiss 240 Oversize hub is available in two versions: With screwed-on or plugged-in end caps. This manual shows a hub with screwed end caps. The maintenance steps of a 240 Oversize with plugged end caps can be found in the Technical Manual of the hub at [www.dtswiss.com](http://www.dtswiss.com).

### 3.2 REQUIRED TOOLS

Tools	Specification	Quantity	Article number
Tool kit 240 oversize, includes		1	HWTXXX00NTKFRS
<ul style="list-style-type: none"> <li>installation cylinder Ø20 / 37 mm</li> </ul>		2	HXTXXX00N5038S
<ul style="list-style-type: none"> <li>axle tool Ø20 mm</li> </ul>		1	HXTXXX00N5046S
special fabric tape		1	HXTXXX00N5139S

### 3.3 REQUIRED WEARING PARTS AND MATERIALS

Wearing parts / Materials	Specification	Quantity	Article number
DT Swiss universal grease		20 g	HXTXXX00NMG20S

Due to the large variety of spare parts, they cannot be listed here.

At [dtswiss.com/support/product-support](https://dtswiss.com/support/product-support) you will find all suitable spare parts after selecting your components.

### 3.4 REMOVING THE END CAPS

1. Using a suitable wrench, loosen the first end cap and unscrew it from the axle.
  - 20 mm, 15 mm and 9 mm end caps: 22 mm wrench
  - QR end caps: 5 mm hex key



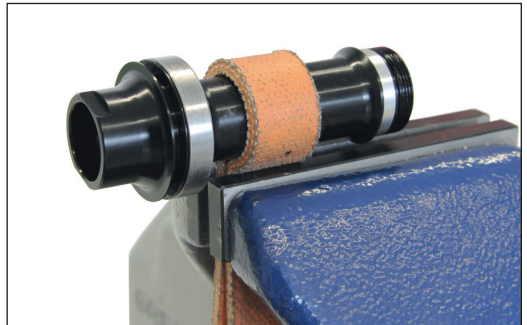
2. Slide the disassembly tool onto the axle.



3. Tap the bearing out of the hub shell using the disassembly tool and a hammer.

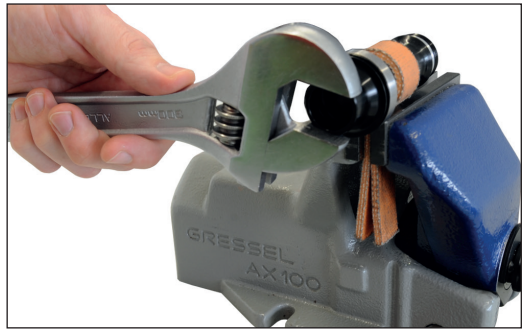


4. Fix the axle in the vise using the special fabric tape.





5. Loosen and remove the end cap with a suitable open-end wrench.



6. Remove the ball bearing from the axle.



7. Put the axle into the hub shell.



8. Tap out the second bearing using the disassembly tool and a hammer.



### 3.5 CLEANING AND DEGREASING ALL PARTS

Clean all parts of the hub (see "Cleaning" on page 4)

### 3.6 MOUNTING BEARINGS AND AXLE

1. Slightly grease the seating of the bearings and the inner surface of the hub shell using universal grease.



2. Put the axle onto the installation cylinder.



3. Put the drive side of the hub shell onto the installation cylinder and the axle.

4. Slightly grease the bearing and put it onto the non drive side with the colored side facing outwards.



5. Put the disassembly tool onto the axle.
6. Put the installation cylinder onto the bearing.  
→ The disassembly tool centers the installation cylinder on the axle.



7. Tap the bearing into the hub shell with slight hammer strokes.
8. The lower installation cylinder must rest on a flat surface.
9. Remove the installation cylinder from the hub.



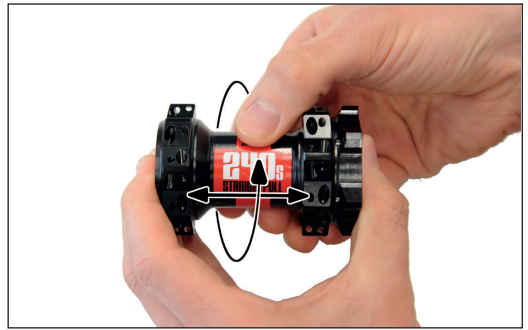
10. Fit the non drive side of the hub onto one of the two installation cylinders.
11. Place lightly greased ball bearing on the axle on the drive side.



12. Drive the second bearing into the hub shell with slight hammer strokes.  
→ The lower installation cylinder must rest on a flat surface.
13. Remove both installation cylinders from the hub.



14. Check the bearing.
  - The hub must turn smoothly.
  - The hub must not have axial play.
15. If necessary, drive in the bearing on the non drive side or loosen the bearing.
16. Repeat previous steps until the hub is turning smoothly.



### 3.7 PUTTING ON THE END CAPS

1. Grease the bearings and the inner surface of both end caps.
  2. Screw on both end caps by hand.
3. Tighten the end caps with a suitable tool to 15 Nm.
    - 20 mm, 15 mm and 9 mm end caps: 22 mm wrench
    - QR end caps: 5 mm hex key



Closing Steps:

Mount the brake rotor

Link

## 4. TROUBLE SHOOTING

<b>Issue</b>	<b>Reason</b>	<b>Solution</b>
Hub has axial play	Ball bearings were not mounted correctly.	Check correct assembly.
	Ball bearings are worn out.	Replace ball bearings.
Hub rotates stiffly	Ball bearings are worn out.	Replace ball bearings.
	Ball bearing non-drive side driven in too tight.	Check correct assembly.
	Mounting sequence of the ball bearings not observed.	
Hub makes noise	Ball bearings are worn out.	Replace ball bearings.

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