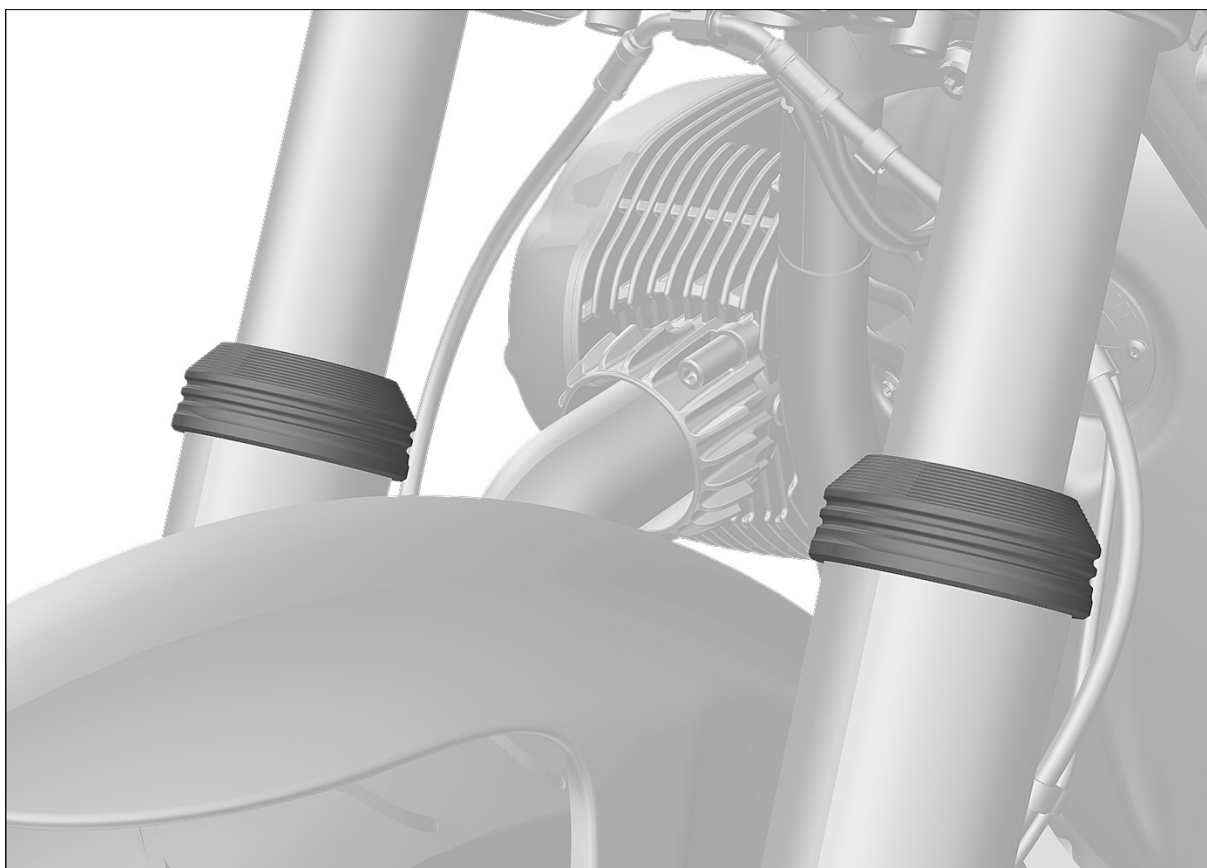


# BMW Motorrad

## Installation instructions

### End cap fork leg bottom



**Before commencing work, you must read these installation instructions through carefully and make sure you understand them fully.**

We congratulate you on your choice of optional accessories from BMW Motorrad that will enable you to customise your motorcycle in accordance with your personal preferences.

Safety is invariably an essential prerequisite for extracting full benefit and enjoyment from new accessories. Some work calls for special tools and possibly a thorough knowledge of motorcycle technology. If you are in doubt consult a specialist workshop, preferably your authorised BMW Motorrad dealer.

Since we provide you with a multitude of accessories and optional equipment, we cannot cover all equipment specifications in these installation instructions. Therefore we restrict ourselves to the basic version of the corresponding model. The removal and installation of other possibly installed accessories is described in the corresponding installation instructions. Consult your authorised BMW Motorrad dealer if you no longer have access to the sets of instructions you need.

If you have questions concerning your motorcycle or any of the accessories from our range, your authorised BMW Motorrad dealer will gladly provide advice and assistance.

We at BMW Motorrad hope you will enjoy riding your BMW and that all your journeys will be pleasant and safe.

**The symbols used to draw attention to precautionary statements in this manual are as follows:**



Low-risk hazard. Non-avoidance can lead to slight or moderate injury.



Medium-risk hazard. Non-avoidance can lead to fatal or severe injury.



High-risk hazard. Non-avoidance leads to fatal or severe injury.



Special notes and precautionary measures. Non-compliance can lead to damage to the vehicle or accessory and, consequently, to voiding of the warranty.



Specific instructions on how to operate, control, adjust or look after items of equipment on the motorcycle.



Screws, bolts and nuts are tightened in accordance with the applicable DIN/ISO standards. Tightening torques that deviate from the standards are stated. Non-compliance can result in damage to the vehicle or accessories or can endanger the driver.

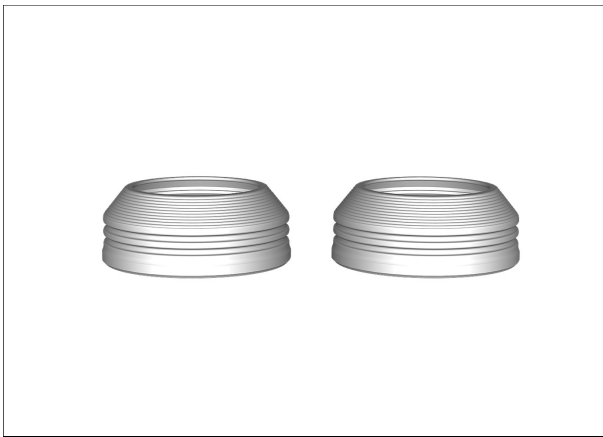
- Start of the main activity
- ▷ Start of the secondary activity
- Instruction

- ◄ End of the main activity
- ◁ End of the secondary activity
- ◇ End of validity designation CS (construction status), OE (optional extra) or OA (optional accessory)

## End cap fork leg bottom

### Requisite tools

- Set of Torx bits
- Set of hexagon socket bits
- Set of hexagon head socket bits
- Torque wrench
- Extension (00 1 575)  
Order No.: 83 30 0 401 348
- Scissor-type lifter (00 1 571)  
Order No.: 83 30 0 401 345
- Engine adapter (00 1 592)  
Order No.: 83 30 5 A1F D97
- Hexagon, w/f 22 (36 3 691)  
Order No.: 83 30 0 402 229



### Delivery specification

- End cap set for fork leg bottom

### General instructions



#### ATTENTION

##### Vehicle not securely propped

Risk of damage to parts if vehicle topples

- Prop the vehicle securely.



#### WARNING

##### Children and pets in the working area

Injury to persons

- Keep children and pets away from the working area.



#### CAUTION

##### Wearing jewellery during work

Risk of injury by snagging or electrical short circuit

- Remove all items of personal jewellery (rings, chains, wristwatch, etc.) before starting work.



#### NOTICE

Once the retrofit kit has been installed by the workshop, these installation instructions must be handed over to the customer.

Make sure that these installation instructions accompany the retrofit kit when it is passed on to a third party.

## 77 24 171 Install end cap of fork rod lower

Additional work: 46 52 510 Removing and installing the rear-wheel stand special tool (motorcycles without centre stand)

1

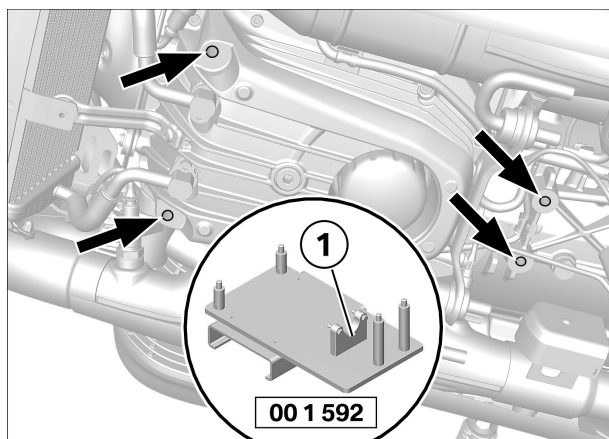
### ► Installing engine lifter

#### **ATTENTION**

**Scratches when using auxiliary stands or similar.**

Paint/surface damage

- Clean tools and mounting points on the vehicle.



- Secure extensions (00 1 575) to scissor-type lifter (00 1 571).
- Secure engine fixture (00 1 592) on engine (**arrows**).
  - Without transmission support **(1)**, disassemble as needed!

#### **ATTENTION**

**Vehicle toppling to side**

Risk of damage to parts if vehicle topples

- Make sure that the vehicle is secured so that it cannot topple sideways.

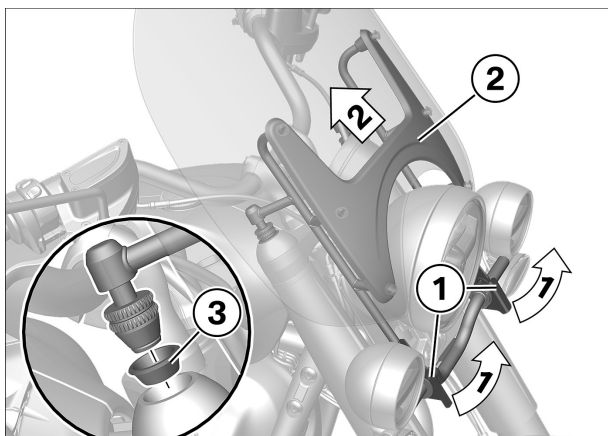
- Push scissor-type lifter (00 1 571) **to the centre of** engine fixture (00 1 592).
- Lower scissor-type lifter (00 1 571) until the vehicle is secure.
- Tighten knurled screws .
- Strap down vehicle, front/rear if required.



2

### ► Remove complete windscreen holder

- Fold locks **(1)** up.
- Disconnect windscreen holder **(2)** from the fork to the top and remove.
  - Pay attention to rubber grommets **(3)**.





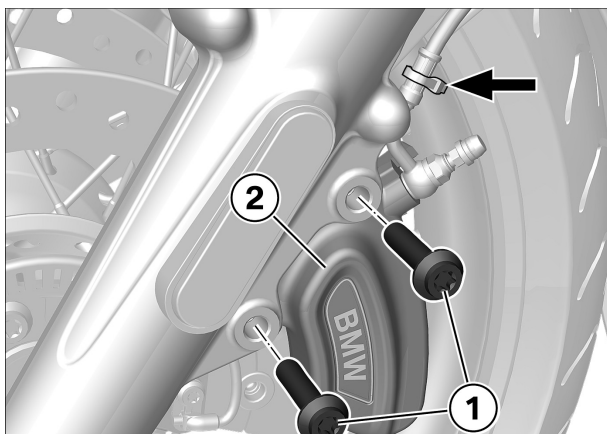
### ► Removing left brake calliper

#### **ATTENTION**

##### **Brake actuation with brake pads or brake calipers removed**

Brake pistons pushed out

- Do not operate brake.
- Install brake pads and brake caliper or insert the piston resetting device.



- Remove cable strap (**arrow**).
- Remove screws **(1)**.
- Detach brake caliper **(2)** from brake disc.

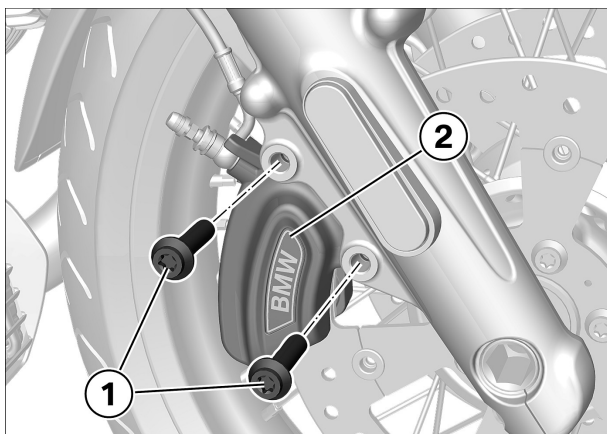
### ► Remove the right brake calliper

#### **ATTENTION**

##### **Brake actuation with brake pads or brake calipers removed**

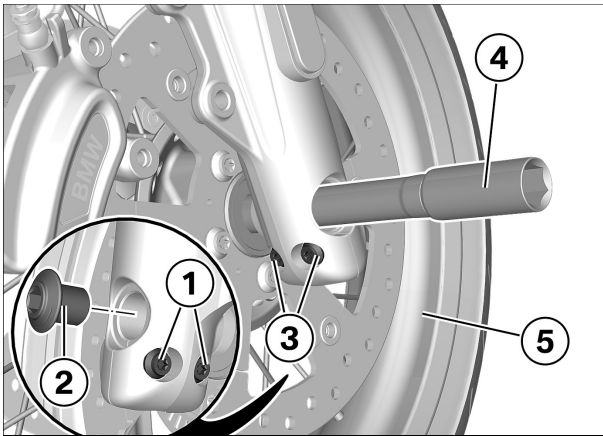
Brake pistons pushed out

- Do not operate brake.
- Install brake pads and brake caliper or insert the piston resetting device.



- Remove screws **(1)**.
- Detach brake caliper **(2)** from brake disc.

## 5



### ► Removing front wheel

- Slacken clamping bolts (1).
- Loosen screw (2), **do not remove**, counter-holding with hexagon head (36 3 691), if necessary.
- Slacken clamping bolts (3).
- Slide through quick-release axle (4) with attached screw (2) as far as possible, remove screw.
- Remove quick-release axle (4).

### **CF** ATTENTION

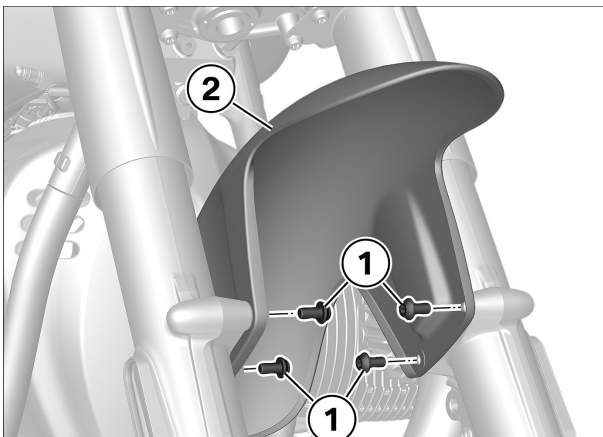
#### **Removal of front wheel not in compliance with correct procedure**

Damage to wheel speed sensor

- Note the wheel-speed sensor when rolling out the front wheel.

- Remove front wheel (5).

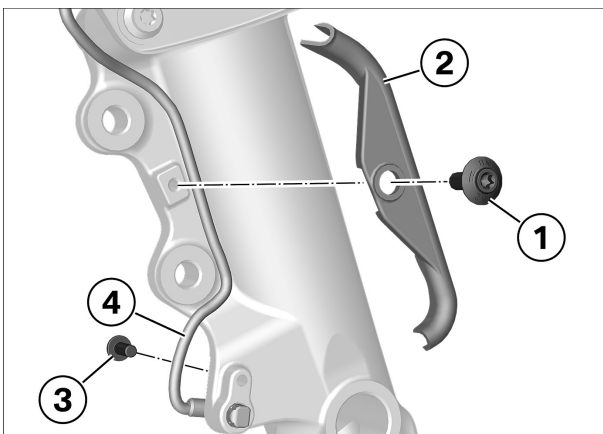
## 6



### ► Removing front-wheel cover

- Remove screws (1).
- Remove front-wheel cover (2).

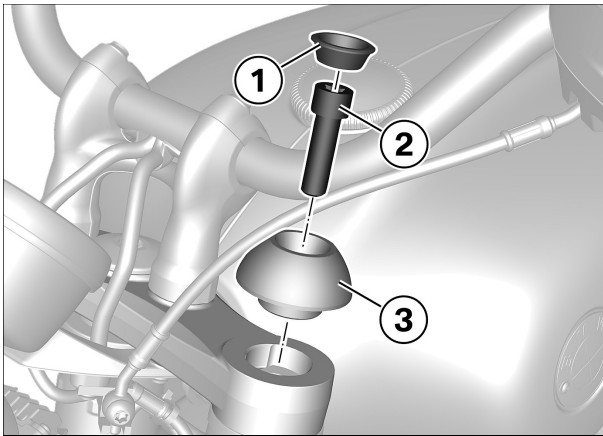
## 7



### ► Disengaging front wheel-speed sensor from forks

- Remove bolt (1), take off cable clip (2)
- Remove bolt (3) and take off wheel speed sensor (4).

# 8

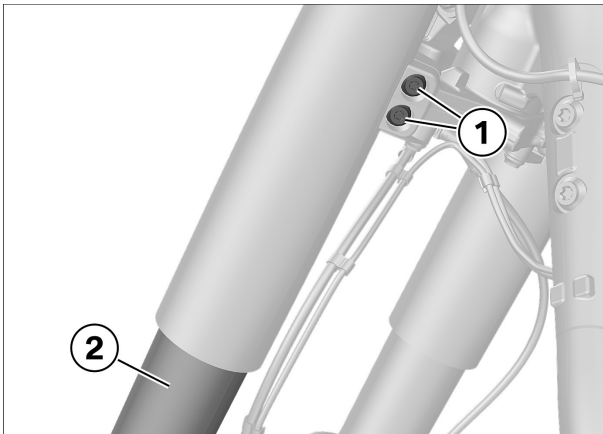


## ► Remove top left fork leg sealing cap

- Remove rubber grommet **(1)**.
- Turn the fork to the left steering stop.
- Remove screw **(2)** and sealing cap **(3)**.



# 9



## ► Removing left fork leg

### **ATTENTION**

#### **Fork leg catching in fork bridge**

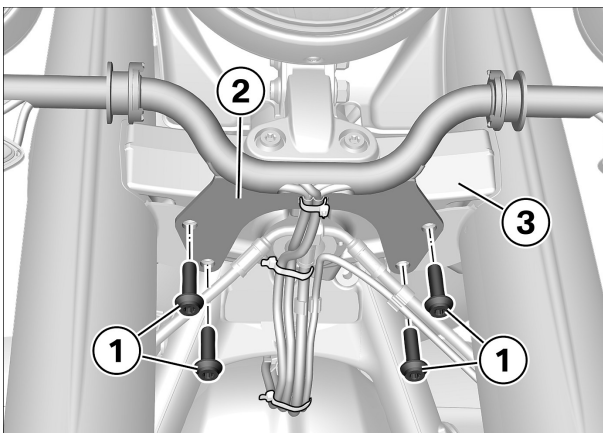
Scratching of fork leg

- Carefully ease open the clamp of the fork bridge when removing/installing the fork leg.

- Loosen screws **(1)**.
- Remove fork leg **(2)**.



# 10



## ► Loosening holder for additional headlight from fork

- Remove screws **(1)** and lay them safely aside, **will be re-used**.

### **ATTENTION**

#### **Use of hard or sharp-edged objects in proximity to component**

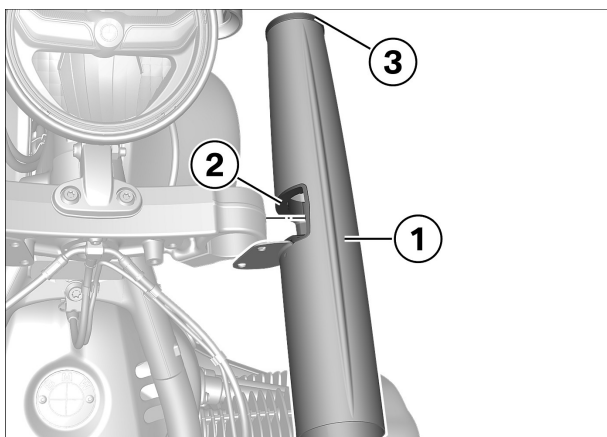
Component damage

- Take care not to scratch components; cover or mask as necessary.

- Loosen holder for additional headlight **(2)** from fork bridge **(3)** and fix on headlight with suitable auxiliary materials.



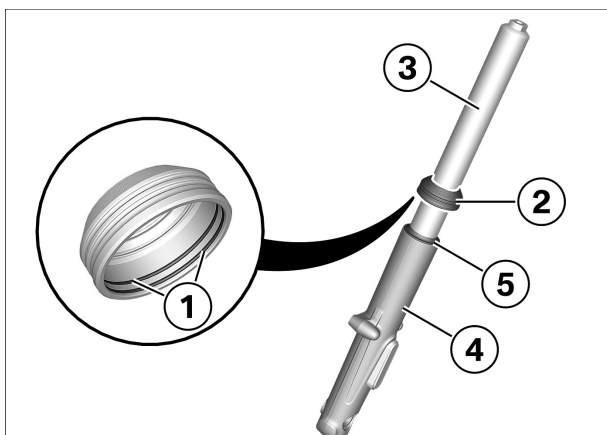
# 11



## ► Remove left fork shell

- Remove fork shell (1) together with rubber element (2) and grommet (3).

# 12



## ► Install bottom left fork leg end cap

- Lubricate O-rings (1).



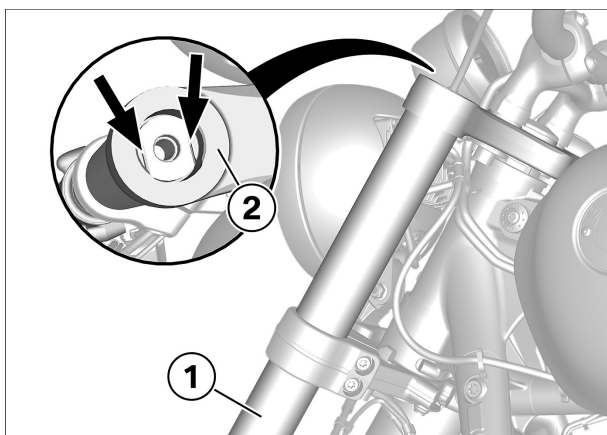
### Installation tool

Silicone spray

83 19 2 208 609

- Slide fork leg end cap (2) over fixed fork tube (3) onto slider tube (4). Make sure that fork leg end cap (2) is resting completely on the dust boot (5).

# 13



## ► Installing left fork leg



### ATTENTION

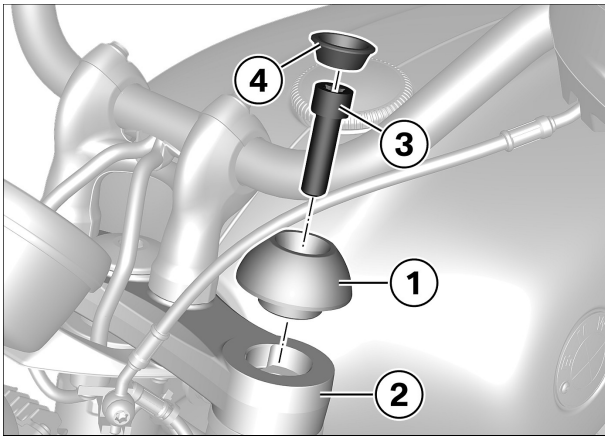
#### Fork leg catching in fork bridge

Scratching of fork leg

- Carefully ease open the clamp of the fork bridge when removing/installing the fork leg.


- Insert fork leg (1) to stop and align.

» Mounting flats (Arrows) flush with upper fork bridge (2).

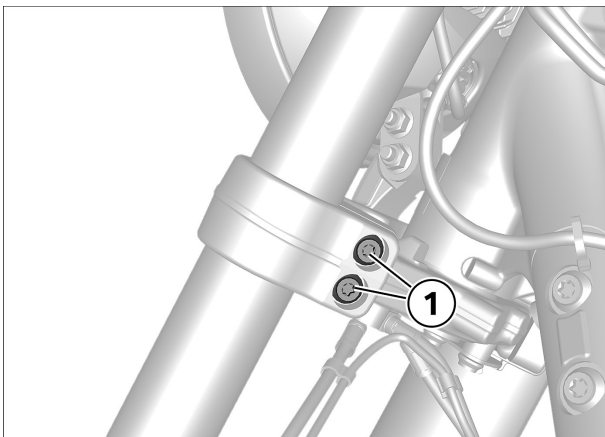



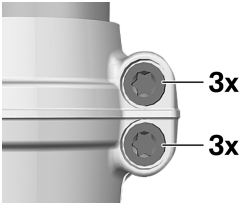
#### ► Install top left fork leg sealing cap

- Install rear brake pads and spring.
- Insert sealing cap (1) in fork bridge (2).
- Turn the fork to the right steering stop.
- Install bolt (3).

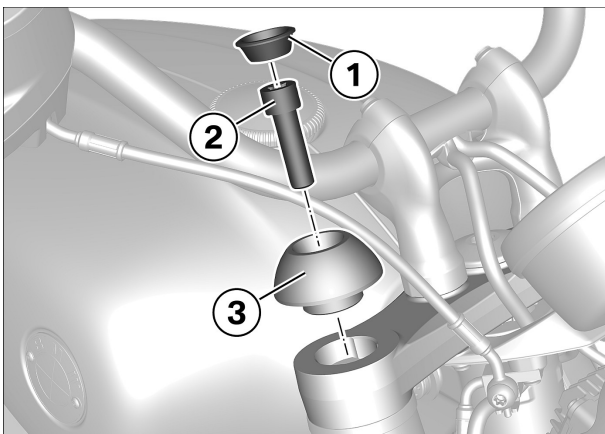
 <b>Tightening torques</b>		
<b>Sealing cap (front fork bridge) to fork leg</b>		
M12 x 40, Renew screw Thread-locking compound (micro-encapsulated)	66 Nm	

- Install rubber grommet (4).
- Tighten screws (1).



 <b>Tightening torques</b>		
<b>Fork bridge, bottom, to fork fixed tube</b>		
		
M8 x 35	<b>Tightening sequence:</b> Tighten screws six times in alternate sequence	
	19 Nm	

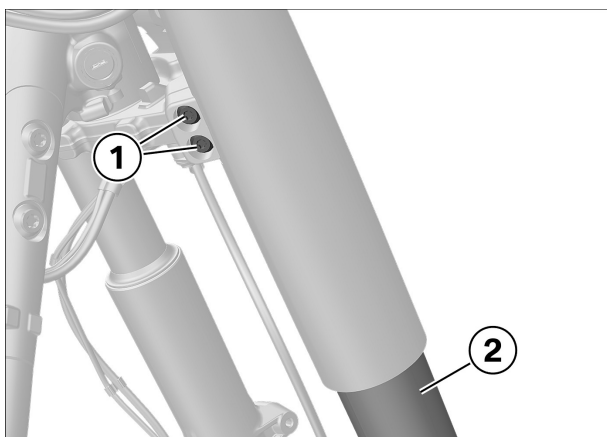
## 14



#### ► Remove top right fork leg sealing cap

- Remove rubber grommet (1).
- Turn the fork to the left steering stop.
- Remove screw (2) and sealing cap (3).

# 15



## ► Removing right fork leg

### **ATTENTION**

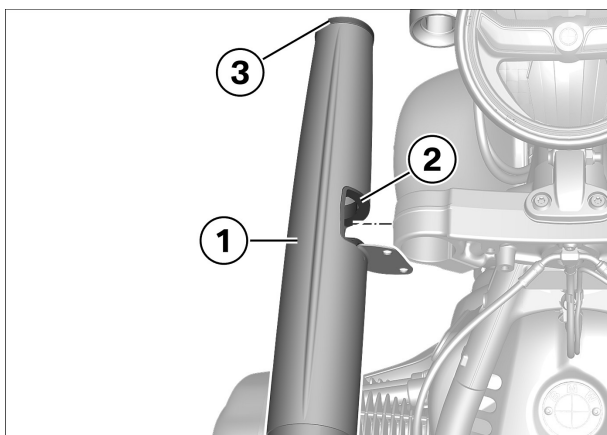
#### **Fork leg catching in fork bridge**

Scratching of fork leg

- Carefully ease open the clamp of the fork bridge when removing/installing the fork leg.

- Loosen screws (1).
- Remove fork leg (2).

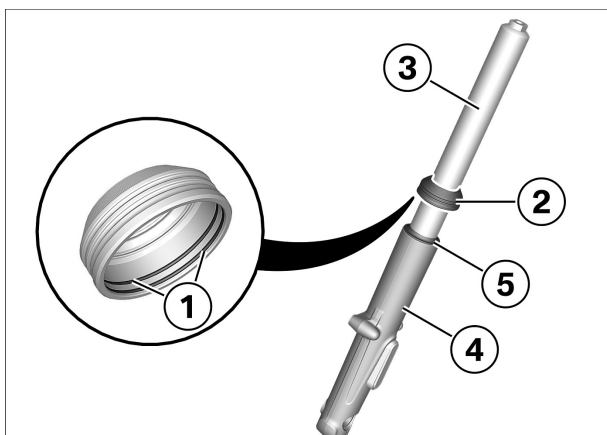
# 16



## ► Remove right fork shell

- Remove fork shell (1) together with rubber element (2) and grommet (3).

# 17



## ► Install bottom right fork leg end cap

- Lubricate O-rings (1).



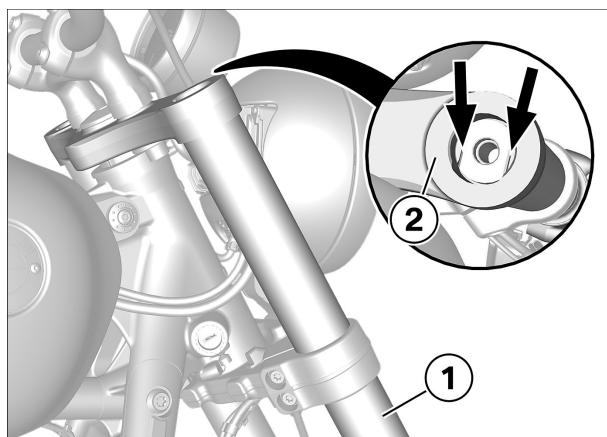
### **Installation tool**

Silicone spray

83 19 2 208 609

- Slide fork leg end cap (2) over fixed fork tube (3) onto slider tube (4). Make sure that fork leg end cap (2) is resting completely on the dust boot (5).





### ► Install the right fork leg

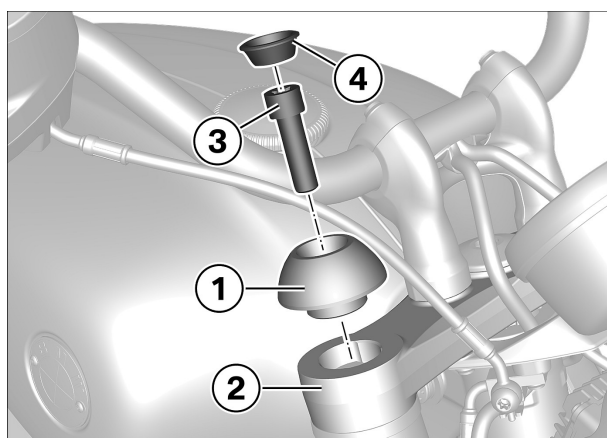
#### **ATTENTION**

##### **Fork leg catching in fork bridge**

Scratching of fork leg

- Carefully ease open the clamp of the fork bridge when removing/installing the fork leg.

- Insert fork leg (1) to stop and align.
- » Mounting flats (**Arrows**) flush with upper fork bridge (2).



### ▷ Install top right fork leg sealing cap

- Install rear brake pads and spring.
- Insert sealing cap (1) in fork bridge (2).
- Turn the fork to the right steering stop.
- Install bolt (3).

#### **Tightening torques**

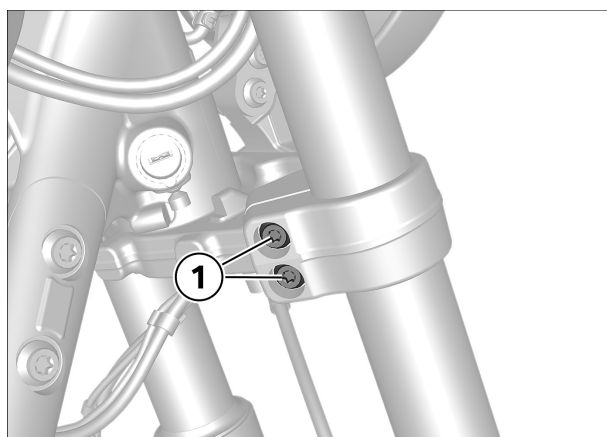
##### **Sealing cap (front fork bridge) to fork leg**

M12 x 40, Renew screw	66 Nm	
Thread-locking compound (micro-encapsulated)		

- Install rubber grommet (4).

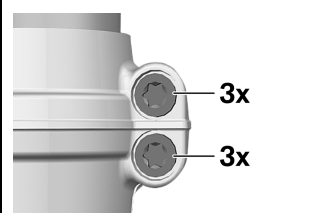
◁

- Tighten screws (1).



#### **Tightening torques**

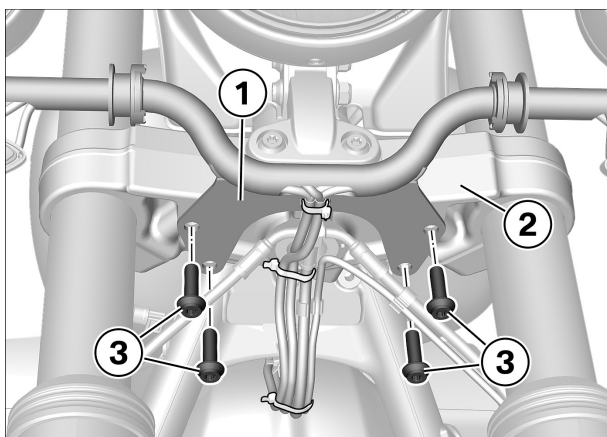
##### **Fork bridge, bottom, to fork fixed tube**



M8 x 35	<b>Tightening sequence:</b> Tighten screws six times in alternate sequence	
	19 Nm	

◀

## 19



### ► Fastening holder for additional headlight on fork

- Position holder for additional headlight (1) on fork bridge (2).
- Install screws (3).



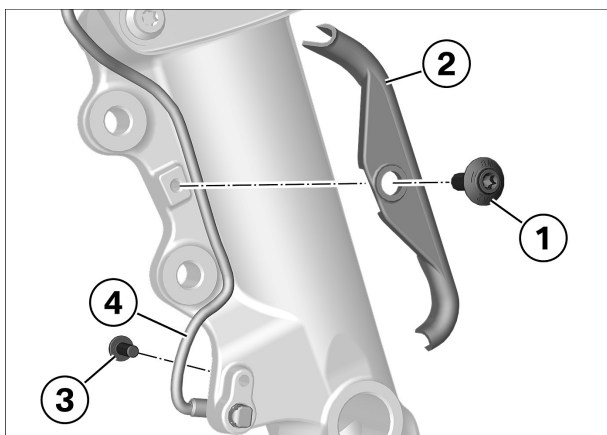
#### Tightening torques

#### Bracket for additional headlight to fork bridge

M8 x 25

19 Nm

## 20



### ► Securing front wheel-speed sensor to fork leg

- Position wheel speed sensor (4), install screw (3).



#### Tightening torques

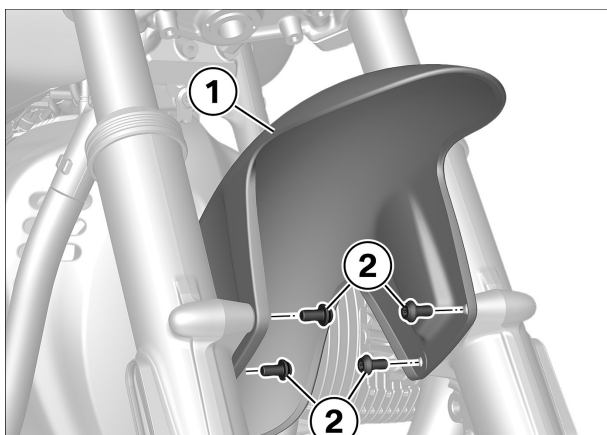
#### Wheel-speed sensor, front, to telescopic forks

M6 x 16

8 Nm

- Secure cable with cable clip (2), install bolt (1).

## 21



### ► Installing front-wheel cover

- Place front-wheel cover (1) in position.
  - Slightly push front-wheel cover together to prevent scratches.
- Install screws (2).



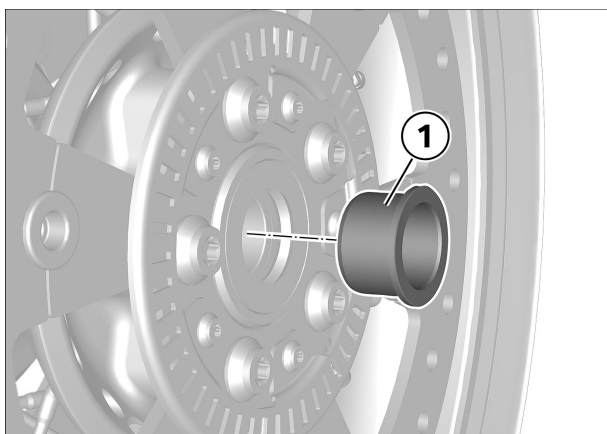
#### Tightening torques

#### Front-wheel cover to fork leg

M8 x 16


19 Nm

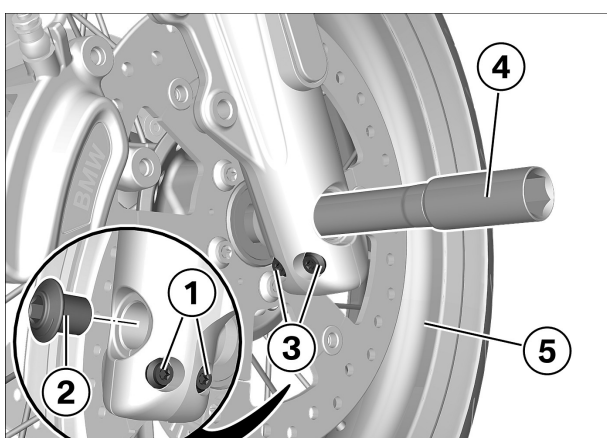





## ► Install the front wheel

- If necessary, clean spacer bush **(1)**, apply a thin coat of lubricant and install in front wheel.

 <b>Lubricant</b>	
Optimoly TA	18 21 9 062 599



- Clean quick-release axle **(4)** and apply a thin coat of lubricant.

 <b>Lubricant</b>	
Optimoly TA	18 21 9 062 599


## **ATTENTION**

### **Installation of front wheel not in compliance with correct procedure**

Damage to wheel speed sensor

- Note the wheel-speed sensor when rolling in the front wheel.

- Install the front wheel **(5)**.
- Install quick-release axle **(4)**, tighten screw **(2)**.

 <b>Tightening torques</b>		
<b>Screw to quick-release axle</b>		
M20 x 1.5	50 Nm	

– If necessary, counter-hold with hexagon head (36 3 691).

- Tighten screws **(1)** and **(3)**.



### Tightening torques

#### Clamping screws in axle holder

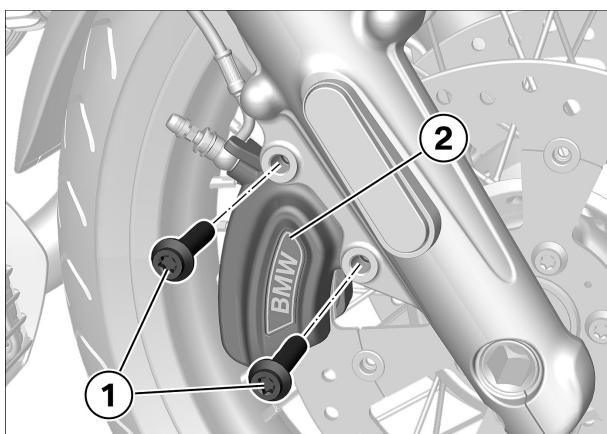


M8 x 35

**Tightening sequence:**  
Tighten screws six times in alternate sequence

19 Nm

## 23



### ► Securing right brake calliper

- Position brake calliper (2)
- Install screws (1).



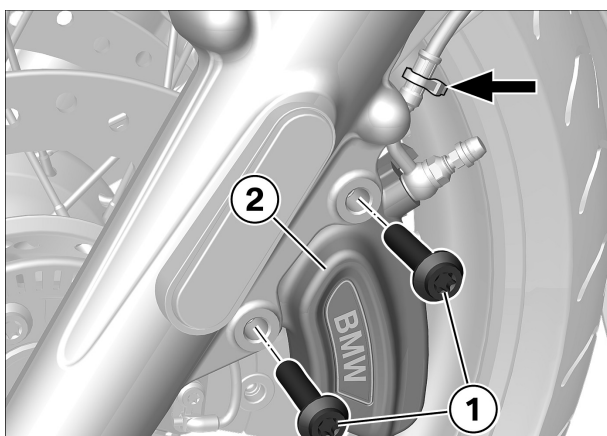
### Tightening torques

#### Brake caliper to telescopic fork

M10 x 40 - 10.9

56 Nm

## 24



### ► Securing left brake calliper

- Position brake calliper (2).
- Install screws (1).



### Tightening torques

#### Brake caliper to telescopic fork

M10 x 40 - 10.9

56 Nm

- Secure the cable strap (arrow).

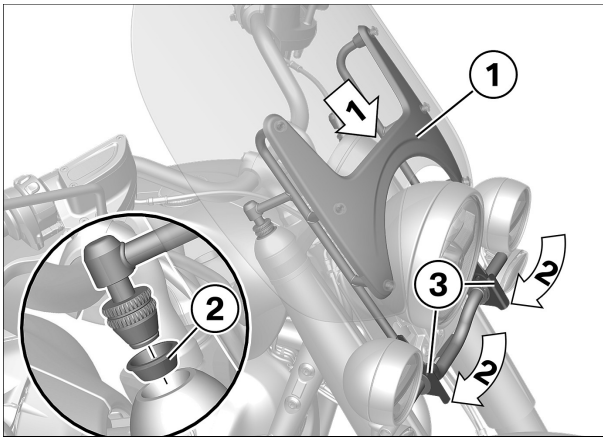
# 25

## ► Bedding in front brake pads

- Operate the brake several times until the brake pads are bedded.



# 26

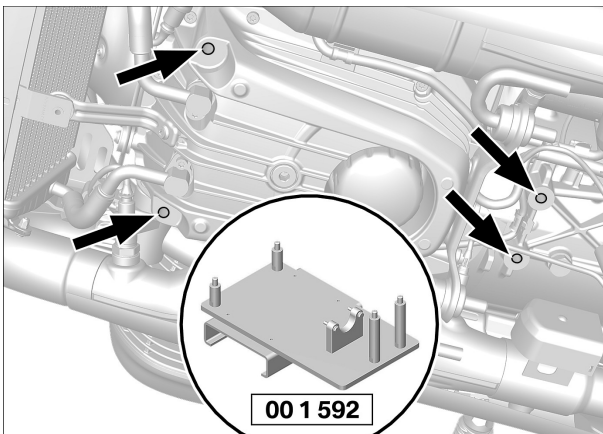


## ► Install complete windscreen holder

- Insert windscreen holder (1) in rubber grommets (2) and position locks (3).
- Fold locks (3) down.
- Check windscreen holder for secure fit.



# 27



## ► Removing engine lifter

- Lower engine lifter until it is free of load. While doing so, ensure that the vehicle is secure and cannot tip over.
- Remove scissor-type lifter (00 1 571) from engine adapter (00 1 592).
- Disengage engine fixture (00 1 592) from engine.



# 28

## ► Final check of work performed

- Check the following:
  - The work as performed achieved the intended purpose.
  - All reservoirs and containers have been filled and all fluids and lubricants are at their correct levels.
  - All threaded fasteners released beforehand have been correctly retightened.
  - The fuel system is free of leaks.

- The lights and signalling equipment are fully operational and the vehicle is roadworthy.
- The brake pads of the front and rear brakes are bedded against the brake discs.

#### ▷ **Function test, engine start suppression**

##### **Check**

- Select neutral.
- Switch on the ignition.
- » Neutral indicator light "N" lights up.
- Select a gear.
- » Neutral indicator light "N" goes out.
- Operate the starter switch.
- » Starter does **not** operate.
- Extend the side stand.
- Pull the clutch lever.
- Operate the starter switch.
- » Starter does **not** operate.
- Retract the side stand.
- Operate the starter switch without releasing the clutch lever.
- » Starter operates.

##### **Result**

Not all test steps completed successfully.

##### **Measure**

- Check the appropriate parts with the BMW Motorrad diagnostic system.

