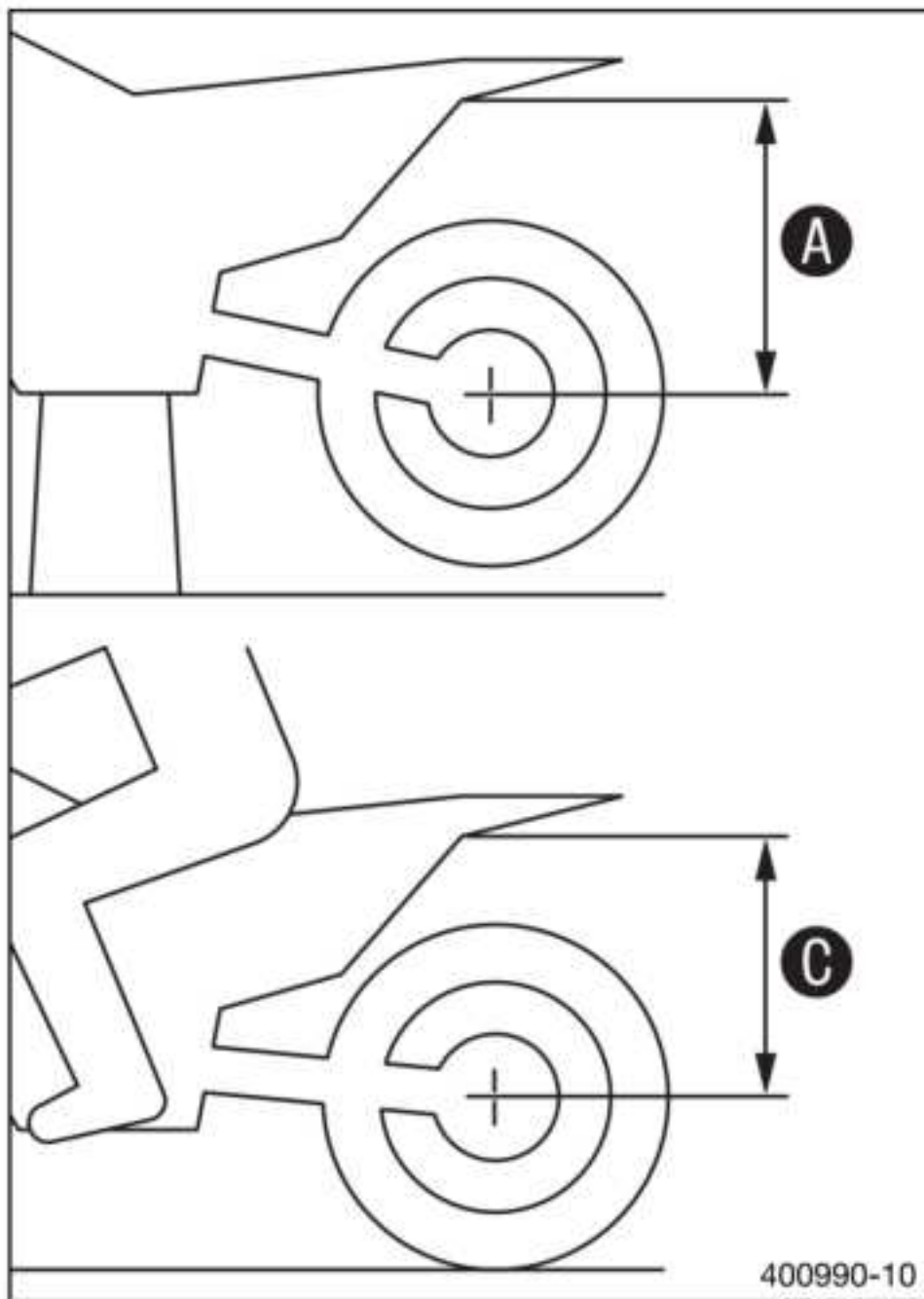


## 9.6 Checking the riding sag of the shock absorber



- Measure dimension **A** of rear wheel unloaded. (📖 p. 47)
- With another person holding the motorcycle, the rider, wearing full protective clothing, sits on the seat in a normal sitting position (feet on footrests) and bounces up and down a few times.
  - ✓ The rear wheel suspension levels out.
- Another person now measures the distance between the rear axle and the fixed point.
- Note down the value as dimension **C**.



### Info

The riding sag is the difference between measurements **A** and **C**.

- Check the riding sag.

Riding sag	70 ... 75 mm (2.76 ... 2.95 in)
------------	---------------------------------

- » If the riding sag differs from the specified measurement:
  - Adjust the riding sag. (📖 p. 50)

## 9.7 Adjusting the spring preload of the shock absorber



### Caution

**Risk of injury** Parts of the shock absorber will move around if the shock absorber is detached incorrectly.

The shock absorber is filled with highly compressed nitrogen.

- Please follow the description provided.



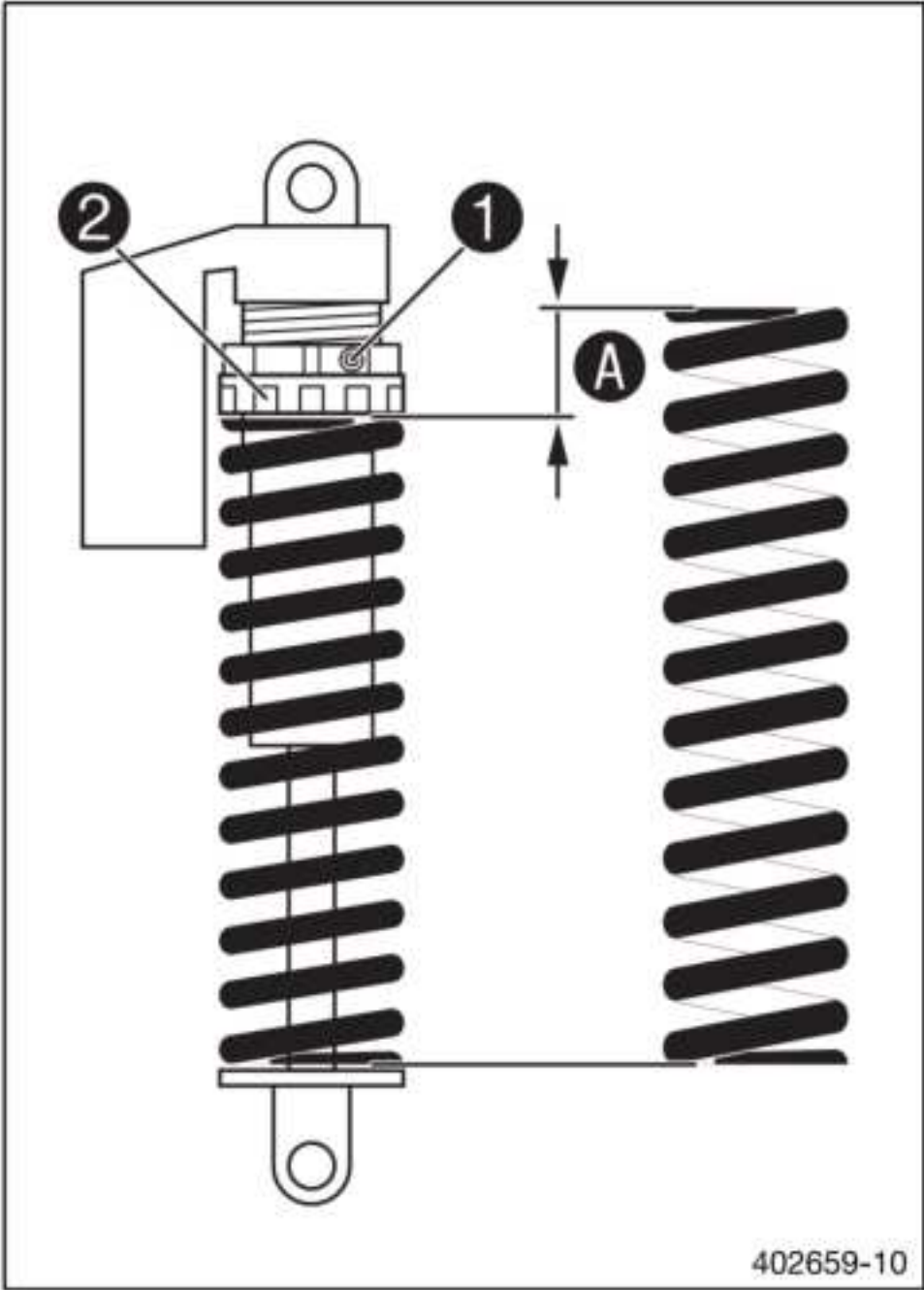
### Info

Before changing the spring preload, make a note of the present setting, e.g., by measuring the spring length.

### Preparatory work

- Raise the motorcycle with the work stand. (📖 p. 14)
- Remove the seat. (📖 p. 93)
- Take off the side cover. (📖 p. 93)
- Remove the air filter box. (📖 p. 87)
- Remove the rear fairing. (📖 p. 96)
- Remove the rear left side cover. (📖 p. 95)
- Remove the rear right side cover. (📖 p. 94)
- Remove the shock absorber. (📖 p. 52)
- After removing the shock absorber, clean it thoroughly.





Main work

- Loosen screw 1.
- Turn adjusting ring 2 until the spring is no longer under tension.

Hook wrench (T106S) (p. 396)

- Measure the overall spring length while the spring is not under tension.
- Tighten the spring by turning adjusting ring 2 to measurement A.

Guideline

Spring preload	21 mm (0.83 in)
----------------	-----------------



Info

Depending on the static sag and/or the riding sag, it may be necessary to increase or decrease the spring preload.

- Tighten screw 1.

Guideline

Screw, shock absorber adjusting ring	M5	5 Nm (3.7 lbf ft)
--------------------------------------	----	-------------------

Finishing work

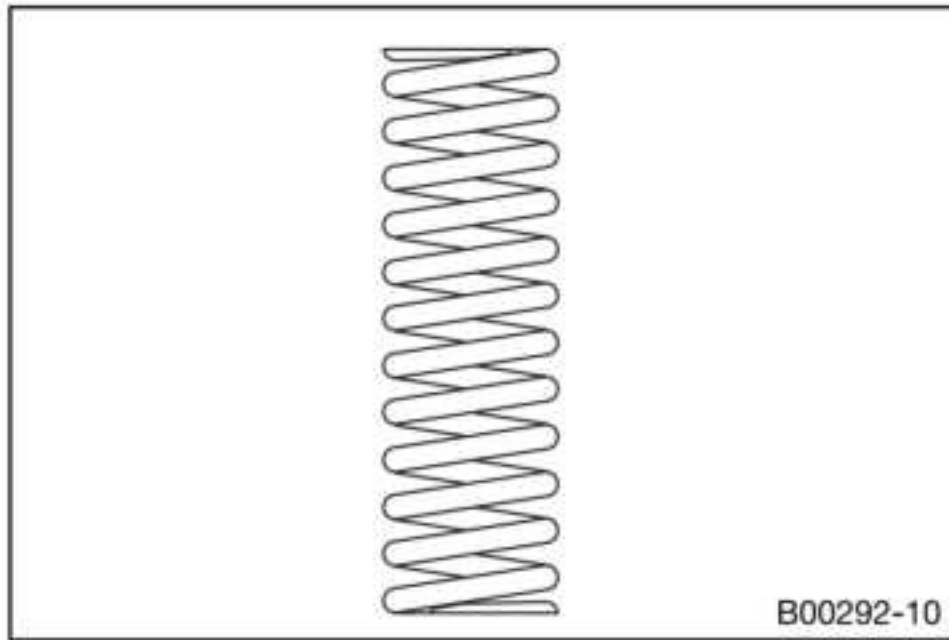
- Install the shock absorber. (p. 53)
- Install the rear right side cover. (p. 95)
- Install the rear left side cover. (p. 96)
- Fit the rear fairing. (p. 97)
- Install the air filter box. (p. 89)
- Mount the side cover. (p. 94)
- Mount the seat. (p. 93)
- Remove the motorcycle from the work stand. (p. 15)

9.8 Adjusting the riding sag

Preparatory work

- Raise the motorcycle with the work stand. (p. 14)
- Remove the seat. (p. 93)
- Take off the side cover. (p. 93)
- Remove the air filter box. (p. 87)
- Remove the rear fairing. (p. 96)
- Remove the rear left side cover. (p. 95)
- Remove the rear right side cover. (p. 94)
- Remove the shock absorber. (p. 52)
- After removing the shock absorber, clean it thoroughly.



**Main work**

- Choose and mount a suitable spring.

## Guideline

Spring rate	
Medium (standard)	75 N/mm (428 lb/in)
Hard	80 N/mm (457 lb/in)

**Info**

The spring rate is shown on the outside of the spring.

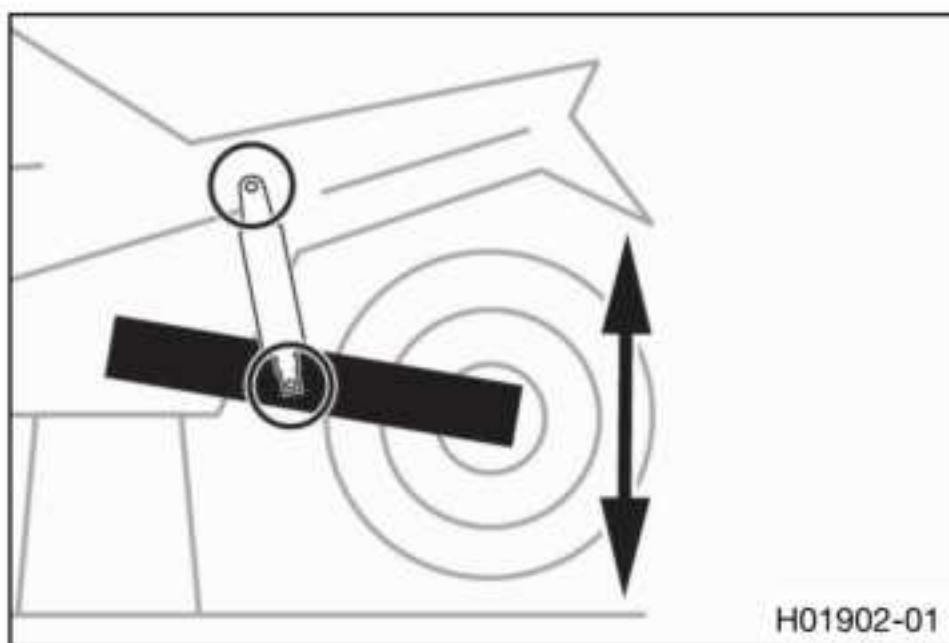
**Finishing work**

- Install the shock absorber. (📖 p. 53)
- Install the rear right side cover. (📖 p. 95)
- Install the rear left side cover. (📖 p. 96)
- Fit the rear fairing. (📖 p. 97)
- Install the air filter box. (📖 p. 89)
- Mount the side cover. (📖 p. 94)
- Mount the seat. (📖 p. 93)
- Remove the motorcycle from the work stand. (📖 p. 15)
- Check the static sag of the shock absorber. (📖 p. 48)
- Adjust the rebound damping of the shock absorber. (📖 p. 47)

## 9.9 Checking the heim joint for play

**Preparatory work**

- Raise the motorcycle with the work stand. (📖 p. 14)
- Place a load on the front of the vehicle.
- ✓ The rear wheel is not in contact with the ground.

**Main work**

- Check the upper heim joint.
- Move the link fork up and down.
  - » If there is detectable play:
    - Change silent block. (📖 p. 57)
- Check the lower heim joint.
- Move the link fork up and down.
  - » If there is detectable play:
    - Change the heim joint. (📖 p. 55)

**Finishing work**

- Remove the motorcycle from the work stand. (📖 p. 15)

### 9.10 Removing the shock absorber

#### Preparatory work

- Raise the motorcycle with the work stand. (📖 p. 14)
- Remove the seat. (📖 p. 93)
- Take off the side cover. (📖 p. 93)
- Remove the air filter box. (📖 p. 87)
- Remove the rear fairing. (📖 p. 96)
- Remove the rear left side cover. (📖 p. 95)
- Remove the rear right side cover. (📖 p. 94)

#### Main work

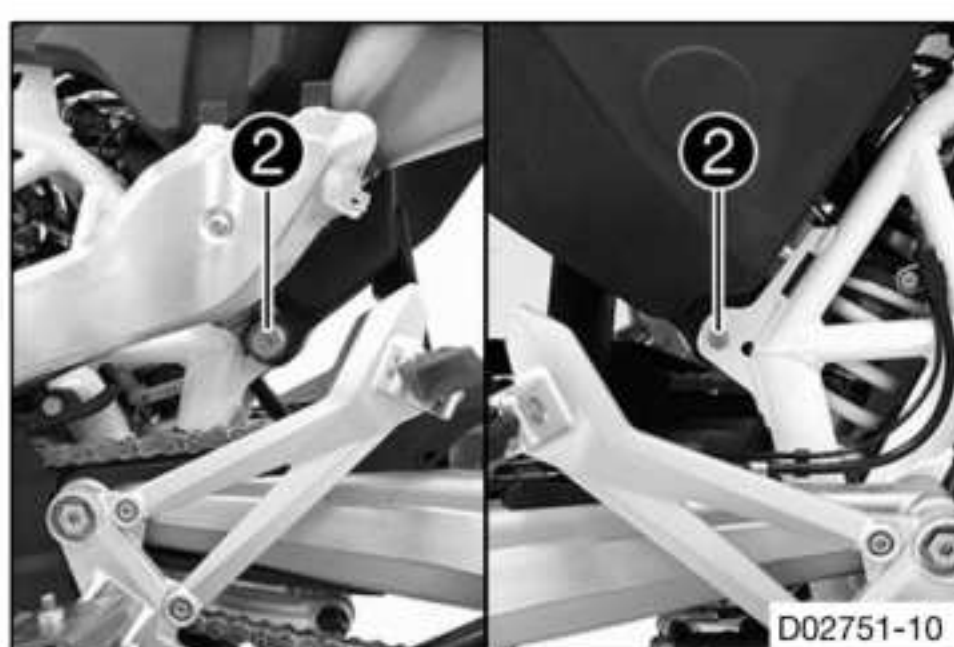
- Remove screws ❶.



- Remove the cable ties.



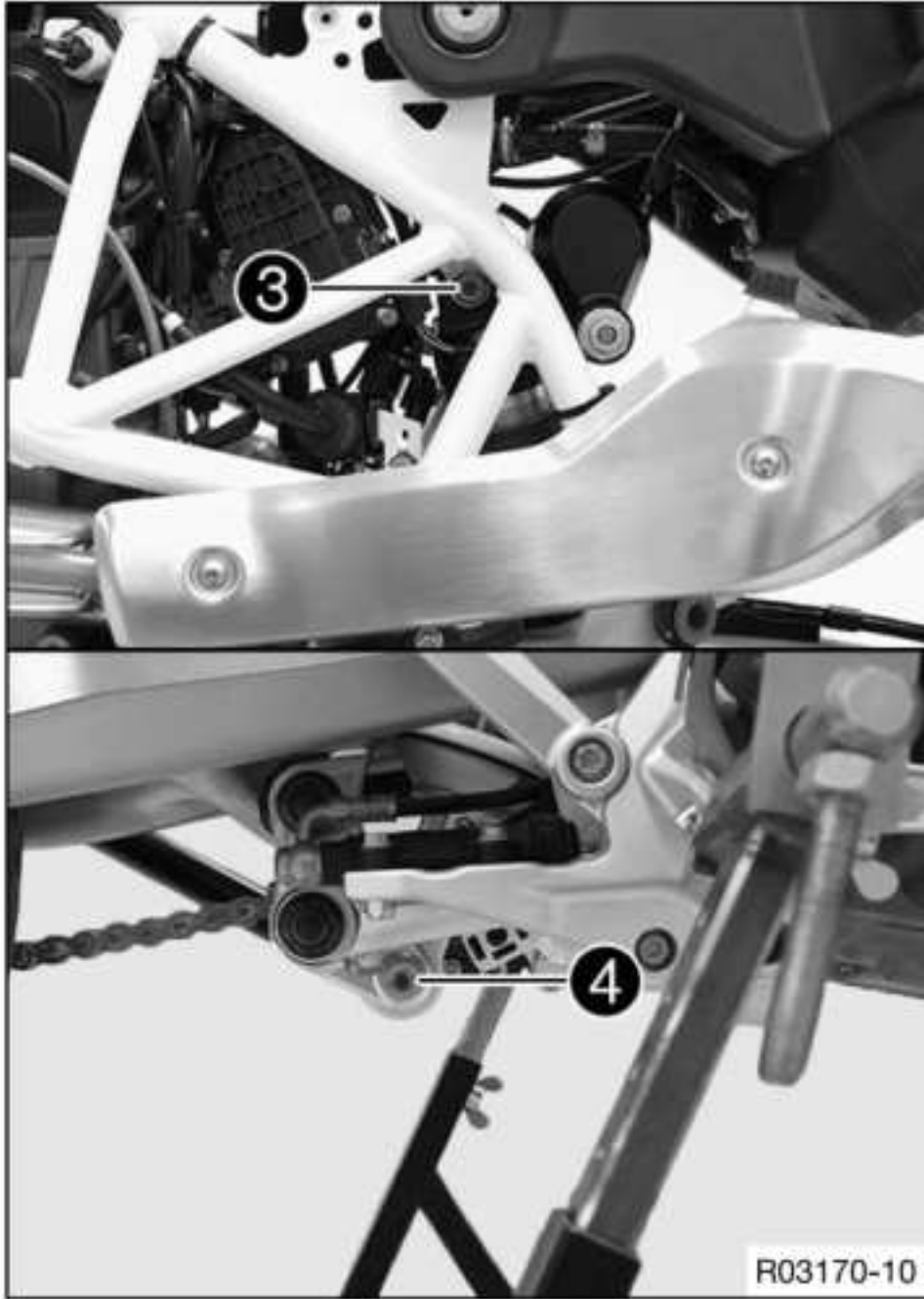
- Remove screws ❷.



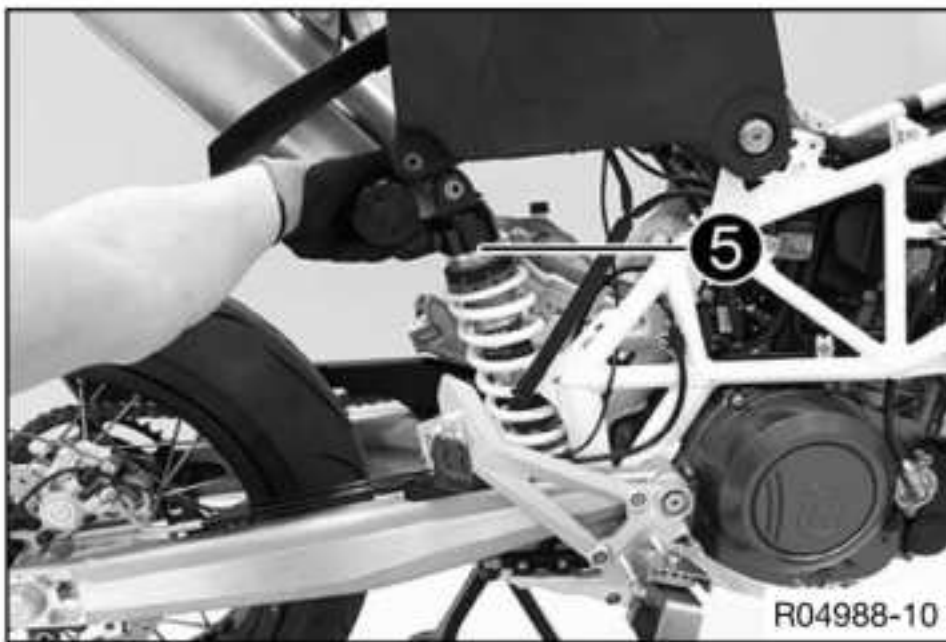
- Pivot the subframe up and secure it.







- Loosen screw ③.
- Remove screw ④.
- Remove screw ③.



- Lift off shock absorber ⑤.

## 9.11 Installing the shock absorber



### Main work

- Position shock absorber ① from above.

## 9 SHOCK ABSORBER, LINK FORK



- Mount screw ② but do not tighten yet.

Guideline

Screw, top shock absorber	M10	45 Nm (33.2 lbf ft) <b>Loctite®243™</b>
---------------------------	-----	--

- Mount and tighten screw ③.

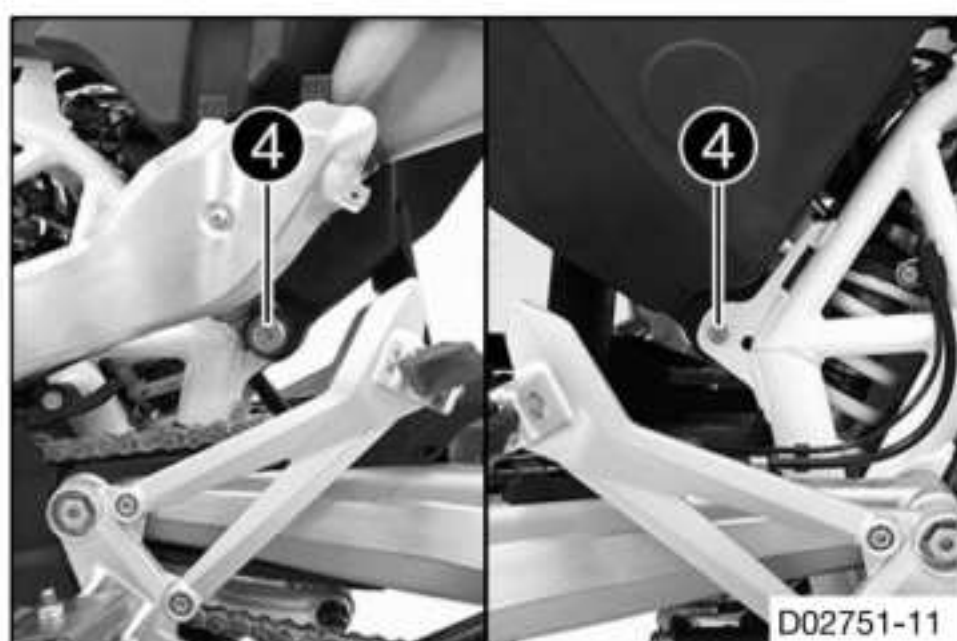
Guideline

Screw, bottom shock absorber	M10	45 Nm (33.2 lbf ft) <b>Loctite®243™</b>
------------------------------	-----	--

- Tighten screw ②.

Guideline

Screw, top shock absorber	M10	45 Nm (33.2 lbf ft) <b>Loctite®243™</b>
---------------------------	-----	--



- Remove the locking piece and position the subframe.

- Mount and tighten screws ④.

Guideline

Screw, fuel tank, bottom	M8	25 Nm (18.4 lbf ft) <b>Loctite®243™</b>
--------------------------	----	--



- Mount the cable ties.



- Mount and tighten screws ⑤.

Guideline

Screw, main silencer holder on fuel tank	M8	25 Nm (18.4 lbf ft)
--	----	---------------------

### Finishing work

- Install the rear right side cover. (📖 p. 95)
- Install the rear left side cover. (📖 p. 96)
- Fit the rear fairing. (📖 p. 97)

- Install the air filter box. (📖 p. 89)
- Mount the side cover. (📖 p. 94)
- Mount the seat. (📖 p. 93)
- Remove the motorcycle from the work stand. (📖 p. 15)



## 9.12 Changing the heim joint

### Preparatory work

- Raise the motorcycle with the work stand. (📖 p. 14)
- Remove the seat. (📖 p. 93)
- Take off the side cover. (📖 p. 93)
- Remove the air filter box. (📖 p. 87)
- Remove the rear fairing. (📖 p. 96)
- Remove the rear left side cover. (📖 p. 95)
- Remove the rear right side cover. (📖 p. 94)
- Remove the shock absorber. (📖 p. 52)

### Main work

- Clamp the shock absorber into the vise.

Guideline

Use soft jaws.

- Remove collar bushing ❶ of the heim joint.

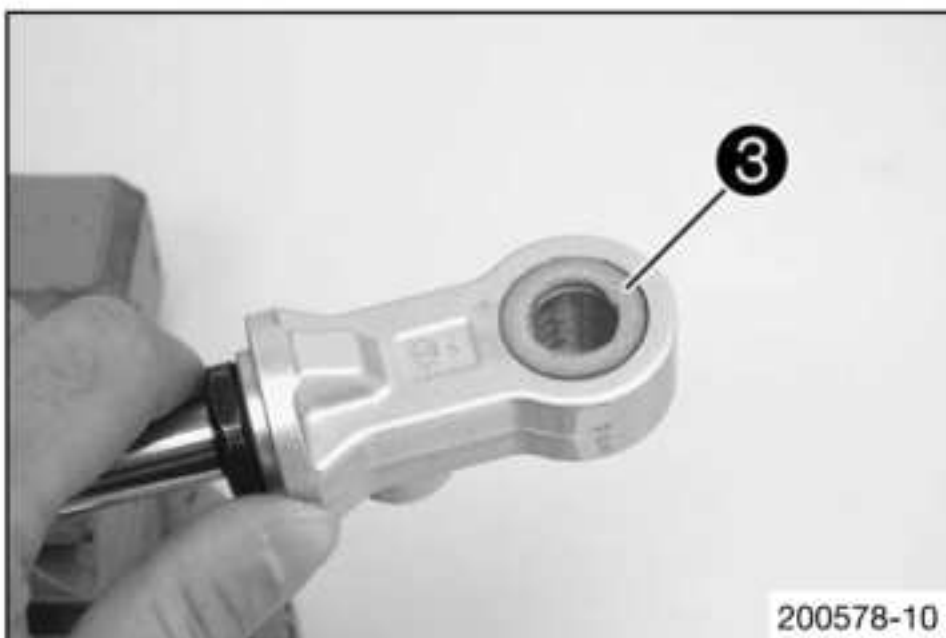
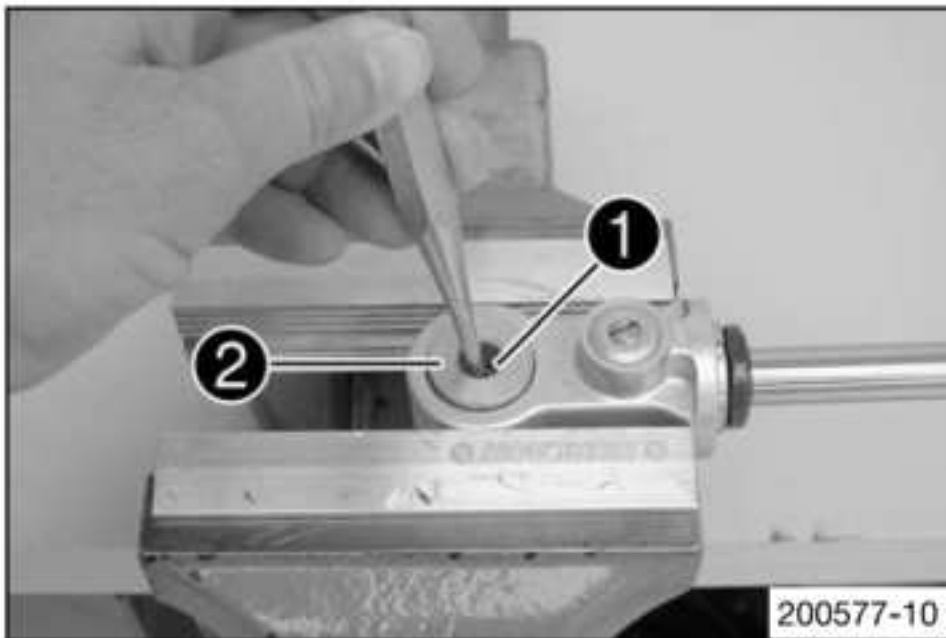
Drift (T120) (📖 p. 396)

- Turn around the shock absorber and remove collar bushing ❷ of the heim joint.

Drift (T120) (📖 p. 396)

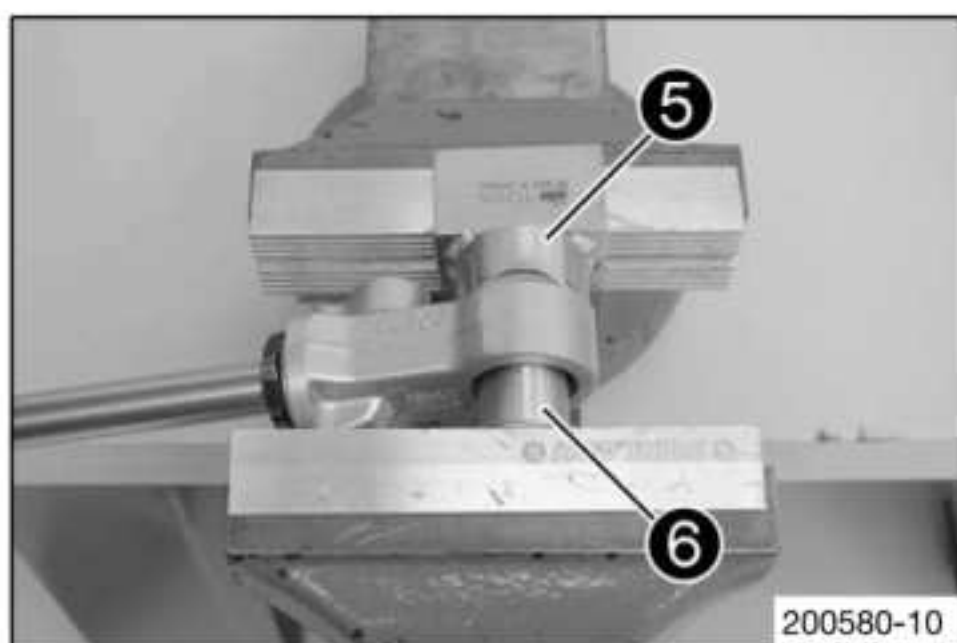
- Remove seal ❸ on both sides.

- Remove lock ring ❹ on both sides.



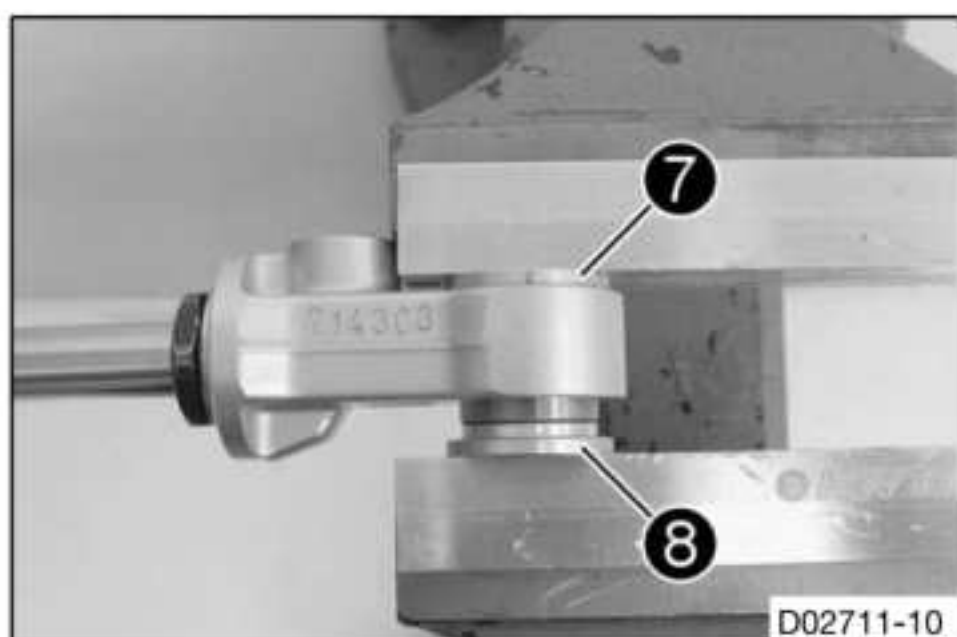


## 9 SHOCK ABSORBER, LINK FORK



- Place special tool **5** underneath and press out the heim joint with special tool **6**.

Pressing tool (T1207S) (p. 397)



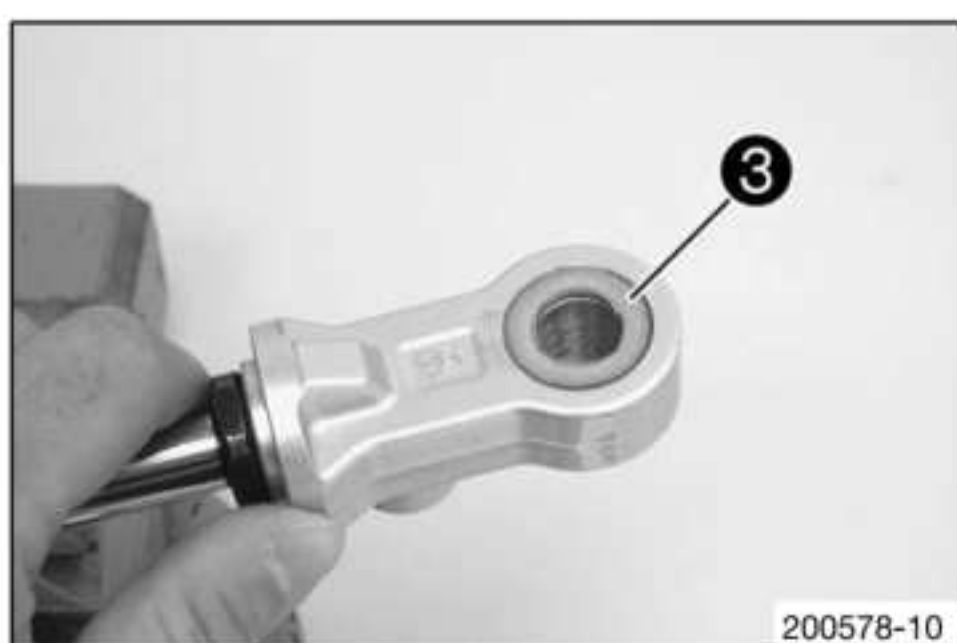
- Place special tool **7** underneath and push the heim joint to the middle using special tool **8**.

Pressing tool (T1206) (p. 397)

Pressing tool (T129) (p. 397)

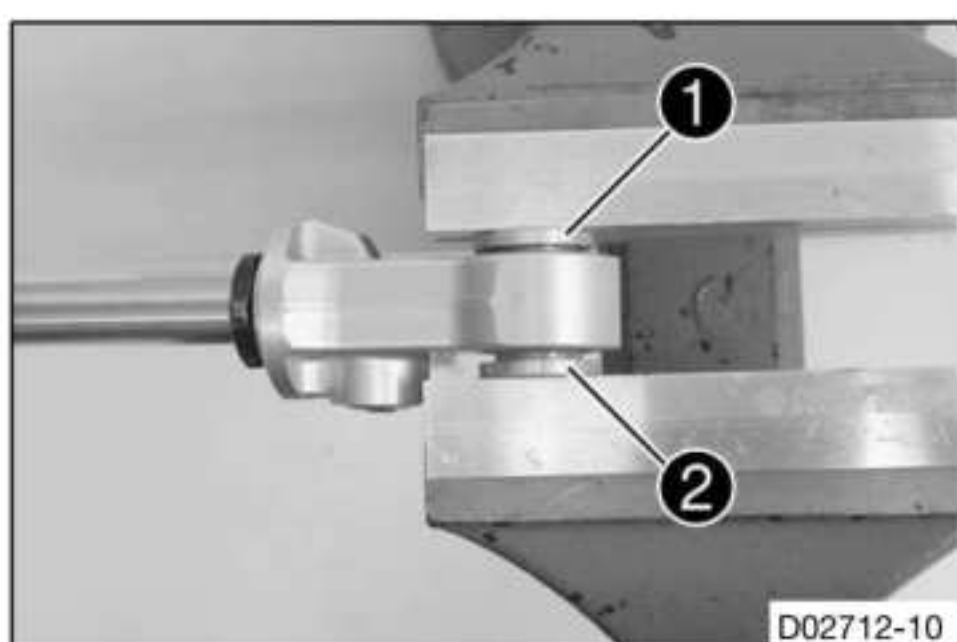


- Mount lock ring **4** on both sides.



- Mount and grease seal ring **3** on both sides.

Lubricant (T158) (p. 378)



- Press in both collar bushings **2** and **1** of the heim joint.

### Finishing work

- Install the shock absorber. (p. 53)
- Install the rear right side cover. (p. 95)
- Install the rear left side cover. (p. 96)

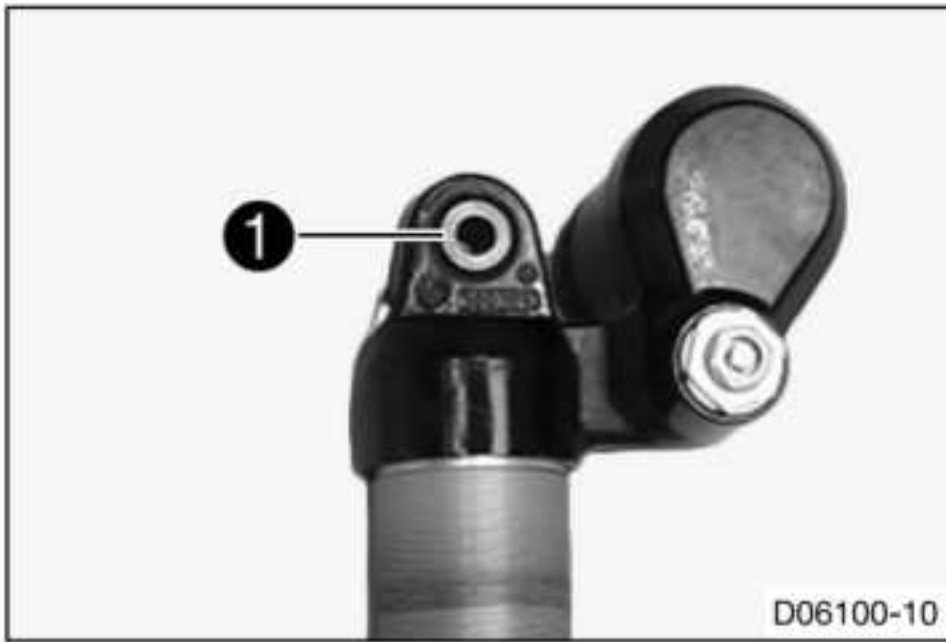


- Fit the rear fairing. (📖 p. 97)
- Install the air filter box. (📖 p. 89)
- Mount the side cover. (📖 p. 94)
- Mount the seat. (📖 p. 93)
- Remove the motorcycle from the work stand. (📖 p. 15)

## 9.13 Changing silent block

### Condition

The shock absorber has been removed.

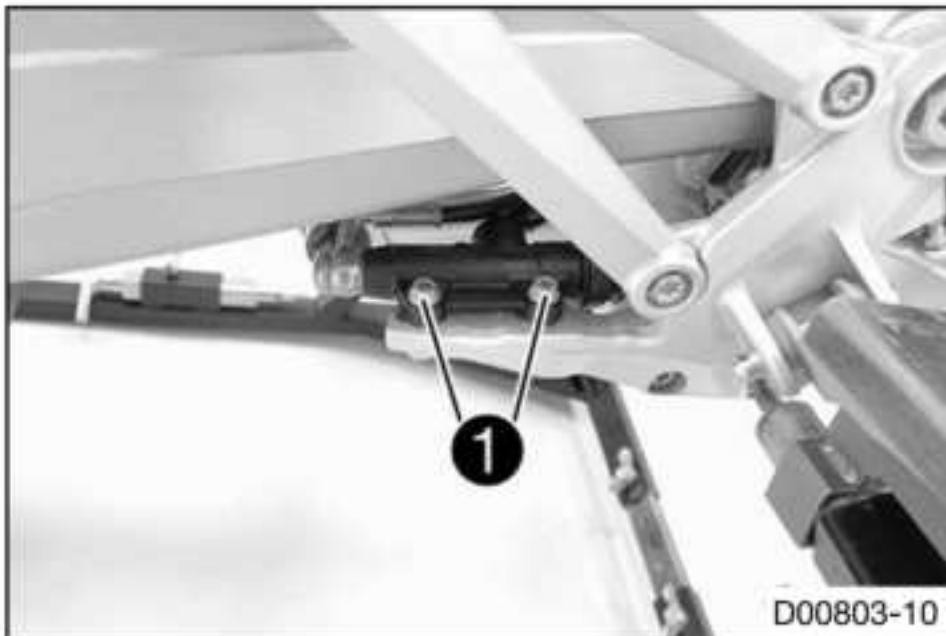


- Press out silent block ① using a suitable tool.
- Press in new silent block ① until it is flush using a suitable tool.

## 9.14 Checking the shock absorber linkage

### Preparatory work

- Raise the motorcycle with the work stand. (📖 p. 14)



### Main work

- Remove fittings ①.
- Hang the foot brake cylinder to the side.



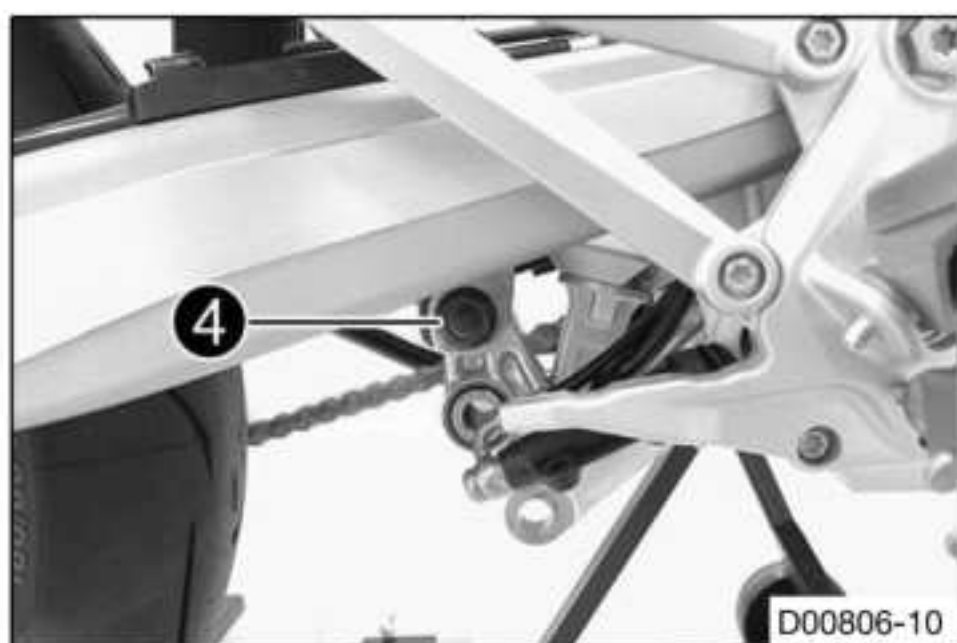
- Remove screw ②.
- Remove fitting ③.



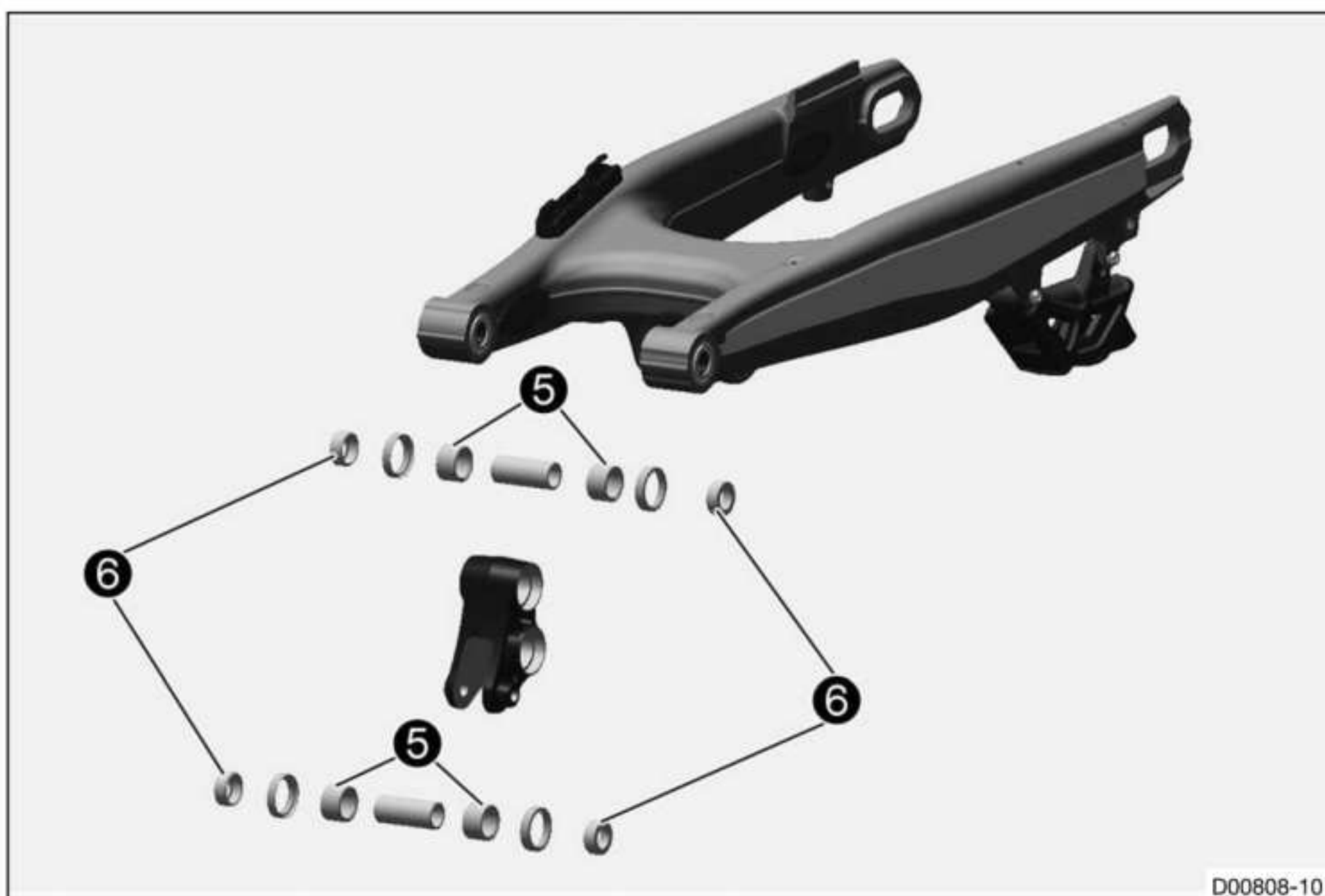
### Info

Raise the wheel slightly to be able to remove the screws more easily.

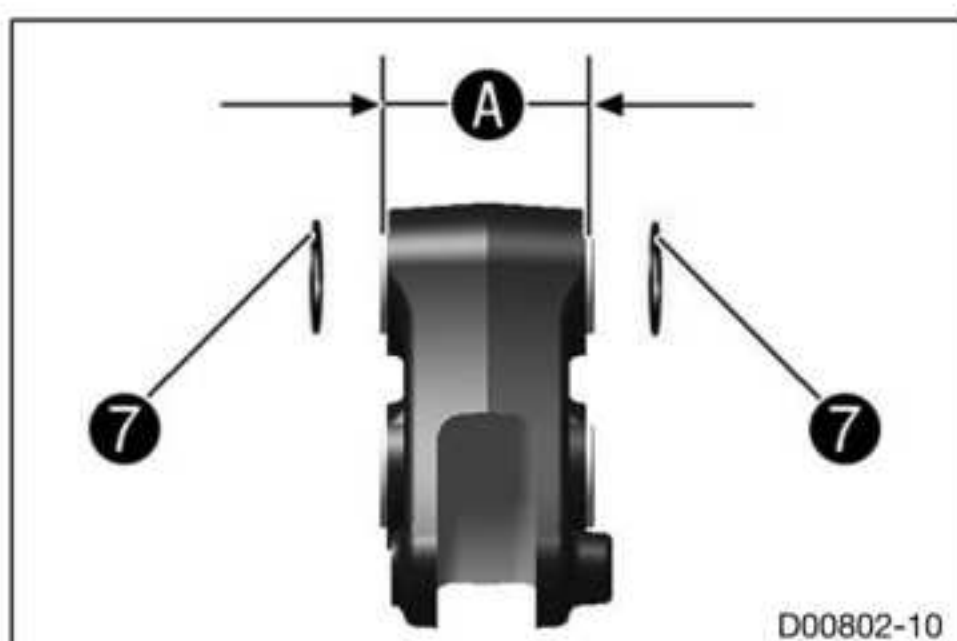
## 9 SHOCK ABSORBER, LINK FORK



- Remove fitting 4.
- Take off the angle lever.



- Check needle bearing 5 for damage and wear.
  - » If there is damage or wear:
    - Change the needle bearings.
- Check spacers 6 for damage and wear.
  - » If there is damage or wear:
    - Change the spacers.
- Check the shaft seal rings for damage and wear.
  - » If there is damage or wear:
    - Change the shaft seal rings.



- Check dimension A.

51.91 ... 52.00 mm (2.0437 ... 2.0472 in)

- » If dimension A is below the specified value:
  - Add the necessary spacing washers 7.