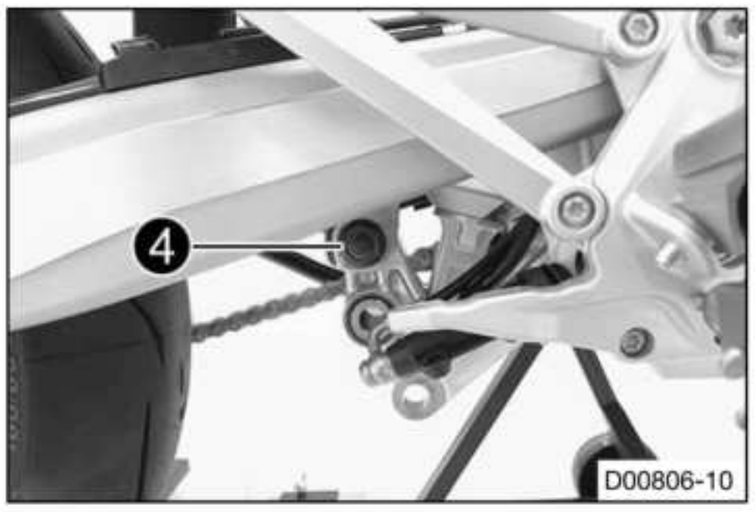
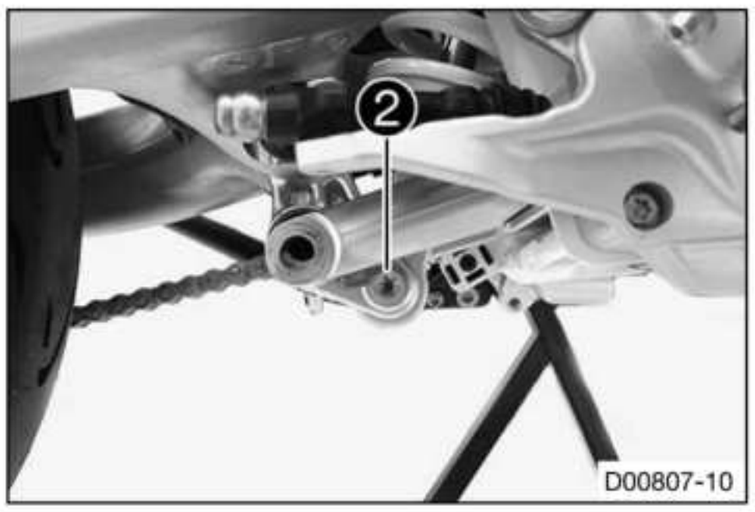


– Position the angle lever.
– Mount the fitting ❹ but do not tighten yet.

Guideline

Nut, angle lever to link fork	M14x1.5	100 Nm (73.8 lbf ft)



– Mount screw ❷ but do not tighten yet.

Guideline

Screw, bottom shock absorber	M10	45 Nm (33.2 lbf ft) **Loctite®243™**

Info
Raise the wheel slightly to be able to mount the screw more easily.

– Position the linkage lever.
– Mount and tighten fitting ❸.

Guideline

Nut, linkage lever to rocker arm	M14x1.5	100 Nm (73.8 lbf ft)

Info
Raise the wheel slightly to be able to mount the screw more easily.

– Tighten screw ❷.

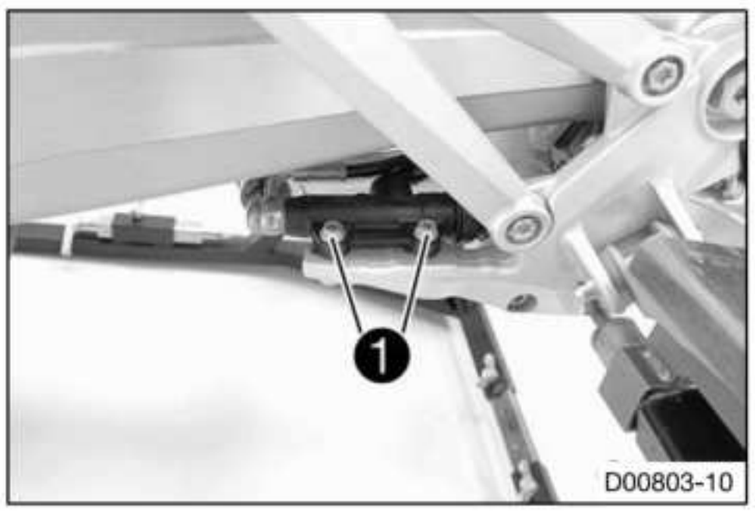
Guideline

Screw, bottom shock absorber	M10	45 Nm (33.2 lbf ft) **Loctite®243™**

– Tighten fitting ❹.

Guideline

Nut, angle lever to link fork	M14x1.5	100 Nm (73.8 lbf ft)



– Position the foot brake cylinder.
– Mount and tighten fittings ❶.

Guideline

Screw connection, foot brake cylinder	M6	10 Nm (7.4 lbf ft)

Finishing work
– Remove the motorcycle from the work stand. (📖 p. 15)
– Check the free travel of the foot brake lever. (📖 p. 161)

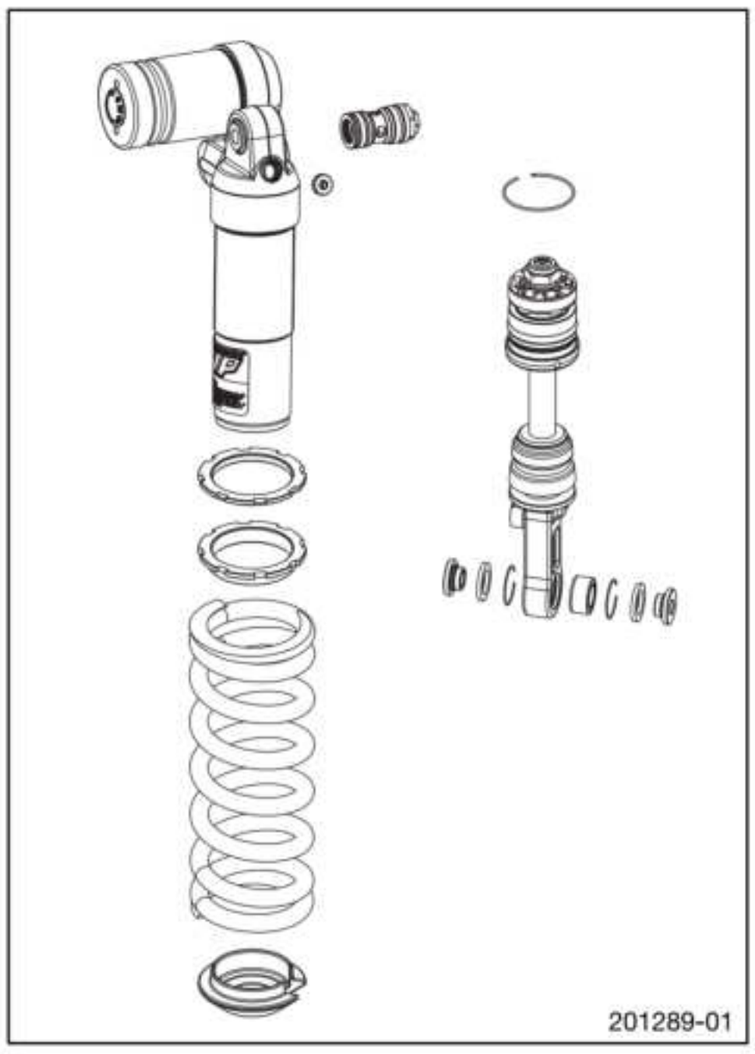
9.15 Servicing the shock absorber

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.

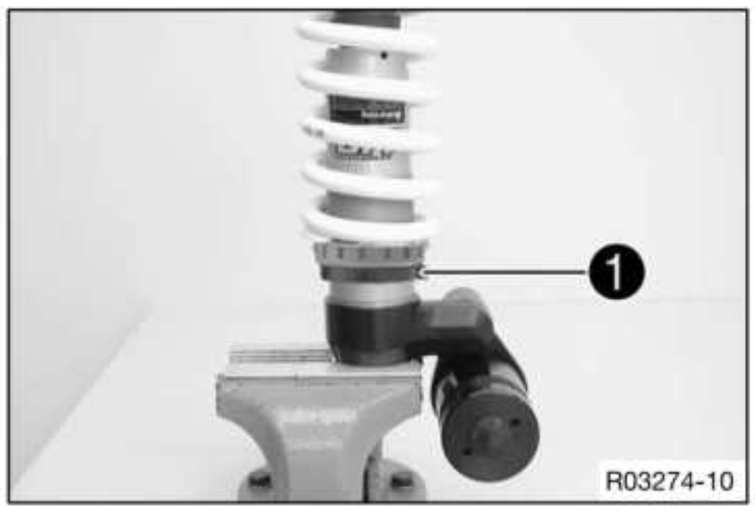


Condition

The shock absorber has been removed.

– Remove the spring. (p. 60)
– Disassemble the damper. (p. 61)
– Disassemble the piston rod. (p. 62)
– Check the damper. (p. 63)
– Remove the heim joint. (p. 64)
– Install the heim joint. (p. 65)
– Assemble the piston rod. (p. 66)
– Assemble the damper. (p. 67)
– Install the spring. (p. 74)

9.16 Removing the spring



Condition

The shock absorber has been removed.

– Clamp the shock absorber into the vise.

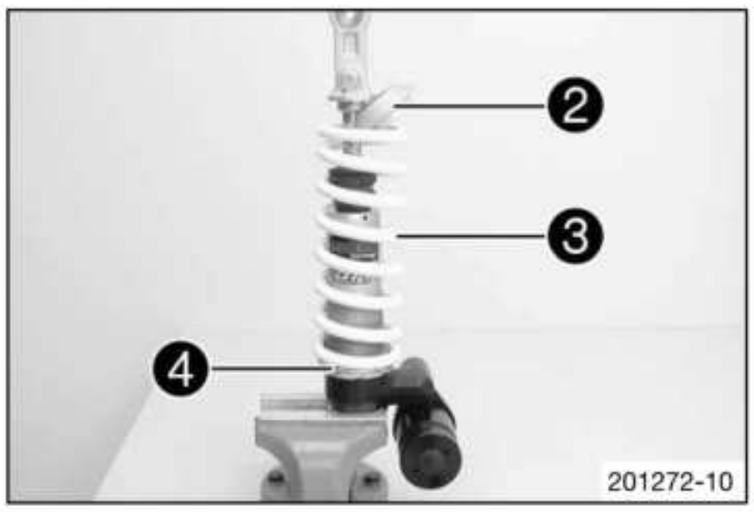
  Guideline

Use soft jaws.

– Measure and note the spring length while the spring is under tension.
– Loosen screw 1.

Hook wrench (T106S) (p. 396)

– Turn the adjusting ring until the spring is completely without tension.

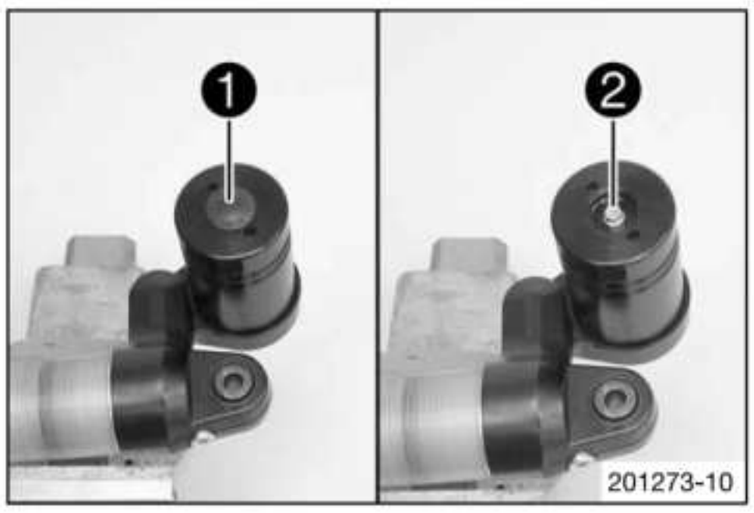


- Remove spring retainer ❷.
- Take off spring ❸ with adjusting ring ❹.

9.17 Disassembling the damper

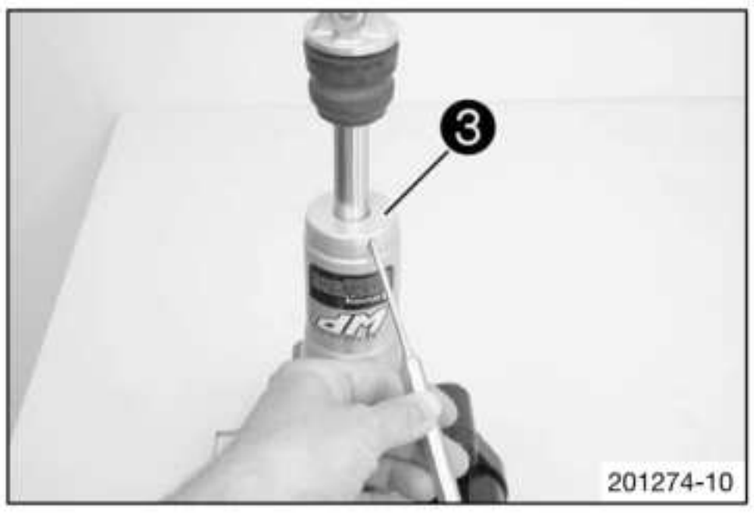
Preparatory work

- Remove the spring. (📖 p. 60)



Main work

- Note down the present state of rebound damping and compression damping.
- Open the adjusters of the rebound and compression damping completely.
- Remove rubber cap ❶ of the reservoir.
- Slowly open screw ❷.
  - ✓ The nitrogen pressure dissipates.



- Clamp the damper in the bench vise.

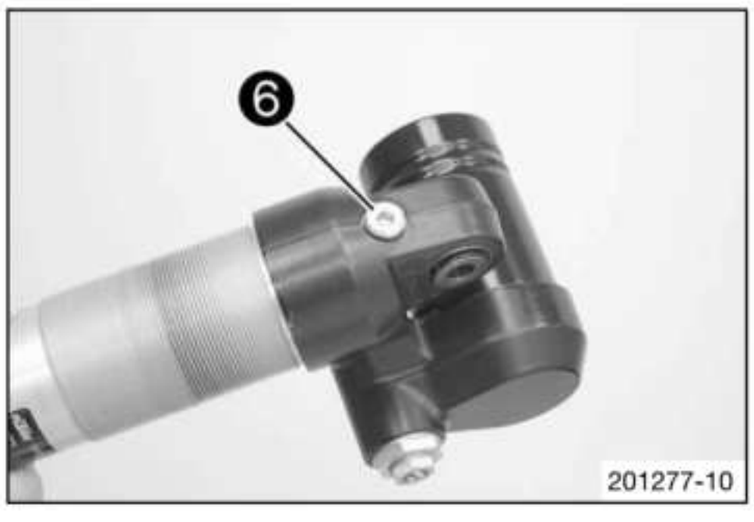
  Guideline

Use soft jaws.

- Remove locking cap ❸.

- Push in seal ring retainer ❹. Remove lock ring ❺.

> **Info**
> Do not scratch the inside surface.



- Remove screw ❻. Let the oil drain.

– Remove the piston rod. Drain the remaining oil.

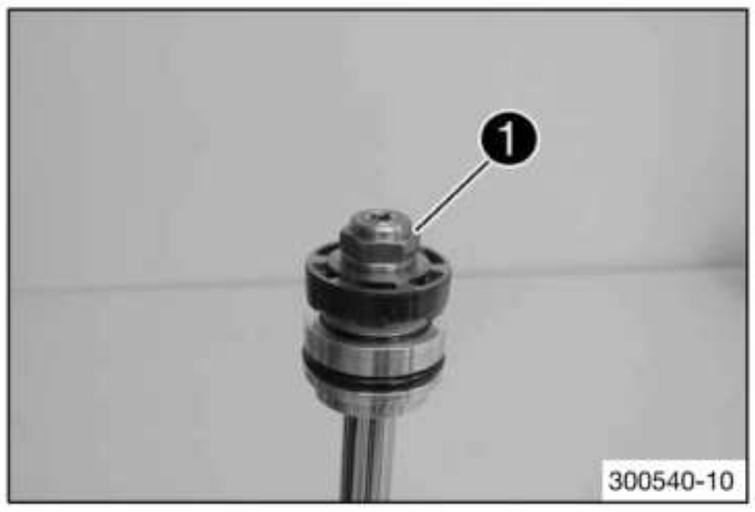
– Remove compression adjuster ❼. Remove the spring, sleeve and piston.

9.18 Disassembling the piston rod

Preparatory work

– Remove the spring. (📖 p. 60)

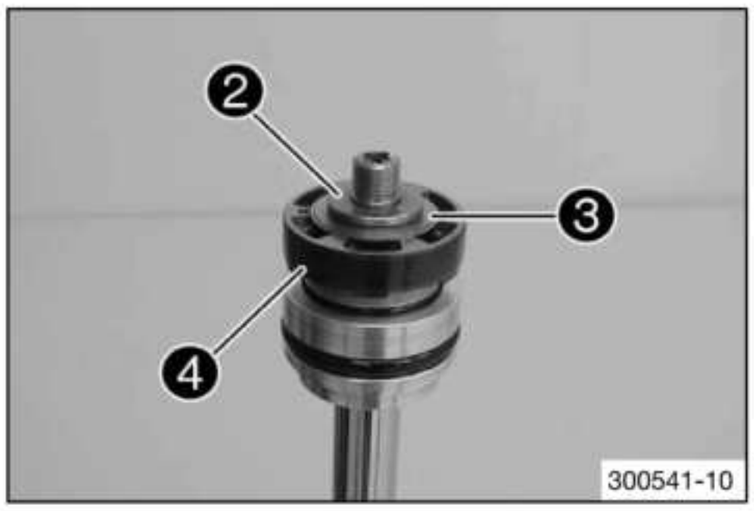
– Disassemble the damper. (📖 p. 61)



Main work

– Clamp the piston rod with the heim joint in a vise.

– Remove nut ❶.

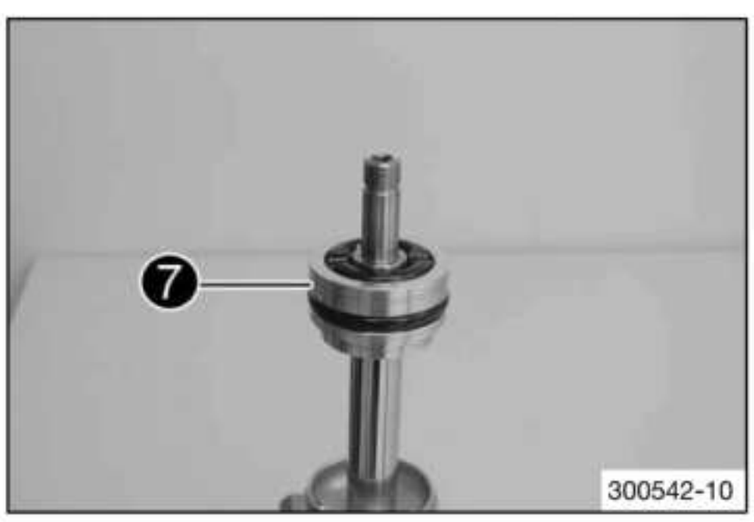


– Remove supporting plate ❷ and rebound shim stack ❸ together with piston ❹.

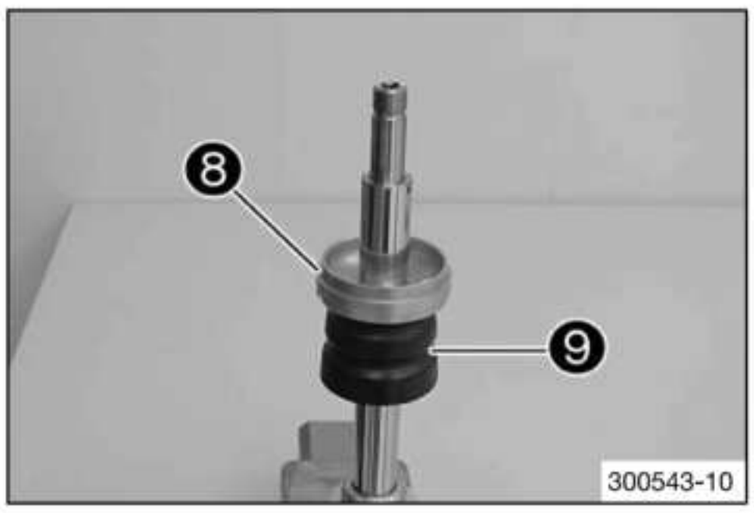
Info
Thread the rebound shim set on a screwdriver and set the parts down together.

– Remove compression shim stack ❻ with supporting plate ❺.

Info
Thread the compression shim stack on a screwdriver and set the parts down together.



– Remove seal ring retainer ❼.



– Remove locking cap ❽ and rubber buffer ❾.

9.19 Checking the damper

Condition
The damper has been disassembled.

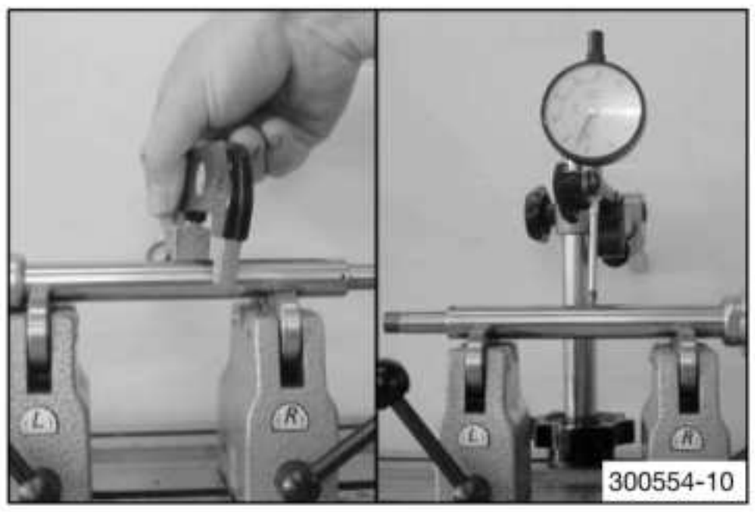
– Measure the inside diameter at both ends and in the center of the damper cartridge.

Damper cartridge	
Diameter	46.10 mm (1.815 in)

» If the measured value is greater than the specified value:
  – Change the damper cartridge.

– Check the damper cartridge for damage and wear.

» If there is damage or wear:
  – Change the damper cartridge.



– Measure the diameter of the piston rod.

Piston rod	
Diameter	≥ 17.95 mm (≥ 0.7067 in)

» If the specification is not reached:
– Change the piston rod.

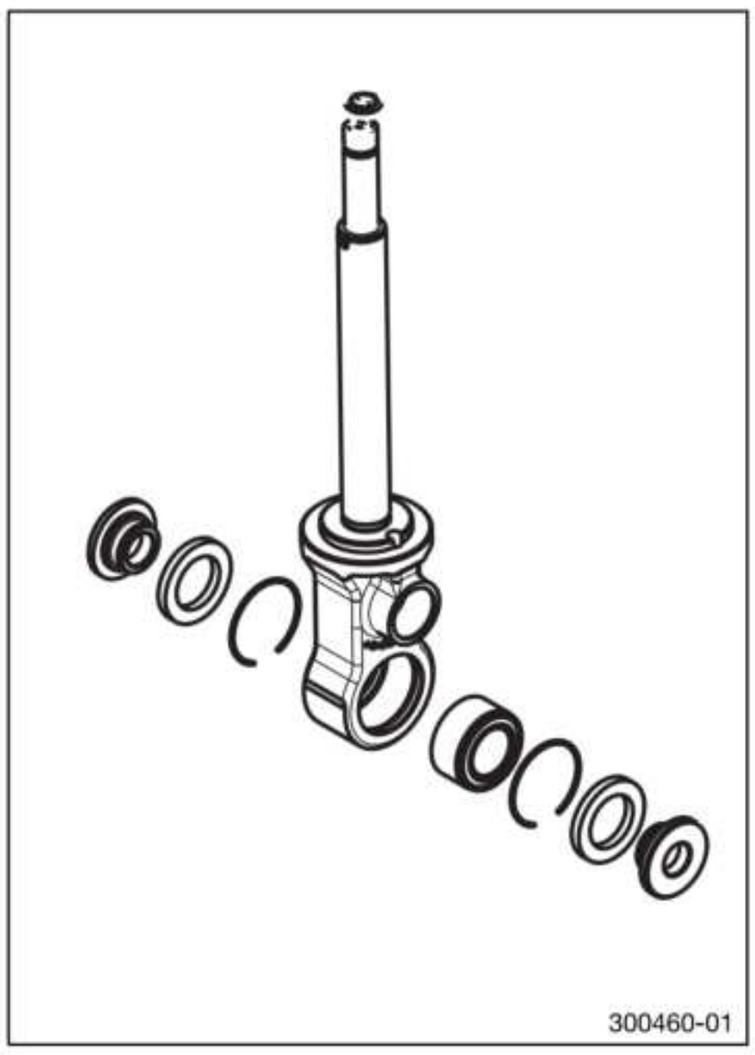
– Measure the run-out of the piston rod.

Piston rod	
Run-out	≤ 0.03 mm (≤ 0.0012 in)

» If the measured value is greater than the specified value:
– Change the piston rod.

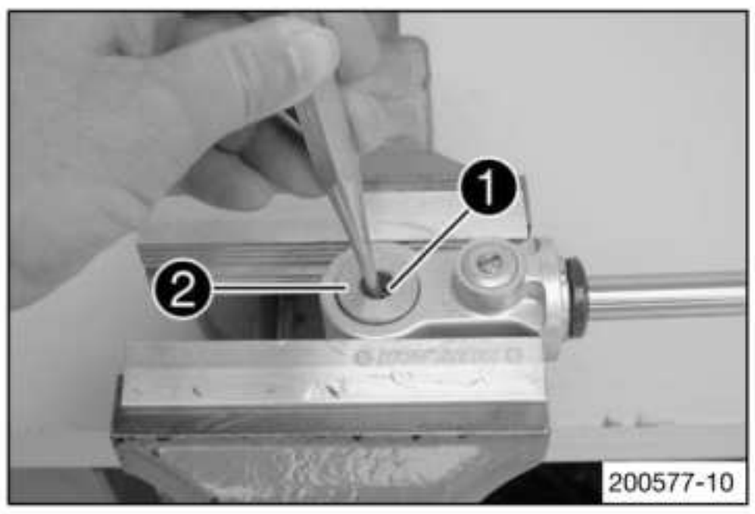
– Check the piston rod for damage and wear.
» If there is damage or wear:
– Change the piston rod.

– Check the heim joint for damage and wear.
» If there is damage or wear:
– Change the heim joint.



9.20 Removing the heim joint

Condition
The shock absorber has been removed.



– Clamp the shock absorber into the vise.
Guideline

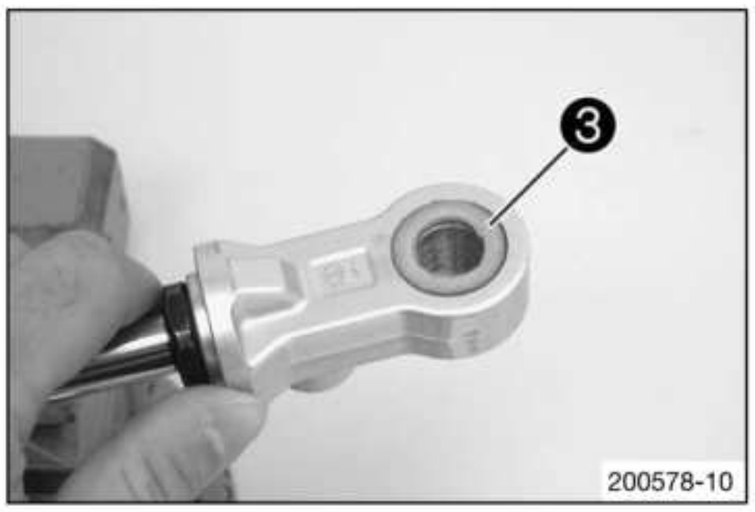
Use soft jaws.

– Remove collar bushing ❶ of the heim joint.

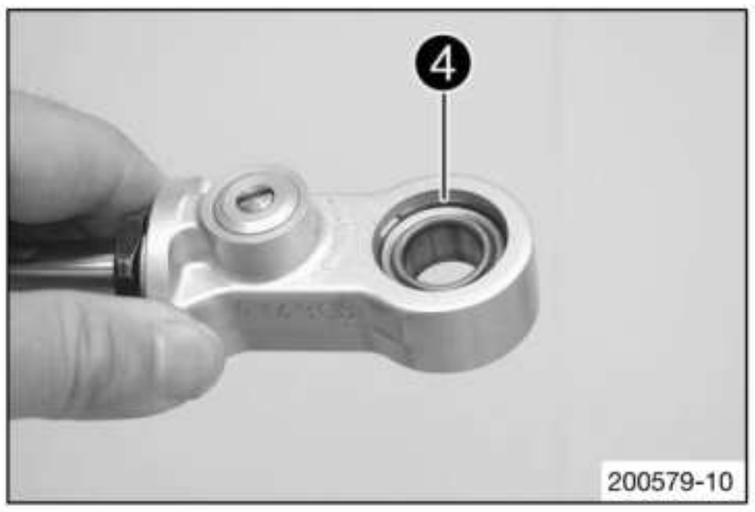
Drift (T120) (📖 p. 396)

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

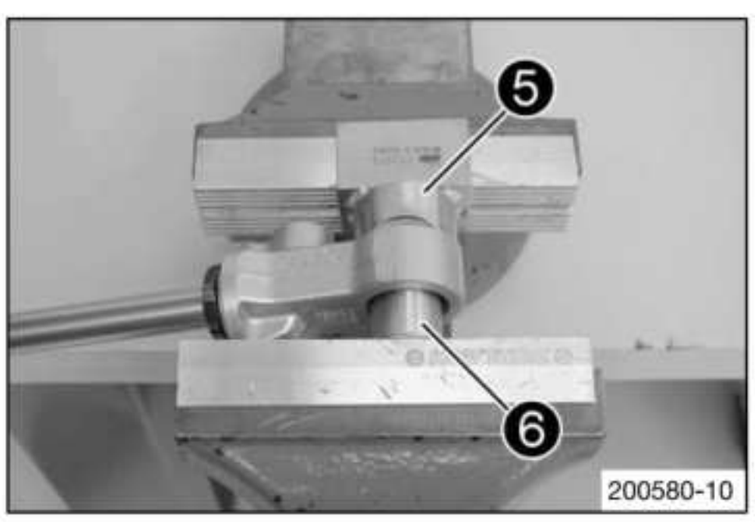
Drift (T120) (📖 p. 396)



– Remove seal ❸ on both sides.



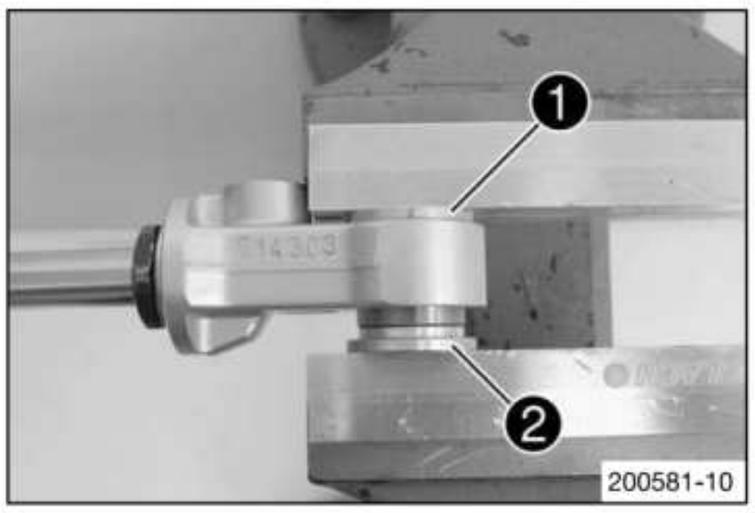
– Remove lock ring ❹ on both sides.



– Place special tool ❺ underneath and press out the heim joint with special tool ❻.

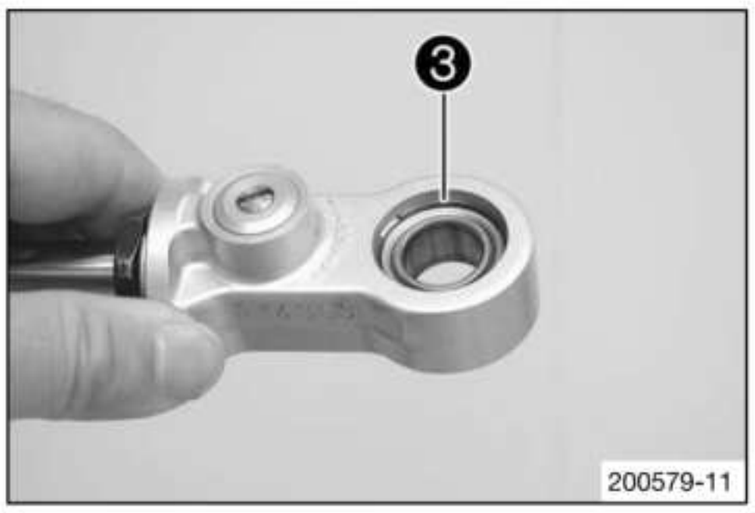
Pressing tool (T1207S) (📖 p. 397)

9.21 Installing the heim joint

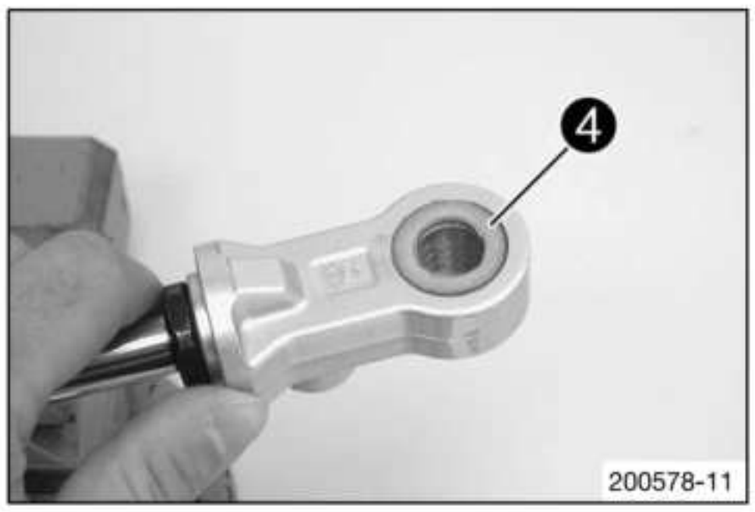


– Place special tool ❶ underneath and push the heim joint to the middle using special tool ❷.

Pressing tool (T1206) (📖 p. 397)
Pressing tool (T129) (📖 p. 397)

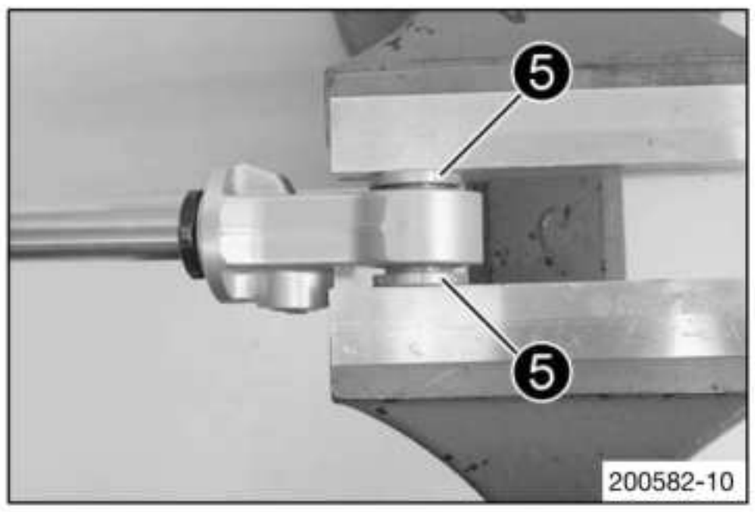


– Mount lock ring ❸ on both sides.



– Mount and grease seal ring ❹ on both sides.

Lubricant (T158) (📖 p. 378)

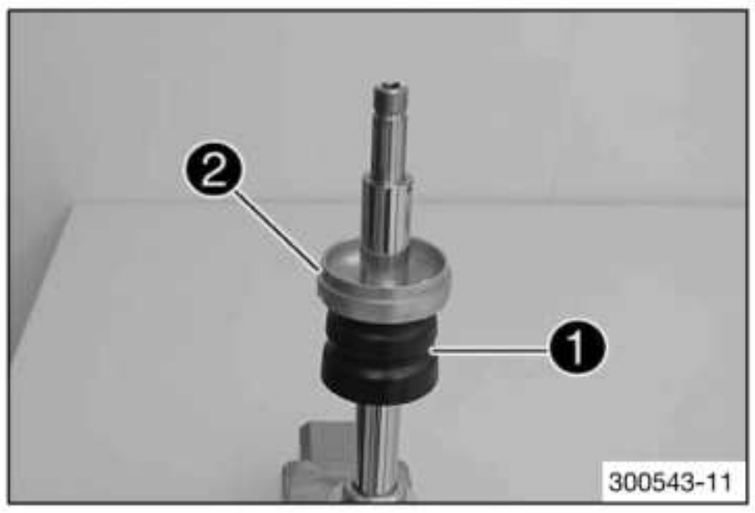


– Press in both collar bushings ❺ of the heim joint.

9.22 Assembling the piston rod

Preparatory work

– Check the damper. (📖 p. 63)



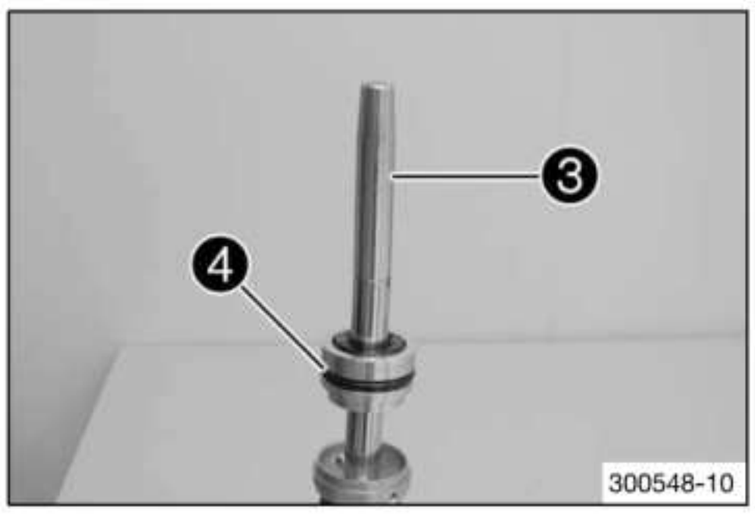
Main work

– Clamp the piston rod with the heim joint in a vise.

Guideline

Use soft jaws.

– Mount rubber buffer ❶ and locking cap ❷.



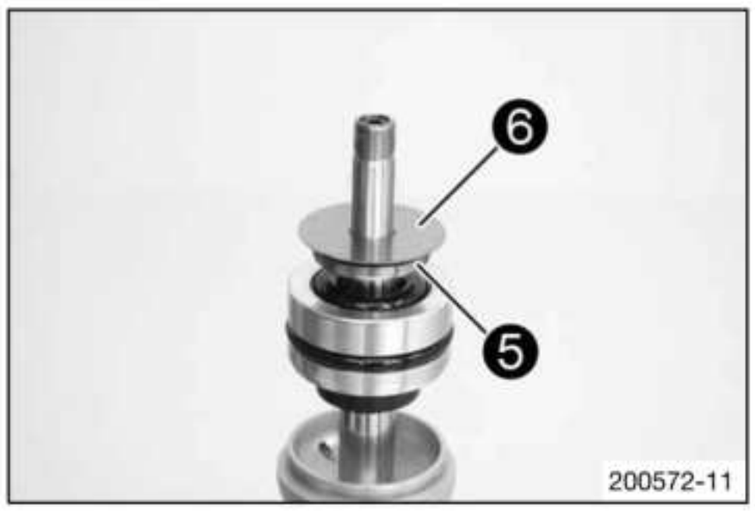
– Position special tool ❸ on the piston rod.

Mounting sleeve (T1515) (📖 p. 399)

– Grease the seal ring and push seal ring retainer ❹ on to the piston rod.

Lubricant (T625) (📖 p. 378)

– Remove the special tool.

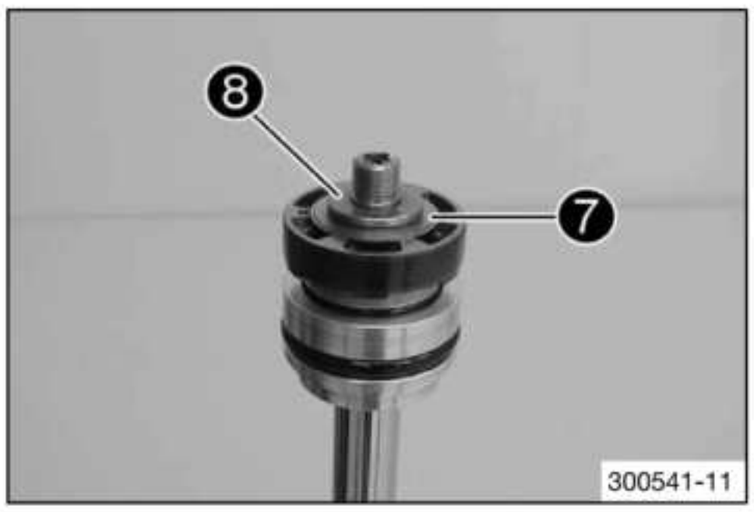


– Mount supporting plate ❺ with the rounded side facing downward.
– Mount the compression shim stack ❻ with the smaller shims facing downward.

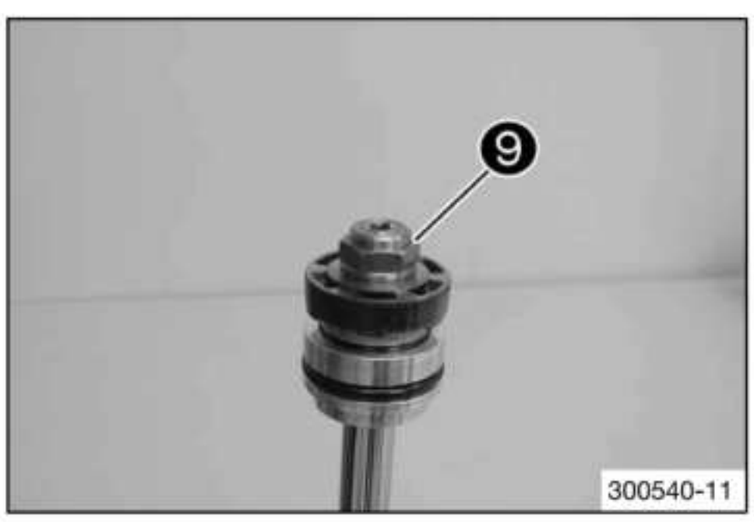
- Sand both sides of the piston on a surface plate using 1200-grit sandpaper.
- Clean the piston.
- Assemble the piston.

Guideline

View A	Piston from above
View B	Piston from below



- Mount the rebound shim stack 7 with the smaller shims facing upward.
- Install supporting plate 8.



- Mount and tighten nut 9.

Guideline

Piston rod nut	M12x1	40 Nm (29.5 lbf ft)

9.23 Assembling the damper

Preparatory work

- Check the damper. (📖 p. 63)
- Assemble the piston rod. (📖 p. 66)

9 SHOCK ABSORBER, LINK FORK

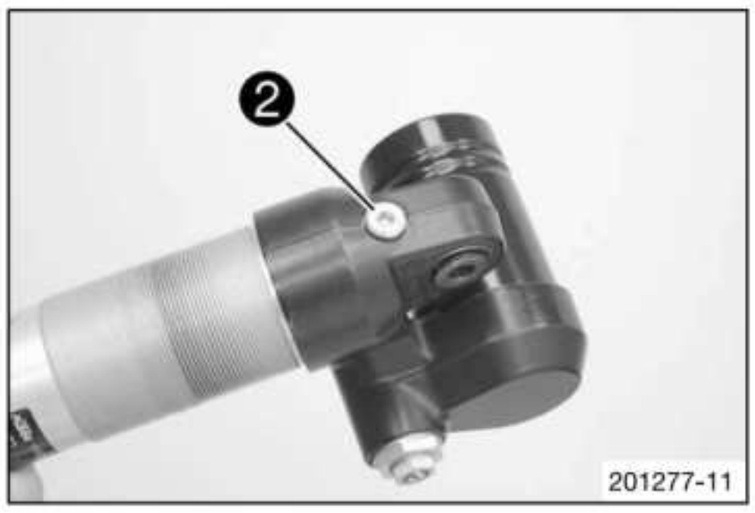
Main work

– Push the spring and sleeve onto the compression adjuster. Mount the piston.

– Mount and tighten compression adjuster ❶.

Guideline

Compression adjuster	M26x1	30 Nm (22.1 lbf ft)



– Mount and tighten screw ❷.

Guideline

Filling port screw	M10x1	14 Nm (10.3 lbf ft)

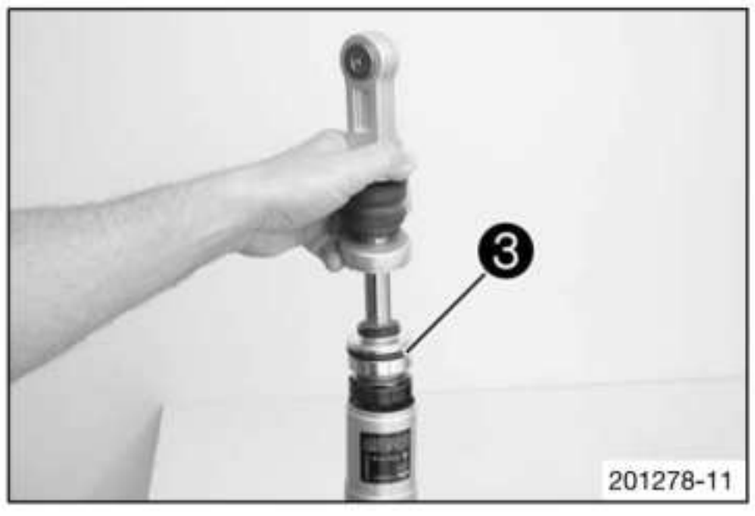
– Clamp the damper in the bench vise.

Guideline

Use soft jaws.

– Fill the damper cartridge about half full.

Shock absorber fluid (SAE 2.5) (50180751S1) (p. 377)



– Grease O-ring ❸ of the seal ring retainer.

Lubricant (T158) (p. 378)

– Mount the piston rod carefully.