

Workshop Manual - Add/Remove spacers in Air Spring cartridge

SAFETY PRECAUTIONS

General Warnings

Note!

When working with the Öhlins product, always read the Vehicle Service Manual.

Note!

The shock absorber/front fork/steering damper is an important part of the vehicle and will affect the stability.

Note!

Read and ensure you understand the information in this manual and other technical documents provided by Öhlins, before using the product.

Note!

Öhlins Racing AB can not be held responsible for any damage to the shock absorber/front fork/steering damper, vehicle, other property or injury to persons, if the instructions for mounting, usage and maintenance are not followed exactly.

Warning!

After installing the Öhlins product, take a test ride at low speed to ensure your vehicle has maintained stability.

Warning!

If the suspension makes an abnormal noise, or the function is irregular, or if you notice any leakage from the product, stop the vehicle immediately and return the product to an Öhlins Service Centre.

Warning!

The product warranty shall only apply if the product has been operated and maintained in accordance with recommendations in this manual. If you have any questions regarding usage, service, inspection and/or maintenance please contact Öhlins.

Note!

Before working on the product make sure that the vehicle is washed and cleaned properly. Do not use alcobased products on the outside or inside of the product.

Product Specific Warnings

Warning!

This product was developed and designed exclusively for a specific vehicle model and shall only be installed on the intended vehicle model in its original condition as delivered from the vehicle manufacturer.

Warning!

This product is pressurized. Do not open, service or modify this product without proper education (authorized Öhlins dealer/distributor) and proper tools.

Caution!

Do not use a pressure washer or a power washer when cleaning the fork.

SAFETY SYMBOLS

In this manual, mounting instructions and other technical documents, important information concerning safety is distinguished by the following symbols:



The Safety Alert Symbol means: Warning! Your safety is involved.

Warning!

The Warning Symbol means: Failure to follow warning instructions can result in severe or fatal injury to anyone working with, inspecting or using the shock absorber/front fork, or to bystanders.

Caution!

The Caution Symbol means: Special precautions must be taken to avoid damage to the shock absorber.

Note!

The Note Symbol indicates information that is important regarding procedures.

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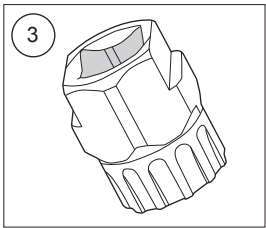
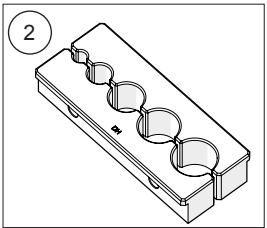
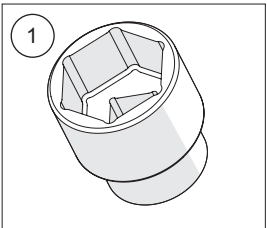
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ADD/REMOVE SPACERS IN AIR SPRING CARTRIDGE

Tools

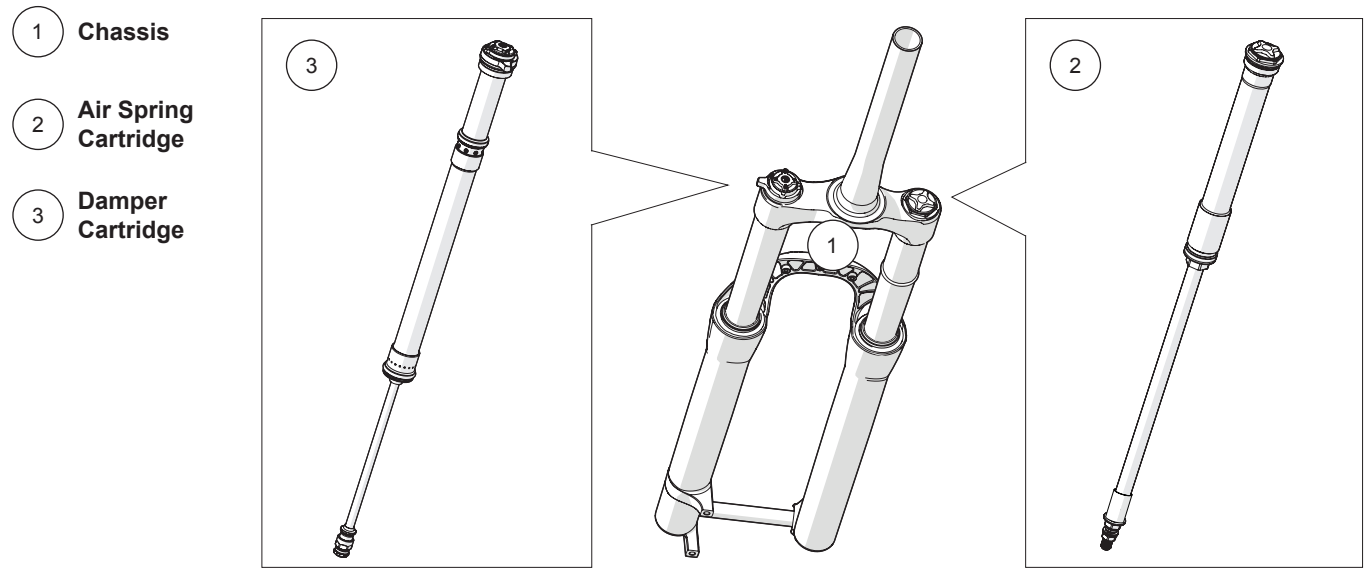
1	18860-01	Hex socket 28 mm
2	19245-01	Multi clamp TTX18
3	-	Cassette locking tool



Oil, grease, thread locker and sealant

Air spring lubrication fluid	01337-06 - Renep CGLP 220 Air spring lube 0.6L
Function grease	01338-22 - Renolit SI 410 M Silicone grease 225g
Loctite 243	01791-03

Overview - General layout



ADD/REMOVE SPACERS IN AIR SPRING CARTRIDGE

Remove air spring from lower legs (RXF34/RXF36/RXF38)

👁 Note!

Record the rebound adjuster setting and the pressure in the positive air chamber and ramp up chamber before service. We recommend using a bike stand to clamp the steering tube when working on the fork.

1. Thoroughly clean the outside of the fork from dirt or grit. Place the fork in a bike stand according to picture with air spring side pointing upwards and the fork on the right hand side of the clamp jaws.

2. Release the air from the positive air chamber at the top and the ramp up chamber at the bottom.

3. Use a socket wrench with a 12/14 mm deep hex socket to remove the nut and the washer (for 12 mm) on the lower air valve.

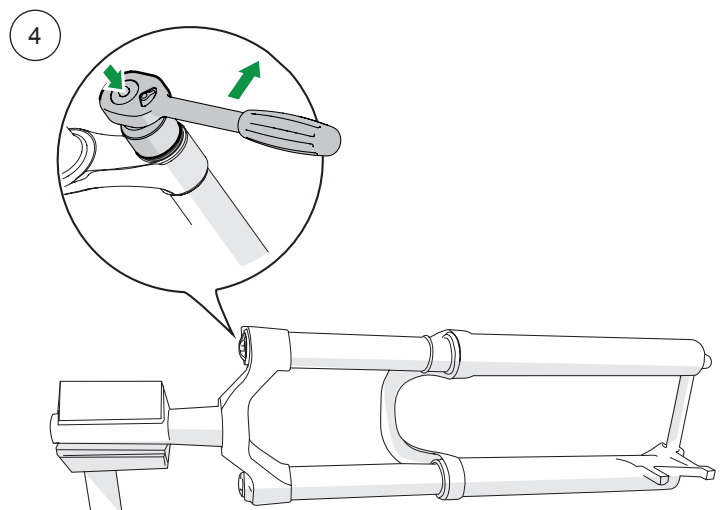
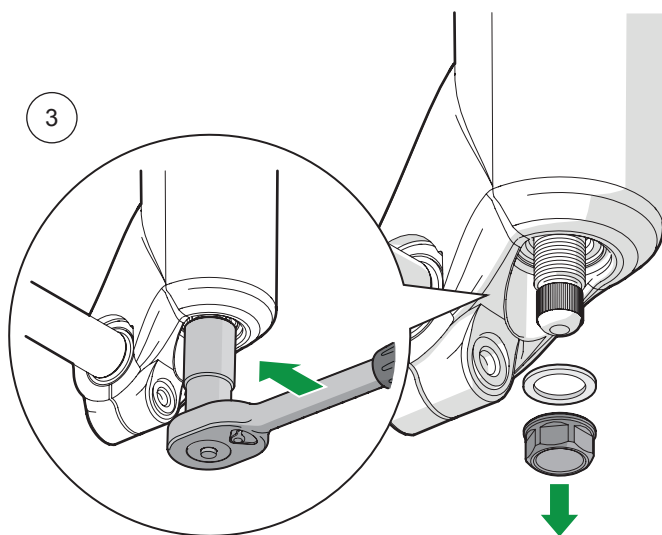
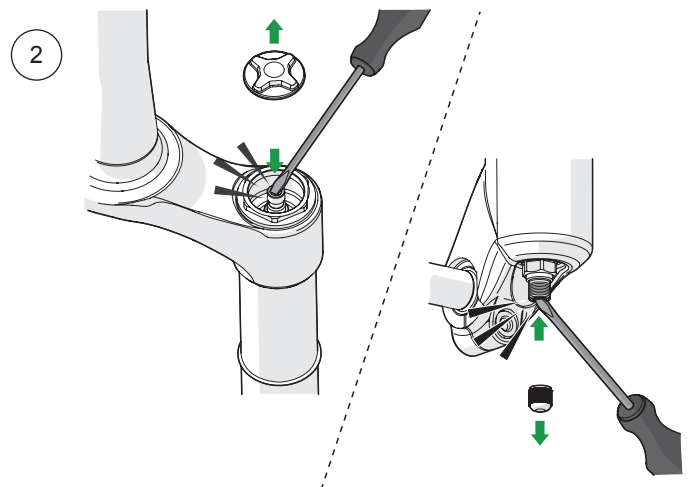
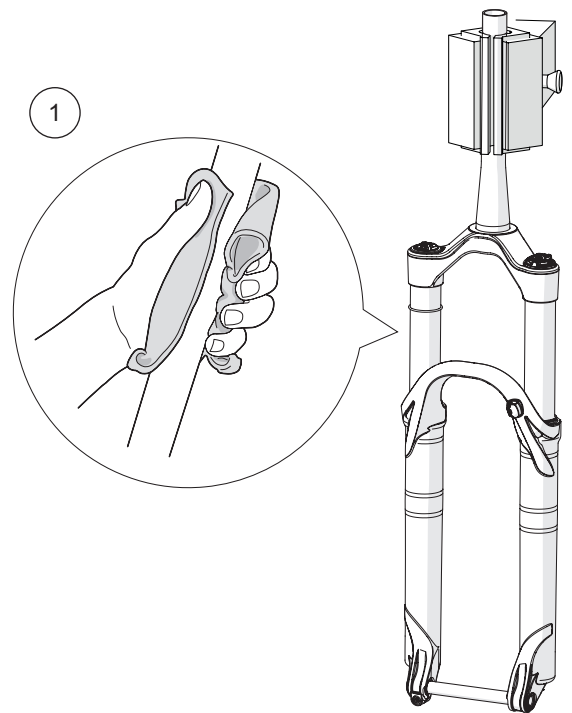
4. Use a socket wrench with a hex socket 28 mm (18860-01) or a cassette locking tool to loosen the air spring.

⚠ Caution!

Do not use an adapter between wrench and socket, as this will increase the risk of damaging the anodized finish of the top cap.

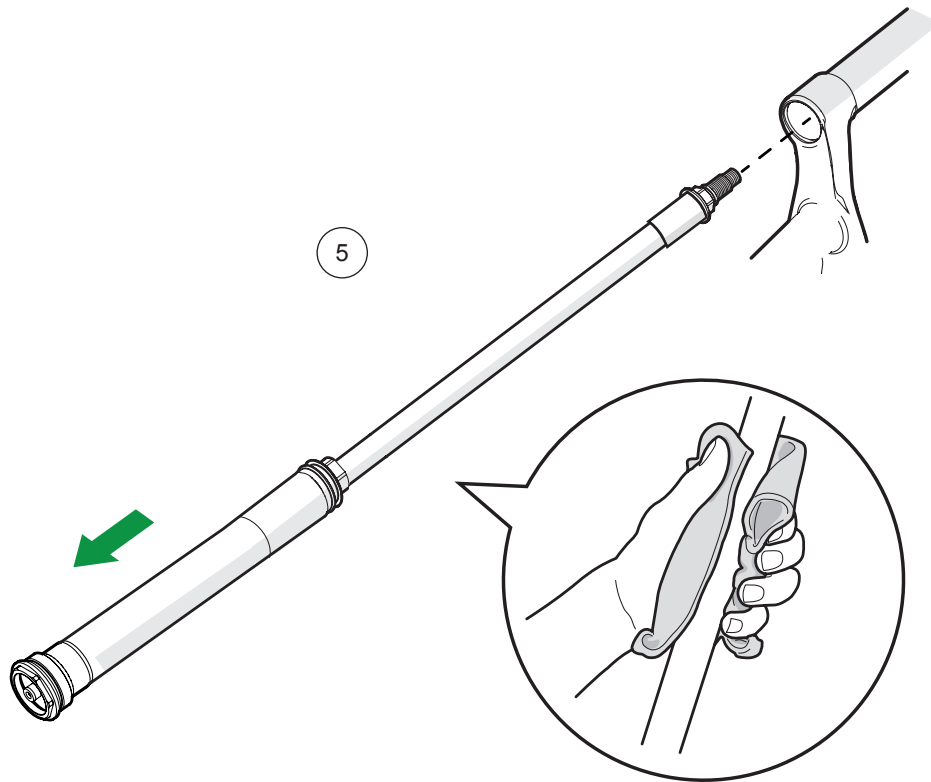
👁 Note!

When removing the Air Spring cartridge, it is easy to damage the Top Cap. Put pressure on the wrench while unthreading the Top Cap.



ADD/REMOVE SPACERS IN AIR SPRING CARTRIDGE

5. Slide the air spring off the stanchion tube.



ADD/REMOVE SPACERS IN AIR SPRING CARTRIDGE

Remove air spring from lower legs (DH38)

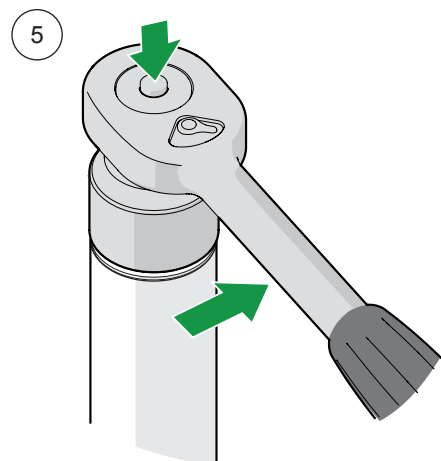
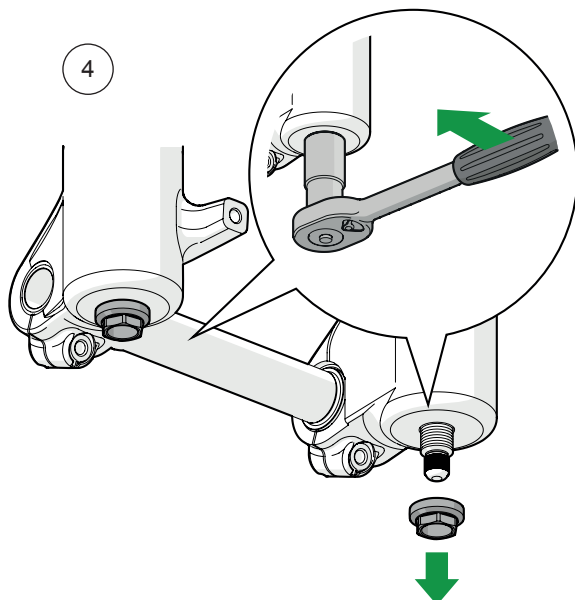
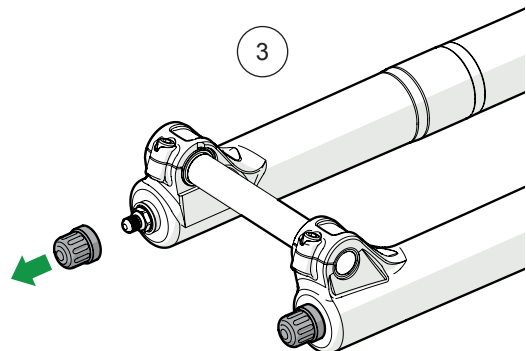
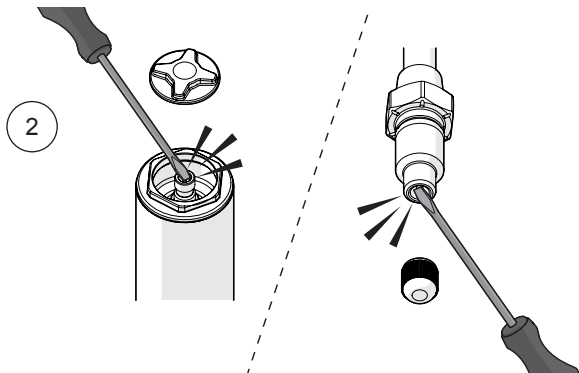
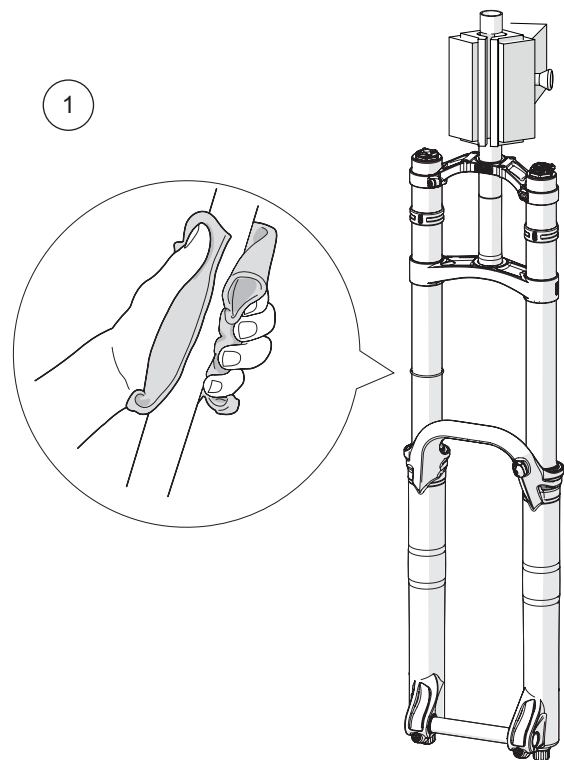
👁 Note!

Record the rebound adjuster setting and the pressure in the positive air chamber and ramp up chamber before service. We recommend using a bike stand to clamp the steering tube when working on the fork.

1. Thoroughly clean the outside of the fork from dirt or grit.
2. Release the air from the positive air chamber at the top and the ramp up chamber at the bottom.
3. Remove the golden bash cap for the air spring side by unscrewing it by hand.
4. Remove the nut on the air spring side by using a socket wrench with a 14 mm deep hex socket.
5. Use a socket wrench with a hex socket 28 mm (18860-01) or a cassette locking tool to loosen the air spring to loosen the air spring.

👁 Note!

When removing the air spring cartridge, it is easy to damage the top cap. Put pressure on the wrench while unthreading the top cap. If needed use tripple clamp to hold stanchion tube.

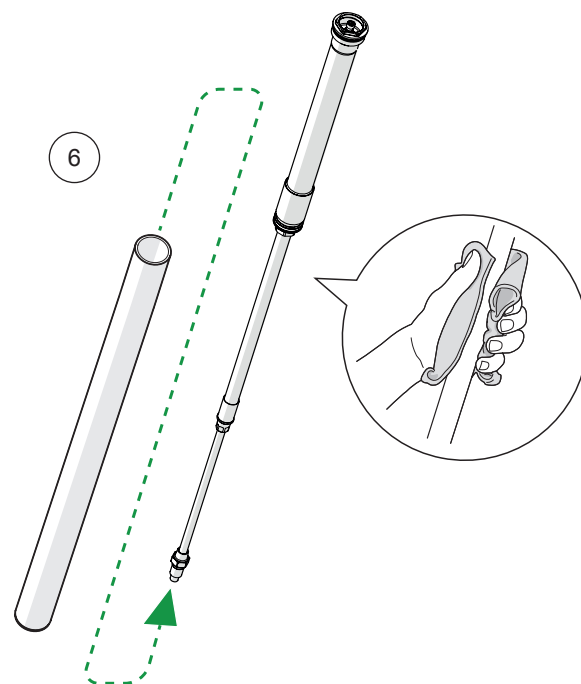


ADD/REMOVE SPACERS IN AIR SPRING CARTRIDGE

6. Slide the air spring off the stanchion tube.

⚠ Warning!

Make sure the pressure inside the air spring is removed.



ADD/REMOVE SPACERS IN AIR SPRING CARTRIDGE

👁 **Note!**

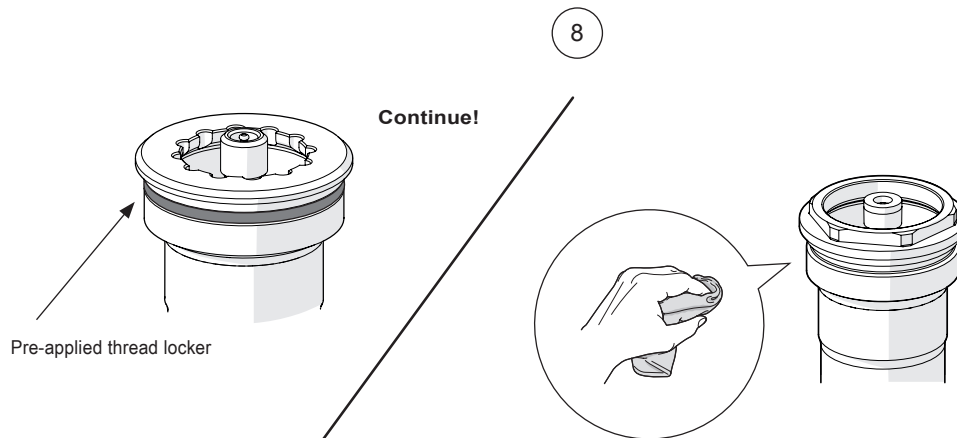
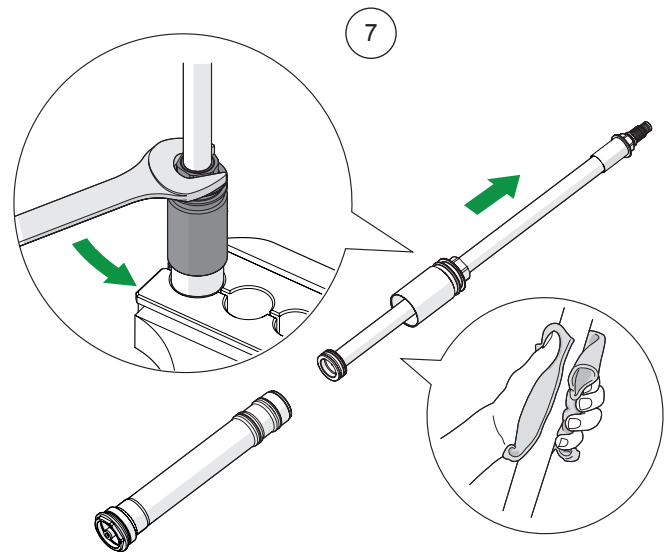
Clean all parts using disc brake cleaner and a rag to remove dirt, old grease and thread sealant before reassembling.

👁 **Note!**

Use a vise and the appropriate shaft clamps when servicing the front fork.

7. Use a 19/24 mm wrench to loosen the seal head. Slide the cylinder tube off the air spring.

8. If you used a cassette tool to undo the top cap leave the pre-applied thread locker(reusable) and continue. If you used a 28 mm socket clean top cap threads (male and female) using a rag covered by degreaser or brake cleaner. Use a nylon bristled brush to remove any remaining residue from threads.

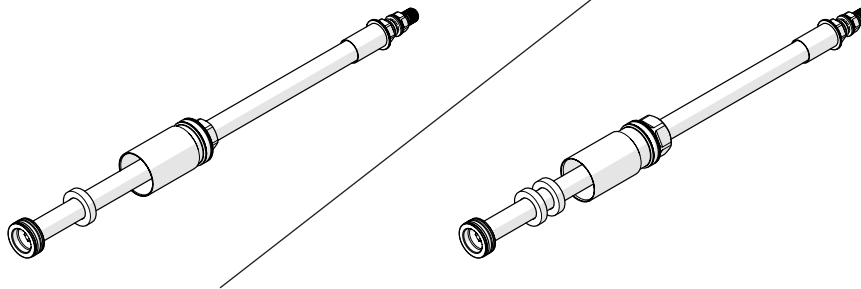


ADD/REMOVE SPACERS IN AIR SPRING CARTRIDGE

Maximum spacers allowed

For golden/silver seal head without scraper: 1 spacer

For blue seal head with scraper: 2 spacers



Do not exceed the number of spacers since this will cause damage to your fork!

No spacer on the golden/silver seal head without scraper equals 1 spacer in the blue seal head with scraper.

Check for spacer/spacers

1. Check inside the seal head for spacers.

⚠ Caution!

Use protection glasses when working with compressed air!

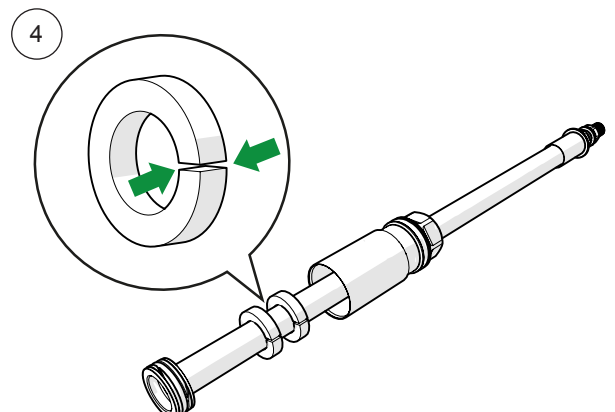
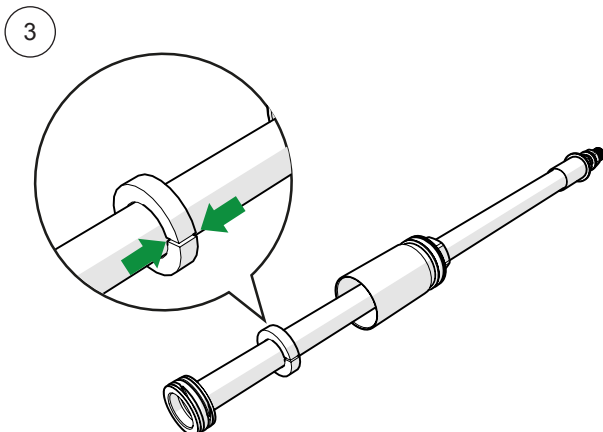
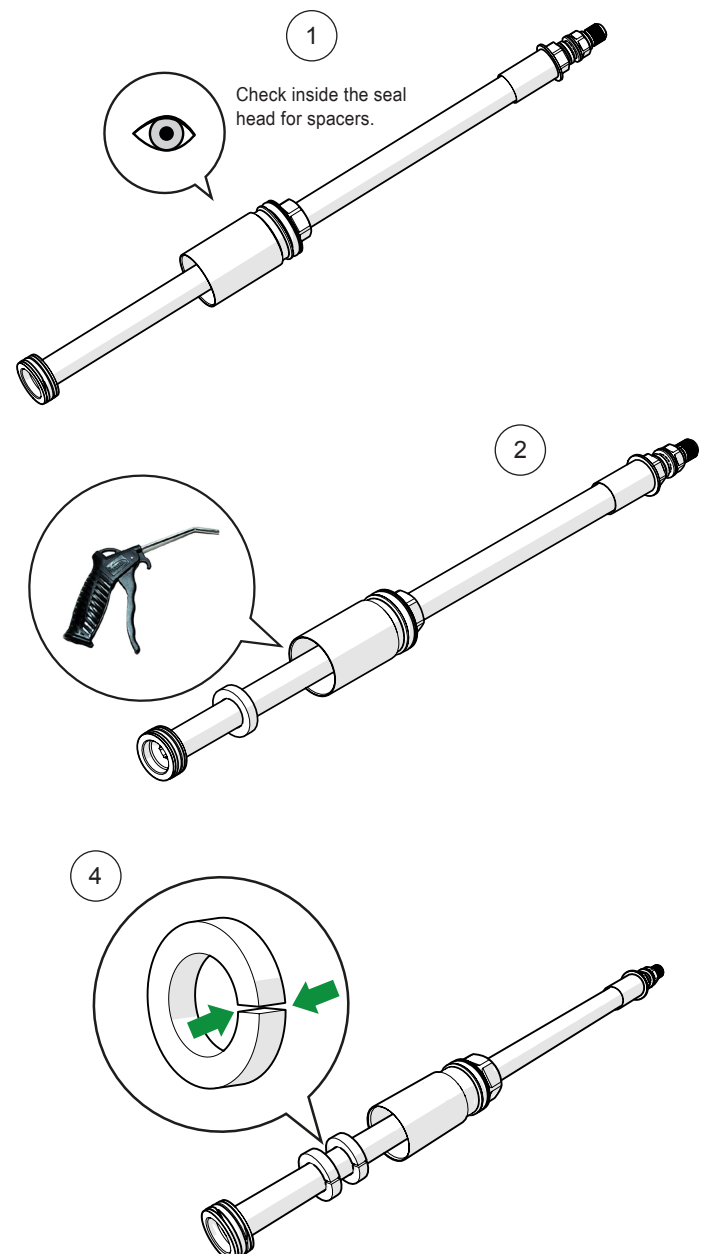
2. To move the spacer inside the seal head use compressed air to move the spacer along the piston rod.

To remove a spacer

3. With the spacer(s) outside the seal head, locate the slot in the spacer and then pull the ends apart to make the slot wider to remove it from the piston rod.

To add a spacer

4. Locate the slot in the spacer, pull the ends apart and place the spacer on the piston rod.



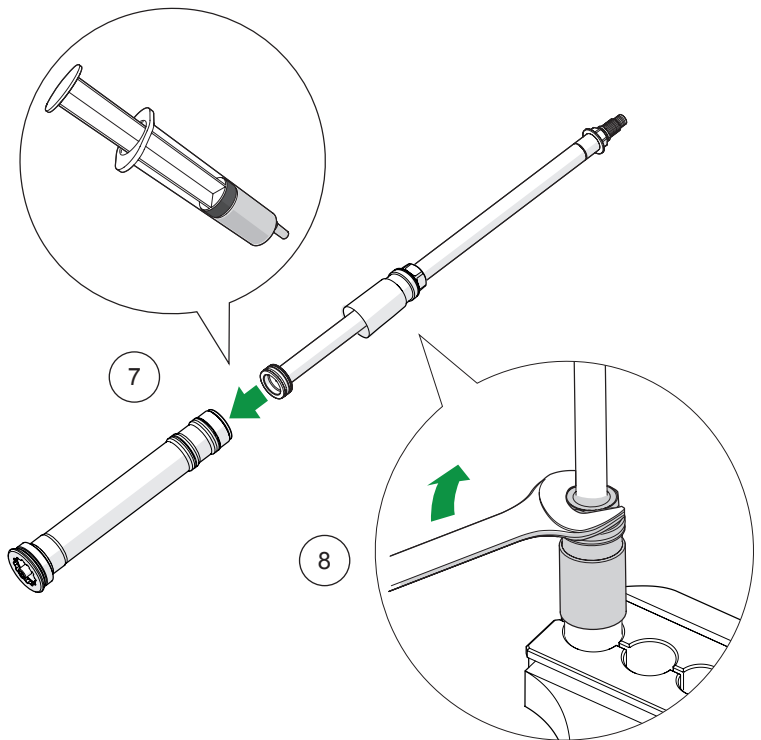
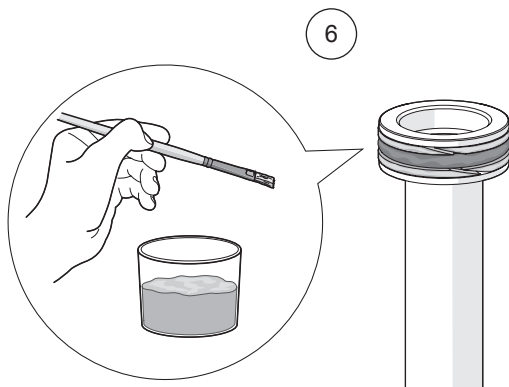
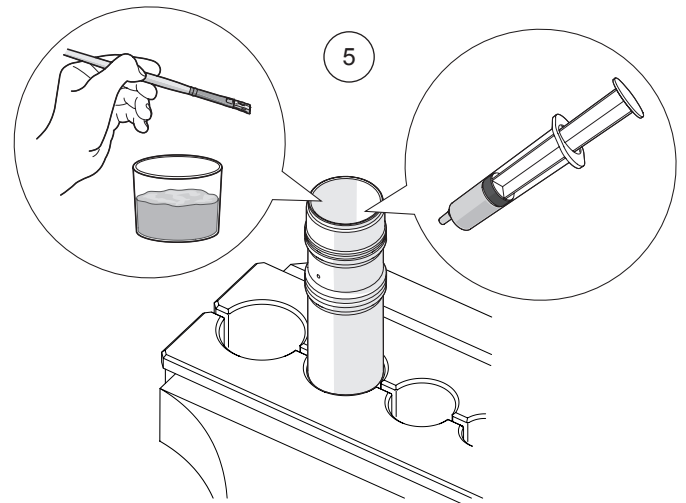
ADD/REMOVE SPACERS IN AIR SPRING CARTRIDGE

5. Apply 2 ml of function grease at the inside of the cylinder tube (smeared around). Add 0,5 ml of air spring lubrication fluid distributed on top of the grease.

6. Apply a thin layer of function grease on the o-ring and the back-up rings on the main piston.

7. Insert main piston in the cylinder tube and add 0,5 ml of air spring lubrication fluid inside the cylinder tube. Slide the seal head onto the cylinder tube and screw them together hand-tight.

8. Use a 19/24 mm torque wrench to tighten the seal head to 10 Nm.



ADD/REMOVE SPACERS IN AIR SPRING CARTRIDGE

Reinstall air spring cartridge (RXF34/RXF36/RXF38)

👁 Note!

If the 28 mm hex socket was used to loosen the top cap perform step 1 applying loctite. Skip step 1 if the cassette lock ring tool was used since the top cap has preapplied loctite.

1. Apply blue Loctite 243 to the first (lower) two (2) threads of the top cap (male).

2. Reinstall the Air spring cartridge into the stanchion tube.

3. Use a torque wrench with a 28 mm hex socket (18860-01) or a cassette lockring tool to tighten the top cap to 32 Nm.

👉 Caution!

Do not use an adapter between wrench and socket, as this will increase the risk of damaging the anodized finish of the top cap.

4. Wipe off eventual excessive Loctite 243.

Important!

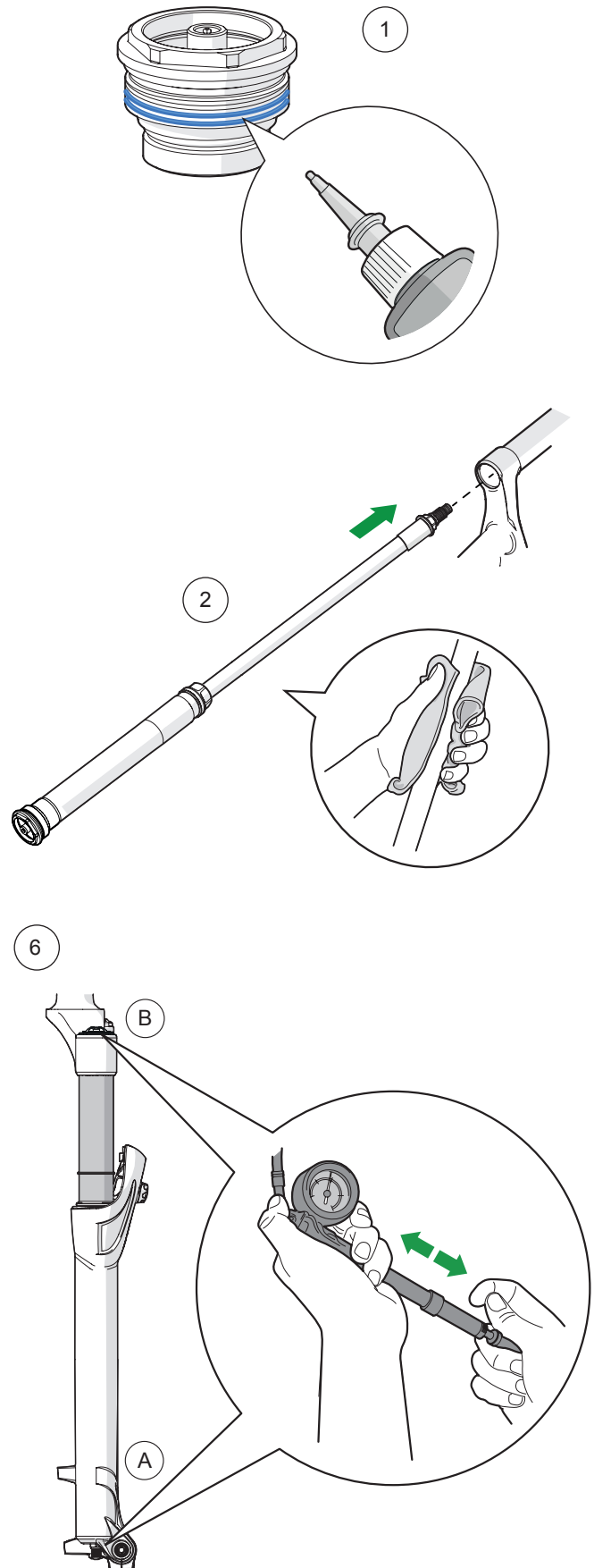
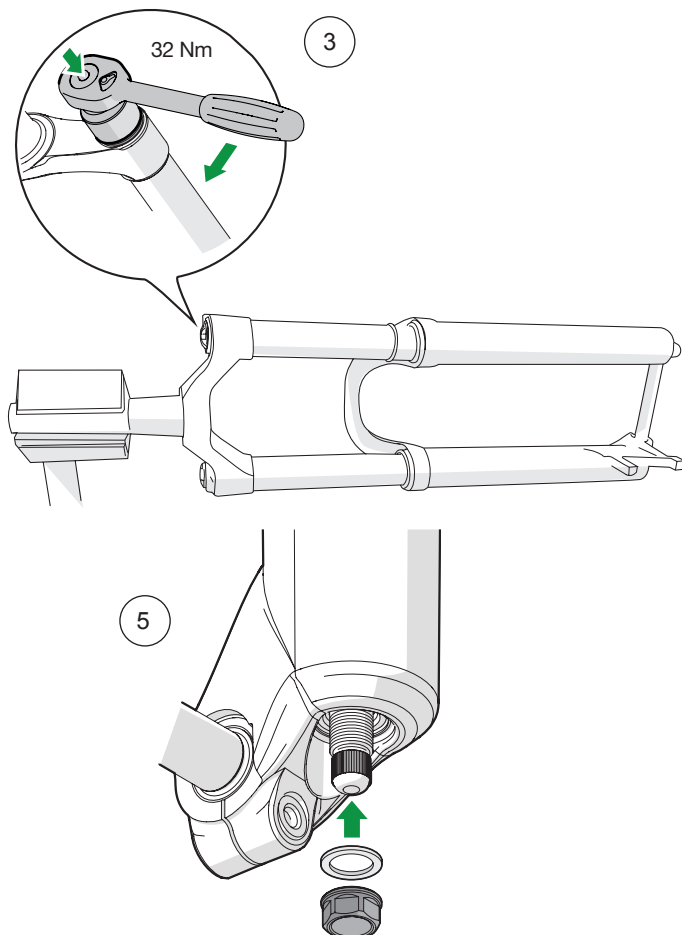
Leave the Loctite to cure for 24 hours before riding.

5. Refit the lower valve nut and the washer (for M10 nut). Use a torque wrench with a 12/14mm hex socket to tighten the nut.
Torque: 10 Nm

6. Inflate the ramp up chamber (A) at the bottom and then the positive air chamber (B) at the top to the desired air pressures.

👉 Caution!

Inflate the ramp up chamber (A) at the bottom first.



ADD/REMOVE SPACERS IN AIR SPRING CARTRIDGE

Reinstall Air spring cartridge (DH38)

1. Inflate the ramp up chamber (A) at the bottom and the positive air chamber (B) at the top to the desired air pressures.

⚠ Caution!

Inflate the ramp up chamber (A) at the bottom first.

👁 Note!

*If no pre-applied Loctite is found on the top cap perform step 2.
If the top cap has pre-applied Loctite continue to step 3.*

2. Apply blue Loctite 243 to the first (lower) two (2) threads of the top cap (male).

3. Reinstall the Air spring cartridge into the stanchion tube.

4. Use a torque wrench with a 28 mm hex socket (18860-01) to tighten the top cap to 32 Nm.

⚠ Caution!

Do not use an adapter between wrench and socket, as this will increase the risk of damaging the anodized finish of the top cap.

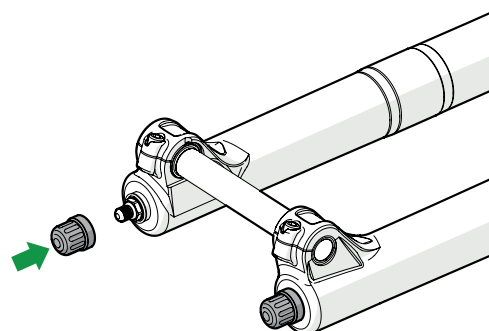
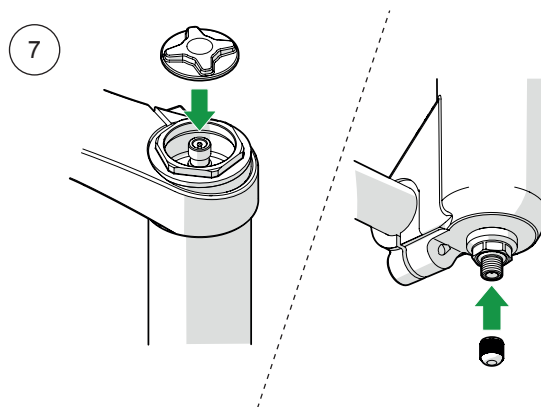
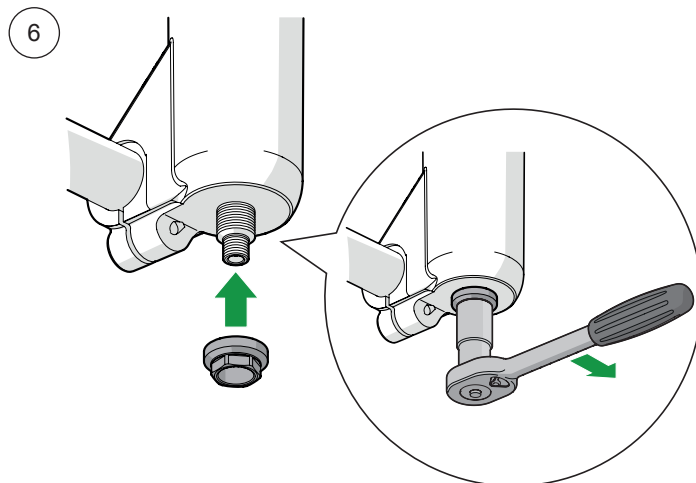
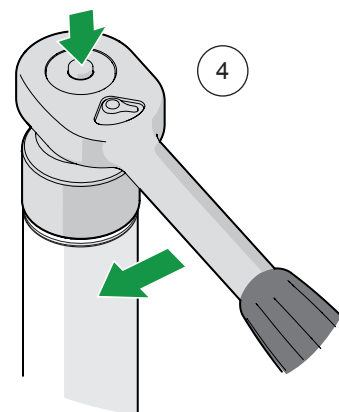
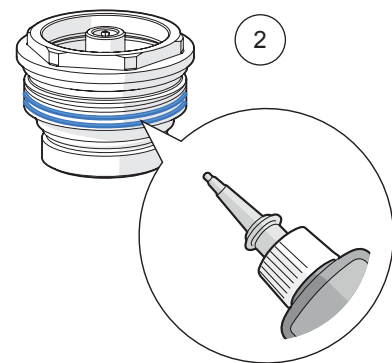
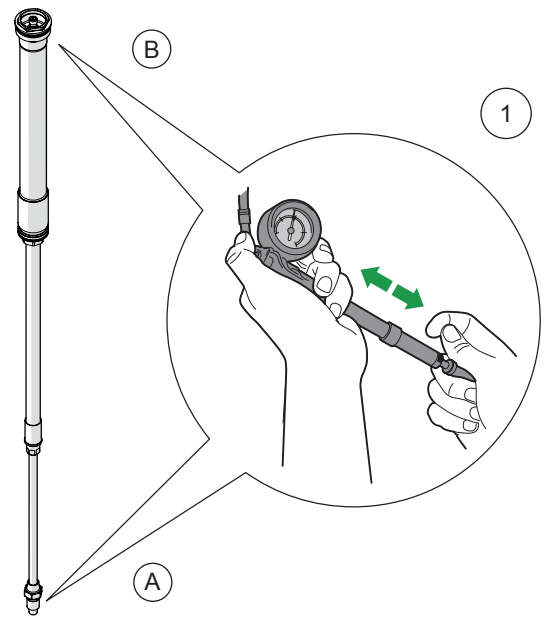
5. Wipe off eventual excessive Loctite 243.

Important!

Leave the Loctite to cure for 24 hours before riding.

6. Reinstall the base cap nut. Use a torque wrench with a 14 mm hex socket to tighten the nut. Torque: 10 Nm.

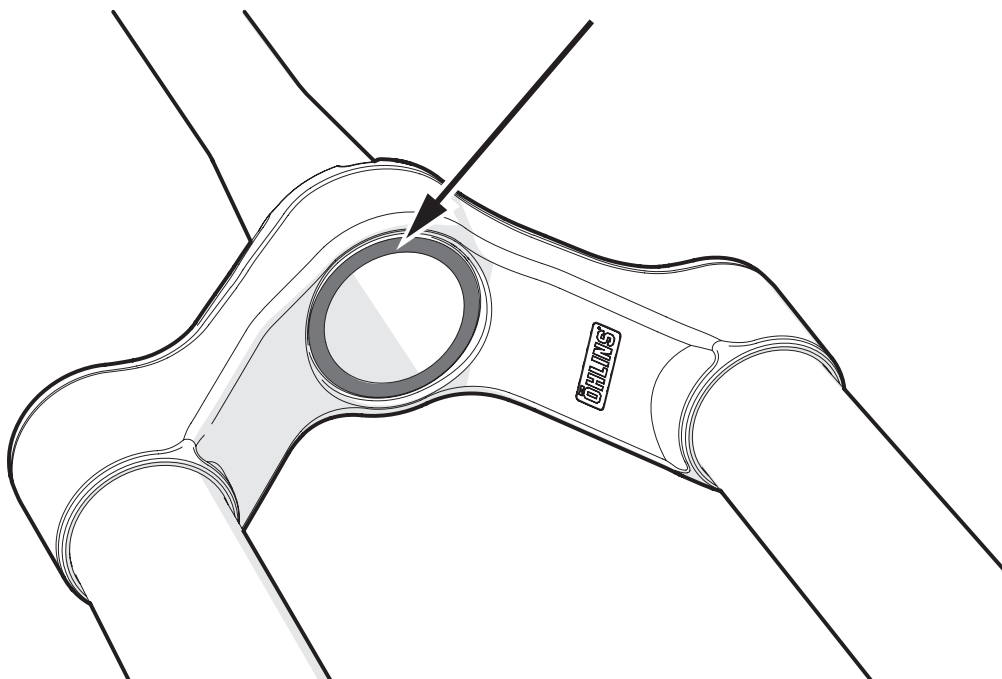
7. Reinstall the air spring knob, air valve cap and the bash cap.



ADD/REMOVE SPACERS IN AIR SPRING CARTRIDGE

Appendix A

Part no of the fork can be found at the bottom of the steering tube.



Your Öhlins retailer:

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