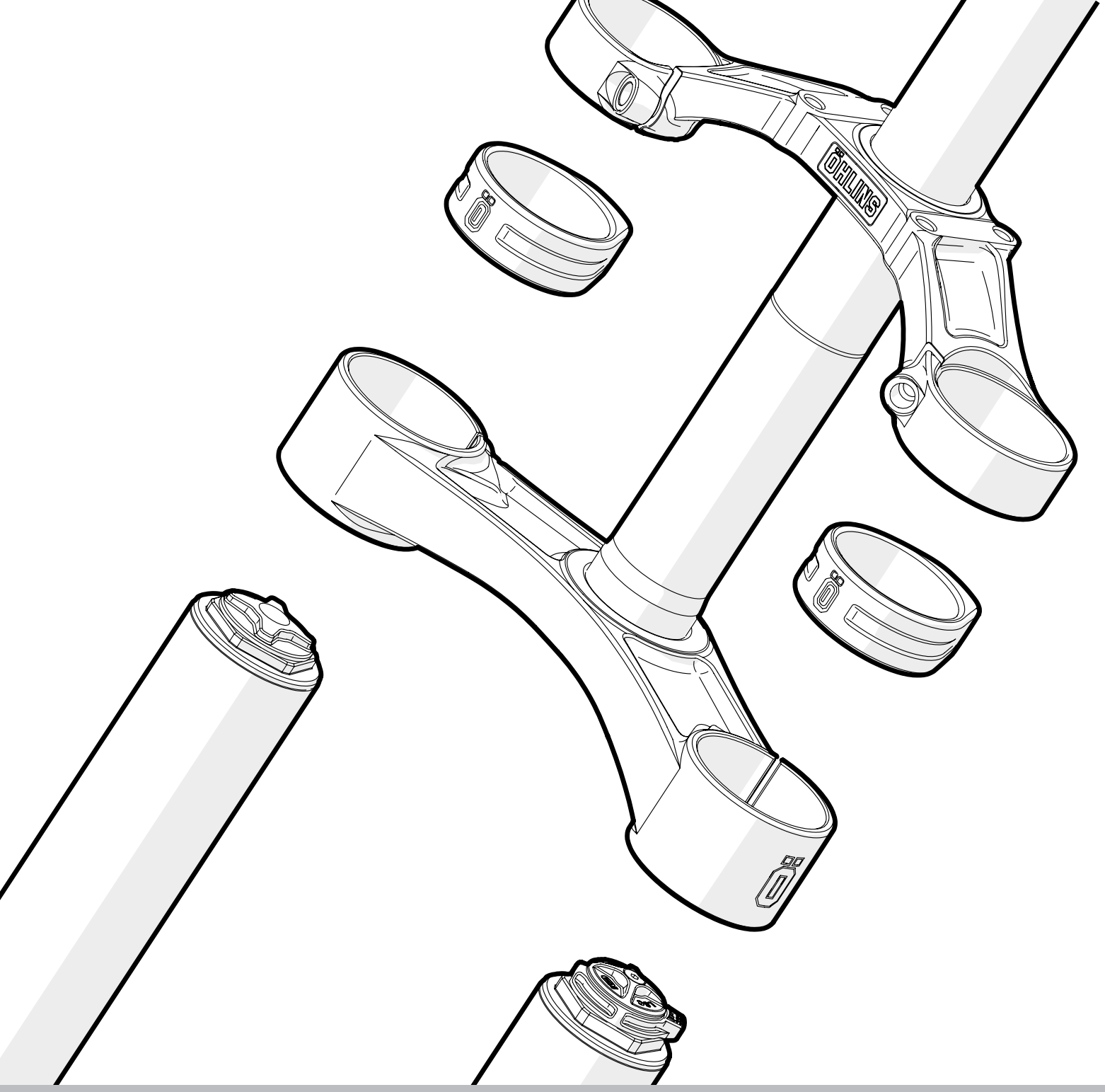


Front fork

DH38 m.2/m.1 Air/ DH38 Race fork

Workshop Manual - 100h chassis and airspring service

ÖHLINS®
ADVANCED SUSPENSION TECHNOLOGY

SAFETY PRECAUTIONS

General Warnings

Note!

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

Note!

The front fork is an important part of the bike 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 or working on the product.

Note!

Öhlins Racing AB can not be held responsible for any damage to the shock absorber/front fork/steering damper, bike, 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 bike 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 bike 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 bike model and shall only be installed on the intended bike model in its original condition as delivered from the bike 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.

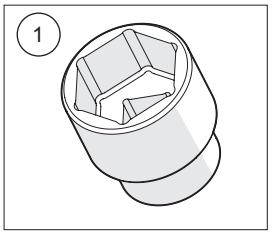
Note!

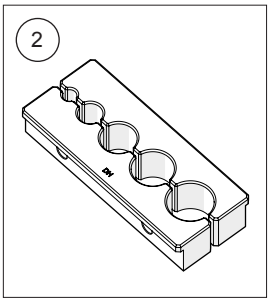
The Note Symbol indicates information that is important regarding procedures.

TABLE OF CONTENTS

Tools

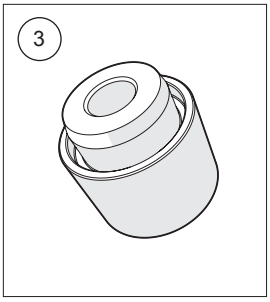
1	18860-01	Hex socket 28 mm
2	19245-01	Multi clamp TTX18
3	19246-01	Wiper seal tool 38
4		Cassette lock ring tool





Oil, grease, thread locker and sealant

Damper fluid	01309-01 - High performance suspension fluid 1L
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
Assembly grease	Slickoleum / Buzzy's Slick Honey
Loctite 243	01791-04

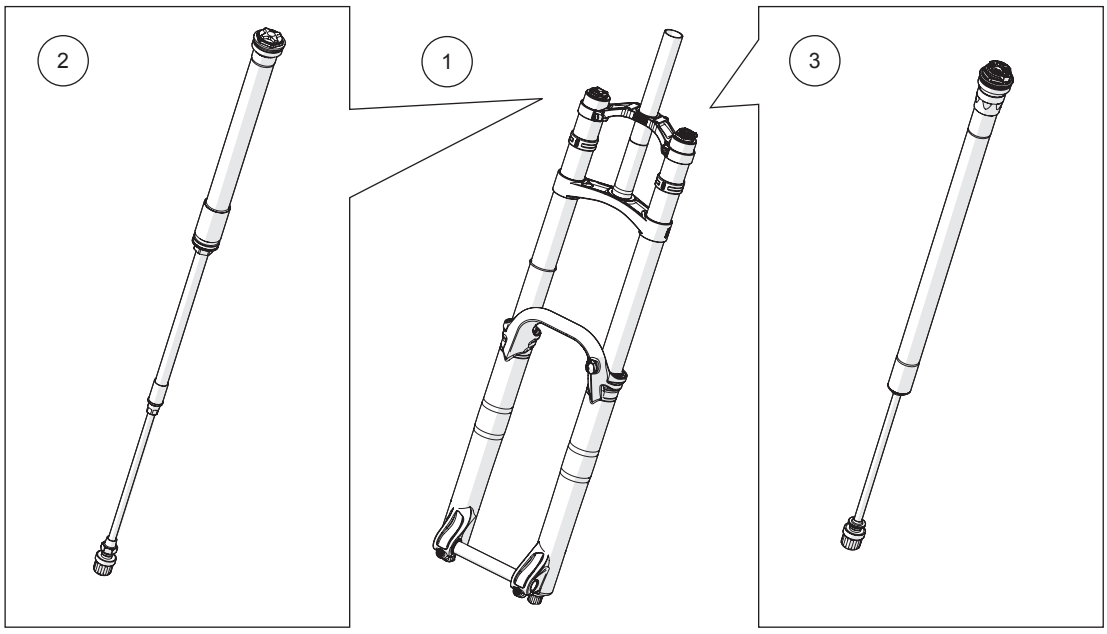


Note!

Do not use sharp tools to remove or install any seal or o-ring as they may cause damage.

Overview - General layout

1. **Chassis FG3820 19xx**
2. **Air Spring Cartridge**
3. **Damper Cartridge**

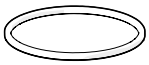


Service kit DH Cartridge

1	18850-12	Service kit air spring 100h RXF34/RXF36/RXF38/DH38*	**Compatible with**
2	19237-01	Service kit Chassis DH38	FG38xx 19xx /FDxxx 38xx 25xx/21xx

*The following service kits also contain these parts and can be used. 19242-02

1



00576-23
(O-ring)

x 2

00638-86
(O-ring)

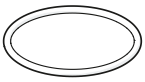
x 2

18556-03
(Back-up ring)

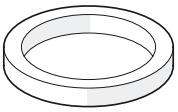
18637-01
(O-ring Transparent)

00338-57
(O-ring)

2



18710-01
(O-ring 35x2 blue)



x 2

19206-01
(Foam ring)

x 2

19204-02
(Wiper seal)

FG38xx 19xx Chassis 100-Hour Service

We recommend using a bike stand to clamp the steering tube when working on the fork.

Note!

Only valid for FG38xx 19xx.

1. Thoroughly clean the outside of the fork from dirt or grit.

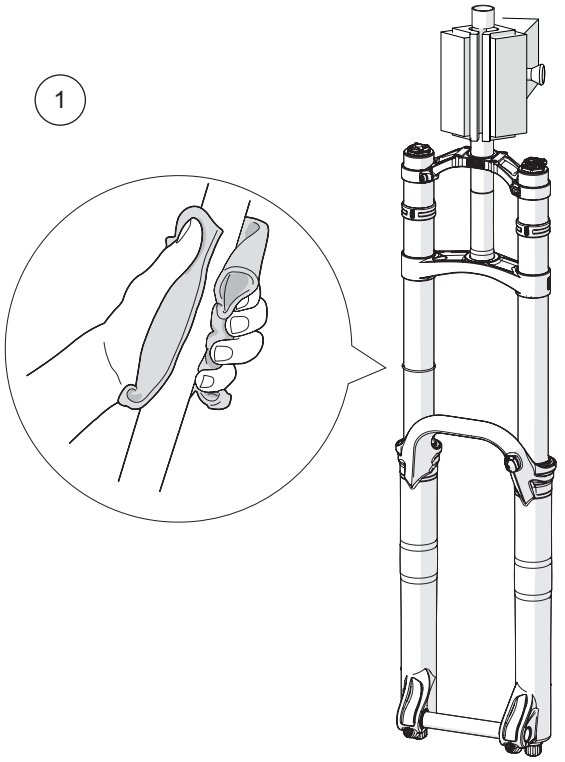
2. Measure and record the distance from the bottom crown to the top of the spring stanchion tube.

3. Loosen the crown bolts.

4. Slide the stanchions out of the crowns. Use water to help remove the rubber fork bumper.

5. Remove the golden bash caps by unscrewing them by hand.

1



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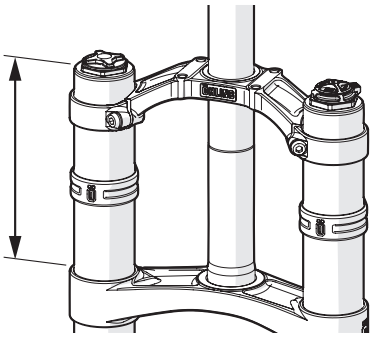

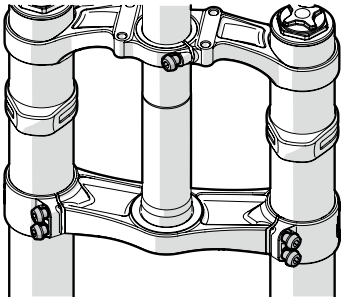

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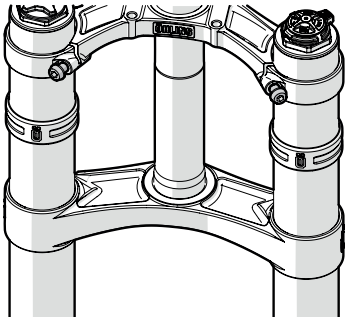

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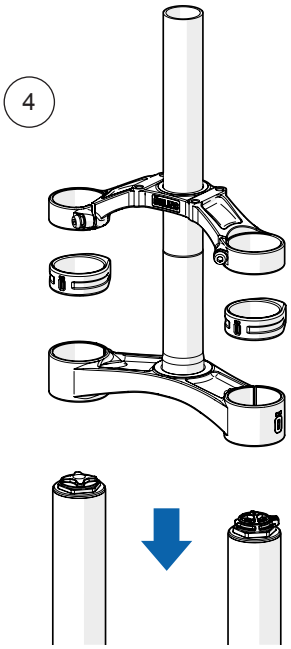

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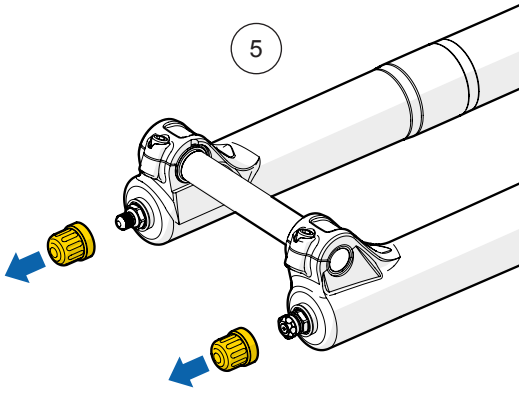


6. Use a 14 mm wrench to hold the rebound adjuster knob steady. With a 2 mm hex wrench remove the screw and the knob.

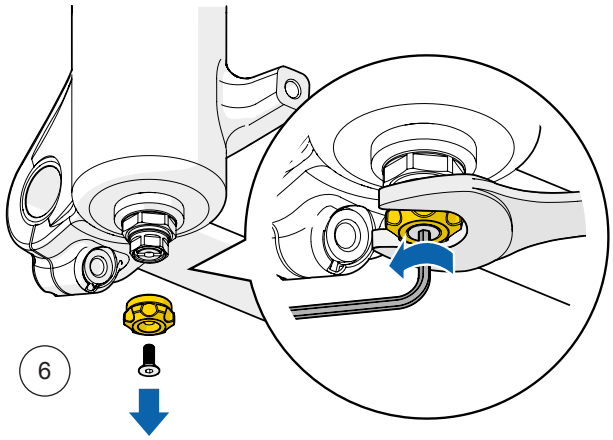
7. Remove the nut on both sides by using a socket wrench with a 14 mm deep hex socket.

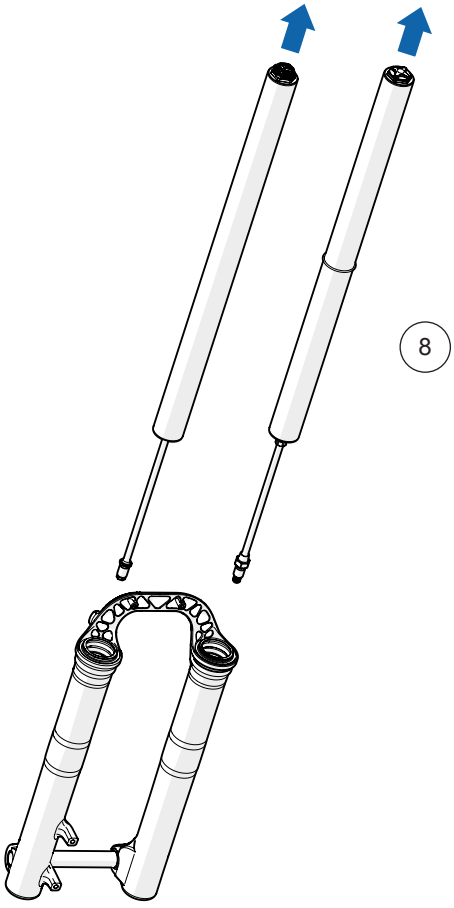
8. Slide the lower legs off the stanchions.

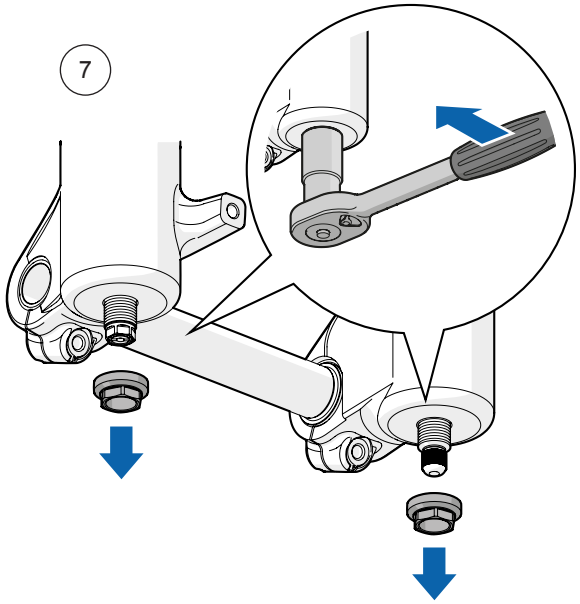
9. Drain the lower legs of all fluids.

Note!

Service the Air spring and Damper before proceeding with the Chassis.







10. Use tweezers to cautiously remove the old foam rings in the lower legs.

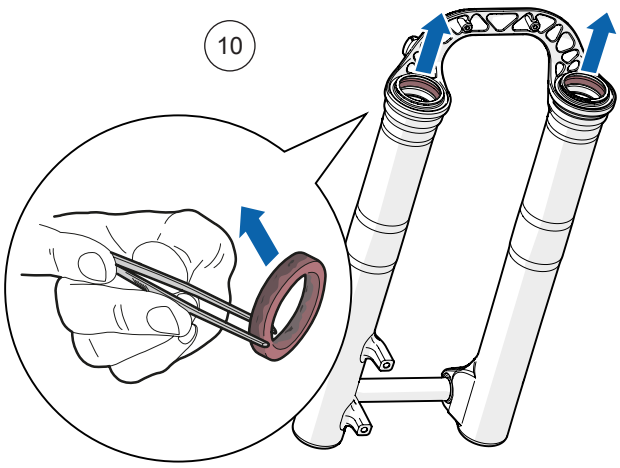
11. Use an open end spanner or similar to remove the old wiper seals. Protect lowers and seal surfaces from scratches.

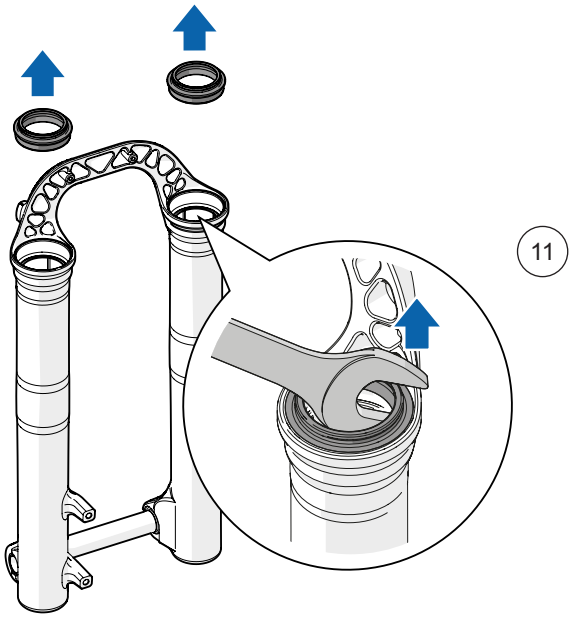
12. Use a rag wrapped around a long rod or similar to clean the insides of the lower legs.

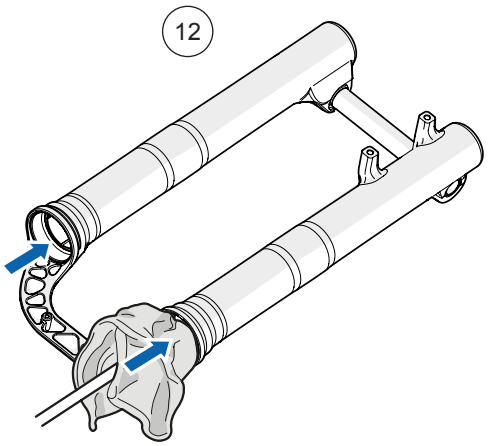
13. Carefully clean the wiper seal and foam ring areas using disc brake cleaner and a paper cloth or rag to remove old suspension fluid and dirt.

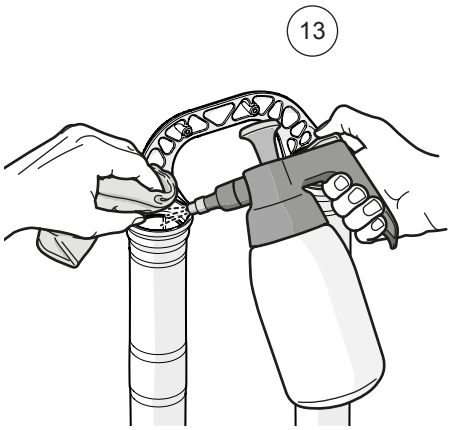
Note!

Be careful not to scratch the bushings.









14. Reinsert new wiper seals (19204-02) into the lower legs. Use the seal head installation tool (19246-01) and a soft hammer to put them in place.
Tip:
Apply small amount of cleaner to outside of wiper seal for easier installation.

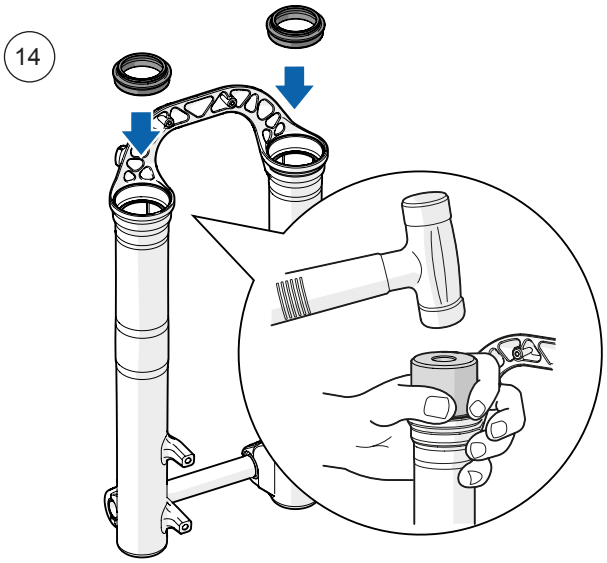
15. Apply a thin layer of functional grease grease to the inner surfaces of the wiper seals.

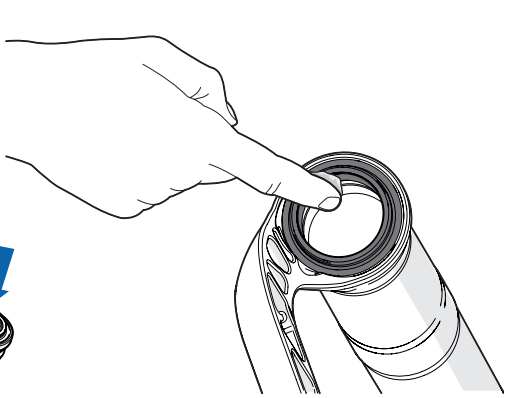
16. Soak the foam rings in fresh damper fluid.

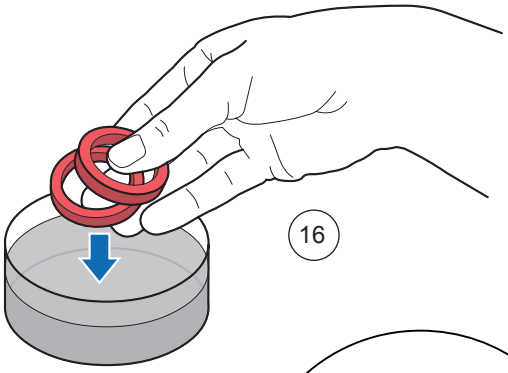
17. Use tweezers or similar to carefully reinsert the soaked foam rings into the lower legs. Check that they are mounted corrrectly and not twisted.

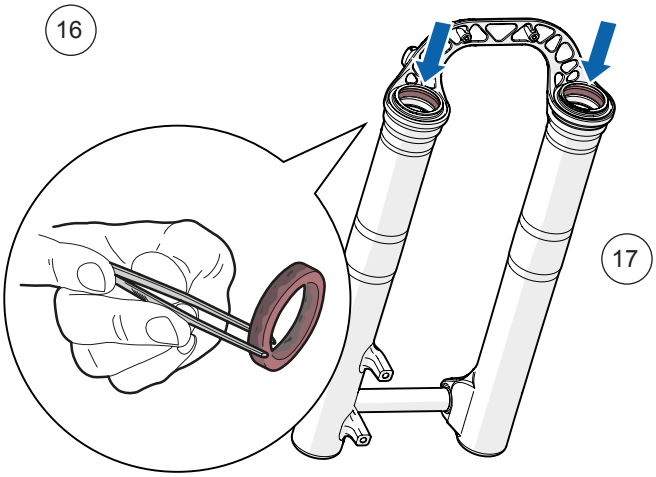
18. Remove the old sag o-ring.

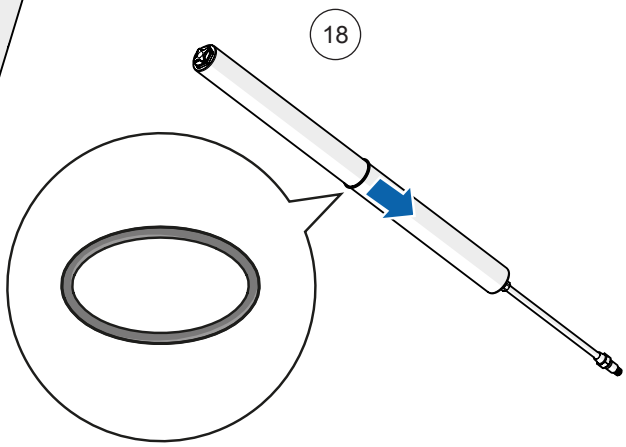
19. Install a new sag o-ring (18710-01) from the service kit onto the outside of the Spring side Stanchion tube.

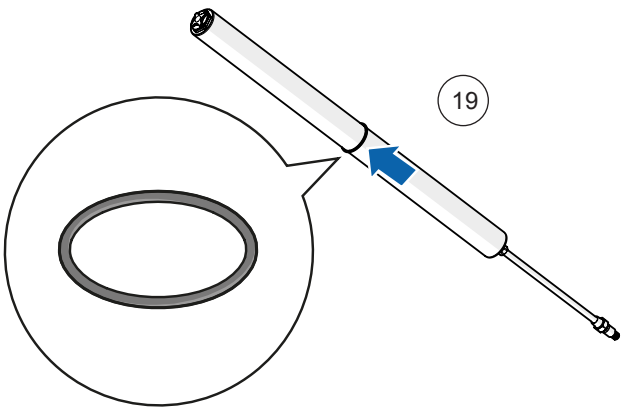












Air Spring Cartridge 100-Hour Service

Note!

Only valid for FG38xx 19xx.

⚠ Warning!

The air spring is pressurized. Remove the pressure inside the air spring before service. Verify all pressure is removed from the fork before proceeding.

Note!

Clean all parts using disc brake cleaner and a rag to remove dirt, old grease and thread sealant before reassembling. Lubricate new o-rings/x-rings etc. with fresh Buzzy's Slick Honey.

Note!

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

Note!

Record the air pressure in the positive air chamber and ramp up chamber before service.

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

2. Remove the positive air chamber knob. Use a socket wrench with a hex socket 28 mm or cassettte lock ring tool (18860-01) 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 calmp to hold stanchion tube.

3. Slide the air spring off the stanchion tube.

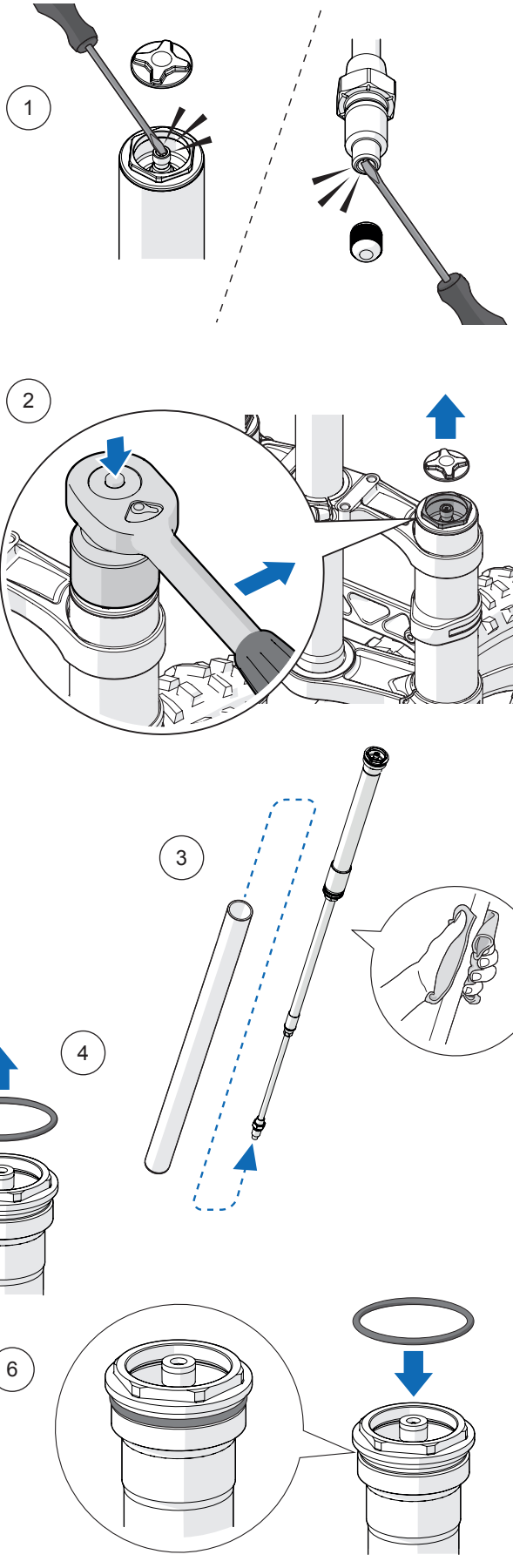
⚠ Warning!

Make sure the pressure inside the air spring is removed.

4. Remove the old o-ring from the top cap.

5. If lLoctite on threds use a rag and brake cleaner to remove old Loctite residue from the top cap threads. If pre applyed thred locker continue to number 6.

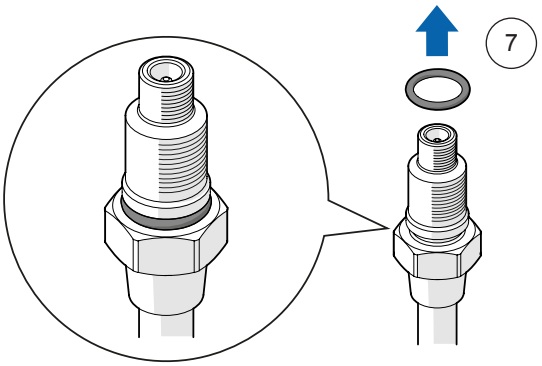
6. Install a new o-ring on the top cap:
FG38xx 19xx: 00576-23

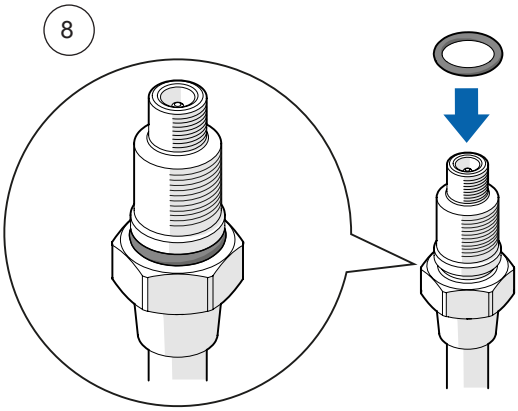


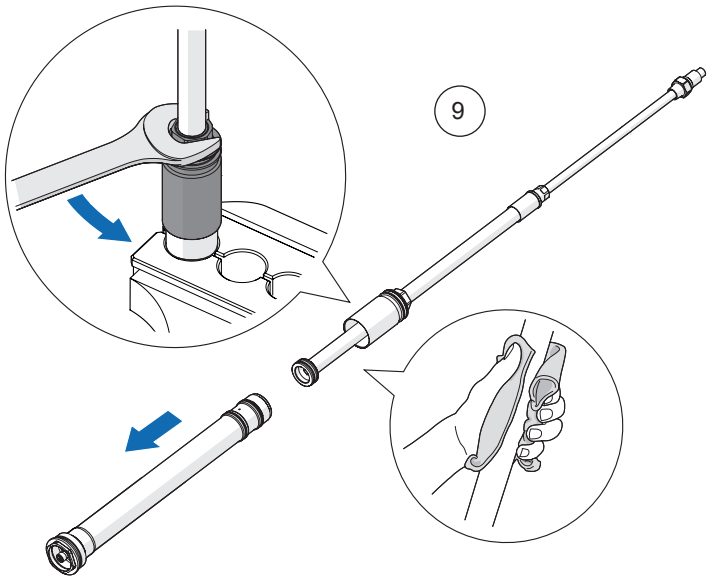
7. Remove the old o-ring from the base cap.

8. Install a new o-ring on the base cap:
FG38xx 19xx: 00338-57

9. Use a 19 mm or 24 mm wrench to loosen the seal head.
Slide the cylinder tube (27x24) off the air spring.





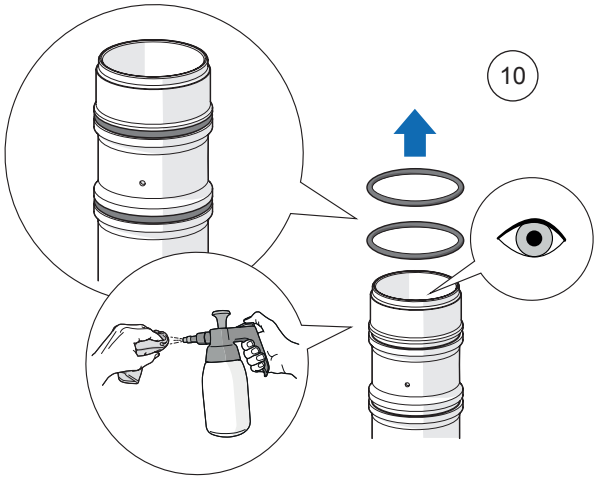


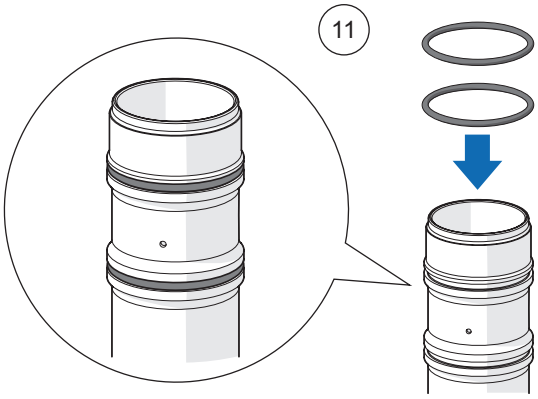
10 Remove the two old o-rings (00638-86) from the upper air chamber cylinder tube. Clean the cylinder tube and inspect for scratches inside. Replace the cylinder tube if damaged.

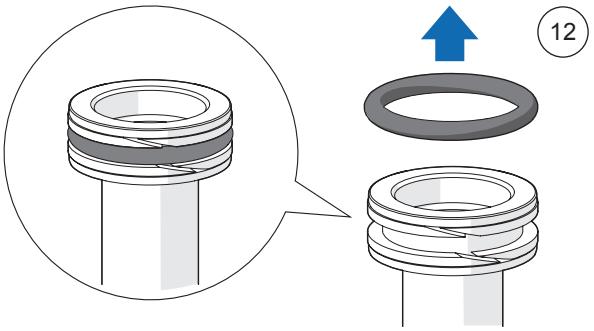
11. Install two new o-rings (00638-86) on the upper air chamber cylinder tube.

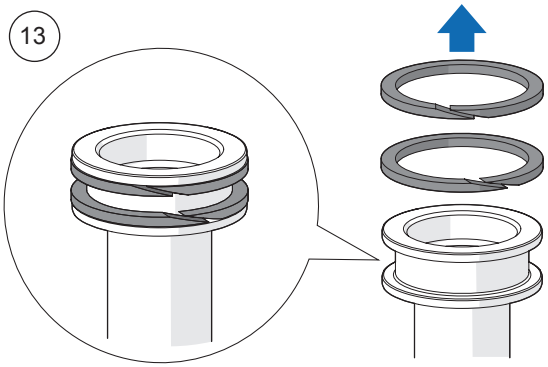
12. Remove the old o-ring (18637-01) from the piston.

13. Remove the the two old back-up rings (18556-03).







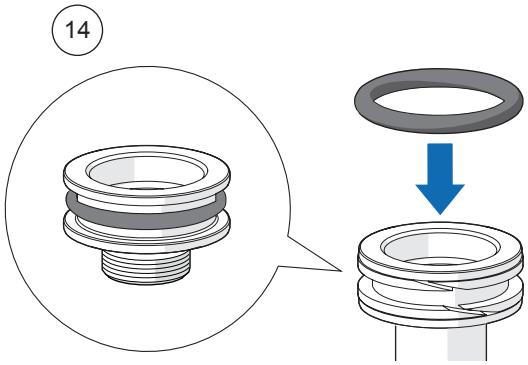


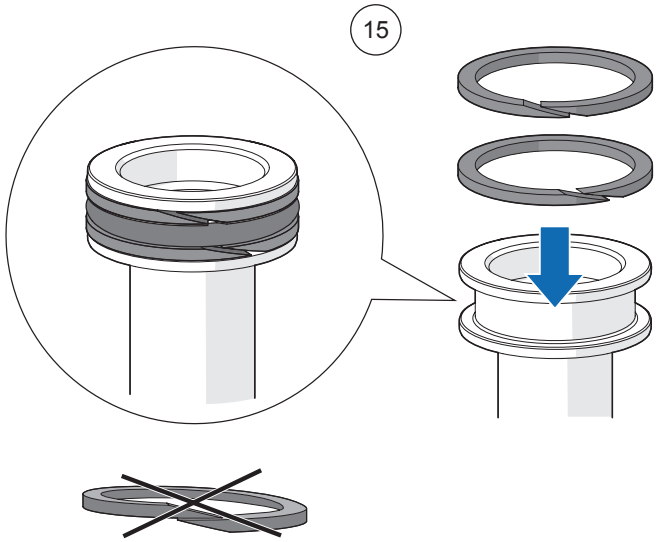
14. Install a new o-ring (18637-01).

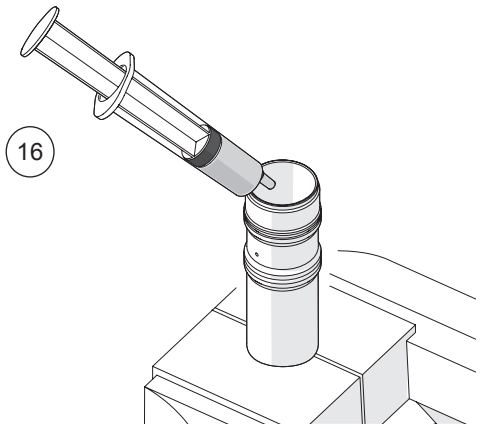
15. Install two new back-up rings (18556-03) on the piston.

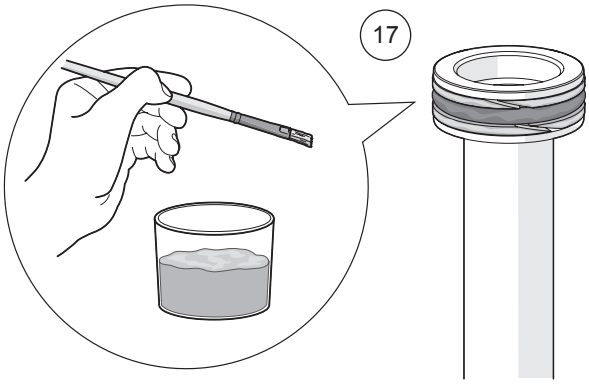
16. Apply 1 ml of function grease at the inside of the cylinder tube (smeared around). Add 0,5 ml of air spring lubrication fluid distributed on top of the grease.

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









18. 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. Use a 19 mm or 24 mm torque wrench to tighten the seal head to 10 Nm.

19. Inflate the ramp up chamber (A) at the bottom and the positive air chamber (B) at the top to the recorded air pressures from step 1.

Caution!

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

Note!

If the 28 mm hex socket is uesd you need to apply loctite to the thread. If cassette lock ring tool is used per applied Locctite is already on the thread, go to step 21.

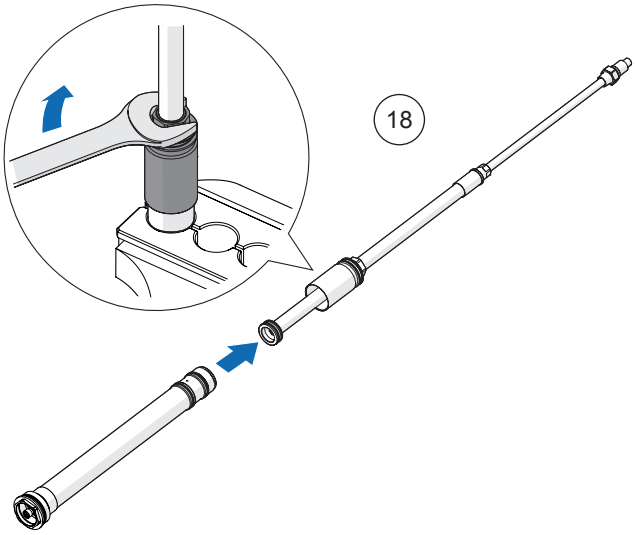
20. Apply blue Loctite 243 to the first (lower) two (2) threads of the top cap (male). Ensure to follow application instuctions for the Loctite used.

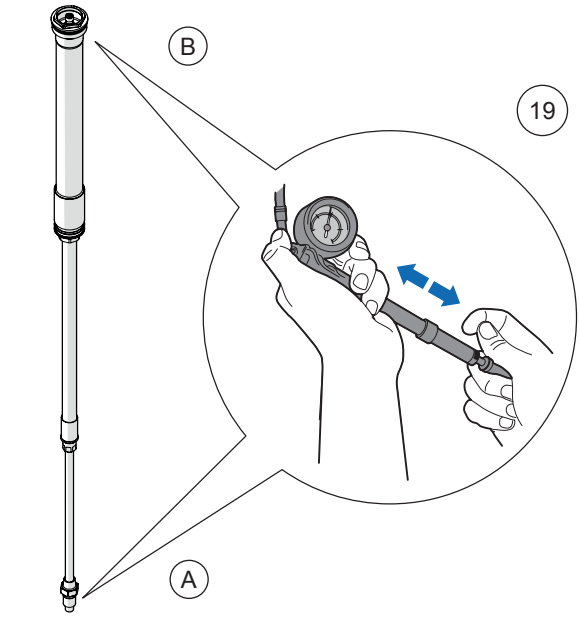
21. Reinstall the Air spring cartridge into the stanchion tube. Use a torque wrench with a 28 mm hex socket (18860-01) or a cassette lockring tool to tighten the top cap to 32 Nm.

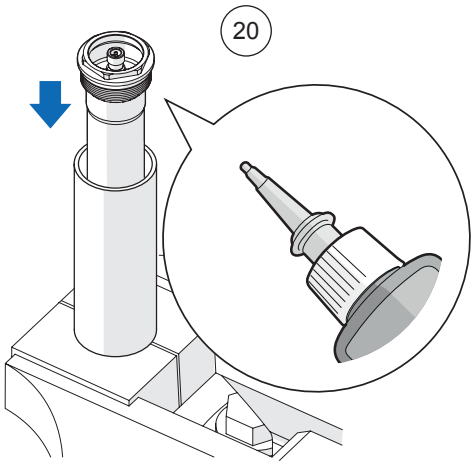
Note!

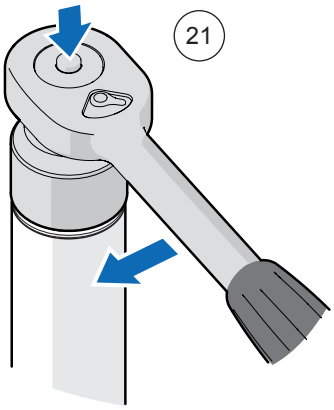
When tightening the Air spring cartridge, it is easy to damage the top cap. Put pressure on the wrench while threading the top cap.

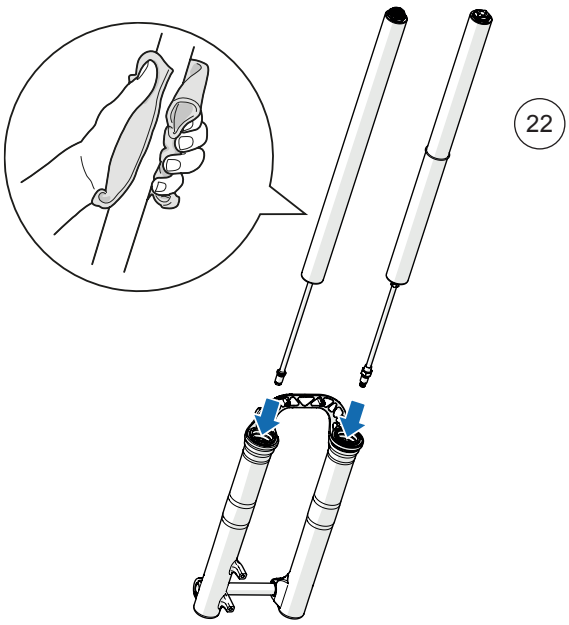
22. Reinstall the spring stanchion tube into the right side of the lowers and then reinstall the damper cartridge in to the left side lower. Clean the stanchion tubes with a paper cloth or soft rag.











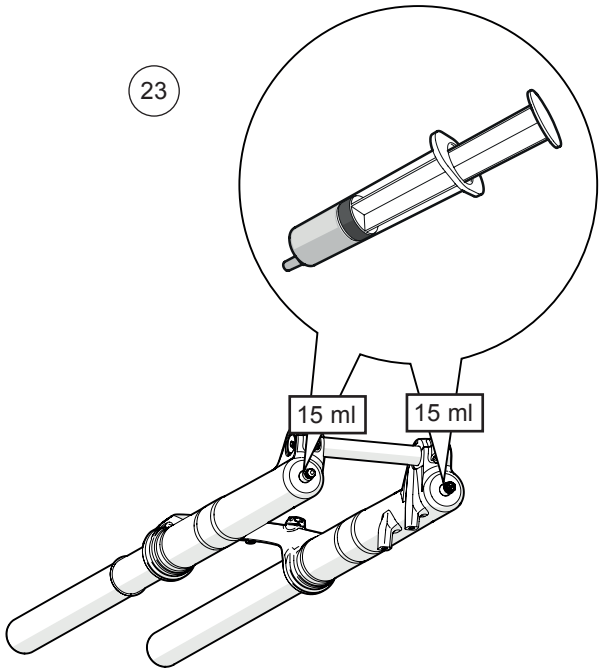
23. Inject 15 ml fork damper fluid on both sides. For coil spring forks inject 20 ml of damper fluid instead of 15 ml in the spring fork leg.

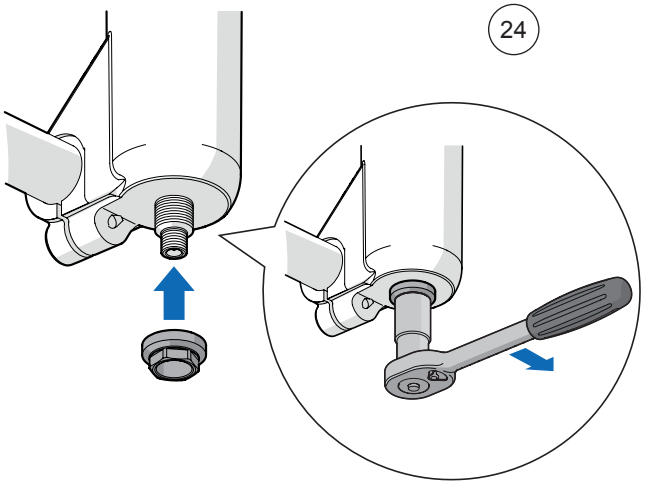
24. Reinstall the base cap nut. Use a torque wrench with a 14 mm hex socket to tighten the nut. Torque: 10 Nm.

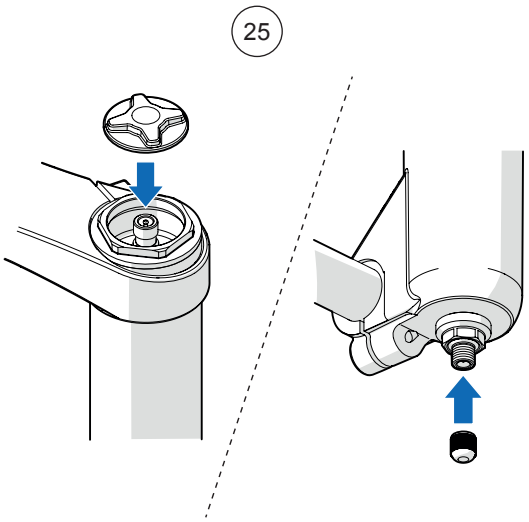
25. Reinstall the air spring knob and air valve cap.

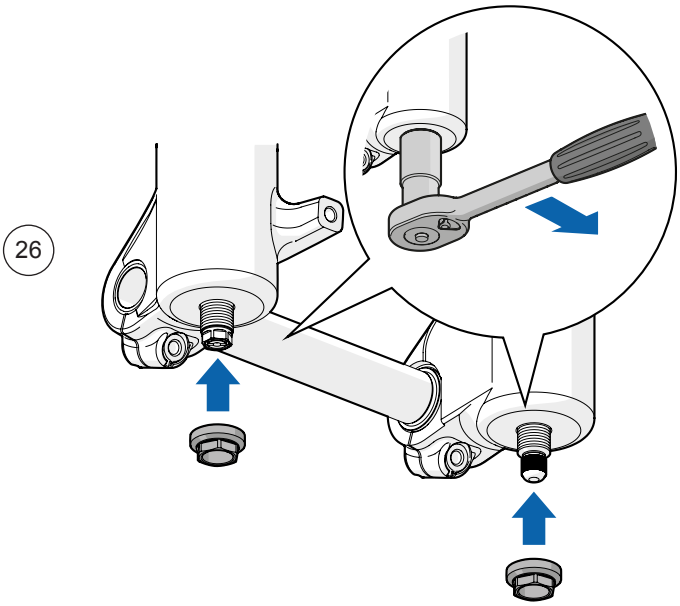
See Owner's Manual/Mounting Instructions for more information.

26. Reinstall the nuts. Use a torque wrench with a 14 mm hex socket and tighten to 10 Nm.









27. Reinstall the rebound adjuster knob and screw. Use a 14 mm wrench to hold the knob steady. With a 2 mm hex wrench tighten the screw and knob.

28. Reinstall the golden bash caps. Tighten by hand.

29. Install the fork on the bike according to instructions in the Owner's manual. Remember to position the bottom crown at distance recorded at step 2 from top of stanchion tube.

⚠ Warning!

If the bottom crown is mounted too low the crown will make contact with the tire when bottoming. Always remove air spring pressure and compress the fork fully after mounting to ensure proper tire clearance. Please consult the Owner's manual for further details.

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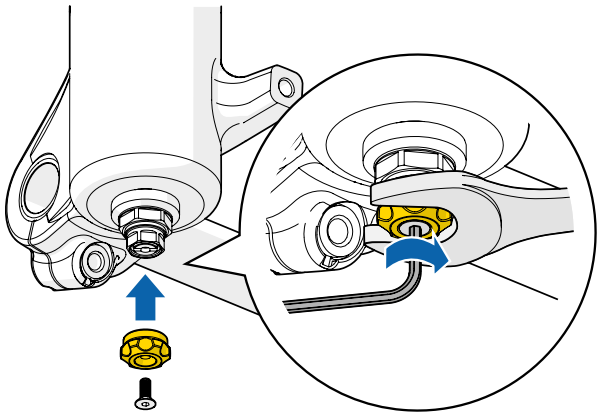

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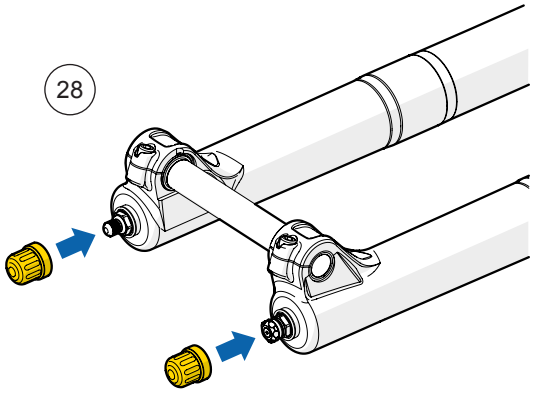

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