

# IDYLLLE 39 SE

SERVICE MANUAL



WWW.BOS-SUSPENSION.COM  
DRIVEN BY PERFORMANCE



You have just purchased a product from BOS Suspension.  
Welcome to our big family!

We have a common passion, MTB and it has led us to design neat and high-end products designed for your discipline: DH, Enduro & All Mountain.

With 20 years of experience in the research, development and production of innovative and efficient products, BOS products are the result of meticulous work and unique know-how. Our entire Toulouse team is proud to accompany you on this great adventure by providing you with the best of our technology, titled in multiple disciplines.

In order to get the most out of your suspensions, we invite you to carefully read the user manual, the assembly instructions and the advice for use in order to make the most of the potential of your new material.

Thank you for choosing BOS Suspension,  
Have a good ride,

# SUMMARY

WARRANTY	3	CLOSED CARTRIDGE DRAINING	13
SAFETY INSTRUCTIONS	4	HYDRAULIC CARTRIDGE REASSEMBLY	15
TOOLS	5	AIR CARTRIDGE REASSEMBLY	17
EXPLODED VIEW	6	PRESSURE TABLE	19
CLEANING	7	SETTINGS TABLE	20
AIR CARTRIDGE DISASSEMBLY	7	SERVICE ROUTINE	21
HYDRAULIC CARTRIDGE DISASSEMBLY	9		
SEALS/BUSHINGS REPLACEMENT	11		

# WARRANTY

BOS SUSPENSION grants a contractual guarantee under the following conditions:

BOS guarantees its products against all defects in form and manufacturing faults for a period of one year from the date of original purchase. Proof of purchase will be required for any application of the guarantee. The warranty is granted to the original owner and is non-transferable. Wearing parts such as wiper seals, O-rings, guide rings, pins, bushings, screws and bolts are not covered by the warranty.

## Application

The application of the warranty is subject to the laws in force in the country or state in which the original owner resides. If the local legislation differs from the warranty as described here, the warranty is deemed to be amendable to comply with it.

## Limits

BOS SUSPENSION is not liable for direct, indirect, special, incidental or unforeseen damage resulting from the use of its products, subject to compliance with local legislation.

## Exclusion

The guarantee does not apply in the following cases :

- Failure to comply with the installation instructions as described in the installation and adjustment manual.
- Failure to follow the disassembly/assembly instructions as described in the service manual.
- Modifications made to the product by the owner or a third party.

- Inappropriate use.
- Damage resulting from an accident, violent shock, fall, under any circumstances.
- Failure to comply with the instructions and maintenance intervals.
- Replacement of original parts with parts from manufacturers other than BOS SUSPENSION.
- Alteration of the serial numbers with the obvious aim of making it illegible.

## Procedure

Regardless of where the product was purchased, the owner must contact an authorised BOS centre to apply for the guarantee. It is compulsory to produce the purchase invoice. Otherwise, the warranty will not apply. Sending the product is subject to the prior agreement of the BOS SUSPENSION after-sales service department. Outward carriage, dismantling and packaging costs are the responsibility of the customer. In the event of refusal to apply the guarantee, the packaging and return shipping costs are the responsibility of the customer.

# SAFETY INSTRUCTIONS

## GENERAL WARNINGS

The fork is an important element which has a direct influence on the behaviour of your bike.

This manual must be consulted before using the BOS shock absorber and during its entire service life. It is an integral part of the shock absorber.

If necessary, or for any service operation, please contact an authorized BOS Suspension centre or consult this manual.

After installation, test your vehicle at low speed to make sure that it works properly.

## USE IN SAFETY

- When using BOS products, make sure you are in good physical shape and not under the influence of products that affect your lucidity and decision-making capacity (alcohol, drugs, etc.). If you are not able to ride, do not endanger yourself or any other person.

- The shock absorber has the effect of absorbing shocks, which can generate strong heat. Do not touch the shock absorber after use. Allow it to cool before attempting any work on it.

## YOUR SAFETY FIRST

When working on a BOS suspension, please wear appropriate safety equipment such as apron, safety gloves and goggles.  
When handling the suspension oil, please wear nitrile gloves and goggles.



### CAUTION

The operations may impair your safety or cause damage to your suspension. Be sure to take note of these warnings



### IMPORTANT INFORMATION

These indications are provided to enable you to perform the operations described in this manual and to optimize the performance of your suspension.

## OPERATING RULES ON YOUR FORK

Before carrying out any operation, check that you have the necessary tools to perform it. Some tools will be specific to BOS fork, they will be indicated in this manual when using them and can be ordered directly on our website [www.bos-suspension.com](http://www.bos-suspension.com).

The disassembly of your shock implies the replacement of certain parts which cannot be reassembled worn without risk of malfunction of your product (O-rings, seals, wiper seals, rings...).

Before reassembly, clean the parts thoroughly of any impurities and check their state of wear. If this seems correct, you can reassemble your shock absorber, otherwise, change the worn parts.

## SERIAL NUMBER

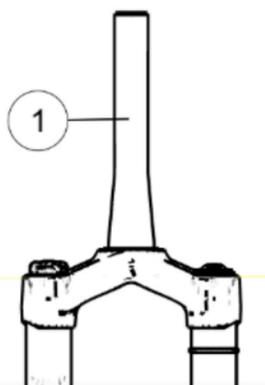
The reference of your fork is engraved on the pivot of your fork (1). It is a sequence of 7 digits (0000000).

## ENVIRONNEMENT

Mountain Bike is a wonderful sport that brings you a lot of happiness. However, it is potentially a source of environmental conflict with other people.

Responsible behaviour when using your bike automatically defuses problems and conflicts. Make sure that you comply with the legislation in force in your country regarding the disposal of used shock absorber oils and components.

To ensure the continued existence of mountain bike, make sure that you stay within the legal framework, are environmentally friendly and recognise the rights of others.



# CLEANLINESS

When servicing your BOS suspension, make sure that you are working in conditions that will not affect performance:

- Work in a dust-free environment
- Work at a clean and organised workstation
- Use soft aluminium jaws to protect the equipment when using a vice.
- Do not scratch any surfaces when using tools.
- Clean the components when disassembling them
- Remove the sub-assemblies in the order of disassembly so that you can easily find out how to reassemble them together.
- Long sleeves are recommended or shaved arms.

If you carry out maintenance on your BOS suspension outside a workshop, you should at least :

- Avoid dust and air circulation around your work area
- A clean tarpaulin to be placed under the suspension on the floor
- A repair bracket to maintain the suspension
- An oil pan
- All the necessary tools listed below

# TOOLS

## Cleaning and safety :

- Safety goggles
- Clean cloths (lint-free)
- Soap (+ hot water)
- Nitrile gloves
- High pressure cleaner
- Apron
- Oil pan
- Oil fountain (optional)

## Standard tools

- Dosing device
- Flat wrench 14 / 16mm
- Douilles 14 / 21 / 26 / 34mm
- Allen key 1.5 / 2.5 / 5mm
- Schrader valve removing tool

## Specific tools

- 152119-SEO-001 : Bushing/scrapper seals mounting tool
- 152119-SEO-002 : Guide ring removal cups
- 150707-SEO-002 : Tool body for ring disassembly
- GS-05/1 : BOS Digital pump

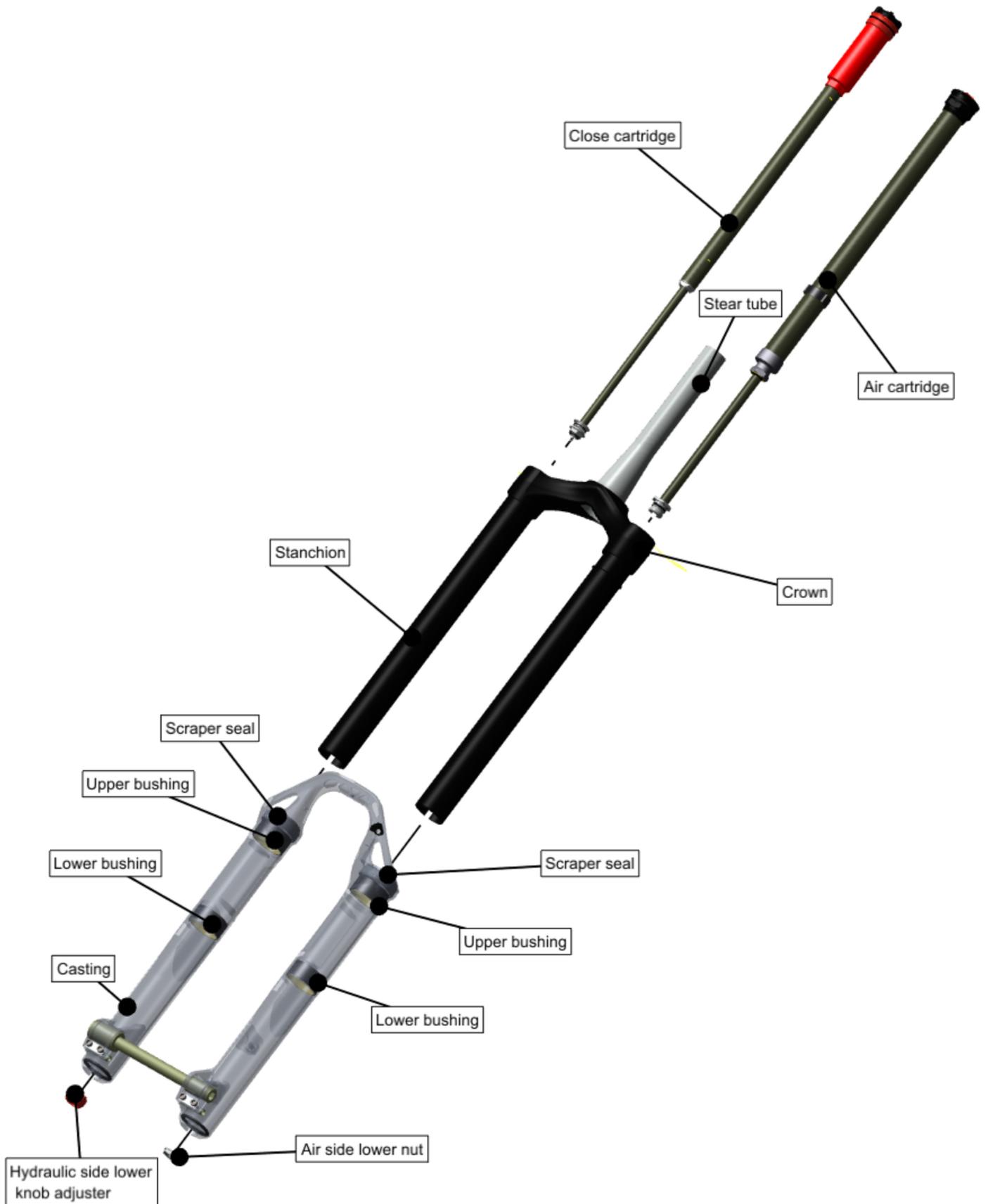
## Service kit

- 152119-KREV-002 : Air side O-ring kit
- 152119-KREV-003 : Air rod guide rebuild kit
- 152119-KREV-004 : Scrapper seals service kit
- 152119-KREV-005 : Bushings service kit
- 152119-KREV-006 : Hydraulic side O-ring kit

## Oil/Grease/Glues

- Oil : BIOIL/AMX6
- Loctite 243
- Degreaser
- White grease
- Grease

# EXPLODED VIEW



# CLEANING

Clean your fork with a washing machine if you have one available.

Otherwise, use the high pressure cleaner and finish cleaning with hot water and soap.

Required tools :

- Washing machine
- Soap

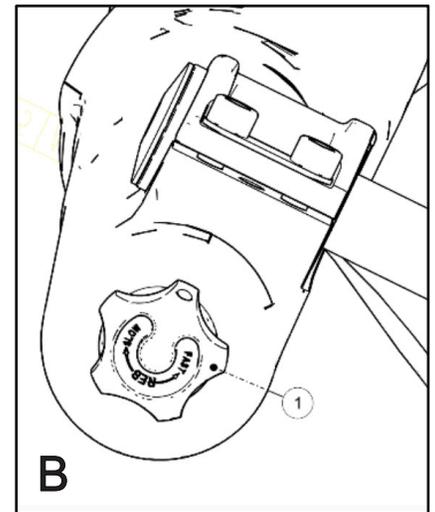
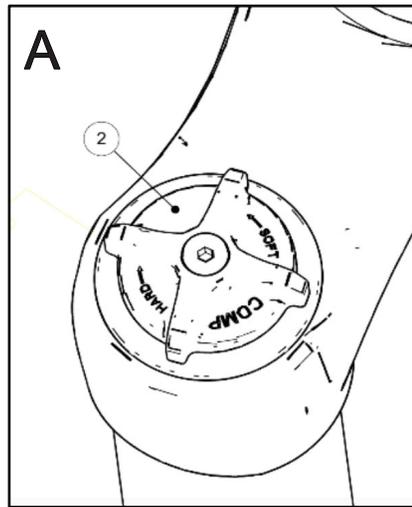


**Absolutely prohibited: any aggressive product such as degreaser on joints and spherical bearing. If you use a high-pressure washer, never direct the jet directly onto the joints. Regularly remove any soil that may accumulate in the rubber stop.**

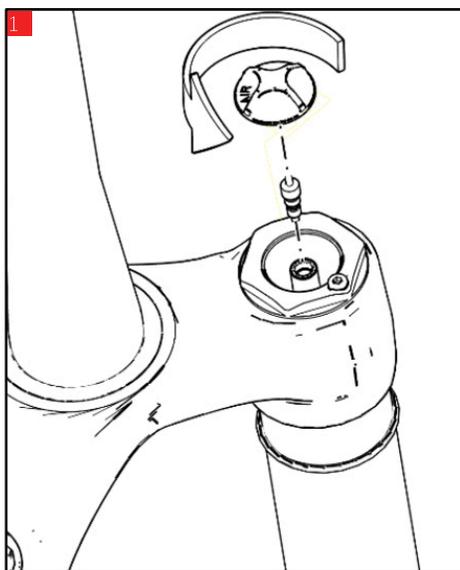
# DISASSEMBLY

Before disassembly, be sure to record your compression 2 (Figure A) /Rebound 1 (Figure B) settings in a notebook.

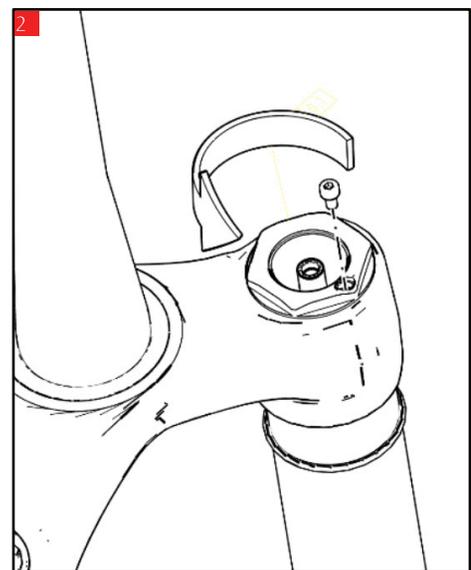
To do this, count the number of clicks to the fully closed position. Once you have noted the setting, unscrew your settings all the way down for operations on your fork. Also set the lever to the soft position.



## AIR CARTRIDGE DISASSEMBLY



- Unscrew the air cartridge top cap
- Then remove the Schrader valve so that all air is removed from the cartridge



- Slowly unscrew the cartridge bleed screw and allow the air to escape before replacing it
- Unscrew then the air cartridge

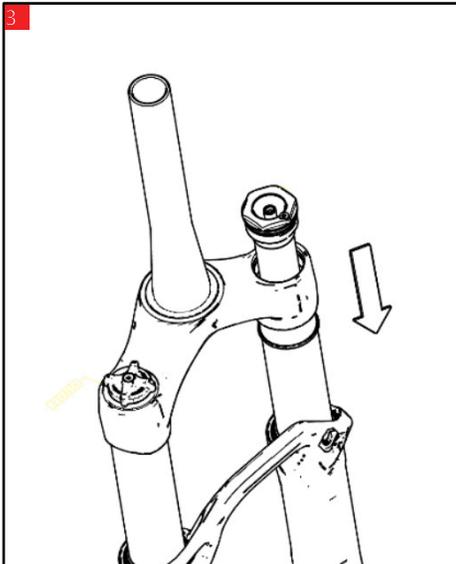


2.5mm allen key

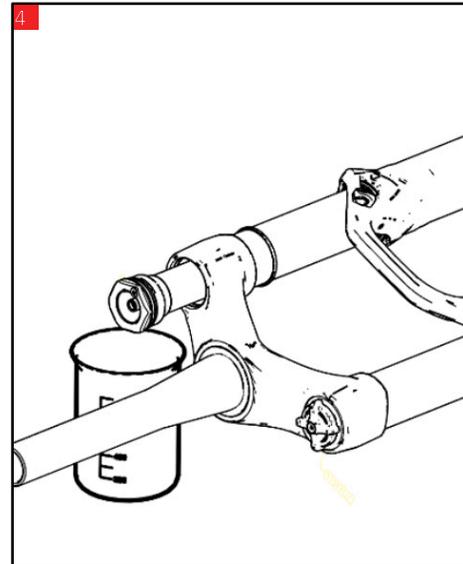


34mm socket

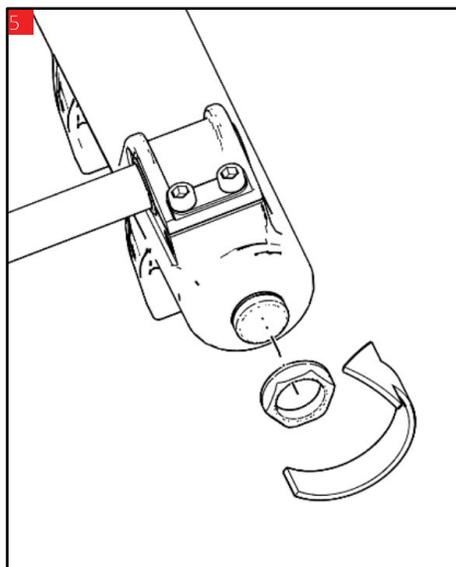
# DISASSEMBLY



- Gently compress the fork to release the previously unscrewed air cartridge



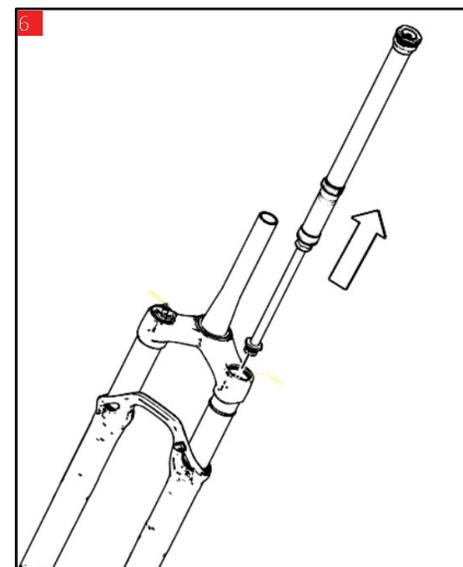
- Drain the lube oil of your air cartridge
- Leave to drain a few moments



- Unscrew the lower nut of the air cartridge with a 21mm socket



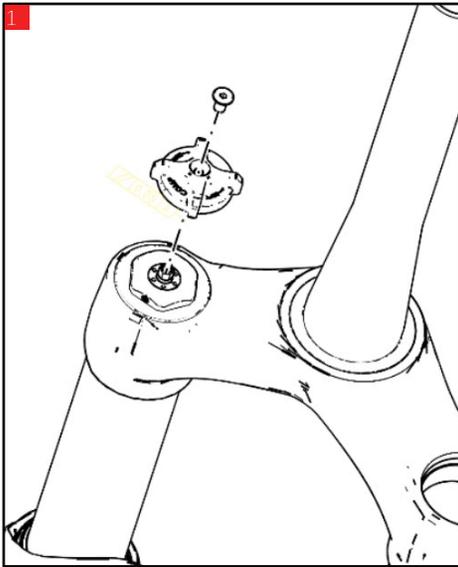
21mm socket



- Carefully remove the air cartridge from the fork tube
- Then place the cartridge on your workbench
- Clean the parts

# DISASSEMBLY

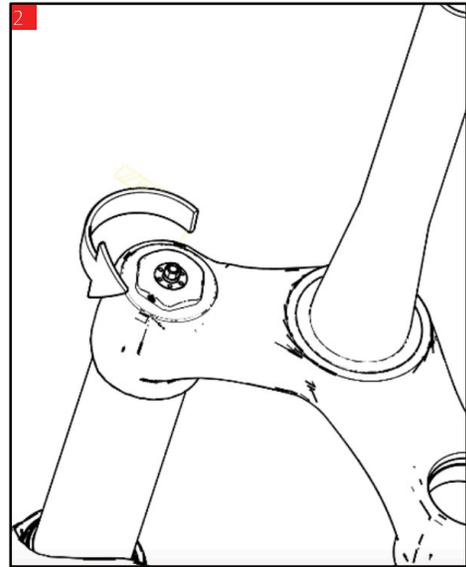
## HYDRAULIC CARTRIDGE DISASSEMBLY



- Unscrew the holding compression knob screw with a 2.5 Allen key
- Remove then the compression adjuster knob



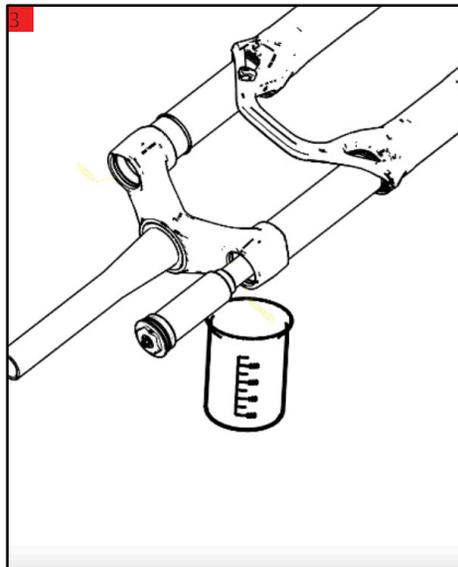
2.5mm allen key



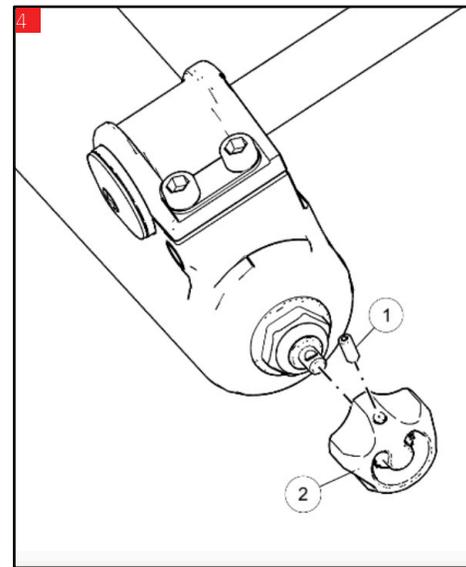
- Unscrew the hydraulic cartridge with a 26mm socket



26mm socket



- Drain the content of your hydraulic tube in an oil pan
- Leave to drain a few moments

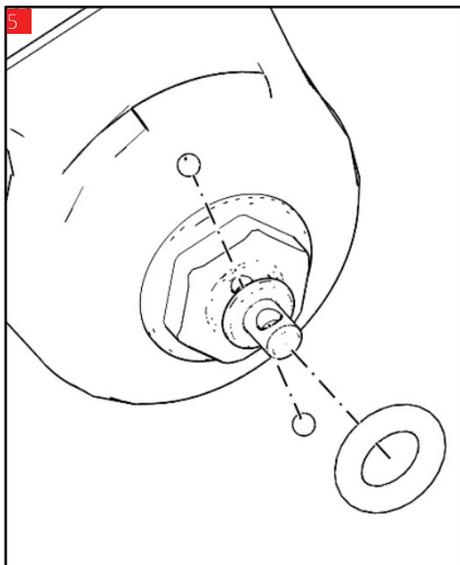


- Unscrew the holding rebound knob screw with a 1.5 Allen key
- Remove then the rebound knob adjuster



1.5mm allen key

# DISASSEMBLY



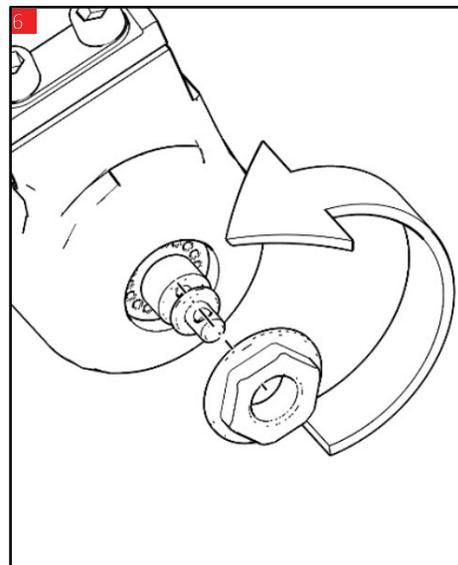
- Remove the O-ring from the hydraulic cartridge lower nut
- The seal releases two balls necessary for the functioning of the adjustment knob, grasp the balls and pull them out



Be careful not to lose the balls



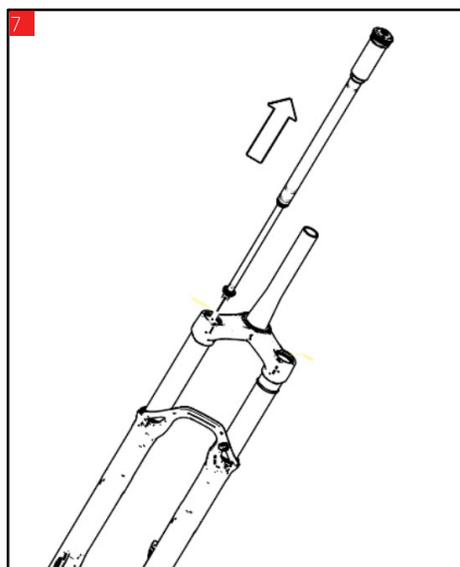
34mm Socket



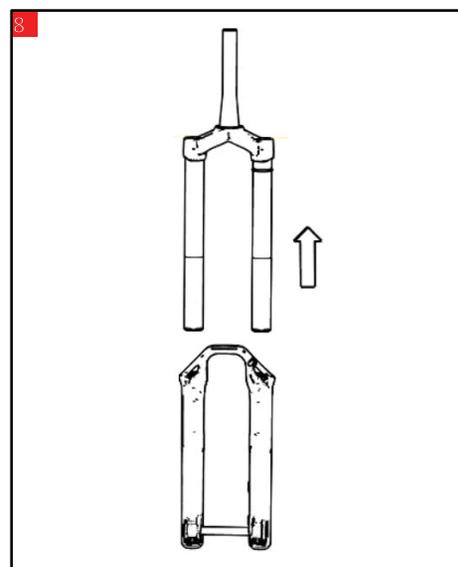
- Unscrew the lower hydraulic cartridge nut



16mm socket



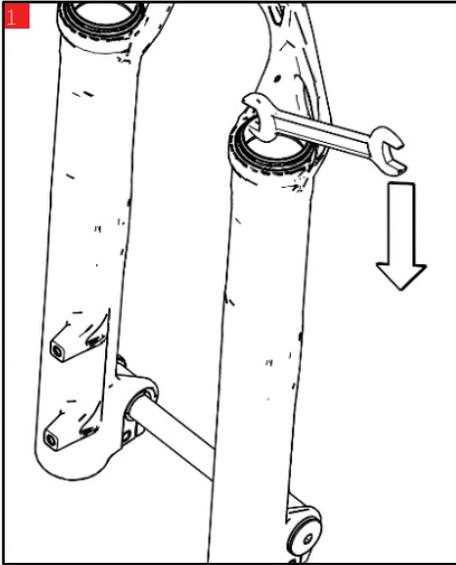
- Carefully remove the hydraulic cartridge from the fork tube
- Then place the cartridge on your workbench
- Clean the parts



- Then disassociate the crown/pivot/stanchion assembly from the casting
- Place it on your workbench

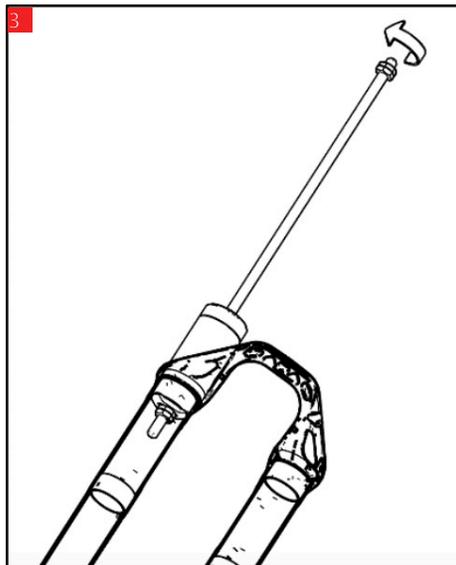
# DISASSEMBLY

## SEALS/BUSHINGS REPLACEMENT



- Using a suitable open-end spanner, pry the lip of the seal to remove the scraper seals from the casting

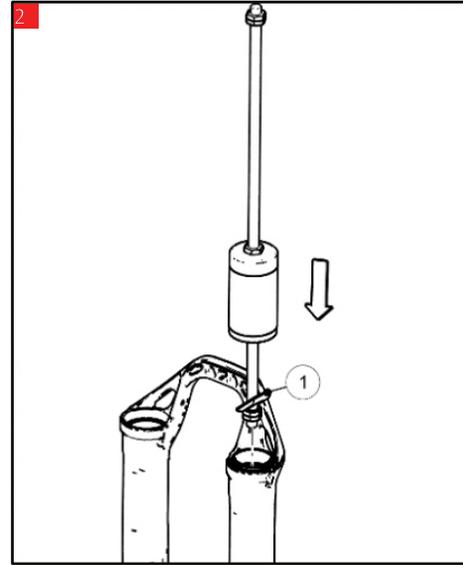
**!** Be careful not to damage the casting with the key



- Position the cylindrical body in the scraper seal housing
- Make sure that the ring remover cup is well engaged under the ring to be removed
- Then screw on the top nuts so that the rings are removed

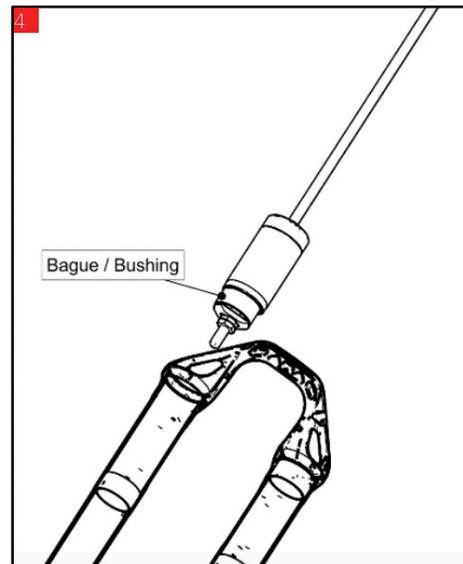
**!** Be careful not to damage the casting with the tool

Tool body extraction guide rings (150707-SEO-002) - Guide ring removal cups (152119-SEO-002)



- Insert the guide ring removal tool into the casting
- Make sure to choose the right cup 1 according to the type of ring (152119-O-007: lower rings / 152119-O-008: upper rings)

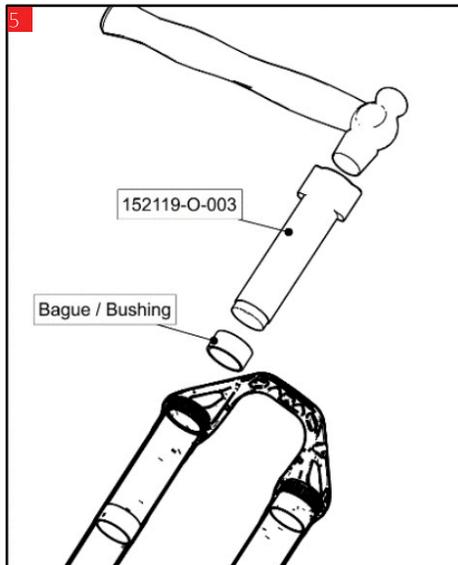
Tool body extraction guide rings (150707-SEO-002) - Guide ring removal cups (152119-SEO-002)



- Carry out the same operation for the different rings to be removed
- Clean before reassembly

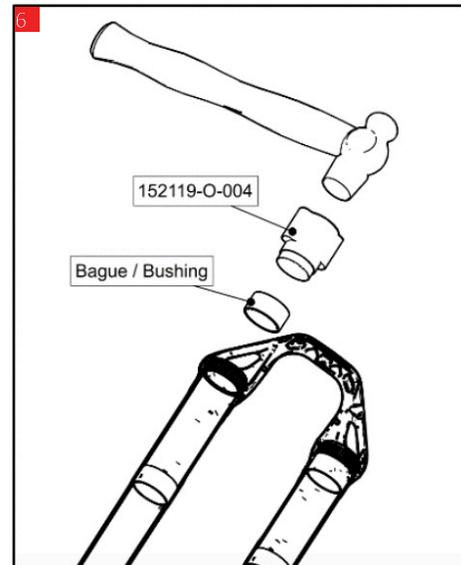
**!** Be careful to use the correct tool for the upper and lower bushings as this can damage the inside of the casting

# DISASSEMBLY



- Take the new lower bushing
- Place it in the inlet of the casting tube and insert the insertion tool
- Tap the tool with a mallet until the ears are in contact with the casting

- Lower ring insertion tool (152119-O-003) - Mallet

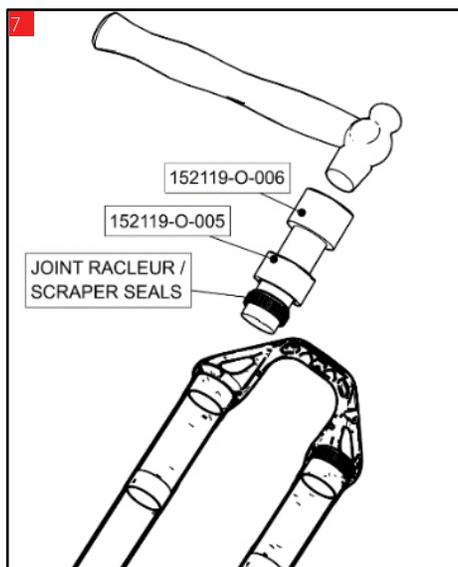


- Perform the same operation as for the lower ring but with the upper bushing tool



**The upper bushing is the one with the largest diameter**

Upper bushing insertion tool (152119-O-004) - Mallet



- Insert scraper seal tool 152119-O-005 onto tool 152119-O-006



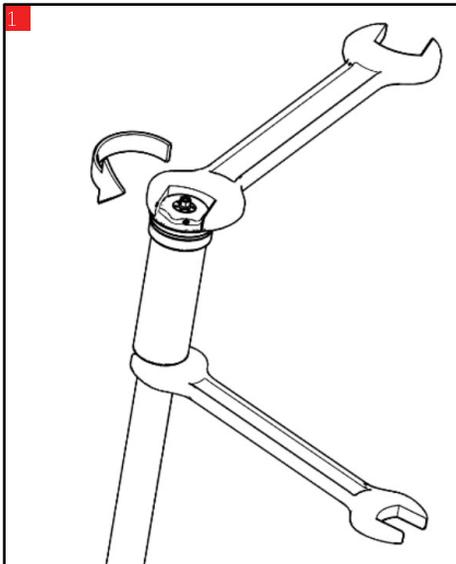
**Ensure that the groove of tool 152119-O-005 is facing the casting**

- Then insert the scraper seal onto tool 152119-O-006 with the seal lip facing up
- Position the assembly in the casting and tap with the mallet until the tool is in contact with the casting

Scraper seal tool body (152119-O-006) - Scraper seal tool (152119-O-005) - Mallet

# DISASSEMBLY

## CLOSED CARTRIDGE DRAINING



- Unlock the compression block of the hydraulic cartridge with two spanners 26 and 24



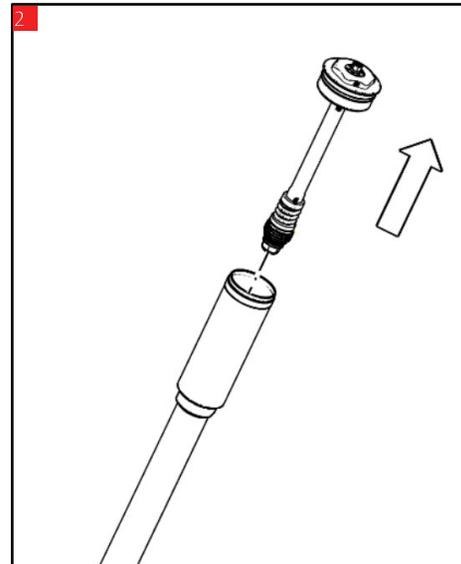
Be careful not to damage the key



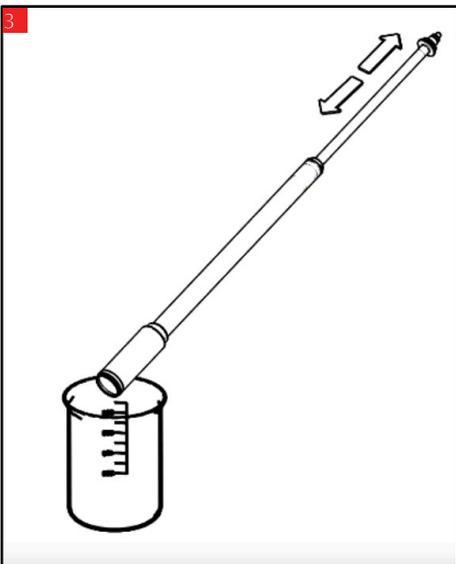
24mm flat spanner



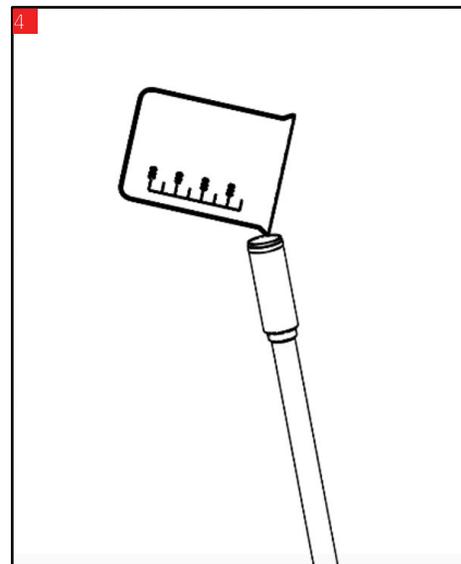
26mm socket



- Remove the compression block from the closed cartridge
- Place it then on your workbench

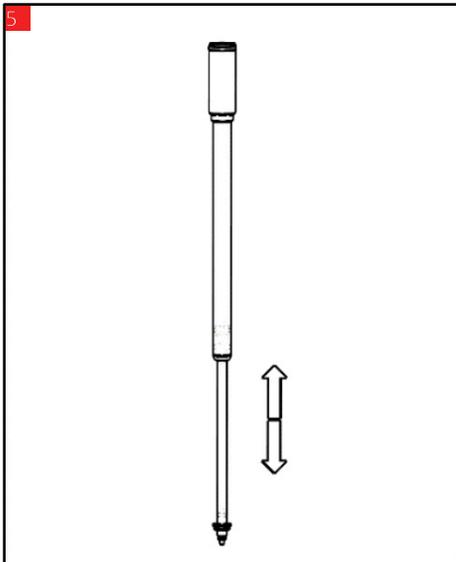


- Drain the closed cartridge in an oil pan
- Move the rod back and forth to remove all the oil
- Leave to drain a few moments

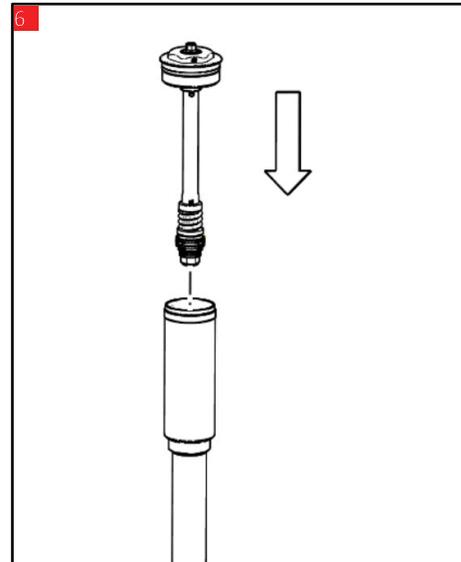


- Fill the closed cartridge with BOS BIOIL oil
- Put a quantity of 80ml

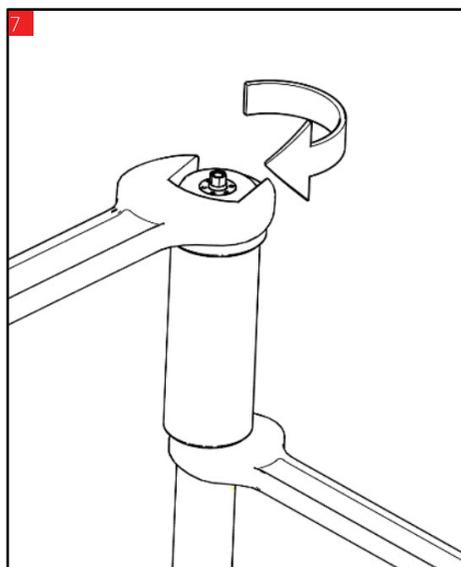
# DISASSEMBLY



- Move the rod back and forth to purge the cartridge



- Insert the compression block in the closed cartridge
- Make sure it is clean before putting it in place



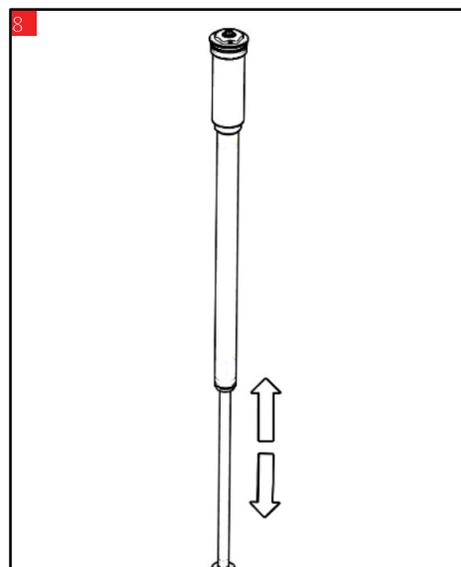
- Tighten the compression block in the hydraulic cartridge
- Do not exceed a torque of 12Nm



24mm flat spanner



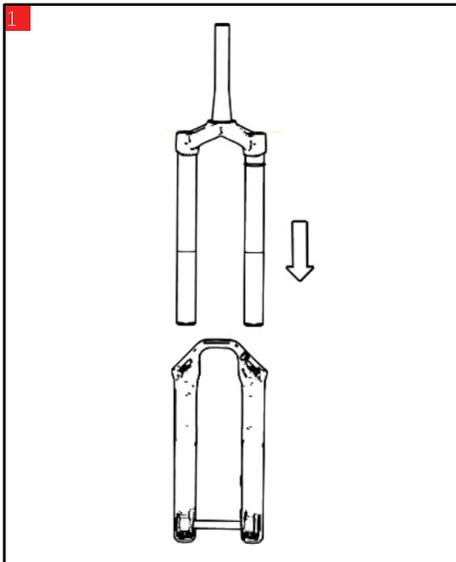
26mm socket



- Move the rod back and forth again to ensure that the closed cartridge is properly purged

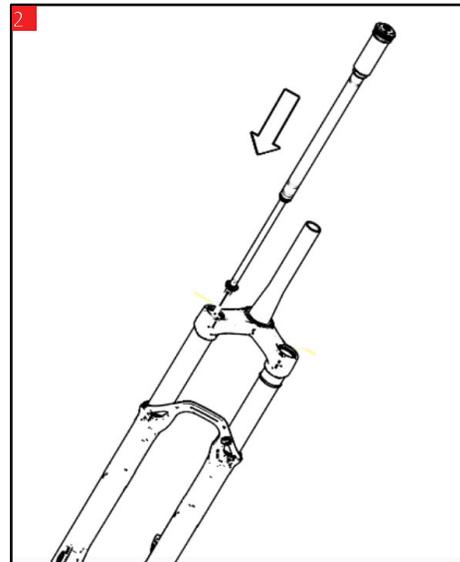
# ASSEMBLY

## HYDRAULIC CARTRIDGE REASSEMBLY

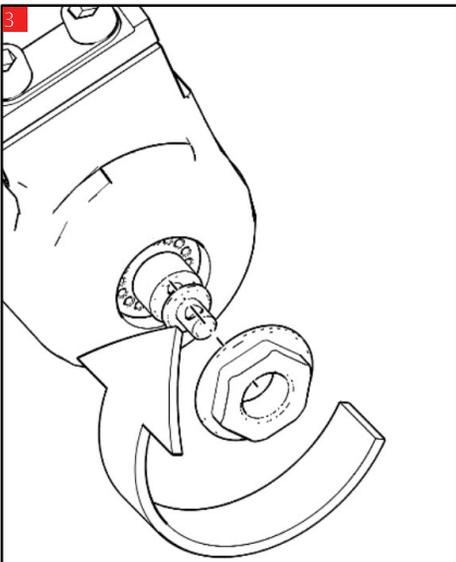


- Apply multi-grease on the scraper seals
- Gently insert the stanchions in the casting

**!** Be careful when passing the stanchions through the bushings  
Be sure to clean your parts before reassembly



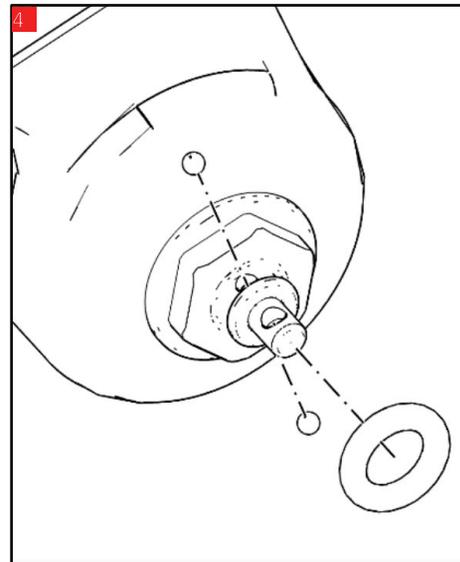
- Gently insert the cartridge in the fork tube
- Apply multi-grease to the lower rod o-ring



- Tighten the lower cartridge nut to a torque of 10Nm

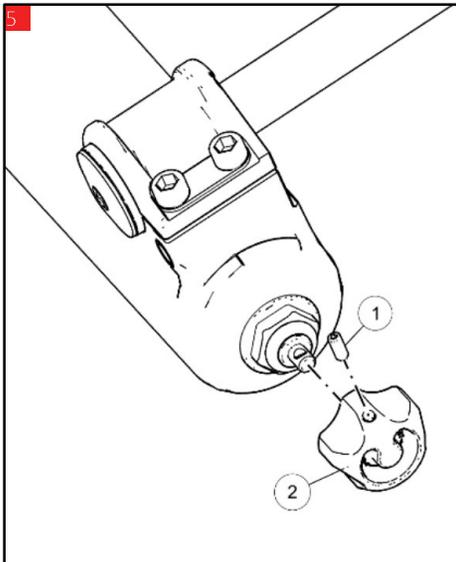


16mm Socket



- Apply white grease to the balls and position them in the holes
- Then insert the seal so that it keeps the balls in place

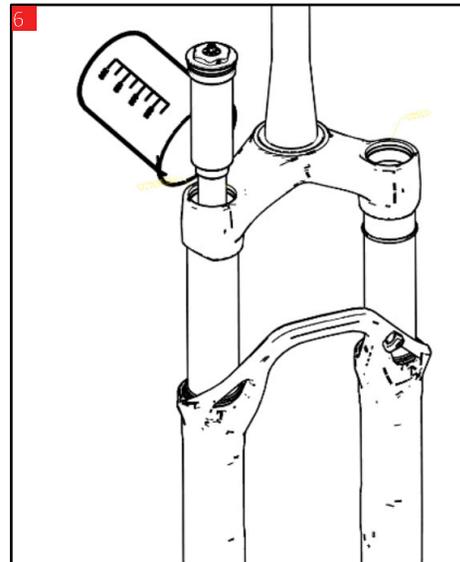
# ASSEMBLY



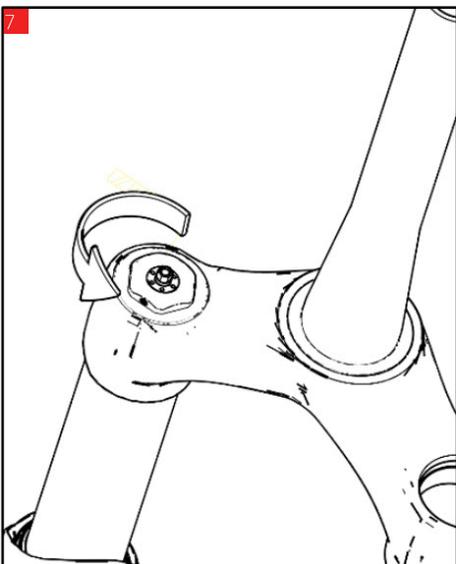
- Insert the rebound knob adjuster
- Then add the retaining screw, and apply Loctite 243
- Tighten to contact



1.5mm Allen key



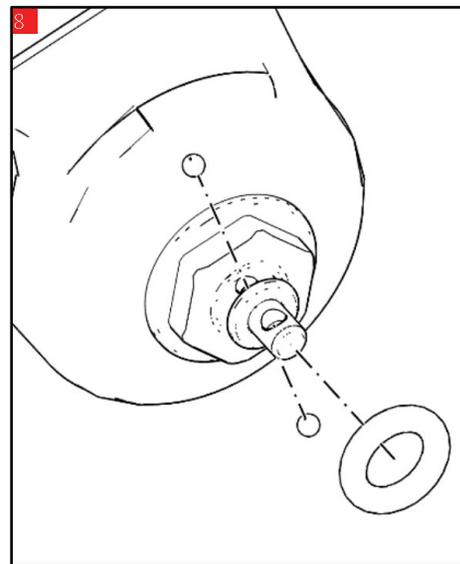
- Fill the air fork tube with BOS AMX6 oil
- The recommended amount of lubricating oil is 40ml



- Tighten the hydraulic cartridge in the fork tube
- Do not exceed a torque of 10Nm



26mm Socket



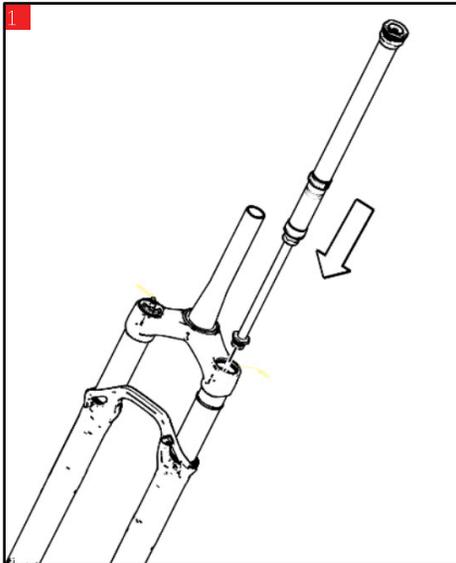
- Insert the compression knob adjuster
- Then tighten the locking screw to a torque of 2Nm



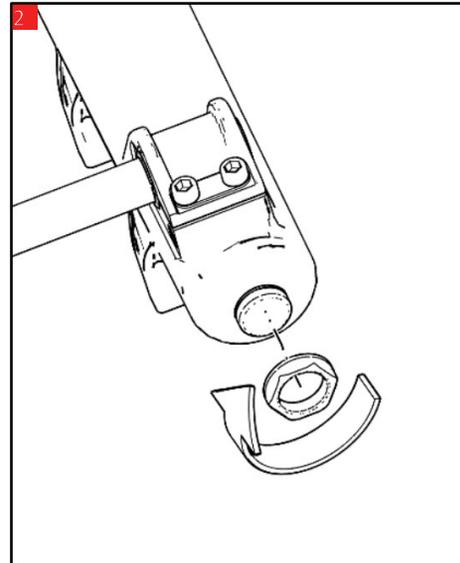
2.5mm allen key

# ASSEMBLY

## AIR CARTRIDGE REASSEMBLY



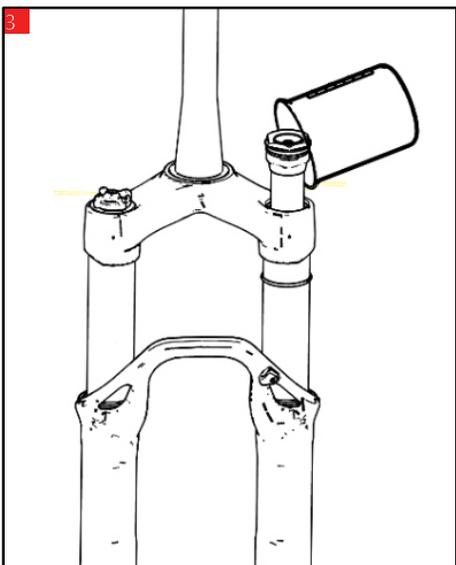
- Slowly insert the air cartridge in the fork tube
- Apply multi-grease to the lower rod o-ring
- Remember to inflate the fork slightly so that the rod comes into contact with the bottom of the casting



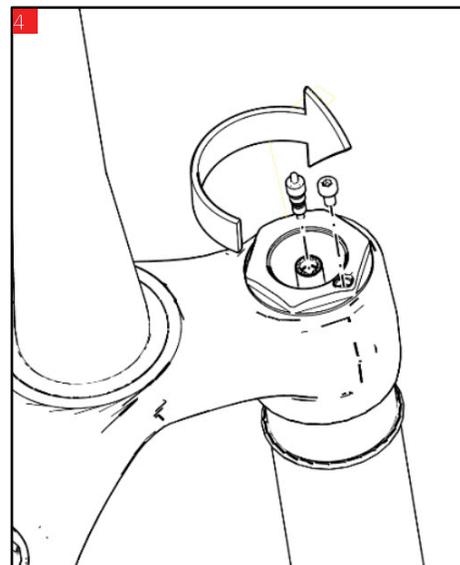
- Tighten the air cartridge lower nut
- Do not exceed a torque of 10Nm



21mm Socket



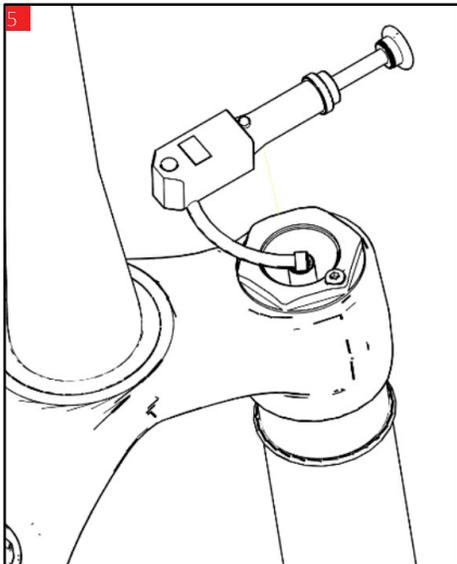
- Fill the air cartridge tube with BOS AMX6
- The recommended amount of lubricating oil is 40ml



- Screw the air cartridge back into the fork tube
- Do not exceed a torque of 10Nm
- Also insert the Schrader valve and bleed screw if you had removed them



34mm Socket

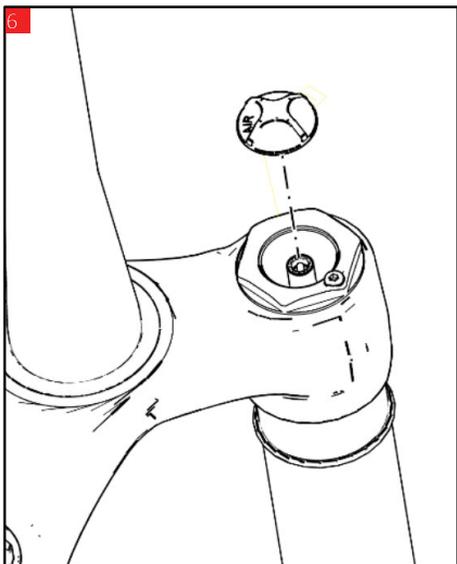


- Inflate the fork to the desired pressure
- Mount the fork on your bike according to the manufacturer's recommendations
- Compress your fork to balance the air chambers
- Check and adjust the air pressure until your fork pressure is as you expect after compression



During the first compression you will feel the balancing moment  
A hard fork at the beginning of the race is synonymous with a bad balance

BOS digital pump (GS-05/1)



- Screw the top cap of the air cartridge back on by hand



Then remember to adjust your compression and rebound to the values you noted before disassembly. Always adjust from the fully closed position.

# PRESSURE TABLE

## MTB Use

Rider weight (Kg)	60/132	65/143	70/154	75/165	80/176	85/187	90/198	95/209	100/220	105/231	110/242
Pressure (PSI) IDYLLE 39 SC 170 mm	159	171	184	196	208	220	233	245	257	269	282
Pressure (PSI) IDYLLE 39 SC 180 mm	150	162	173	185	197	208	220	231	243	255	266
Pressure (PSI) IDYLLE 39 SC 190 mm	142	153	164	175	186	197	208	220	231	242	253

## E-MTB Use

Rider weight (Kg)	60/132	65/143	70/154	75/165	80/176	85/187	90/198	95/209	100/220	105/231	110/242
Pressure (PSI) IDYLLE 39 SC 170 mm	184	196	208	220	233	245	257	269	282	294	306
Pressure (PSI) IDYLLE 39 SC 180 mm	173	185	197	208	220	231	243	255	266	278	290
Pressure (PSI) IDYLLE 39 SC 190 mm	164	175	186	197	208	220	231	242	253	264	275



Minimum operating pressure: 115 PSI  
Maximum operating pressure: 350 PSI

Congratulations, you have just completed the overall service of your BOS fork.

Ride slowly at first to make sure your motorcycle and BOS fork are working properly.

Thank you again for choosing BOS Suspension products.









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