

Product

Exploded View

Disassembly & Assembling



Shock absorber

3612 BAEM

Introduction	2
Exploded view	3
Adjustment	4
Disassembly piston-rod	5
Disassembly adaptor DU-bush	15
Disassembly tube-side	18
Disassembly heim-joint KGW	20
Assembling heim-joint KGW	22
Assembling piston-rod	24
Assembling adaptor DU-bush	31
Assembling tube-side	36
On pressure with nitrogen	42
Adjusting	45



Introduction

General notice

Pay attention to the following notes, when you are working with WP Suspension products as described in this workshop manual.

Always use clean and professional tools.
Regular you need next to the general equipment, the special tools of WP Suspension.
These tools with a unique "T" number (available by WP Suspension) protect you from damaging the parts.

Always use aluminium protector-plates, when clamping our products or parts in the vice.

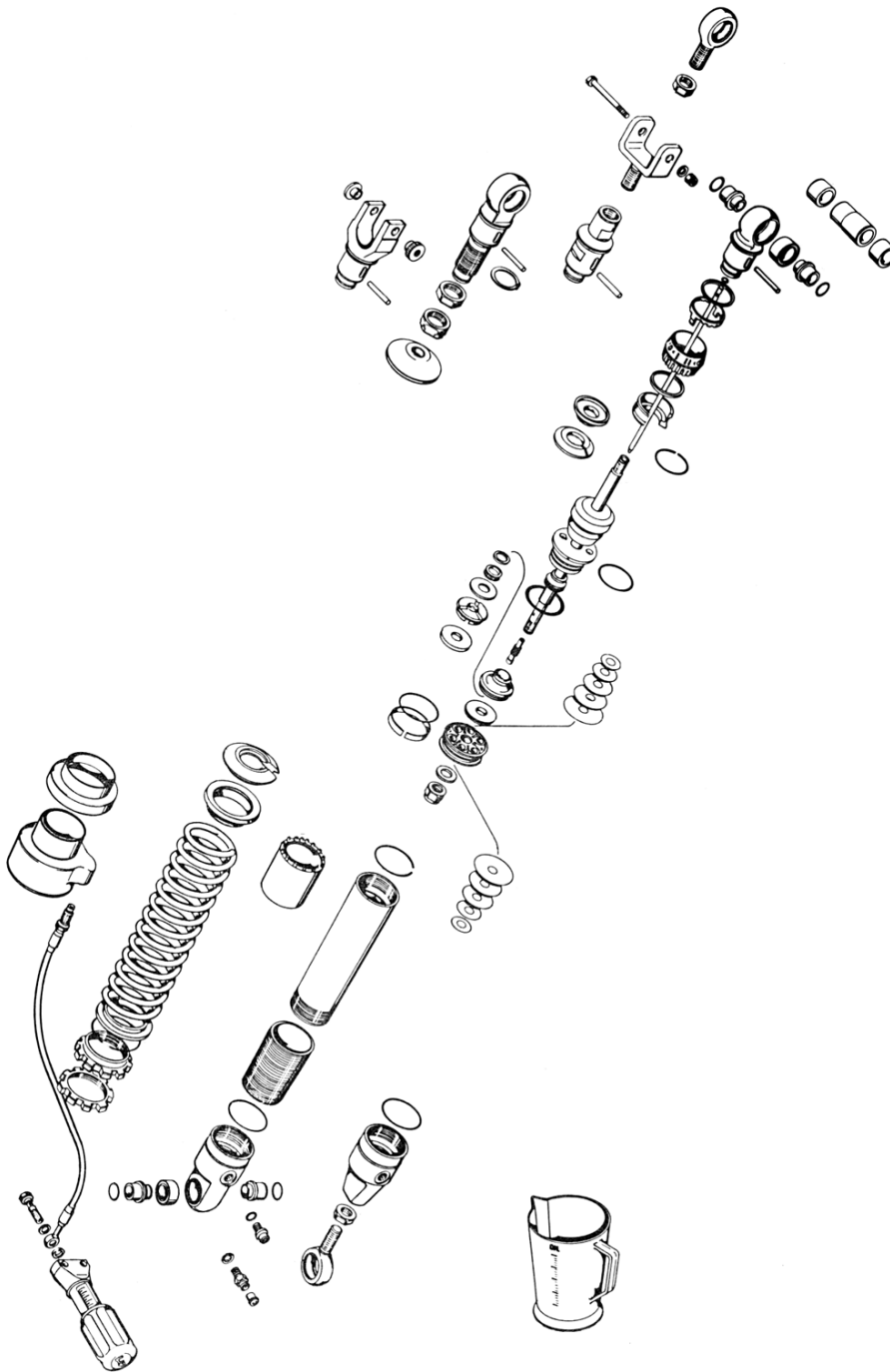
Replace always damaged or worn parts.

Clean all parts before assembling.

Caution:

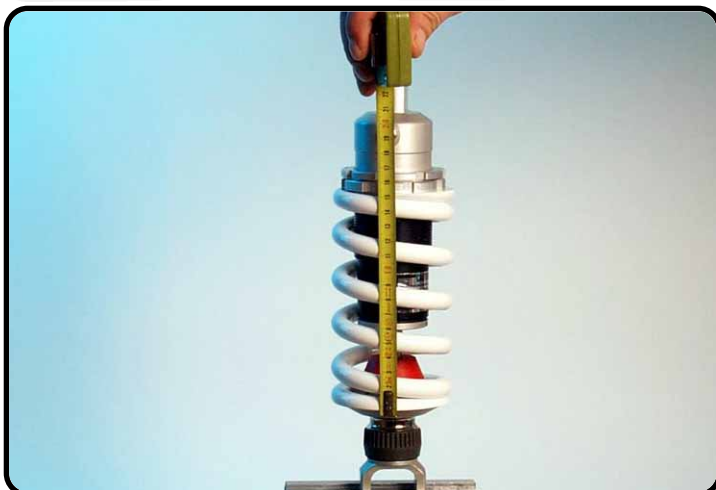
Many times it is necessary to assemble parts with T131, T132 and T163.
These parts must to dry for at least four hours!!!

Exploded view

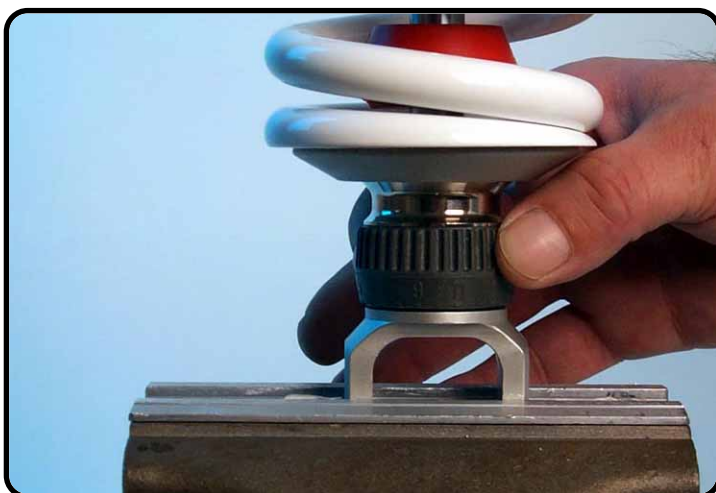


Adjustment

Measure the length (preload) of the spring.



Take note of position rebound.

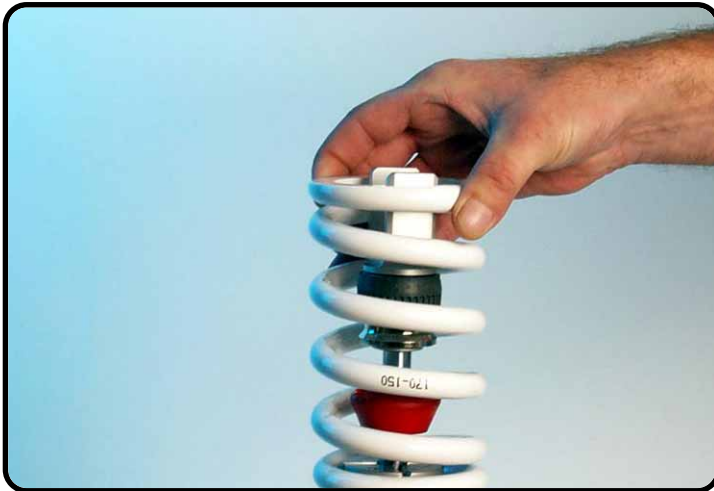


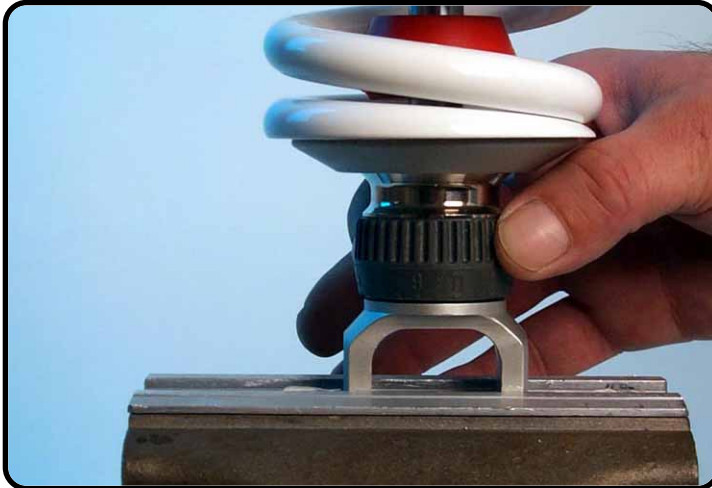
Disassembly piston-rod

Disassemble the spring with T101S and remove the open spring retainer.

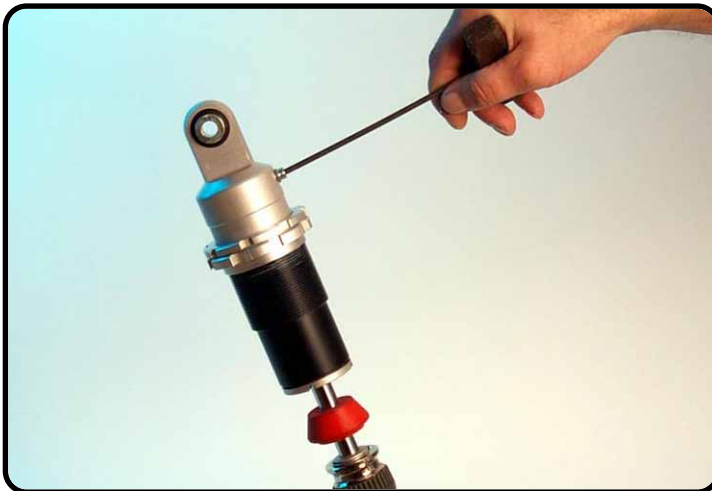


Remove the spring.





Adjust the rebound to position 1.



Clamp the shock absorber in the vice and unscrew the nitrogen plug several turns, release the pressure slowly, leave the plug in the bottom.



Unscrew with T125S the screw cap.



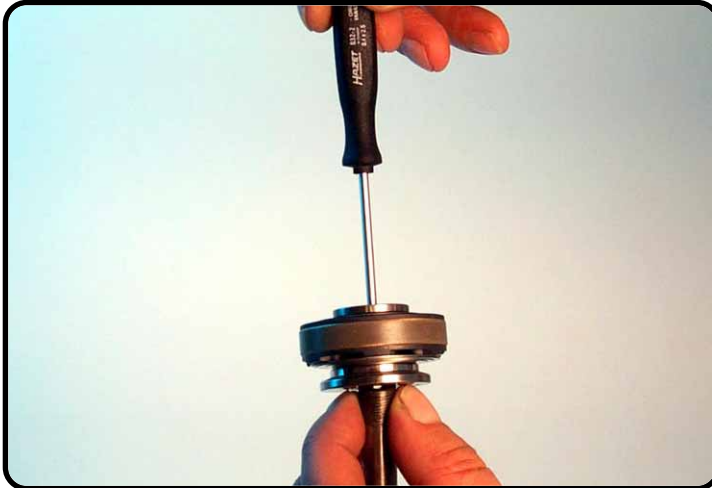
Remove the O-ring out of the tube.



Pull the piston-rod "complete" out of the tube.



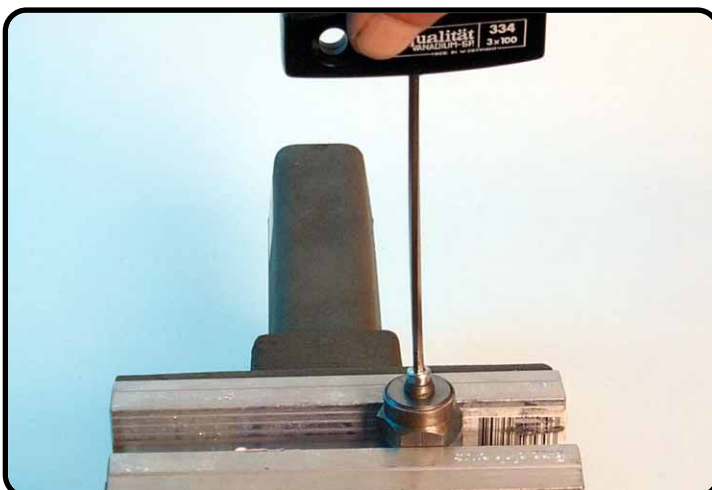
Unscrew the piston-rod nut. (size 22)



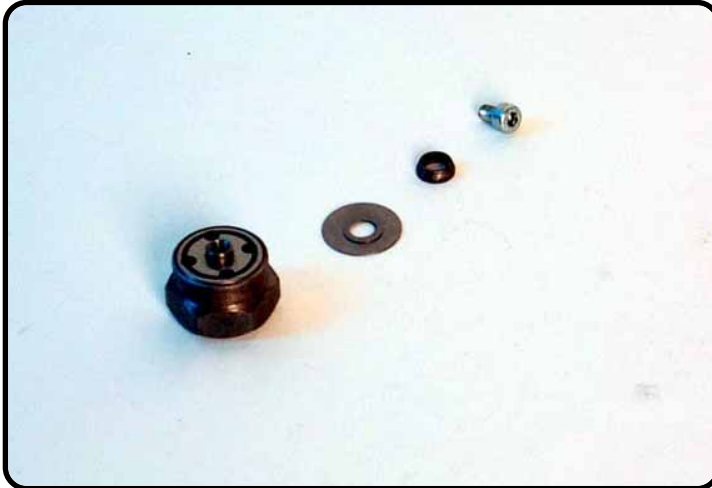
Place a screwdriver on top of the piston-rod and remove the entire assembly.



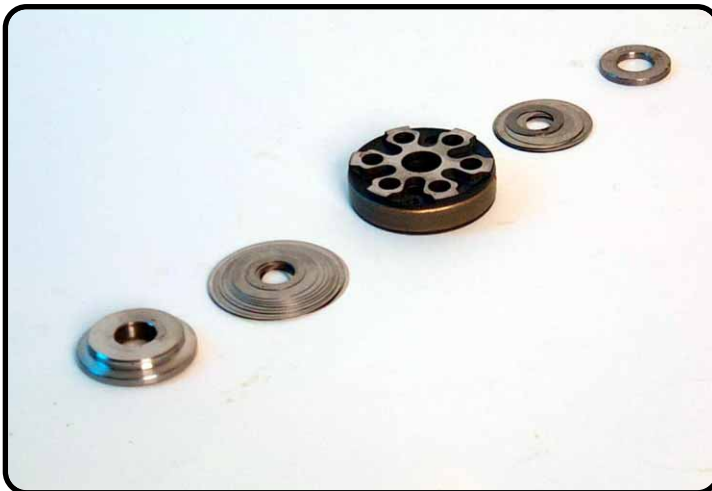
Piston-rod nut BA.



Disassemble the piston-rod nut.



- Piston-rod nut
- shims
- bush
- bleed bolt (Allen screw)



- rebound bush plane
- compression shims
- piston
- rebound shims
- washer



Remove (should this be the case) the spacers.



Remove the adaptor DU-bush.



Remove the circlip and O-ring.



Remove dirt scraper and screw cap.



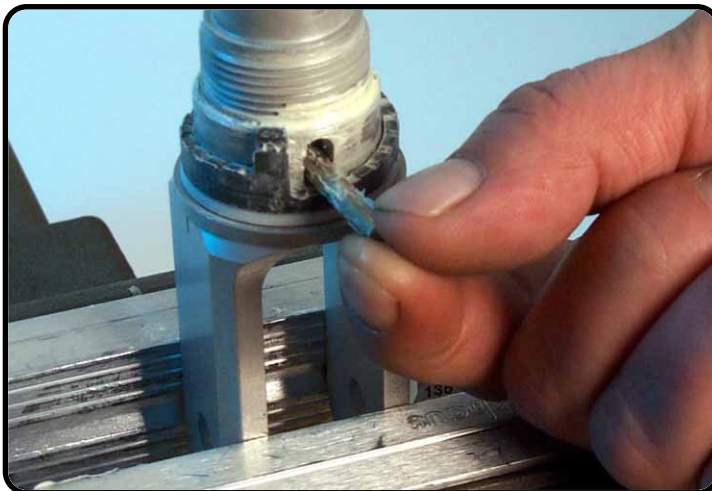
Remove the bump rubber.



Remove the circlip and ring.
(On picture with nut)



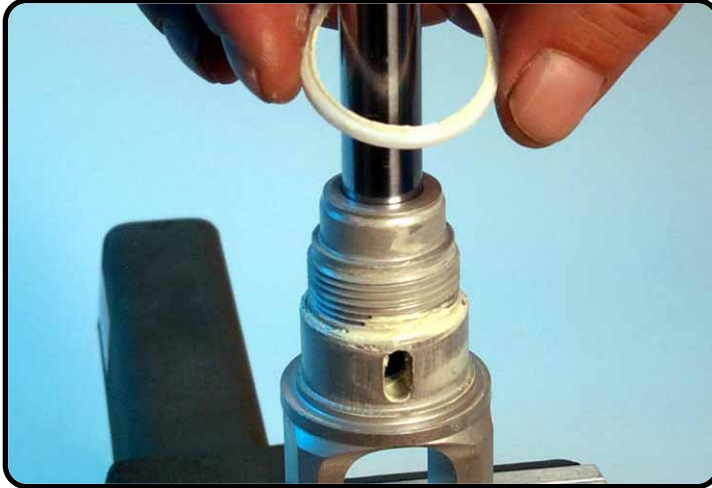
Take off adjusting knob rebound.



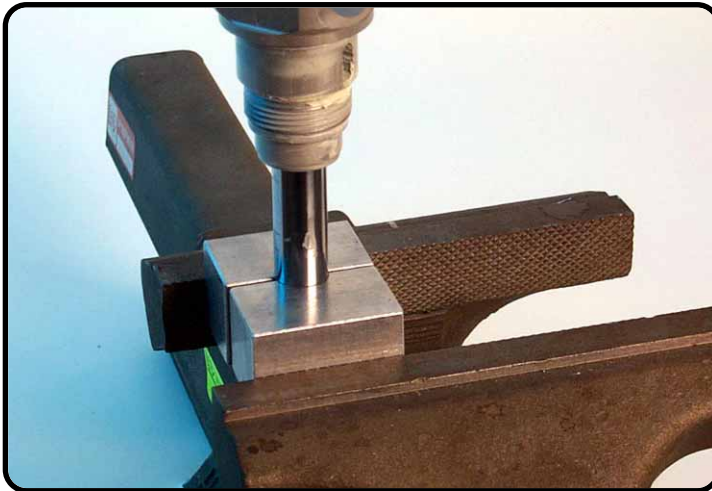
Remove the pin. (D4)



Remove the position ring.



Remove the seal.



Clamp the piston rod in the vice with T104S.

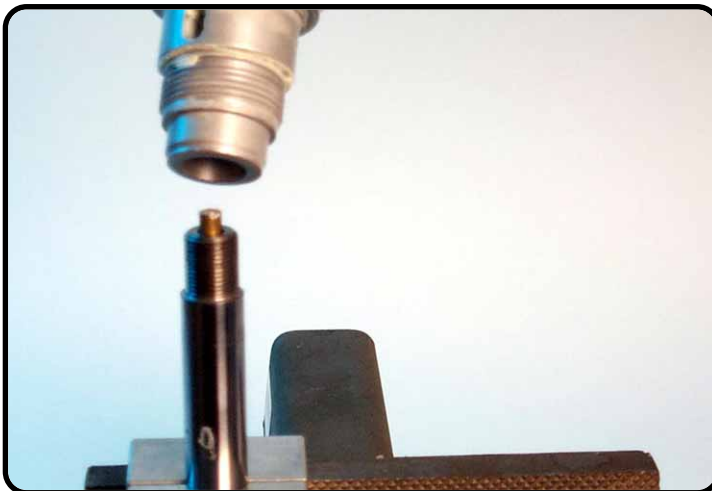


Heat mounting eye.

On picture mounting fork, but the handlings are exactly the same.



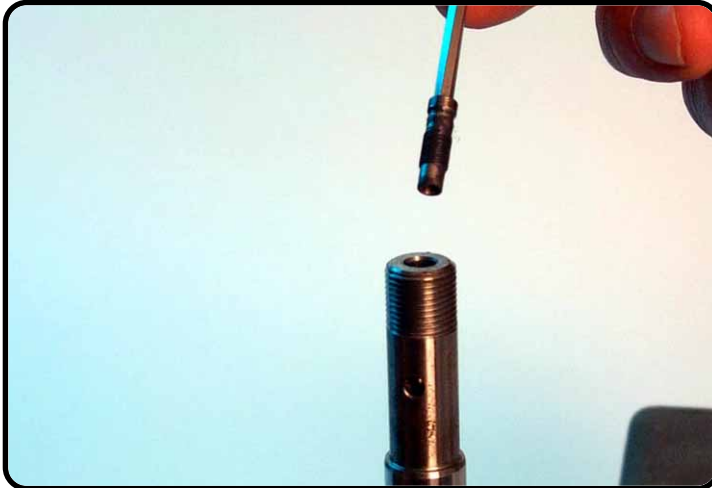
Unscrew the mounting eye.



Remove the mounting eye.



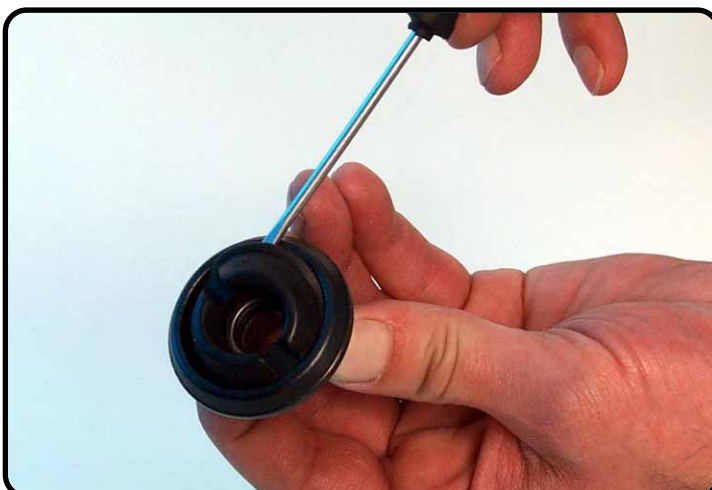
Unscrew the seat with Allenkey size 3.



Remove the seat.

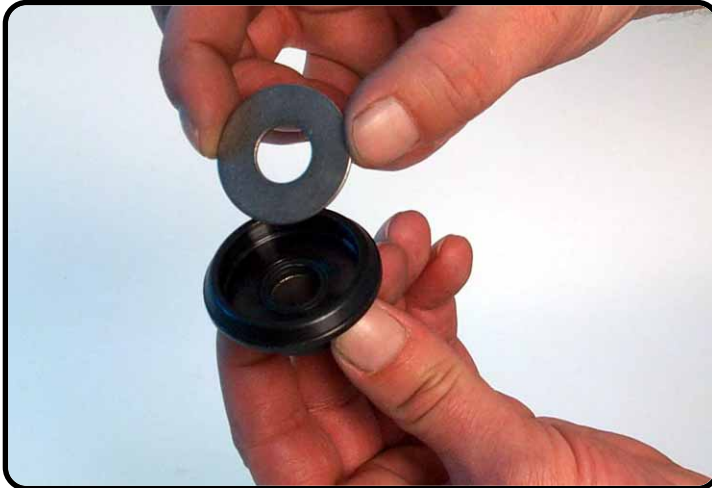


Remove the rebound adjusting needle out of the piston-rod.



Disassembly adaptor DU-bush

Prise rebound rubber out the adaptor DU-bush.



Remove the washer.



Remove the Quad ring and back-up ring.



Disassemble the DU-bush with T105S and part of T1150.



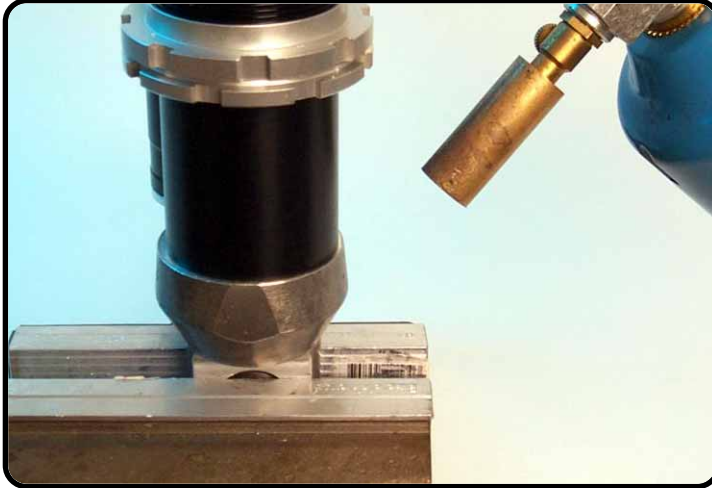
Press the DU-bush out of the adaptor.



- rebound rubber
- washer
- quad ring
- back-up ring
- DU-bush
- adaptor

Disassembly tube side

Heat bottom.



Unscrew the tube with T146 and T315.



Clamp tube with T146 and T315 and heat threaded bush.





Unscrew threaded bush with T304.

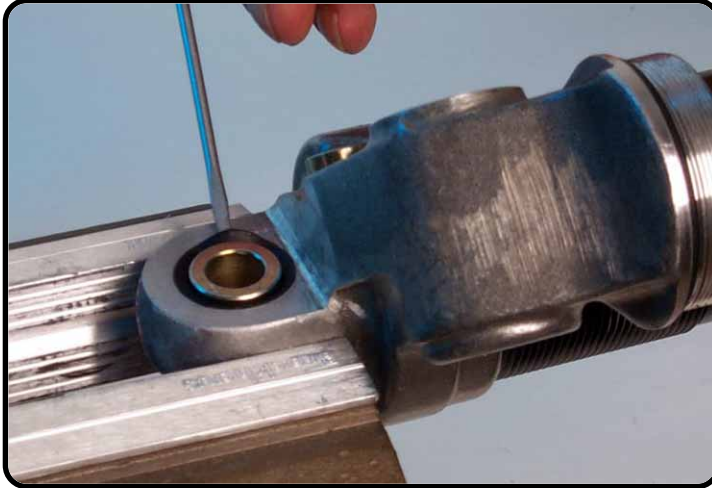


Threaded bush with the spring retainers.



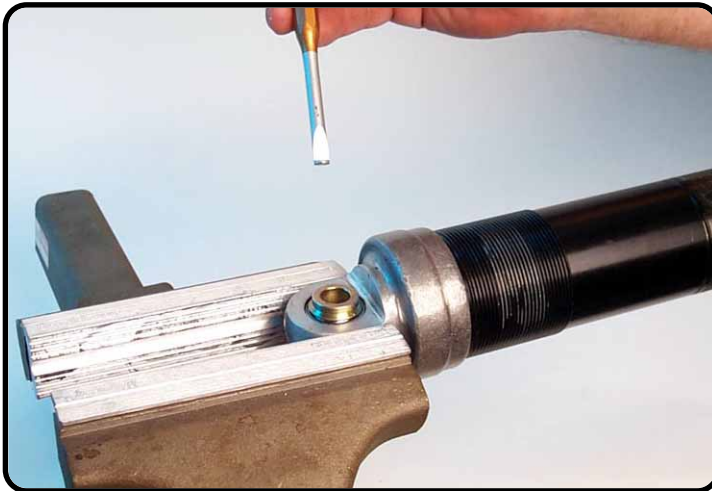
Disassemble the spring retainers with T304.

Disassembly heim-joint KGW

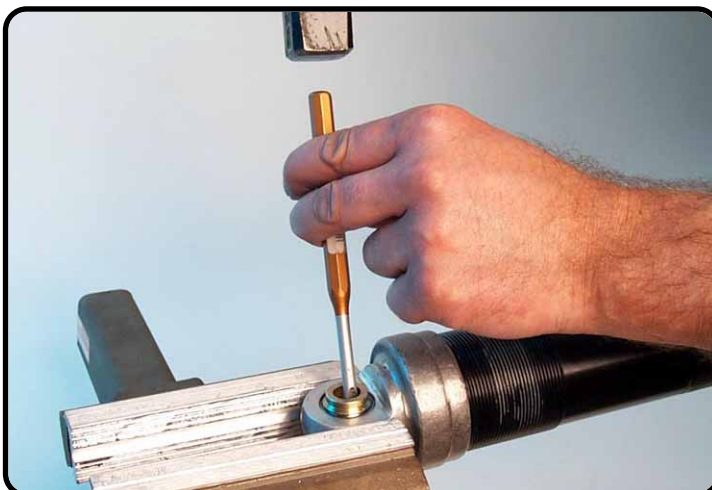


Remove the seals on both sides.

On pictures bottom VP, but the handlings are exactly the same.



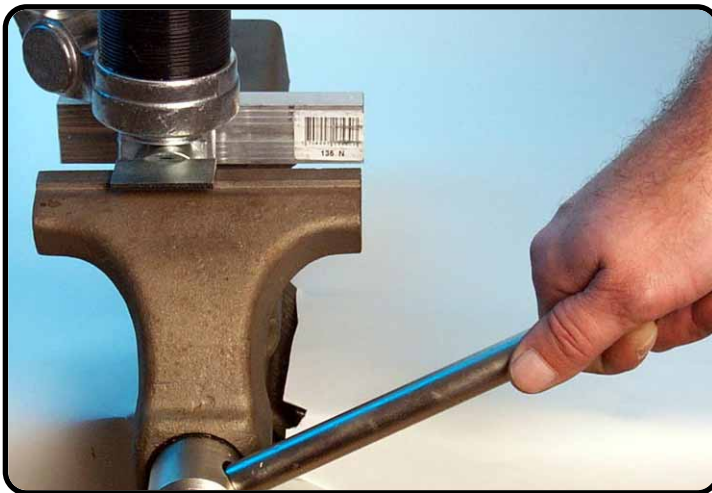
Tap the adaptor bushes out the heim-joint KGW with T120.



Tapping the adaptor bush out.



Disassemble heim-joint KGW with T130S...



...and with support of the vice.

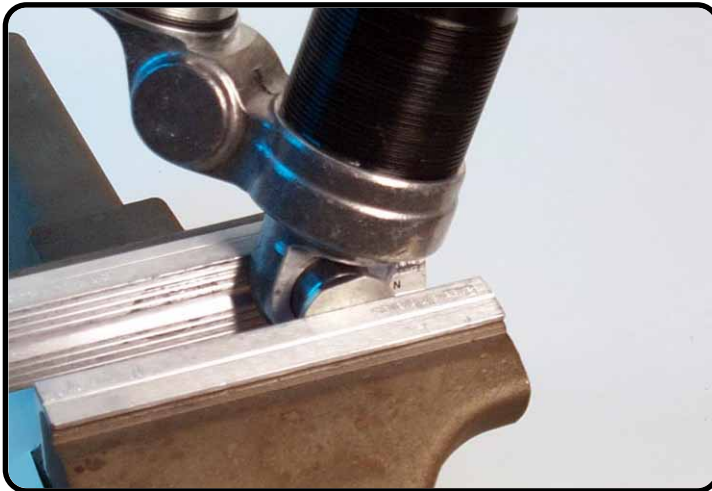


- seal
- adaptor bush
- heim-joint KGW
- bottom
- adaptor bush
- seal

Assembling heim-joint KGW



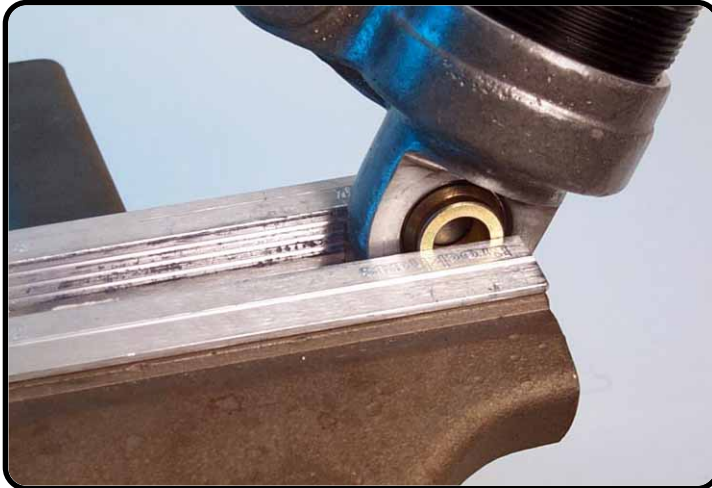
Drip on the innerside of bottom-eye T163 and mount heim-joint KGW with T129.



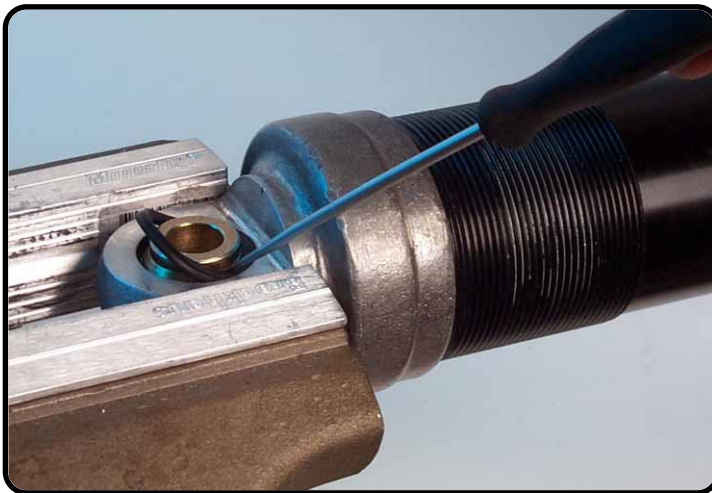
Press the heim-joint into the bottom with the vice.



Assemble with T129 adaptor bush on one side...

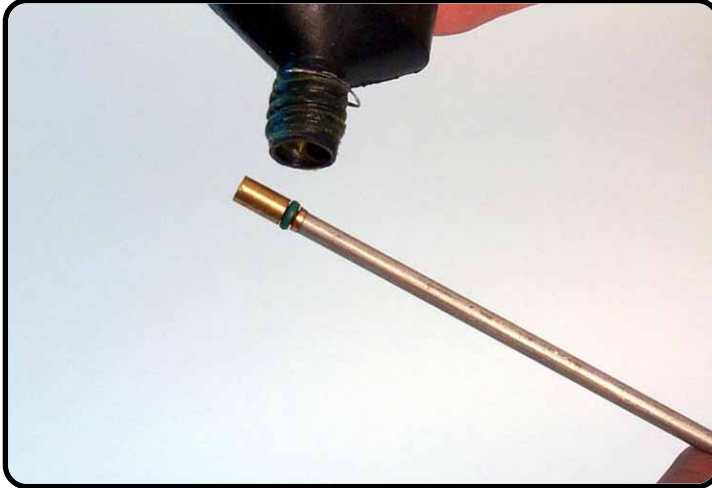


...and without tool the other side.



Assemble the seals in the groove of bottom-eye.

Assembling piston-rod



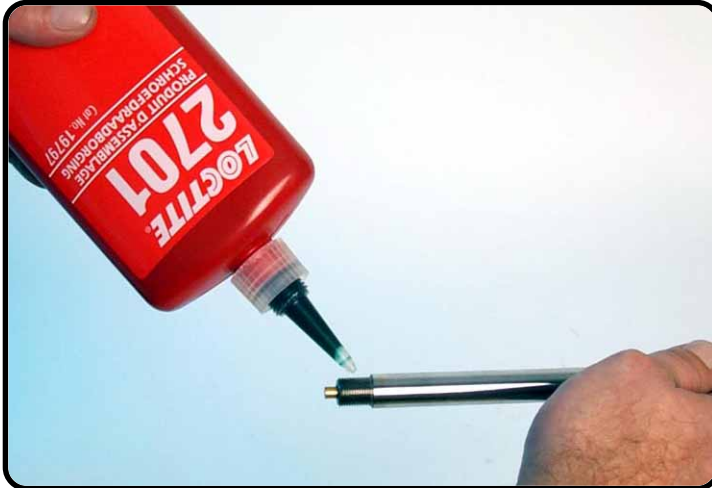
Grease O-ring adjusting needle rebound with T158.



Assembling the adjusting needle into the piston-rod.



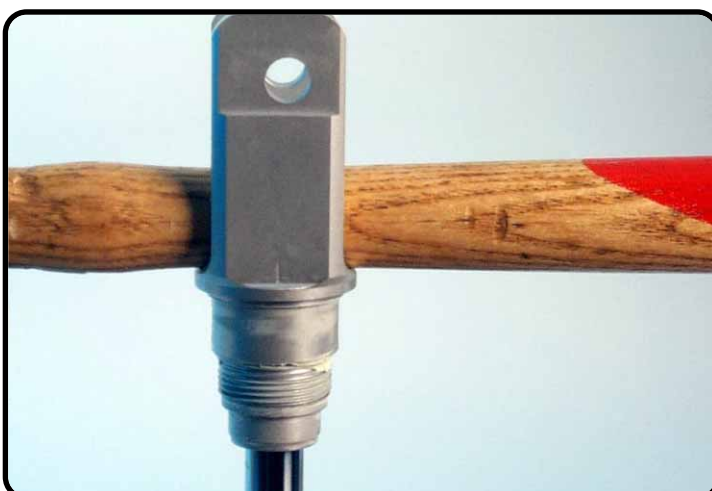
Drip on the thread of the mounting eye T132.



Drip on thread piston-rod T132.



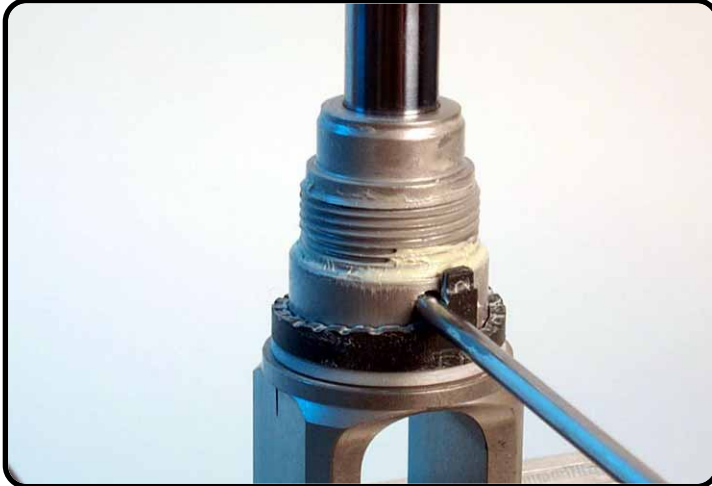
Screw the mounting eye on the piston-rod.



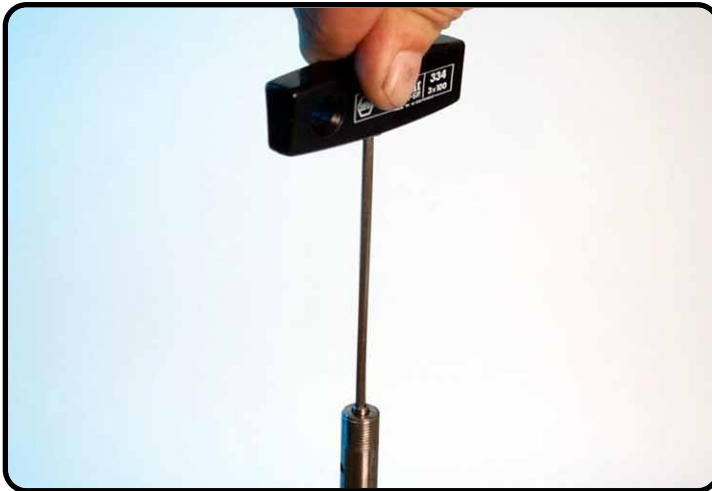
Tighten the mounting eye.



Replace the seal and position ring.



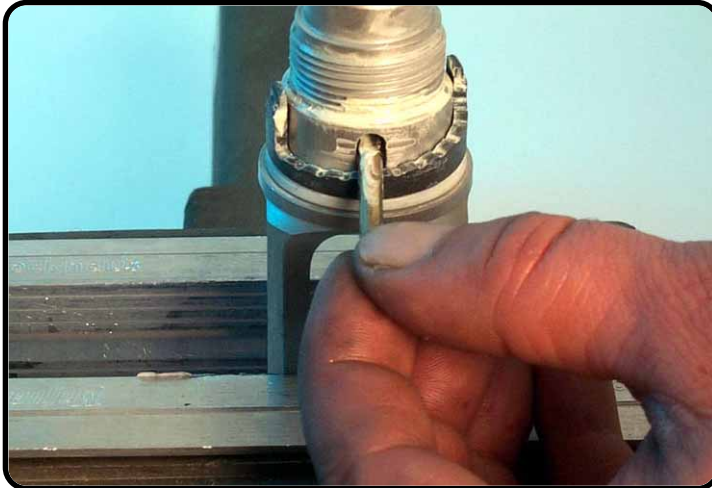
Place T107S through mounting eye under the needle and adjust position ring in the highest position.



Assemble a new seat greased with T152 on the thread.



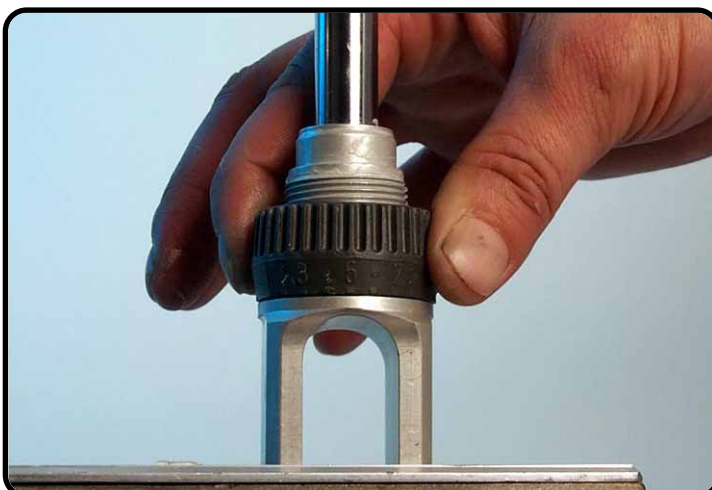
Tight seat light till T107S and turn 2 rotations back.



Grease ring and pin with T159 and assemble the pin.



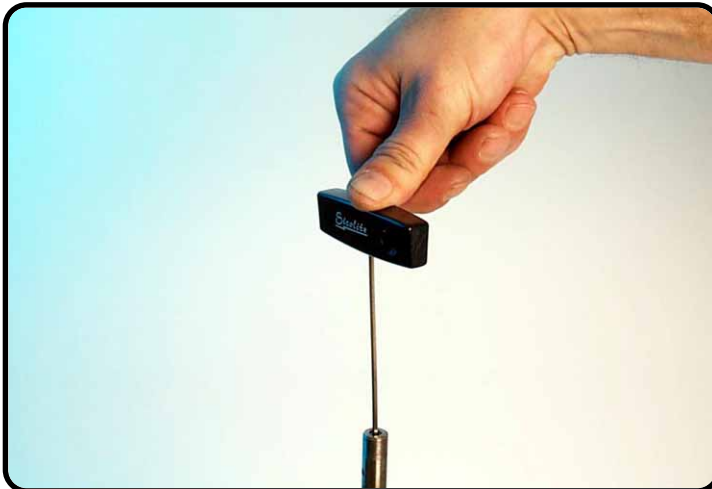
Grease the innerside of the adjusting knob with T159 and replace seal.



Assemble the adjusting knob and turn the knob to position 1.



Assemble the ring and springing on the mounting eye.



Push the needle downwards on the pin with Allenkey size 2.



Place T313 on top of the piston-rod.



Assemble the bump rubber.



Assemble the screw-cap.



Grease innerside dirt scraper with T625 and assemble.



Replace the O-ring.



Assembling adaptor DU-bush

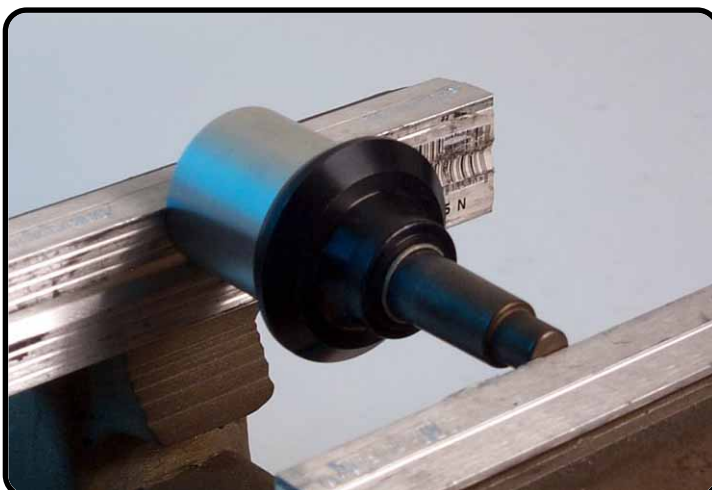
Press DU-bush into the adaptor with T150S.



Press the DU-bush into adaptor with support of the vice.



Calibrate the DU-bush with T149.



Drive calibration mandrel (T149) through the DU-bush.



Assemble the back-up ring.



Assemble the quad ring.



Assemble the washer.



After assembly the rebound rubber, check if the rubber can be turned in the holder.



Assemble the DU-bush adaptor.



Should it be the case to assemble the spacers, then place them with the flat side on top of the rebound rubber.



Replace the entire damping package.



Assemble the piston-rod nut...



...and tighten the nut to a torque of 30Nm.

Assembling tube side

Assemble both spring retainers on the threaded bush.

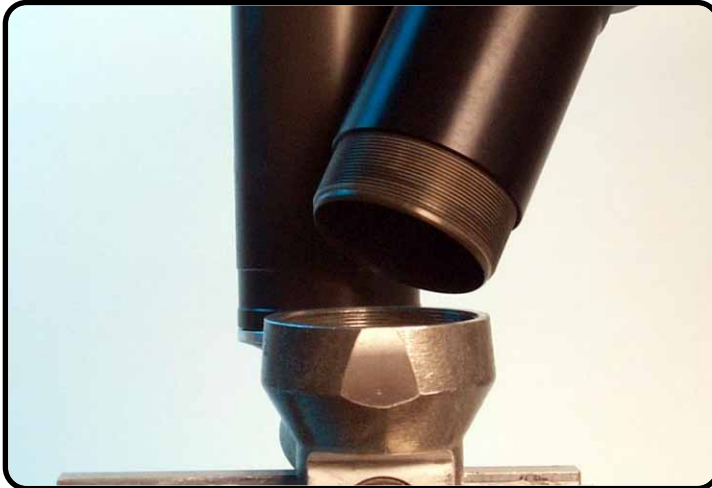


Wet T132 on thread tube and bottom.



Assemble threaded bush on the tube and screw the bush till the end of the thread.





Assemble the tube.



Tighten the tube with T146 and T316.



Screw the threaded bush against the bottom.

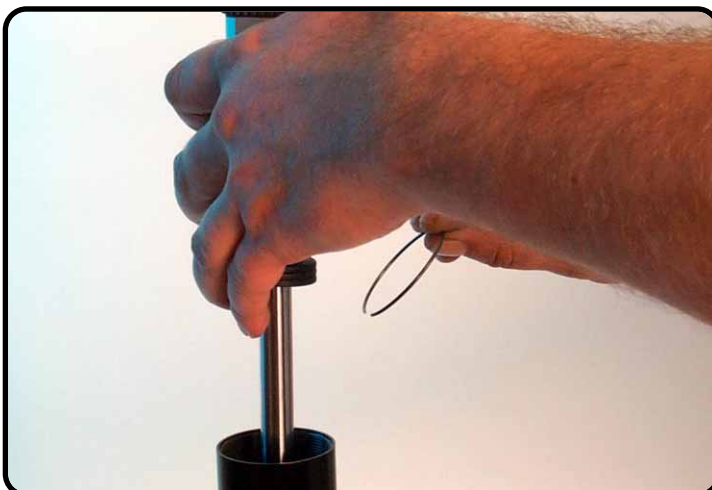


Screw down threaded bush with T304



Note: before filling tight the nitrogen-plug.

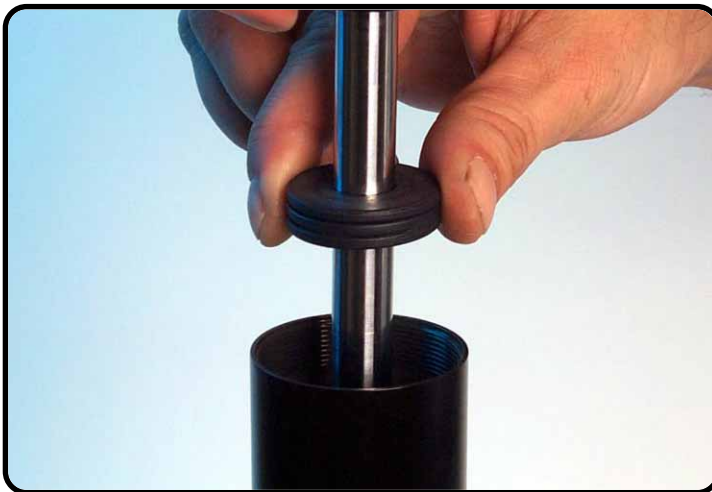
Fill the tube with oil till 65mm from the edge of the tube.



Slide piston-rod "complete" into the tube and assemble the springring above the piston in the groove with support of....



...T317.
Pull light the piston against the springing and hold this till assembling the screw cap.



(Assemble the spacers)



Assemble the adaptor DU-bush.



Remove (if necessary) the oil above the adaptor.



Slide the O-ring against the adaptor.



Slide the dirt scraper against the adaptor.



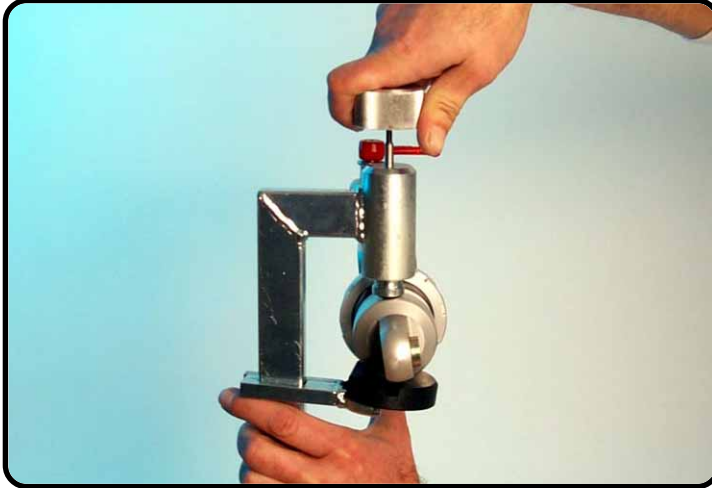
Screw the screw cap into the tube.



Tighten the screwcap with T125S.

On pressure with nitrogen

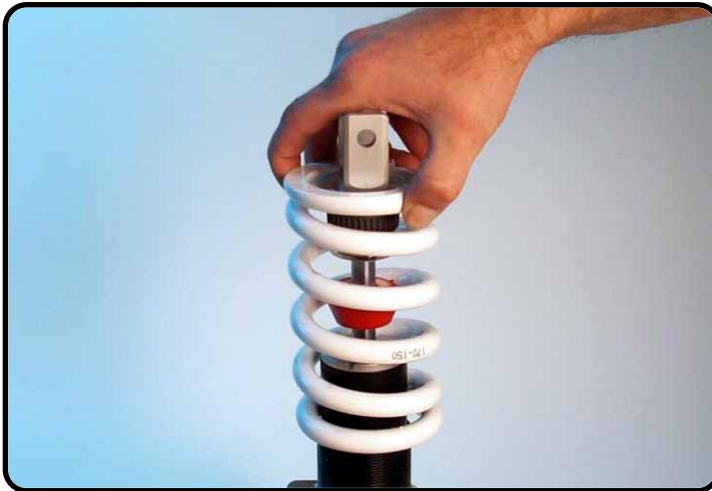
Place the shock absorber with support of T169 and T170S and unscrew the plug several turns and fill the damper with nitrogen (± 25 sec.) and tighten the nitrogen plug under pressure.



Mounting spring



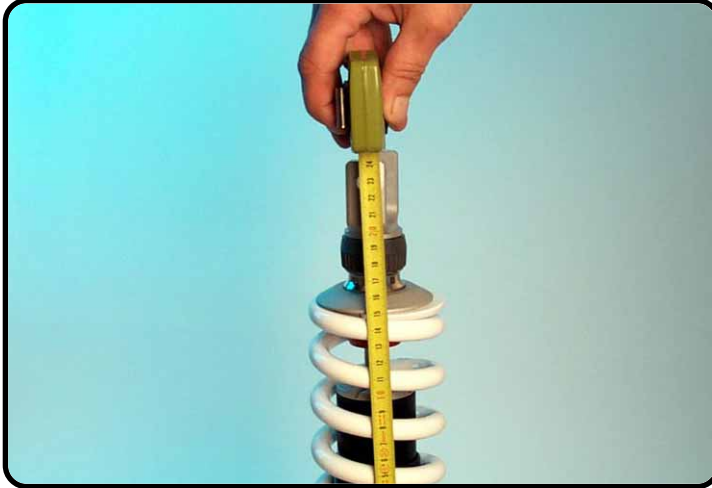
Turn mounting eye parallel with the bottom eye.



Assemble the spring.



Assemble the open spring retainer with T101S.
Closed side of the retainer on the end of the coil.



Adjust the spring preload.



Tighten the spring retainers with T304.

Adjusting

Position rebound!

