

Product

Exploded View

Disassembly & Assembling



Frontfork

4054 MX Top Adjuster

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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.

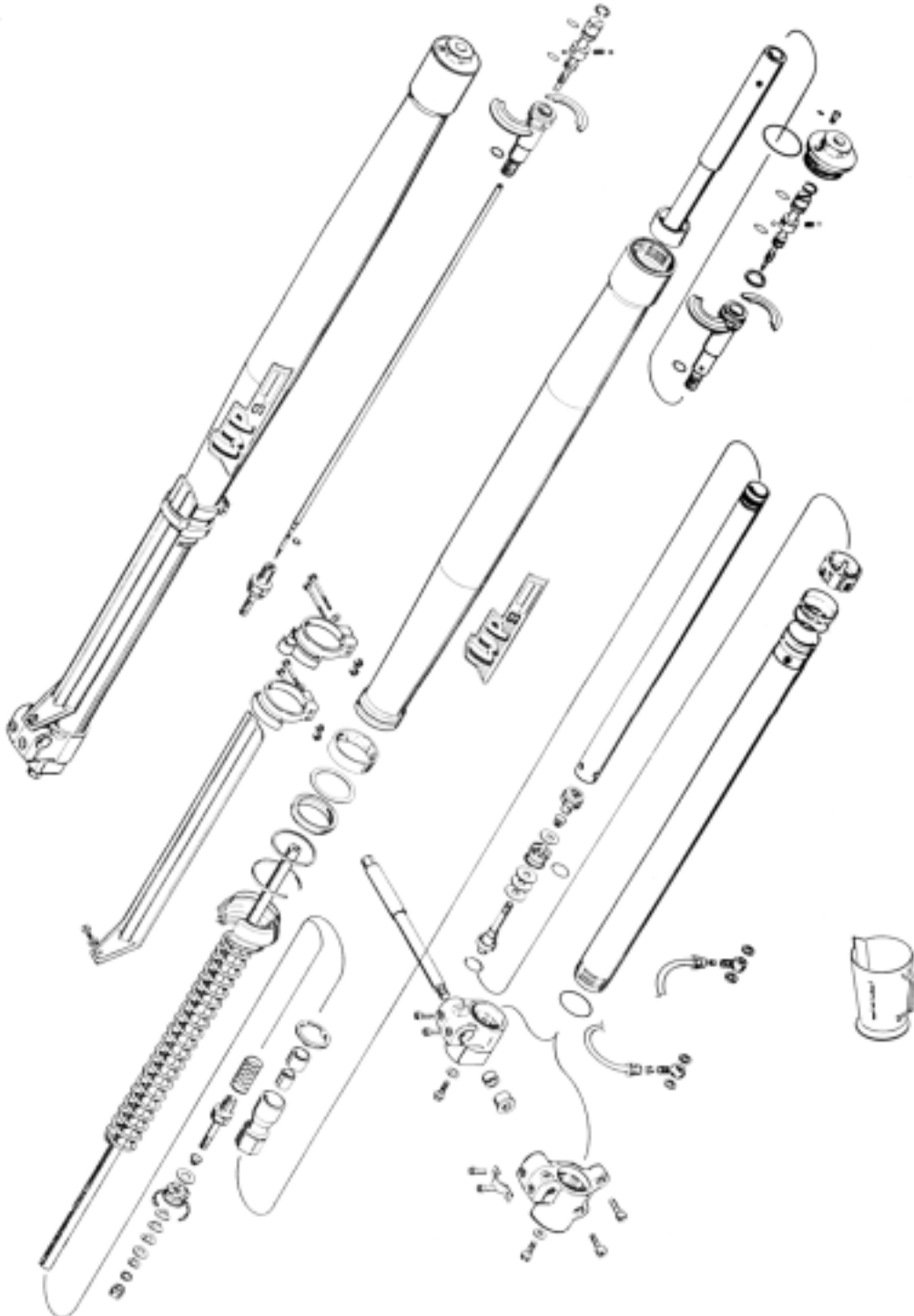
Replace always damaged or worn parts.

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



Disassembly forkleg

Clamp the forkleg in the vice with T501S.



Note the position of rebound/compression by turning the adjustment screw to the right.



Unscrew the screw-cap. (size 24)



Remove the screw-cap.



Check the rubber sealing ring inside.



Clamp the axle-clamp in the vice.



Let the outer-tube down to the axle-clamp.



Pull the spring down and remove both spring retainers.



Remove the preload spacers and the steel washer.



- steel washer
- preload spacers
- spring retainer half



Take the spring out.



Check and note the oil level with T137S. Slide the O-ring to the fully compressed outer-tube to the edge.



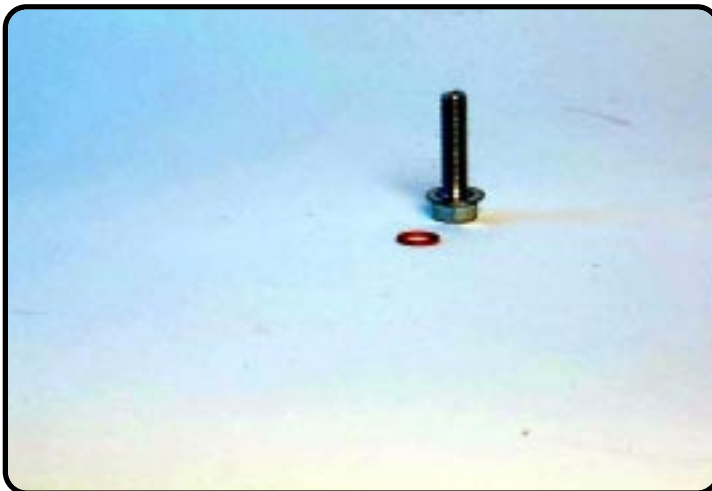
Drain the oil out the forkleg. Move the piston-rod up and down several times and drain the rest of the oil out the forkleg.



Clamp the axle-clamp in the vice so that the forkleg is at about a 45 degrees angle.



Unscrew the bolt out the axle-clamp.



Bolt and copper washer.



Pull the cartridge out the forkleg.



Remove the cartridge.



The cartridge.



Extend the outer-tube $\pm 10\text{cm}$ from the axle-clamp.



Disassemble the bush out the outer-tube.



Push the outer-tube down to the axle-clamp and disassemble the plastic retainer with T614 from the inner-tube.



Remove the plastic retainer.



Disassemble the dust stripper.



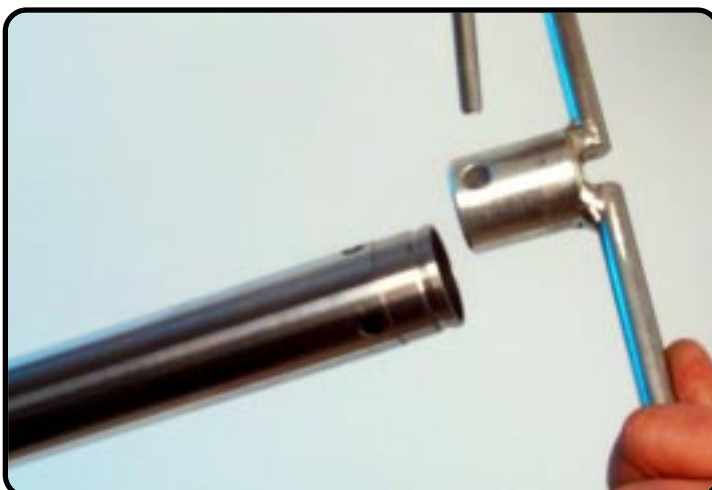
Pull slowly the outer- from the inner-tube.



Remove the dust stripper.



Heat the axle-clamp.



Use T601S (with T605) to disassemble the inner-tube from the axle-clamp.



Unscrew the inner-tube.



Remove the inner-tube.



Lift the O-ring out the groove of the axle-clamp.



Hold the outer-tube up side down, and remove the washer and DU-bush.



Clamp outer-tube in the clamping block.



Disassemble the circlip.



Remove the spacer ring.



Heat the outer-tube near the oilseal.



Pitch a screwdriver just below the oilseal...



...and lift the oilseal out the tube.



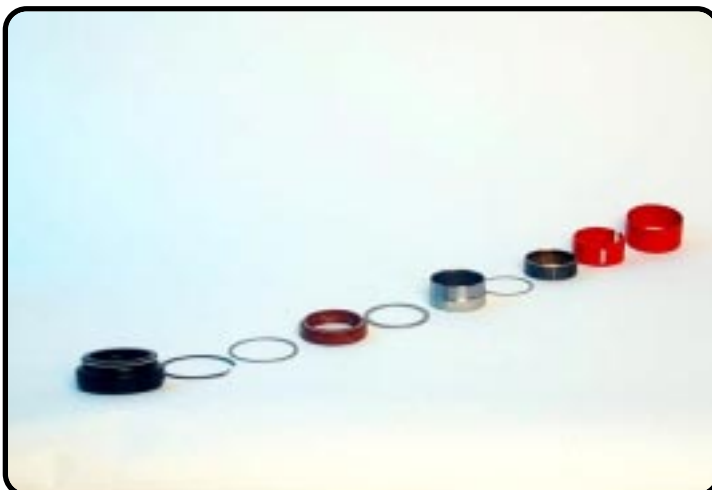
Remove the support ring.



Disassembly the DU-bush:
Clamp T604 in the vice.



Slide the outer-tube over the tool and push or tap the DU-bush out the outer-tube.



- dust stripper
- circlip
- spacer ring
- oilseal
- support ring
- DU-bush outer-tube
- washer
- DU-bush inner-tube
- plastic retainer
- bush

Disassembly cartridge



Clamp the tube of the cartridge in T616S.



Unscrew the screw sleeve. (size 27)



Pull the piston-rod out the tube.



By removing of the piston-rod pay attention on the piston ring.



Clamp the piston-rod in T616S.
Keep sufficient distance with the vice.



Unscrew the rod tap (size 17).



Remove the rod tap "complete".



Remove the rebound spring.



Remove the screw sleeve with spring retainer.



Clamp piston-rod in on the otehr side and unscrew the stop "complete" (size 22).



"Stop complete" (Compression side)

Workshop manual

4054 MXTA

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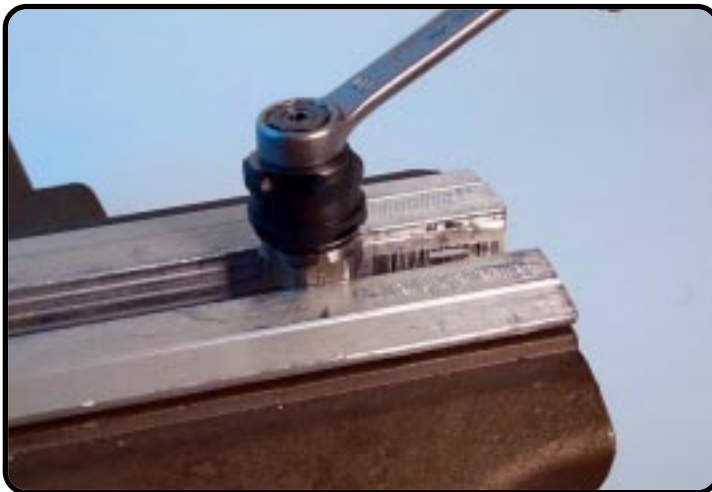
"Stop complete" (Rebound side)

Disassembly rod tap

Clamp rod tap in the vice.



Unscrew the nut. (size 10)
Pay attention to the position of the
triangular shims and the assembling
direction of the nut!!

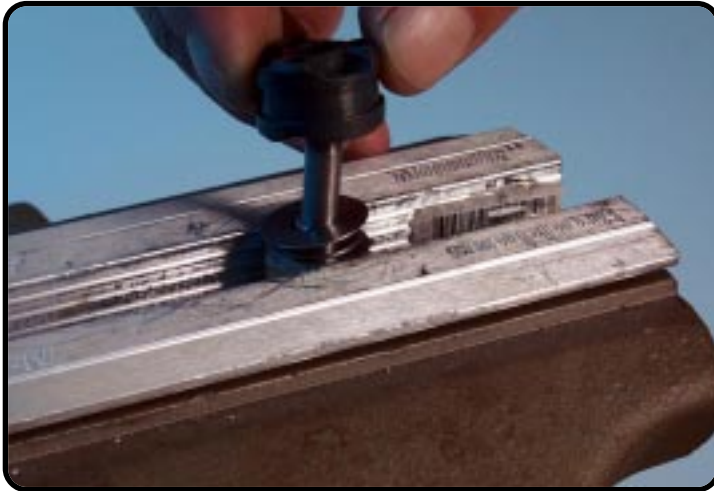


Remove the nut.





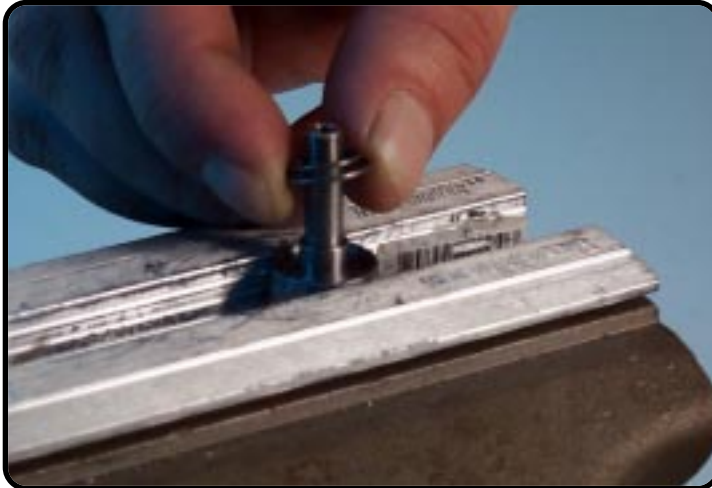
Place a screwdriver on top of the tap and remove the entire shim package.



Remove the piston.
Pay attention to the assembling direction!!!



Remove the shim for check-valve.



Remove the spring for check-valve.



- rod tap (rebound/compression)
- spring for check-valve
- shim for check-valve
- piston rebound
- piston ring
- rebound shims
- nut M6x0.5 reb.

Assembling rod tap

Assemble the spring for check-valve.



Assemble the shim for check-valve, piston and the shims. Pay attention to the position of the triangular shims!!!



Tighten the nut to a torque of 5Nm.



Disassembly tap compression

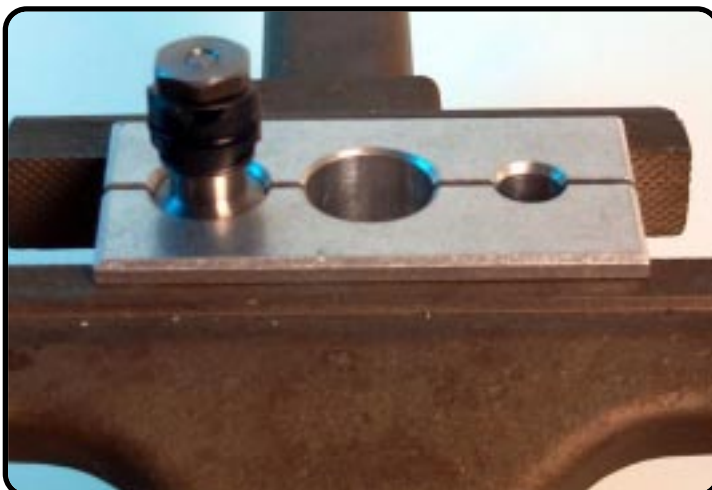
Push with support of the piston-rod, tap compression out the tube.



“Tap compression”

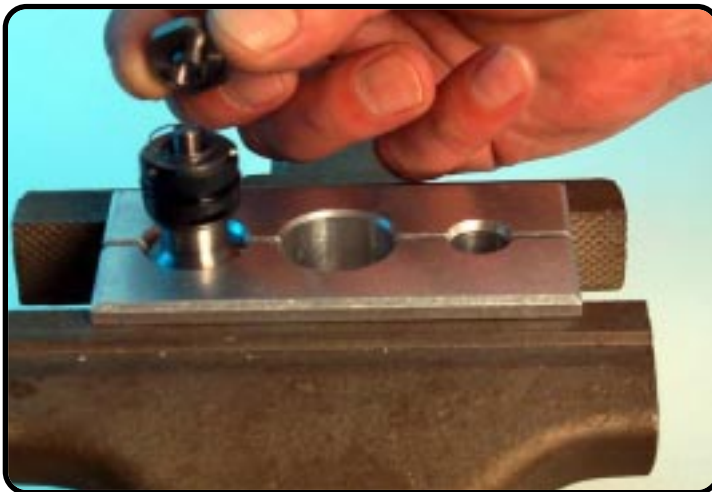


Clamp the tap in T639S.





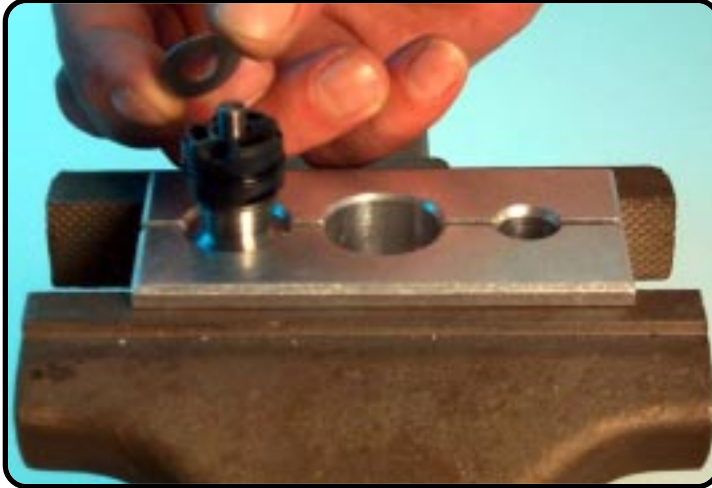
Unscrew the check-valve nut.



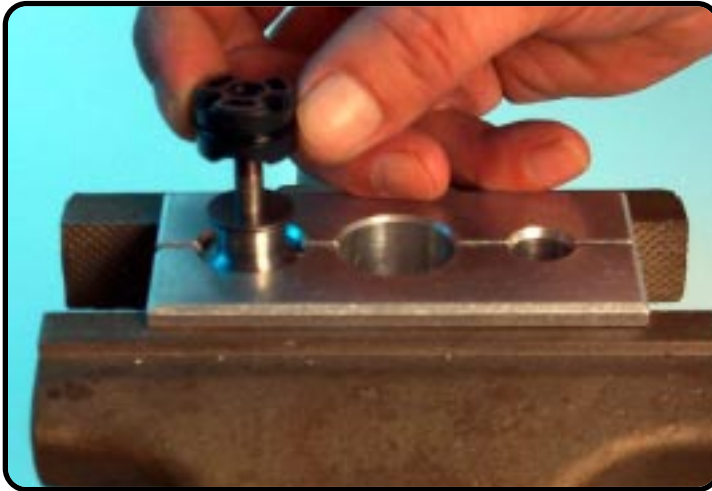
Remove the check-valve nut.



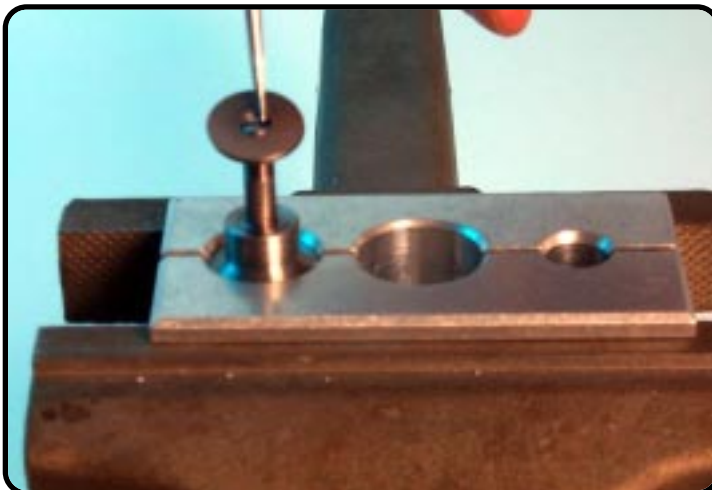
Remove the spring for check-valve.
Pay attention to the assembling
direction!!!



Remove the shim for check-valve.



Remove the piston and check the O-ring.
Pay attention to the assembling direction!!!



Place a screwdriver on top and remove the entire shim packet.



- tap compression
- compression shims
- compression piston with O-ring
- shim for check-valve
- spring for check-valve
- check-valve nut

Assembling tap compression

Assemble the shims and the piston with O-ring.



Replace the shim and spring for check-valve.



Assemble the nut and tighten it to a torque of 5Nm.
Check if the spring is placed into the chamber of the nut.



Disassembly screw sleeve

For disassembling the bump rubber use T109.



Lift the bump rubber out the screw sleeve.



Disassemble the DU-bush with T619.





Remove the DU-bush with support of the vice.



- spring retainer
- screw sleeve
- DU-bush
- bump rubber.

Assembling screw sleeve

Assembly DU-bush with T620.



Press the DU-bush in the screw sleeve.



Assemble the bump rubber.





With support of the stop you can...



...push the bump rubber downwards.

Assembling cartridge

Grease the O-ring with frontfork oil.



Assemble the compression tap into the tube.



Push with support of the piston-rod the tap downwards until the springing.

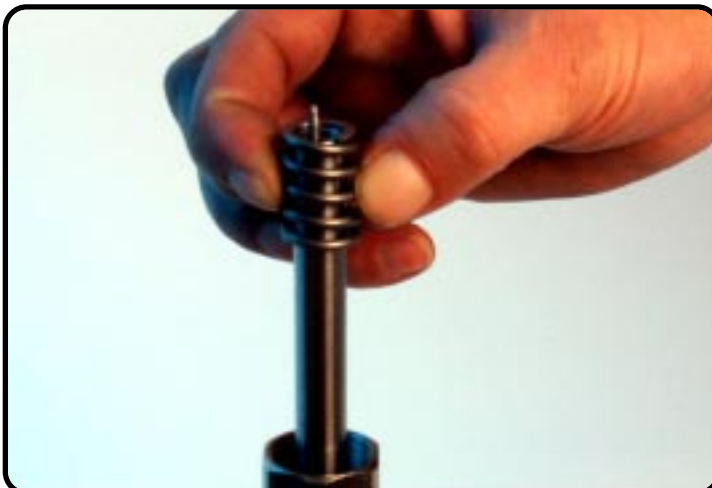




Clamp the piston-rod in the clamping block with the bevelled edge on top.



Assemble the screw sleeve and spring retainer.



Replace the rebound spring.



Assemble the rod tap...



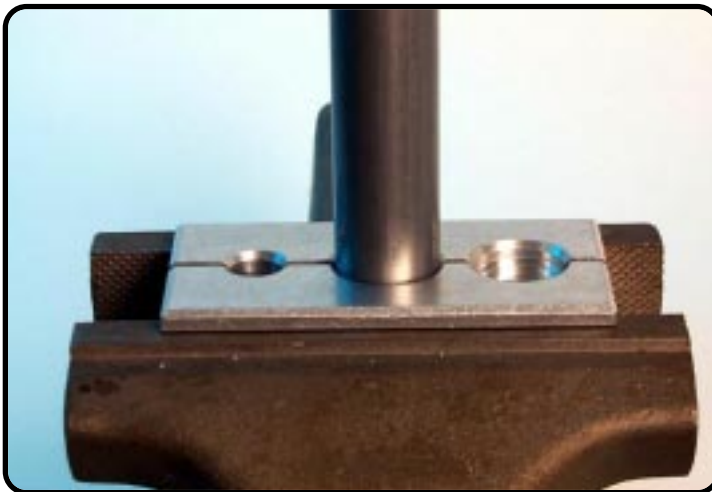
...and tighten it.



Assemble the stop "complete".



Tighten the stop.



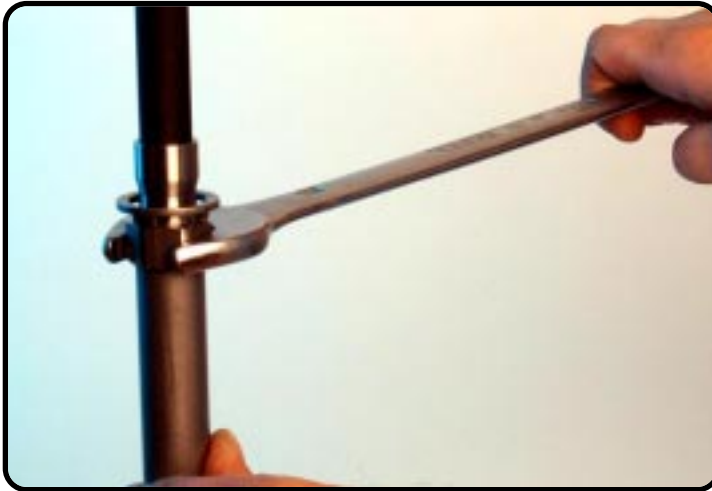
Clamp the tube in the clamping block.



Assemble the piston-rod "complete" with piston ring into the tube.



Assemble the screw sleeve on the tube.



Tighten the screw sleeve.

Assembling forkleg

Place a new O-ring in the groove of the axle-clamp.



Wetting the thread of the inner-tube with T132.



Wetting the thread of the axle-clamp with T132.





Clamp the axle-clamp in the vice and assemble the inner-tube.



Screw down the inner-tube with T601S.



Place T615 on top of the inner-tube.



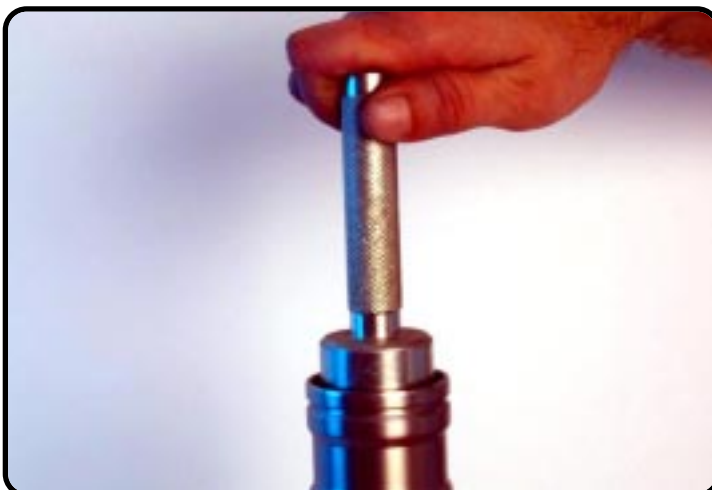
Grease the innerside of the dust stripper with frontfork oil.



Slide the dust stripper over the inner-tube.



Place the outer-tube straight on the work-bench and use T610 to assemble the DU-bush in the outer-tube.



Push the DU-bush in the outer-tube..



Replace the support ring.



Dip in the oil, or grease the oilseal with frontfork oil.



Use T603 to assemble the oilseal.



Push or tap the oilseal into the outer-tube.



Replace the spacer ring.



Assemble the circlip.



Slide with support of T615 the outer-tube over the inner-tube.



Assemble the dust stripper.



Remove T615.



Assemble the washer on the inner-tube.



Assemble the DU-bush on the inner-tube.



Assemble the retainer in the groove of the inner-tube and check if the retainer can be rotate.



Extend the outer-tube to replace the bush.



Replace the cartridge into the forkleg in position in the center of the axle-clamp.



Turn the bolt with a new copper washer.



Tighten the bolt to a torque of 22Nm.



Clamp the forkleg (axle-clamp) in the vice and fill the leg just under the edge of the outer-tube with oil.
Keep the outer-tube down.



Move the outer-tube several times up and down.
Not too high.



Move the piston-rod several times up and down, till you feel that all air is bled out.
(The damping is smooth over the entire stroke)



By the compression side the oil will come through this hole.



Adjust T137S.



Hold the upper side of the piston rod exactly level with the (fully compressed) outer-tube.
Remove the oil till the correct level.



Assemble the spring.



Push the spring downwards and assemble the steel washer and preload spacers.



Assemble the spring retainer...



...and the second retainer.



Clamp the outer-tube in the clamping block and assemble the screw-cap.



Tighten the screw-cap to a torque of 25Nm.

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Adjust position rebound/compression.