

Product

Exploded View

Disassembly & Assembling



Frontfork

4357 ROMA

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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 at WP Suspension) protect you from damaging the parts.

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

Always replace damaged or worn parts.

Clean all parts before assembling.

Caution:

Many times it is necessary to assemble parts with T131, T132 and T163.

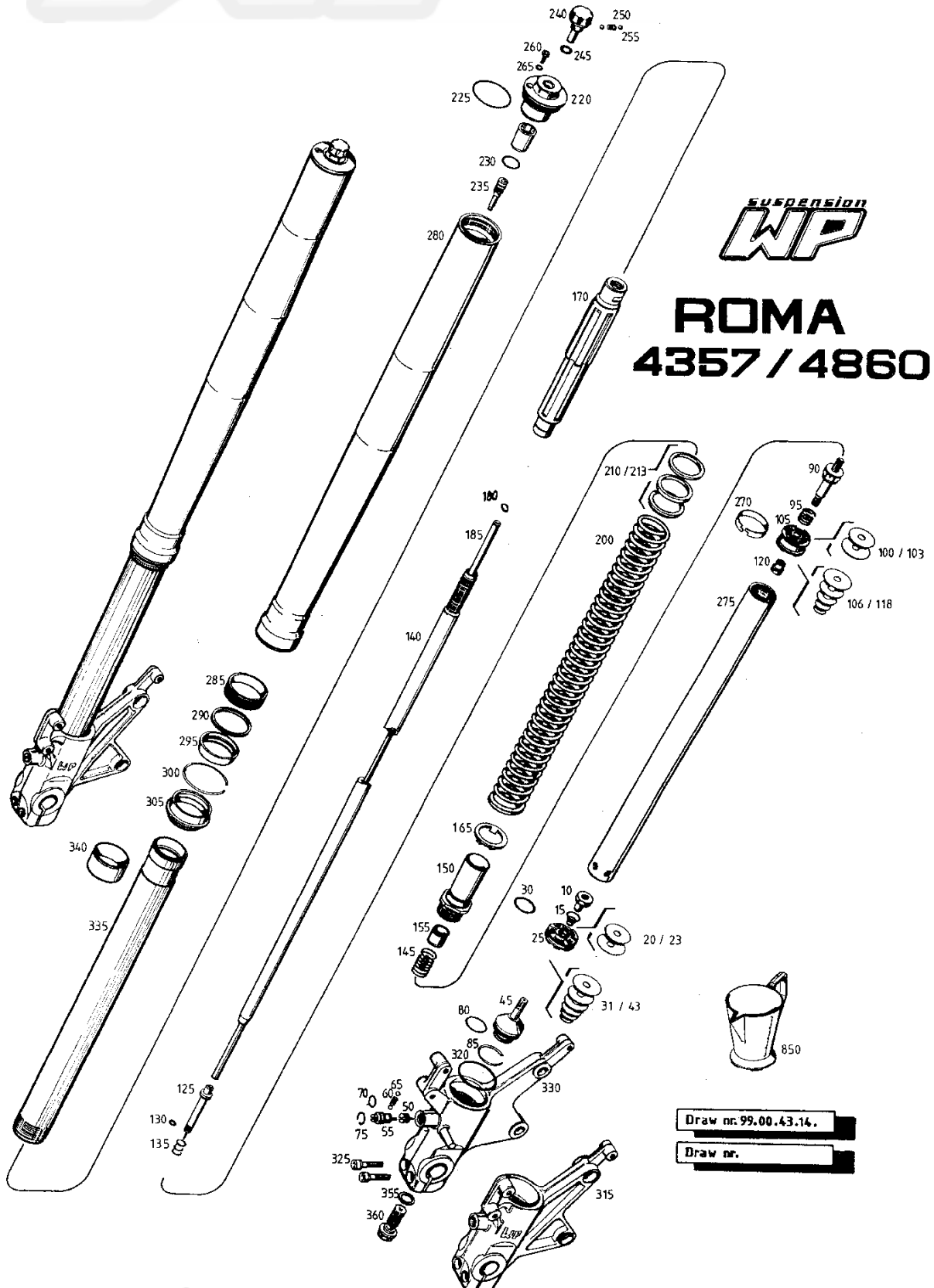
These parts must dry for at least four hours!!

Product

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Exploded view



Draw nr. 99.00.43.14.

Draw nr.

Disassembly forkleg



Note the position of the rebound adjustment!



Note the position of the compression adjustment!



Clamp the forkleg in clamping block T612S and unscrew the screw-cap (size 24).

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Screw-cap out of the outer-tube.



Take off the fork leg out of the clamping block and let the outer-tube fully downwards.



Pull the spring downwards and place open-end spanner 22 on the hexagonal aluminium insert of the hydraulic stop.



Place spanner 24 on the screw-cap and unscrew the screw-cap from the hydraulic stop.



Turn the screw-cap of the piston-rod.



Remove the screw-cap.



Remove the spring preload spacers.



If assembled remove the steel washer.



Disassemble the rebound adjustment tube with O-ring.



Adjustment tube out of the piston-rod.



Pull the spring downwards and remove the open-end spanner.



Remove slowly the spring out of the forkleg.



The spring out of the forkleg.



Drain the oil out of the forkleg.



Clamp the axle-clamp like picture in the vice.



First turn the two Allen bolts M8x30 out of the axle-clamp and unscrew the banjo bolt in the center of the axle-clamp (size 13).
Pay attention! oil will come out the forkleg!!!



Take the banjobolt out of the axle-clamp.



Banjobolt with copper washer.



Remove the cartridge out of the forkleg.



Cartridge out of the forkleg.



Disassemble the dirt scraper.



Disassemble the locking ring out the groove of the outer-tube.



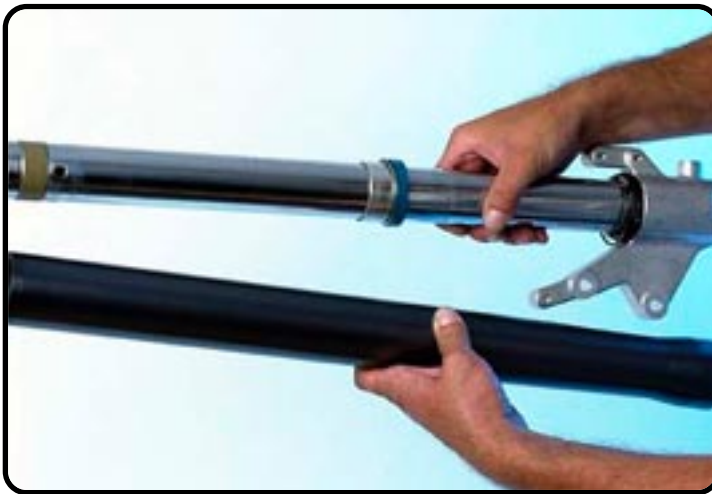
Heat the outer-tube (not too hot).



Pull with both hands the outer-tube from the inner-tube.



Remove the inner-tube out of the outer-tube.



Outer- and inner-tube.



Disassemble the DU-bush from the inner-tube.



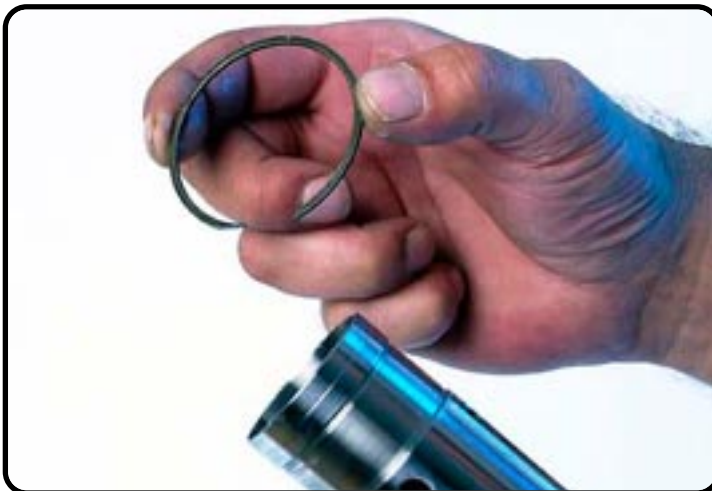
Remove the DU-bush of the outer-tube from the inner-tube.



Remove the washer.
Check if the washer is still flat!



Disassemble the oil seal.
Pay attention to the assembling
direction!!!



Remove the locking ring.



Remove the dirt scraper.



- Dirt scraper
- Locking ring
- Oilseal
- Supporting ring
- DU-bush outer-tube
- DU-bush inner-tube



Heat the axle-clamp.



Place T503S into the inner-tube.



Unscrew the inner-tube.



Turn the inner-tube out of the axle-clamp.



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



Assemble a new O-ring into the groove.



wet the thread in the axle-clamp with T132.



Wet the thread of the inner-tube.



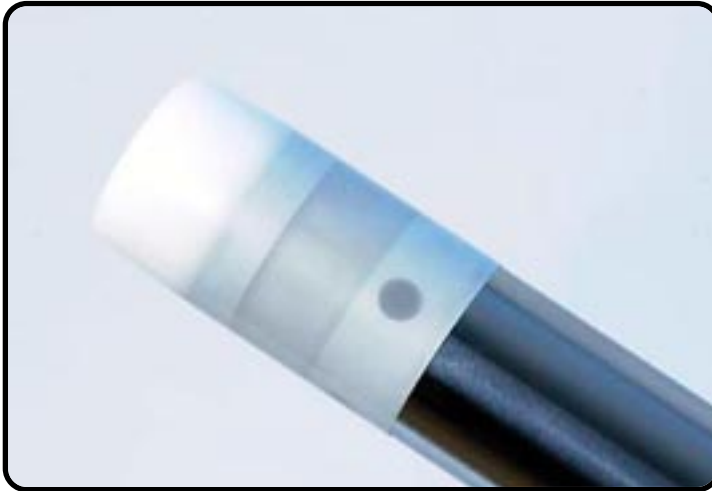
Turn the inner-tube into the axle-clamp.



Tighten firmly the inner-tube.

Assembling forkleg

Slide T512 on top of the inner-tube.





Grease the innerside of the dirt scraper with T511.



Grease the outside of the dirt scraper with frontfork oil.



Slide the dirt scraper over the inner-tube.



Place the locking ring.



Grease the innerside of the oilseal with T511.



Grease the outside of the oilseal with frontfork oil.



Slide the oilseal over the inner-tube.



Replace the (new?) support ring.



Grease the innerside of the DU-bush inner-tube with frontfork oil.



Slide the DU-bush over the inner-tube.



Remove the tool.



Grease the outside of the DU-bush with frontfork oil.



Assemble the DU-bush.



Slide the outer-tube over the inner-tube.



Heat the outer-tube (not too hot).



Place T502S with the flat side in the direction of the outer-tube on the inner-tube.



1. Push the DU-bush into the inner-tube.



2.



1. Assemble with the other side of the special tool the oilseal.



2. Push or tap the oilseal into the outer-tube.



3.



Assemble the lock ring into the groove of the outer-tube.
Important: Check this carefully .



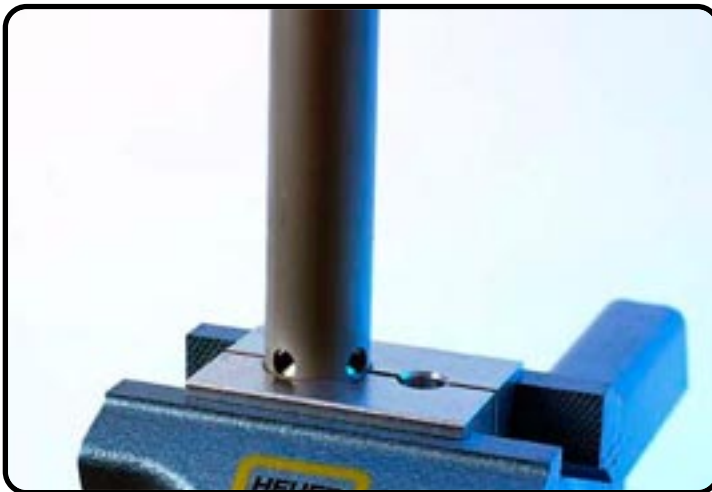
Assemble the dirt scraper.

Disassembly cartridge

Place clamping block T508S in the vice.



Clamp the tube of the cartridge.



Unscrew the screw sleeve (size 22).





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



Pay attention to the piston ring!!!



Clamp the piston-rod at this position in clamping block T508S.



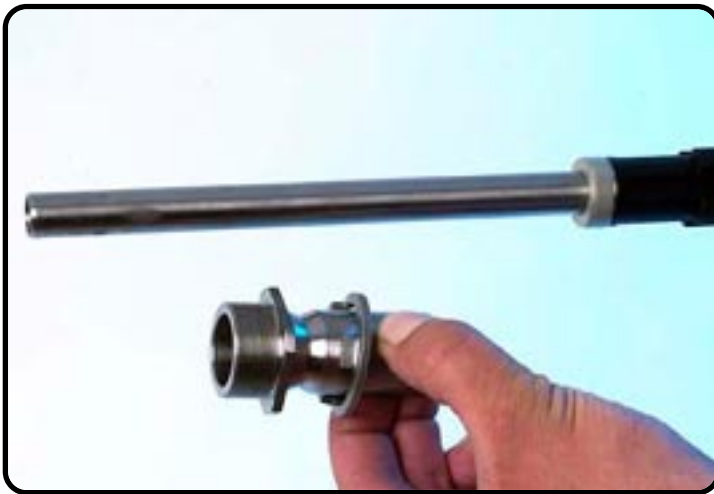
Unscrew the rebound tap (size 17).



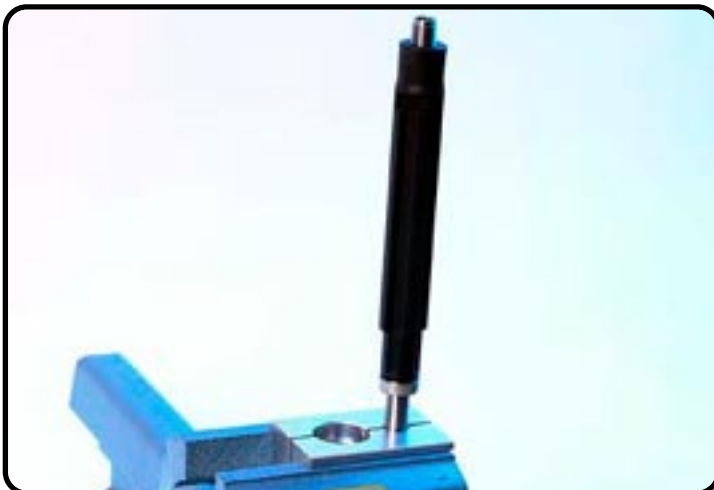
Turn the rebound tap with brass adjustment needle and spring out of the piston-rod.



Remove the rebound spring.



Remove the screw sleeve.



Clamp the piston-rod in the clamping block.



Turn the hydraulic stop of the piston-rod.



Hydraulic stop.



Compression tap in the tube.



Push the compression tap further into the tube.



Remove the compression tap out of the other side of the tube with a long pin.

Disassembly compression tap



Clamp the compression tap with caution in the clamping block.



Unscrew the check-valve nut (size 17).



Turn the check-valve nut from the compression tap.



Check-valve spring.
Pay attention to the assembling direction!!!



Remove the spring.



Disassemble the check-valve shim(s) with compression piston and the setting.



- Check-valve nut
- Check-valve spring
- Check-valve shim(s)
- Compression piston with O-ring
- Compression setting (shims)
- O-ring
- Compression tap



Compression piston.
Setting side.



Compression piston.
Check-valve side.

Assembly compression tap

Compression tap with O-ring.

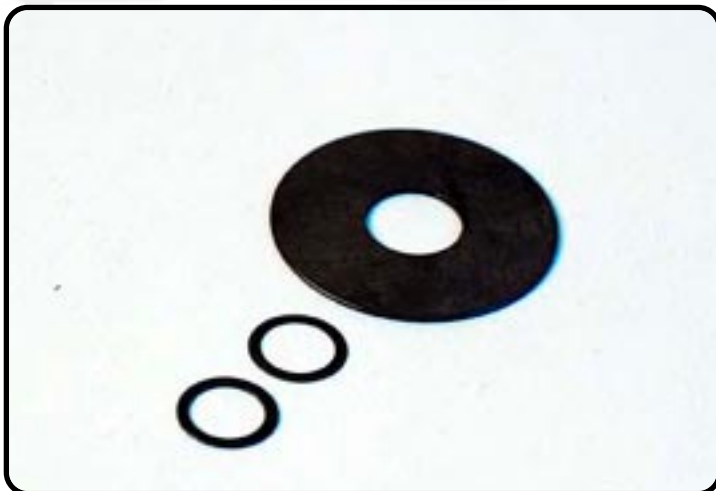


Assemble the compression setting.
Pay attention to the assembling
direction!!!



Assemble the compression piston.
Pay attention to the assembling
direction!!!





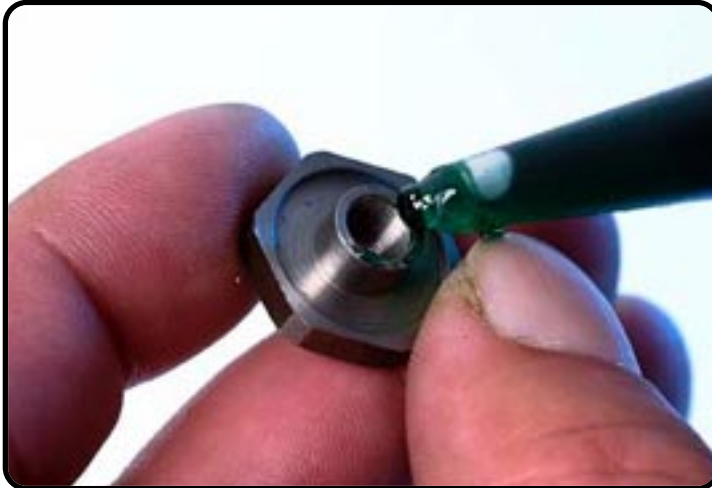
Check-valve shim(s).



Assemble the shim(s).



Assemble the spring.
Pay attention to the assembling
direction!!!



Wet the thread of the check-valve nut with T132.



Turn the nut on the tap.



Tighten the check-valve nut to a torque of 5Nm.



Check the distance between check-valve shim and check-valve nut.



Grease the O-ring of the compression tap with T158.



Grease the O-ring of the piston with frontfork oil.



Assemble the tap into the tube.



Push the tap until the end of the tube.

Disassembly rebound tap

Pull the rebound needle with spring out of the rebound tap.



Check the O-ring.



Pay attention to the position of the triangular shims!!!
Clamp the rebound tap in the vice and unscrew the nut (size 10).





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



Remove the setting (shims).



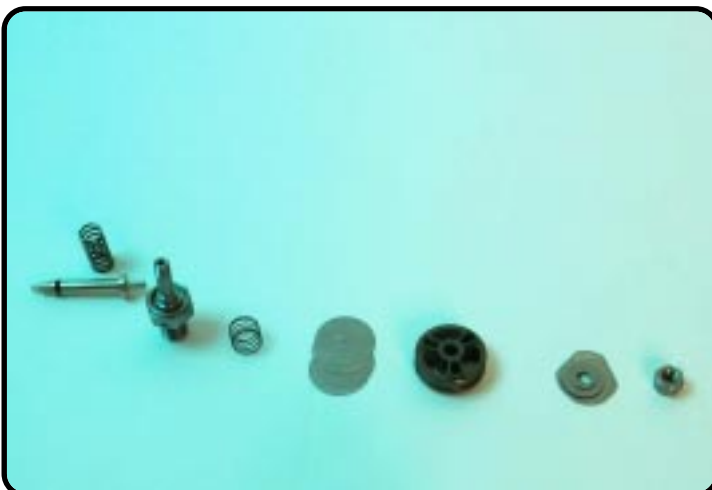
Remove the piston.
Pay attention to the assembling
direction!!!



Remove the chek-valve shim(s).



Temove the check-valve spring.

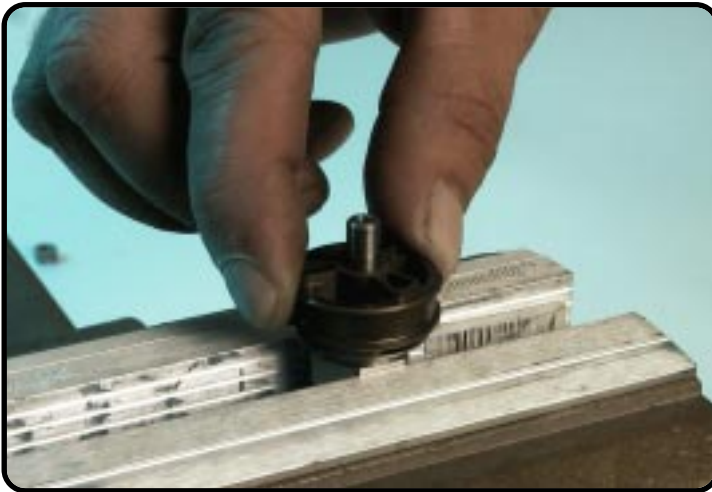


- adjustment needle
- spring
- rebound tap
- check-valve spring
- check-valve shim(s)
- rebound piston
- rebound setting
- nut M6x0.5

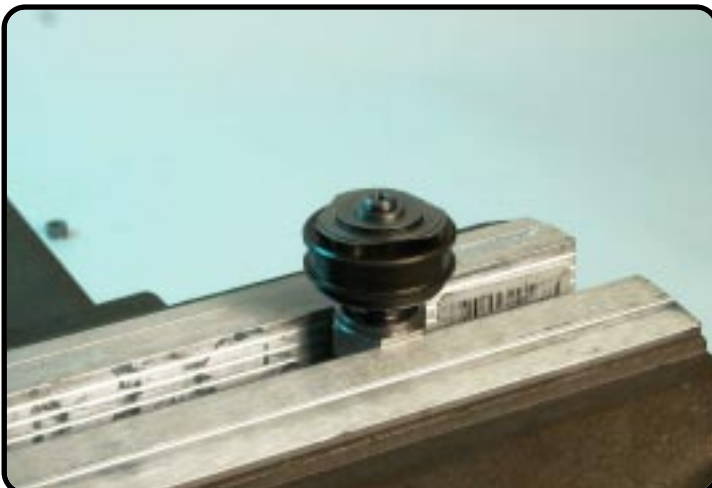
Assembling rebound tap



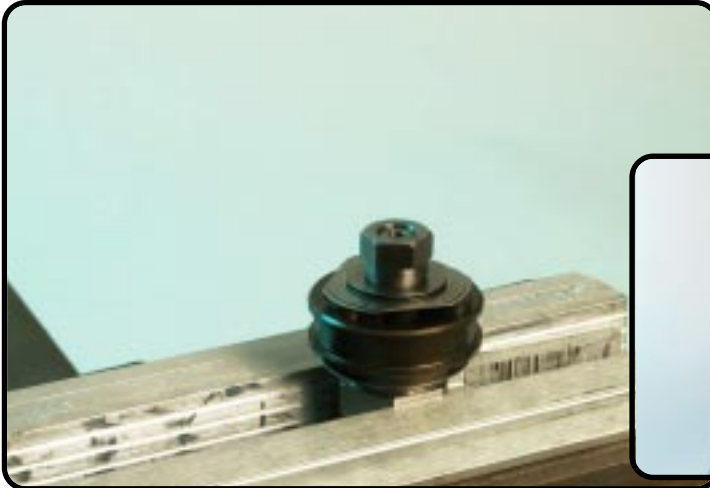
Assemble the check-valve spring and check-valve shim(s).



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



Assemble the setting.
Pay attention to the triangular shims!!!



Wet the thread of the nut and turn the nut on the tap.
Pay attention to the assembling direction!!!



Tighten the nut to a torque of 5Nm.



Grease the O-ring of the adjustment needle with T158.



Assemble the needle with spring into the rebound tap.

Assembling cartridge



Assemble the rebound spring onto the piston-rod.



Wet the thread of the rebound tap with T131 and turn the tap into the piston rod.



Tighten the rebound tap.



Use T507 to press the DU-bush out and into the screw sleeve.



With support of the vice.



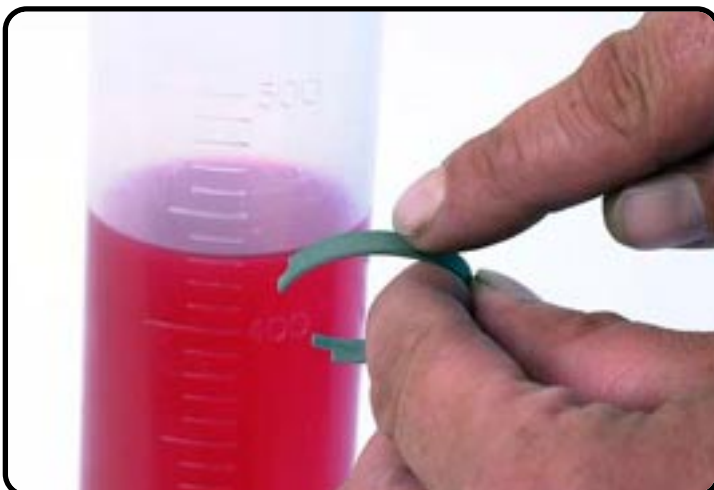
- support ring
- screw sleeve
- DU-bush



Assemble the screw sleeve onto the piston-rod.



Turn the hydraulic stop until the end of the thread of the piston-rod.



Wet the piston ring with frontfork oil.



Assemble the piston-rod into the tube.



Wet the thread of the screw sleeve with T131.



Turn the screw sleeve into the tube.



Tighten the screw sleeve.

Disassembly screw-cap



Lift the rebound adjustment knob out of the screw-cap.
Pay attention to the steel balls and spring!!!



Turn anti clockwise the adaptor uit of the screw-cap.



Turn the air release screw with O-ring out of the screw-cap.

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- screw-cap with O-ring
- air release screw with O-ring
- screw adaptor
- adjustment knob with inside the steel balls and spring

03/2002

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Assembly screw-cap



Turn the air release screw with O-ring into the screw-cap.



Turn the adaptor into the screw-cap.



Grease the O-ring, steel balls and spring with T158.
Assemble the knob complete into the screw-cap.

Assembly forkleg

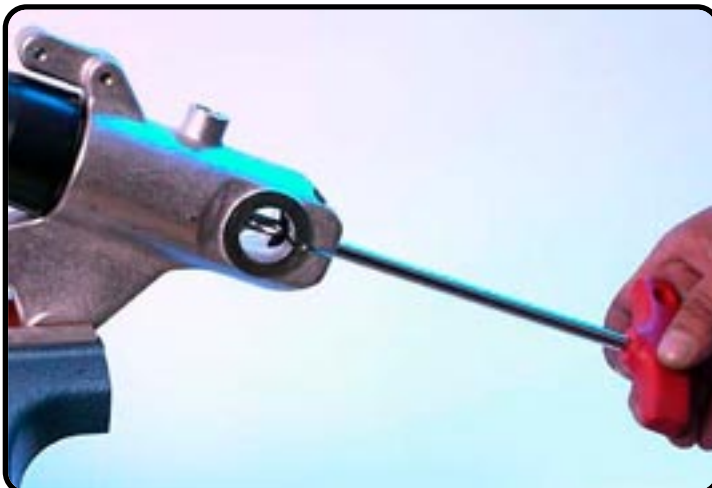
Assemble the cartridge into the outer-tube.



Center the cartridge into the axle-clamp.



Tighten the banjo bolt with a new copper washer.





Pull the cartridge a little bit to the side when the cartridge is turning.



Assemble the adjustment tube with O-ring into the piston-rod onto the rebound needle.



Push on the adjustment tube to feel if the tube is correct assembled.



Pull the piston-rod a little bit out and drain the oil above the inner-tube.



Move several times the piston-rod up and down till the cartridge is filled completely.
Drain again oil into the forkleg above the inner-tube.



Move at the same time the outer-tube and the piston rod several times up and down over the complete stroke.



Adjust the squeeze bottle T137S to the correct size for the air chamber.



Compress the piston-rod and outer-tube, keep the O-ring at the level of the edge of the outer-tube, adjust the oil level.



Pull out the piston rod and assemble the spring.



Pull the spring downwards and place the open-end spanner on the hydraulic stop.



If necessary place the steel washer.



Place the preload spacers.



Turn the screw-cap as far as possible on the piston rod.



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



Remove the open-end spanner.



Turn the screw-cap into the outer-tube.



Clamp the forkleg in clamping block T612S Tighten the screw cap to a torque of 25Nm.



Position rebound!



Position compression!