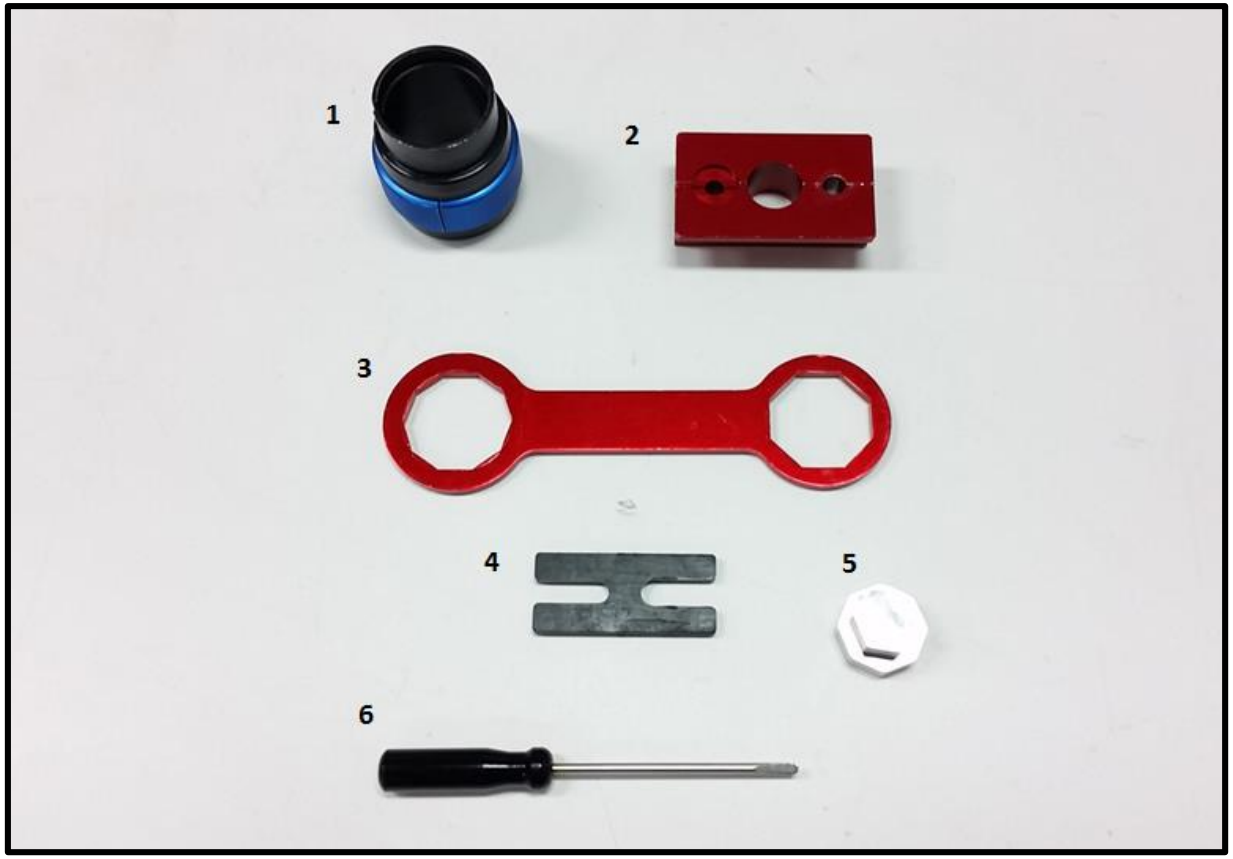
Sachs 48mm Closed Cartridge fork Service Manual

Special Tools

1 Fork seal driver
2 Special soft jaws
3 Fork cap wrench
4 Rebound rod holding tool
5 Compression assembly holding tool
6 Retaining clip tool



Introduction

These procedures must take place in a clean environment using professional tools and some special tools.

Take special care not to damage the surface of the fork, especially the stanchions and seal locations .

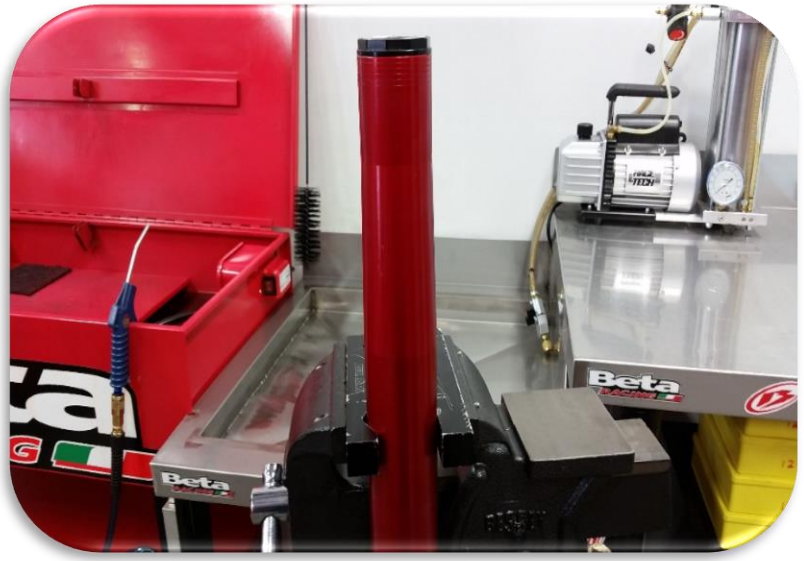
On the vise, always use protective jaws of brass or aluminum.

Clean all parts before assembly using lint free rags or towels.

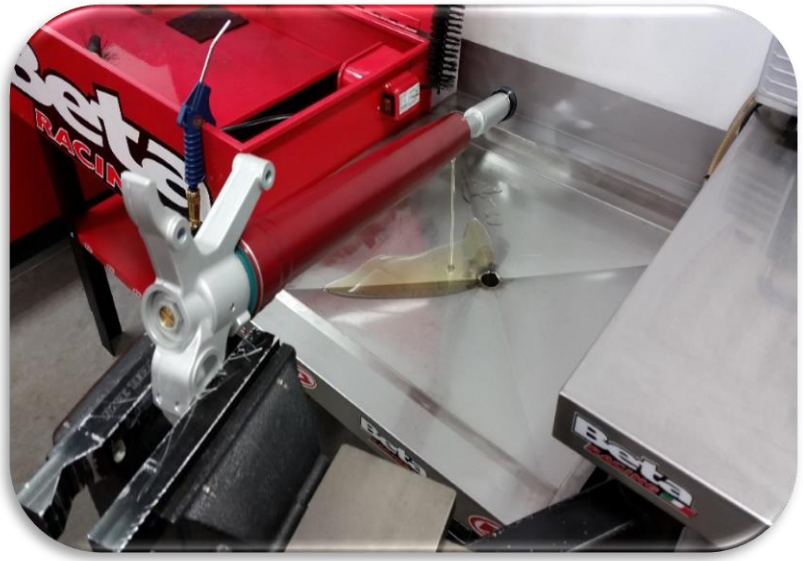
Contamination inside the fork can affect the operation and may cause premature wear.

Always replace worn or damaged parts.

CAUTION;
Incorrect disassembly and assembly of the fork or the incorrect use of aftermarket parts can cause malfunctions or serious risk to the safety of persons and property.
Therefore, before performing any maintenance, be sure to read and follow the instructions carefully as described in this manual.



Secure fork in a soft jaw vise.



Drain oil from outer fork tube.

Unscrew inner cartridge from outer fork tube.

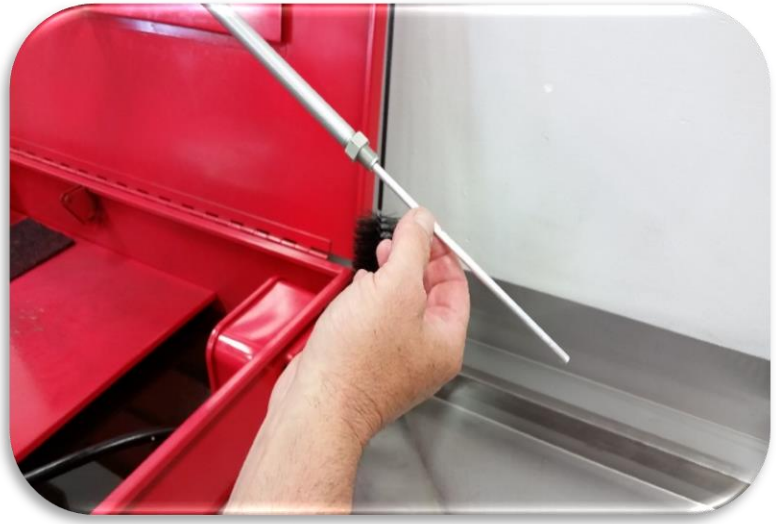
Loosen 19mm hex from the lower fork leg.

Press in on the cartridge exposing the cartridge rod, insert the holding tool.

Press in on the cartridge to release pressure on the holding tool, remove the tool.

Loosen the 15mm jam nut from the 19mm hex and remove the rebound assembly.

Remove the cartridge from the fork and the spring from the cartridge.



Remove the rebound adjuster rod.

Remove the jam nut.

Stroke the dampening rod 2 times making sure it fully extends on its own. If it does not, check for a leaky cartridge seal or damaged floating piston seal.

Secure the cartridge in the soft jaw vise.

Unthread the compression assembly from the cartridge.

Remove the compression assembly from the cartridge.

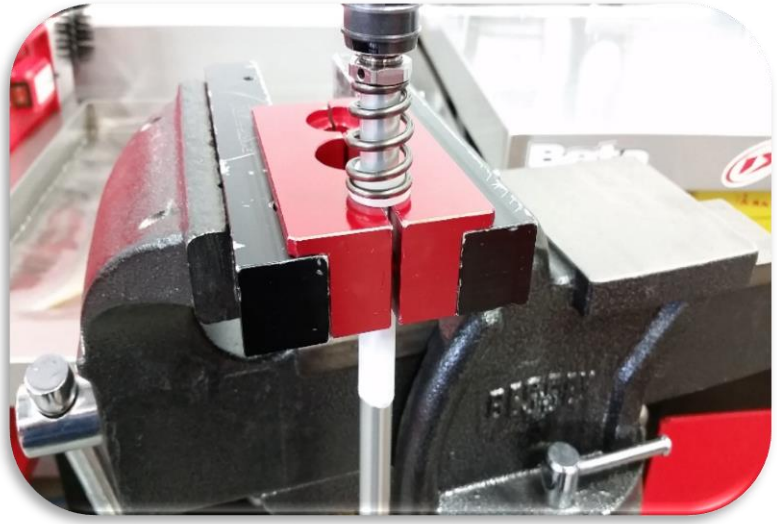
Carefully use the clip tool to help lift the compression assembly out of the cartridge.

Drain the oil from the cartridge.

Remove the rebound assembly.

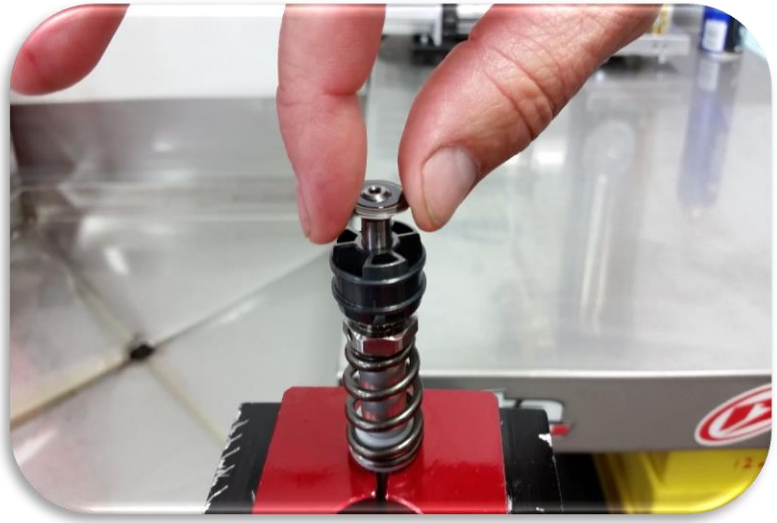
Wrap the top of the dampening rod with white paper to protect it.

Remove the sealing band.



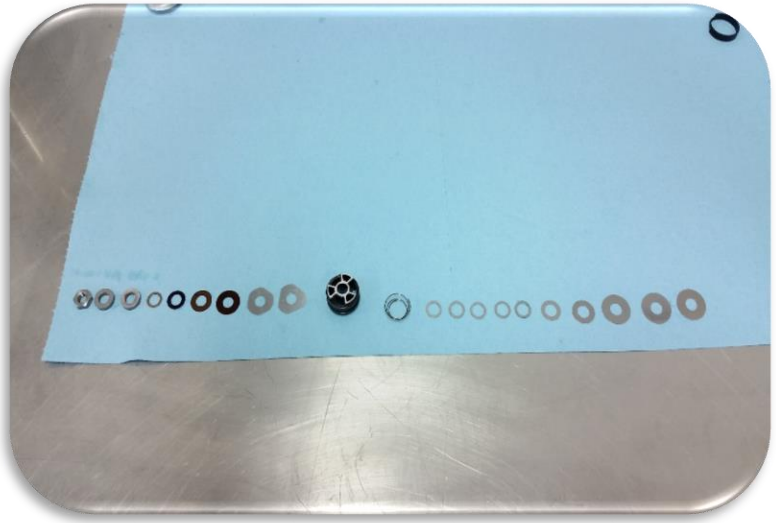
Secure the dampening rod in the vise using special soft jaws.
The paper will protect the rod and keep it from spinning.

Carefully remove the 11mm nut while holding the 17mm on the dampening rod post as shown.



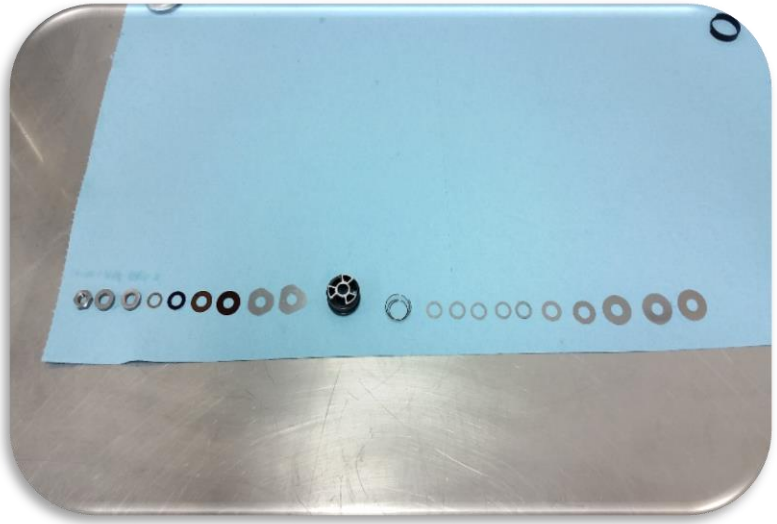
Remove the shims from the post.

Remove the spacers making sure there are no shims stuck to the bottom.

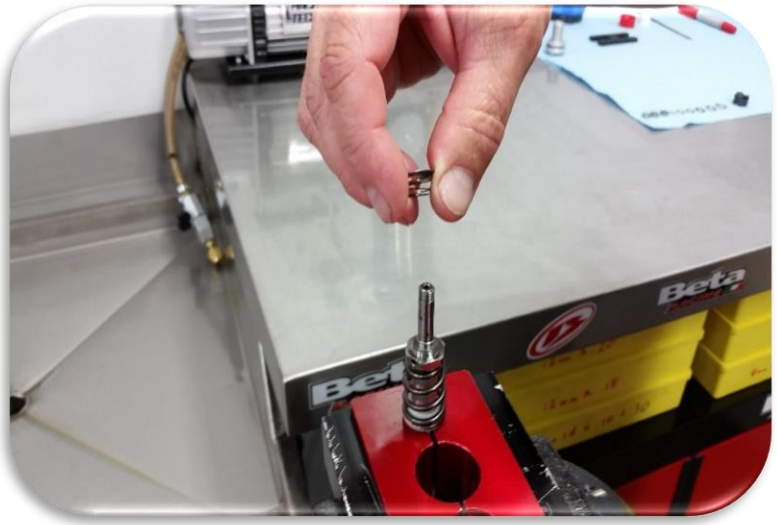


Carefully lay out the shims in the order they were removed.

Remove the rebound piston.



Carefully lay out the shims in the order they were removed.



Remove mid valve and packing.

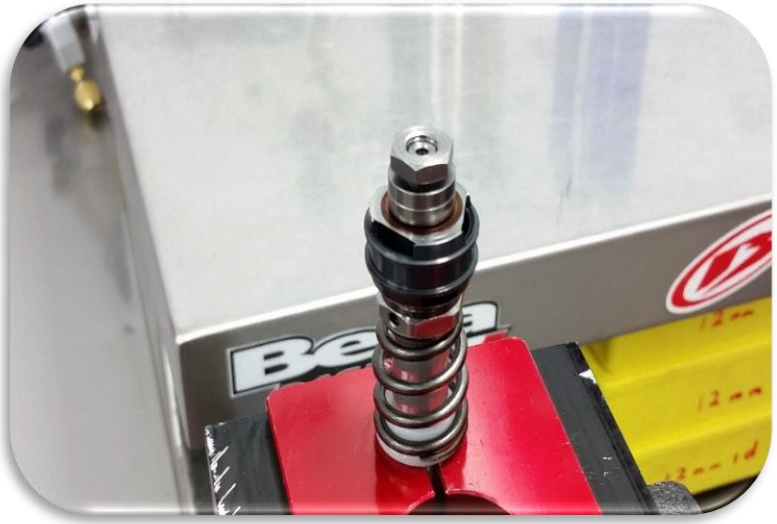
Thoroughly clean the dampening rod and post.

Carefully inspect the mid valve assembly then reinstall the shims and spring in the order they were removed.

Reinstall the rebound shim stack.

Install the rebound piston with the recess facing down.

Loosely install the nut then thoroughly clean the stack with contact cleaner then blow off with air.



Remove the nut and apply 1 drop of red loctite. Carefully check that the delta shim is aligned then install the nut and torque to 5Nm.

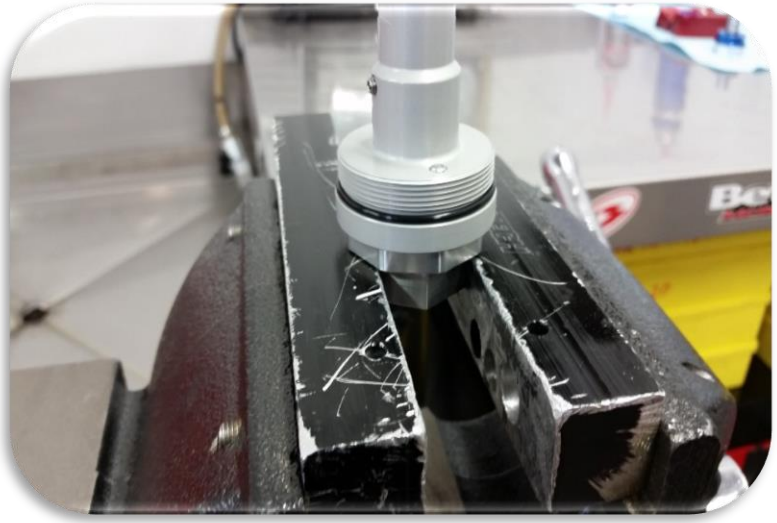
Carefully clean and dry the inner cartridge.

Carefully install the rebound rod assembly into the cartridge.

Apply seal and O-ring grease to the rebound rod (the rod, not the threads) and a small amount on the piston to hold the band in place.

Thread the 15mm nut all the way onto the rod until it stops.

Secure the inner cartridge with a soft jaw vise or clamp.
Fill the cartridge with 200cc's of high quality 5w fork oil.



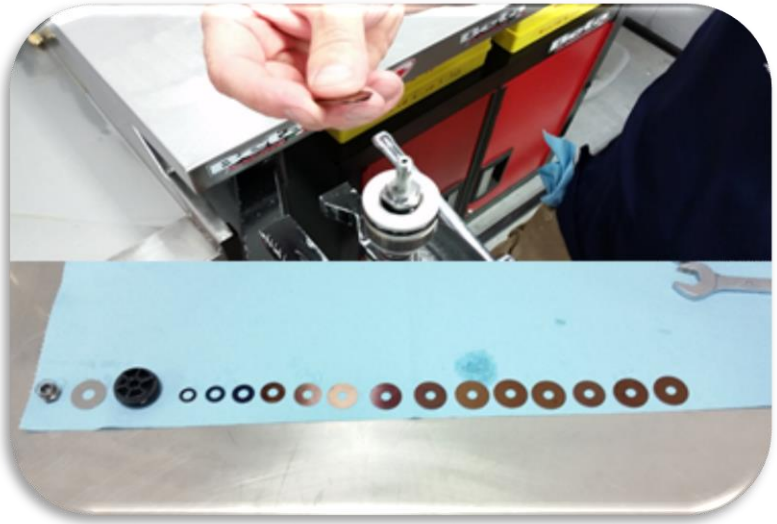
Mount the compression assembly tool into the soft jaw vise then set the compression assembly upside down on the tool.

Slowly spin the dampening rod while gently moving the rod up and down roughly half of the travel from the fully-extended position to remove air bubbles.

Repeat this until no more air bubbles can be seen rising to the surface.

While holding the 17mm hex on the post, loosen and remove the 13mm shoulder nut.

Remove the rebound check plate



Remove the shims and lay them out in the order they were removed making sure none are not stuck together.

Remove the rebound piston.

Clean the post then reinstall the shims in the order they were removed.

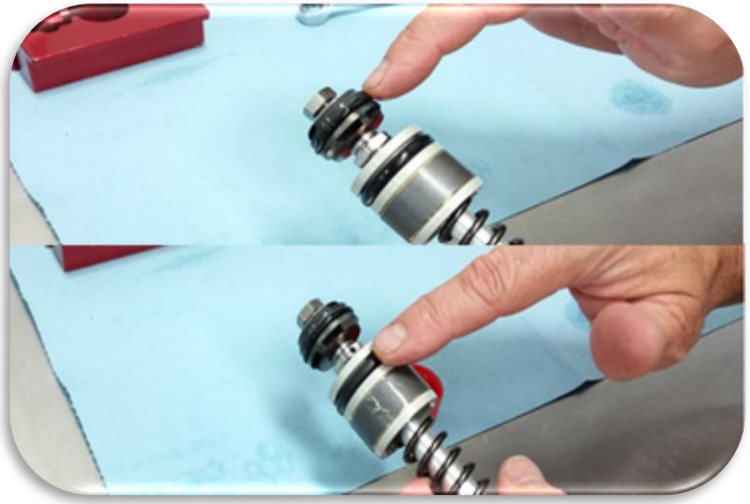
Install the compression piston with the recess facing up.

Remove the nut and apply one drop of red loc tight to the threads. Position the spring with the small end against the nut.

Install the check plate and nut **without** the spring loosely then clean the shim stack with contact cleaner then blow off with air.

Reinstall the nut with the spring and tighten to 5Nm while holding the 17mm on the dampening rod post.

Inspect the O – ring and bushing, replace if damaged or worn.

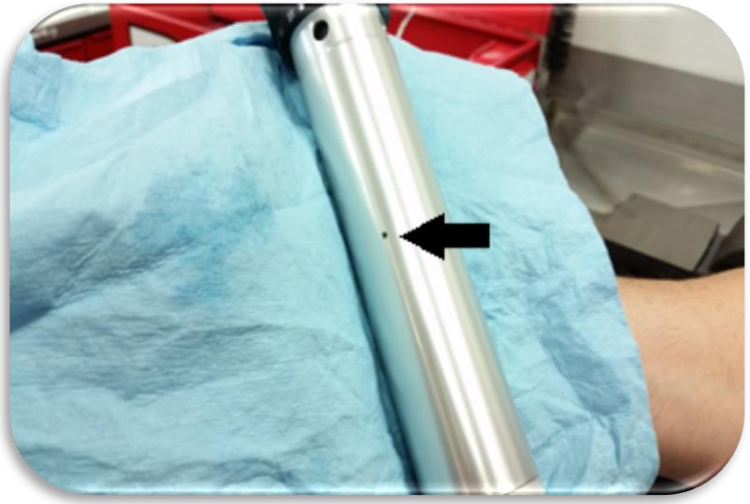


Apply 5w fork oil to the O-ring and floating piston assembly.

Apply suspension grease to the O-ring and threads

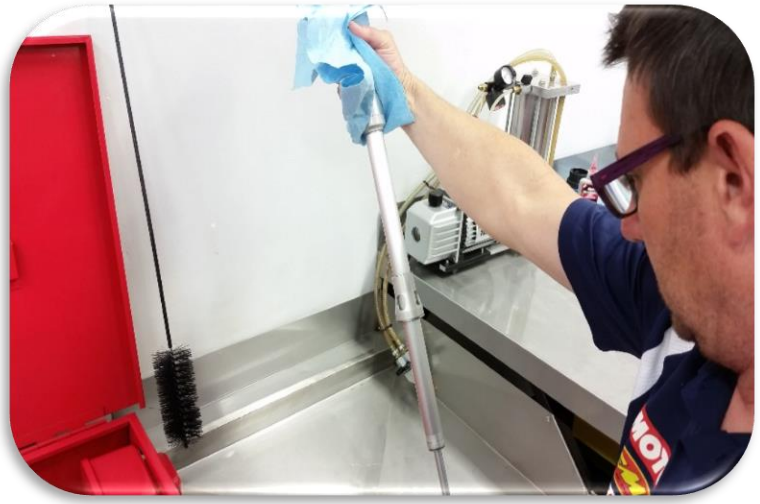
Carefully install the compression assembly without dislodging the bushing.

Using the compression assembly holding tool, apply pressure while turning to thread the compression assembly into the cartridge.



Wrap a towel around the cartridge to cover the bleed holes (2) to contain the oil.

Tighten to 35Nm.



Stroke the cartridge one time to bleed off excess oil.

Make sure the dampening rod fully extends on its own.

Secure the lower fork leg in the soft jaw vise.

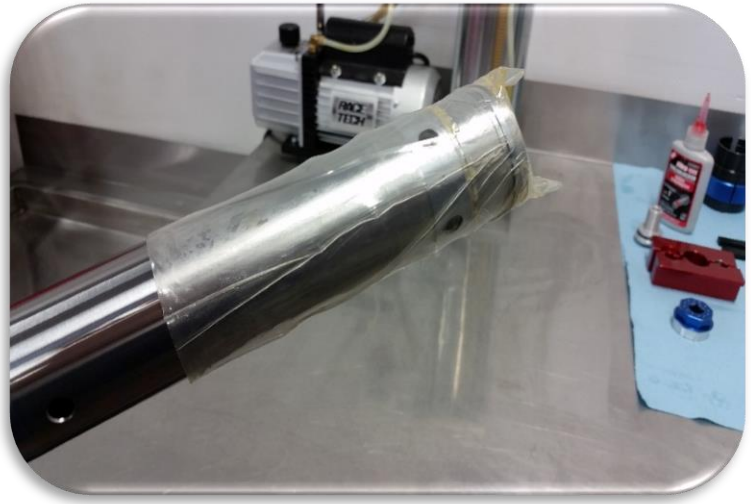
Unseat the seal retaining clip using the clip tool.

Separate the dust seal from the outer tube.

While holding the outer tube in one hand and the lower leg in the other, use one swift- strong motion to pull the outer tube off the lower leg.

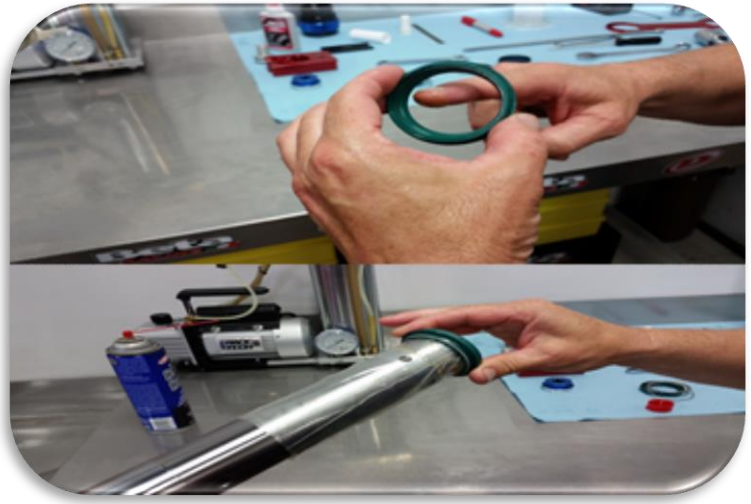
Remove the bushings, retaining washer, fork seal, retaining clip and dust seal paying attention to the order of removal and orientation.

Clean and inspect
all parts, replace worn bushings and leaky seals.

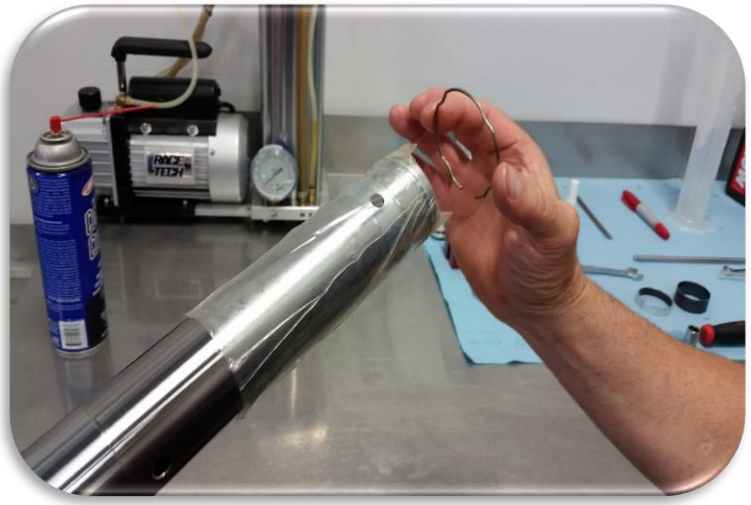


Cover the end of the lower fork leg with a heavy duty bag or a seal bullet.

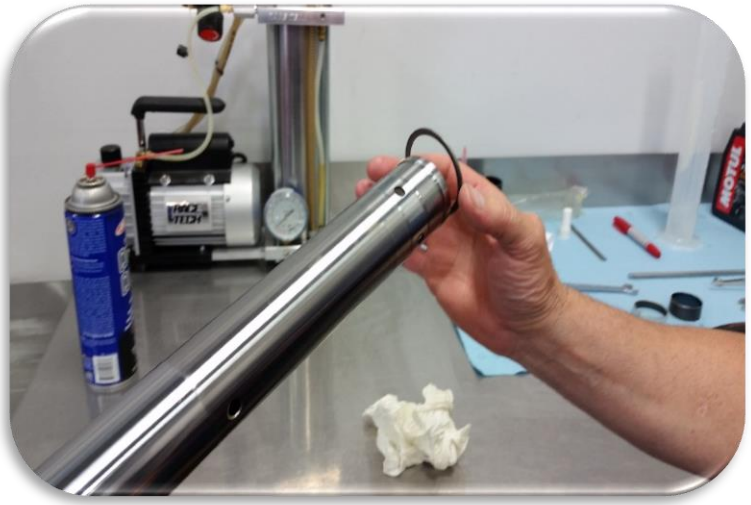
Thoroughly clean and dry the lower fork leg.
Secure the lower leg in the soft jaw vise.



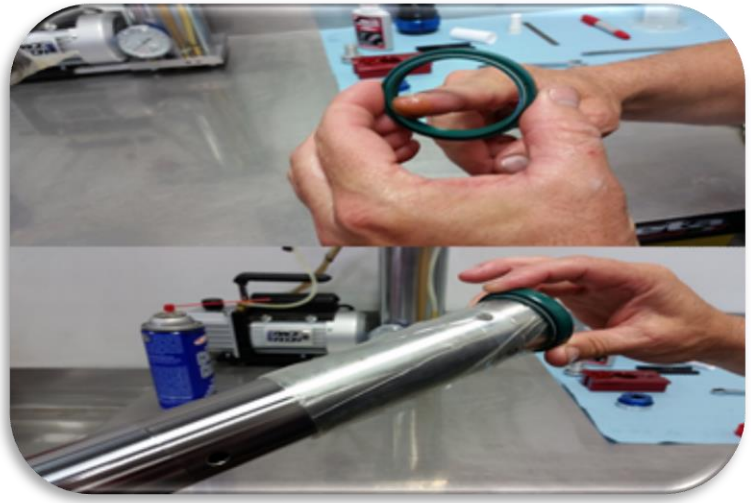
Apply a small amount of seal and O-ring grease to the dust seal and slide it on the lower fork leg noting the orientation.



Slide the retaining clip on the leg.



Slide the retaining washer on the leg.



Apply seal and O-ring grease to the fork seal then slide it on the fork leg noting the orientation.

Remove the seal protector.

Apply 5w fork oil to both sides of the inner and outer bushings and install in there respective positions.

Apply 5w fork oil to the outer edge of the fork seal.

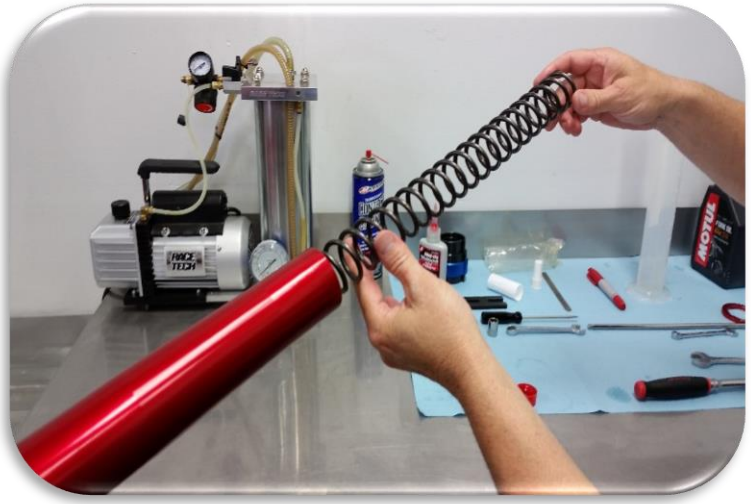
Install the fork seal and bushing into the outer tube using the seal driver.

Clean the outer tube and slide it over the lower leg.

Install the retaining clip making sure it is fully seated into the groove.

With the dust seal sitting against the fork lug, slide the outer tube down until the dust seal is seated.

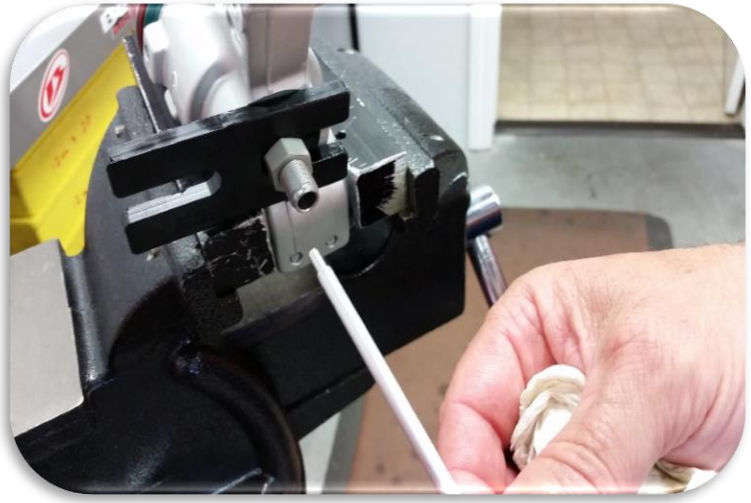
Carefully slide the cartridge assembly into the fork.



Install the spring.

While pushing down on the cartridge, use your index finger to guide the rod through the bottom of the fork leg.

Insert the rod holding tool when the rod is pushed through far enough.



Insert the rebound metering rod, small end first.

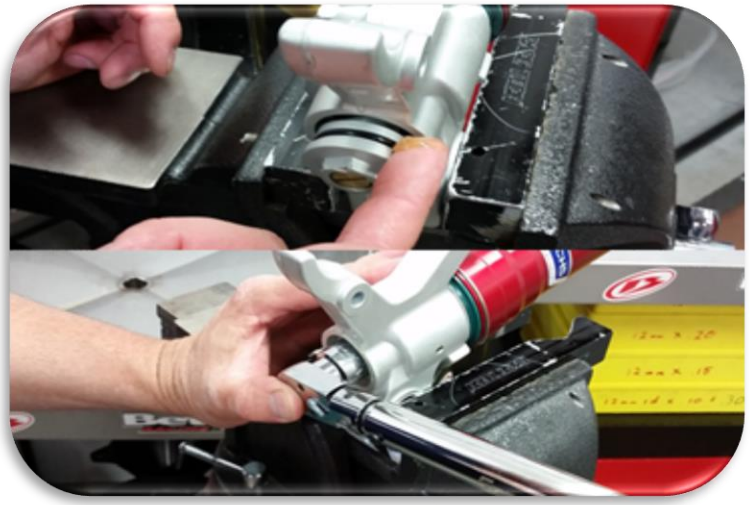
Turn the 15mm jam nut counterclockwise holding the rebound assembly with a torque wrench. Tighten to 10Nm.

*Note, Do not exceed 10Nm as this will crack the lower rod.

Back the rebound adjuster all the way out (counter clockwise).

Thread the rebound assembly on the cartridge finger tight, it should have a 1mm gap between it and the nut.

Press in on the cartridge and remove the holding tool.



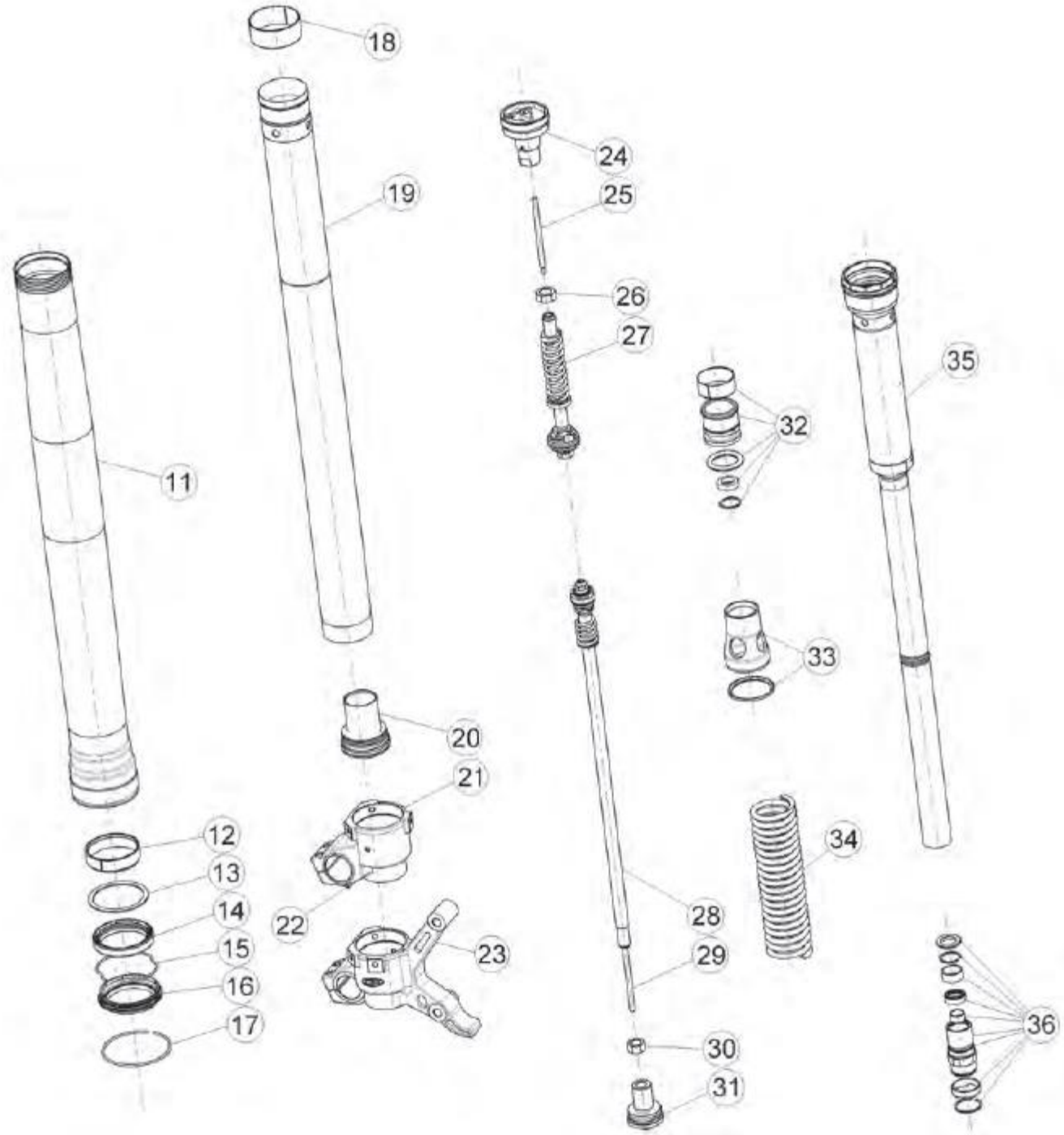
Apply seal and O-ring grease to the O-ring then tighten the rebound assembly to 35Nm.

Measure out 350cc’s of high quality 5w fork oil and pour it into the outer fork tube.

Turn the adjuster clockwise and count the clicks. Total movement should be 11-12clicks.

Secure the outer tube in the soft jaw vise. Apply seal and O-ring grease to the top cap O-ring and threads.

Tighten the top cap to the outer tube. Total clicker movement is 11-12 clicks.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