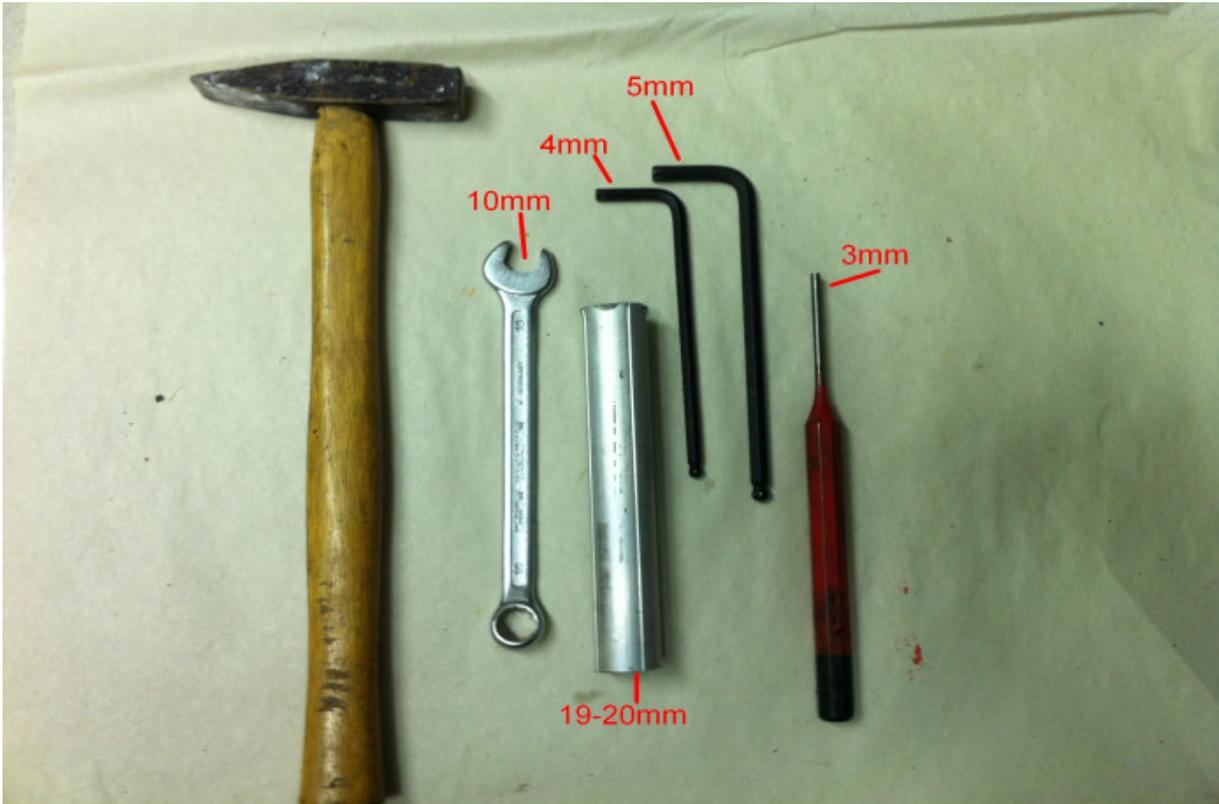


## Repair-Guide for Brembo PS15 Clutch Master and PS16 Brake Master

as used on 120° Jota, RGA, RGS and SFC and all other Laverdas with disk brakes and/or hydraulic clutch; by Lothar Esser

Tools needed:



Plus a repair kit and a workbench with a bench vice.

First you start with dismantling the master cylinder and clean everything thoroughly. Don't forget to clean the little channels below the reservoir! Depending on how old the master is, there can be mud closing them completely...



The reservoir is held by two screws and a plate only. Once the screws are removed, you can turn the plastic reservoir in its seat and gently pull it out. Time to dismount the lever by first removing the 10mm nut and then unscrew the Allen screw. Make sure you don't lose the little spring-washer on one side of the lever! Clean off old grease/dirt!



Now you need to dismount the master piston. For that you mount the master cylinder into the vise with an old towel or so to make sure you don't scratch the surface. Make sure you put the side up that takes the brake line and to put the side downwards that takes the lever (see next page). Don't over tighten the vise!! This is cast alloy, it might brake...



Now these tools come into play. GENTLY push the piston out, watching your feed. Keep in mind, it is spring loaded... See next page for a little hint that might save your toes from pain...



I always hold one finger under the piston and just gently push with the hammer. It soon drops out. Don't push hard!!! Better give several gentle pushes:



Now you can pull the thing out quite easily. Make sure you also remove the little plastic part that sits at the end of the spring (just below the spring on this picture below). Don't bin everything just now, you might need the seal and the washer for re-installing the piston! Just clean the master with brake-cleaner (put some goggles on, as it might spit into your eyes...). Make sure you wait a bit until the brake-cleaner is gone from the surfaces before you continue. Inspect the piston and cylinder for serious scratches. Typically there are none, but who knows...



Next you can prepare the new master piston that should look just like your old one in terms of parts. Make sure you keep the old washer, seal and ring from the old piston; else you would have to make you a tool to mount the sucker:



Now grease the sealing rubber lips of the master with the grease coming with the kit. Use some for the lever (below the washer and on the contact surfaces):



After that you put the spring on top of the piston so it stays there and put the plastic cap on top of the spring. This way you can put everything easily into the master.



Now back to the vise...

First put on the NEW washer:



Make sure you take the parts the right direction!! Left side on these pics is DOWN. First put the brass ring with the SMALLER outer diameter over the rubber seal! At least that was how it was mounted on all my masters...



Now put it over the end of the piston:



Next you can go two ways: either you find or make yourself a tube that has outer diameter =>20mm max (or 19mm) and inner diameter 13mm – 14mm max or you re-use (like I did) the old washer and seal to push the new one in with a piece of round material:



After you put everything on, you push the package down with the round material (or the tube) and give it a push or two with the hammer.



Should look like this now, still with the old seals/washer coming back up again which you simply remove:



Piston should stay in the master. Time to mount the lever again, which you should have greased a bit. Don't forget the spring-washer that sits in the lever!!



Back to re-assemble everything with all parts cleaned, ready to be mounted back to the bike!



If you have done everything right, the lever should move with some resistance, but equally during its travel. If so and everything looks like above – well done! You have sorted it for the next 20 years or so of usage! ☺