Rear Brakes

Final step of the brakes restoration is the rear drums. The total milage of the rear jaws was near to its service interval and in the mean time the drums were showing signs of wear. I had them machined almost 10 years ago when it was nearly impossible to remove them from the lip formed in the inner surface; however the lip was appearing again ... so I gave it a shot and bought a new set of drums.

New drum right off the package...

and a complete set of rear jaws. Package includes wheel cylinder, jaws, regulator and new lock rings/springs and pins

Since I didnt want the new drums to become ugly and rusty I had them painted. First layer of rust converter and 2 layers of high temp paint did the job for good

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Painted the outside taking care paint does not enter the bearings cavity

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I also had rust converter applied on the inside. It was applied everywhere except where the jaws come in concact with the drum.

Lets now move on to the bearings. Get hold of special grease designed for wheel bearings; do not use regular grease as it will simply melt from the high temps occuring at the drum and your bearings will be ruined for sure. Regular grease can't withstand high temps so it just simply melts wherease the grease shown above is designed for temps up to 250 C.

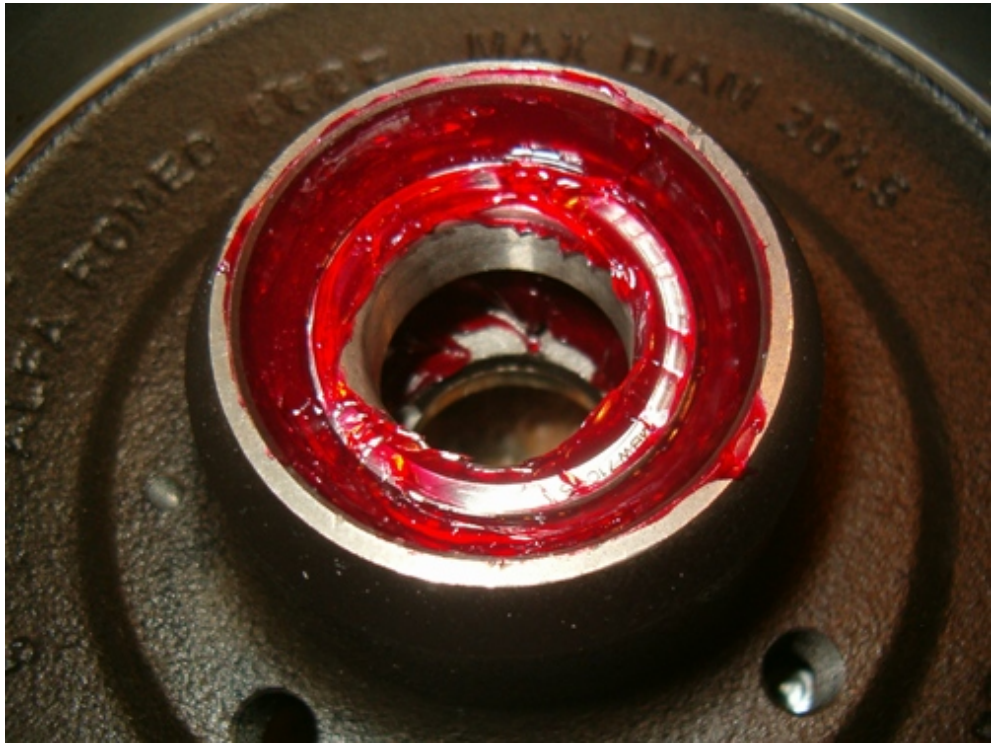
This is the wheel bearing kit consisting of inner and outer bearing, dust seal and axle nut.

A close-up of the bearing. It consists of the actual bearing and the bearing ring. This ring should be replaced along with the bearing as the inner surface wears out.

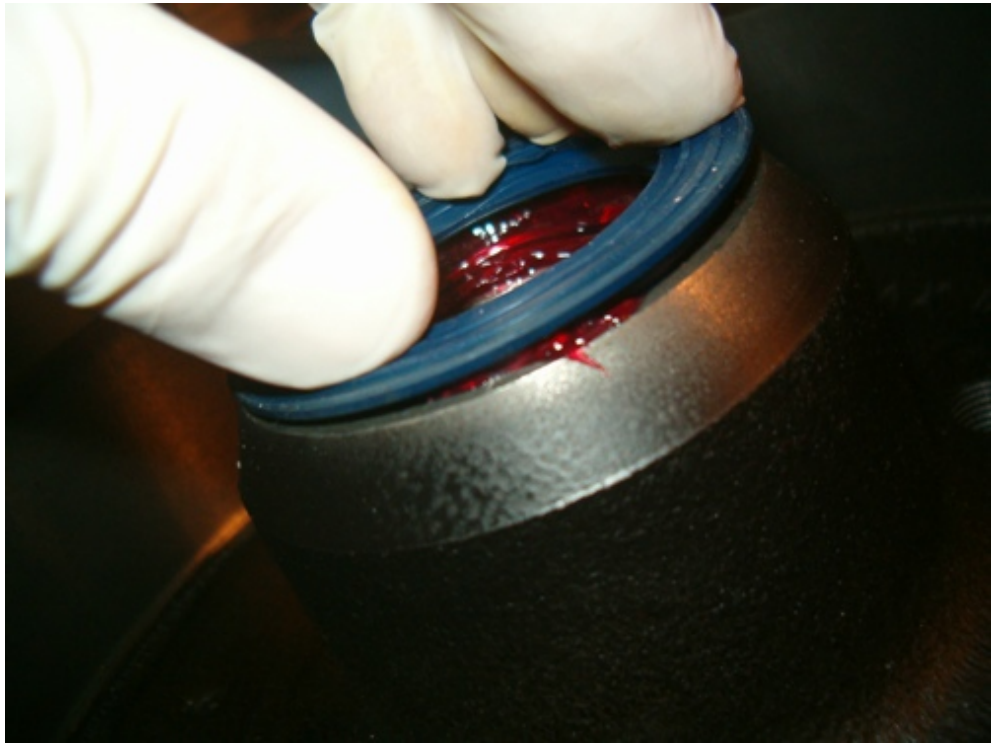
Since I had new drums on my hands, the bearing rings come integrated on the drum, so there was no reason to bother pressing them in. Before applying grease clean the surface with alcohol as it has an oily film from production; oil is used as a rust preventative measure so it is advisable to remove any trace.

Apply plenty of grease in the cavity (50 grams is OK) and the ring surface

Install bearing and make sure it sits properly...



Apply grease and proceed in fitting the dust seal



It may be a tight fit but once pressed firm and straight it sits perfectly

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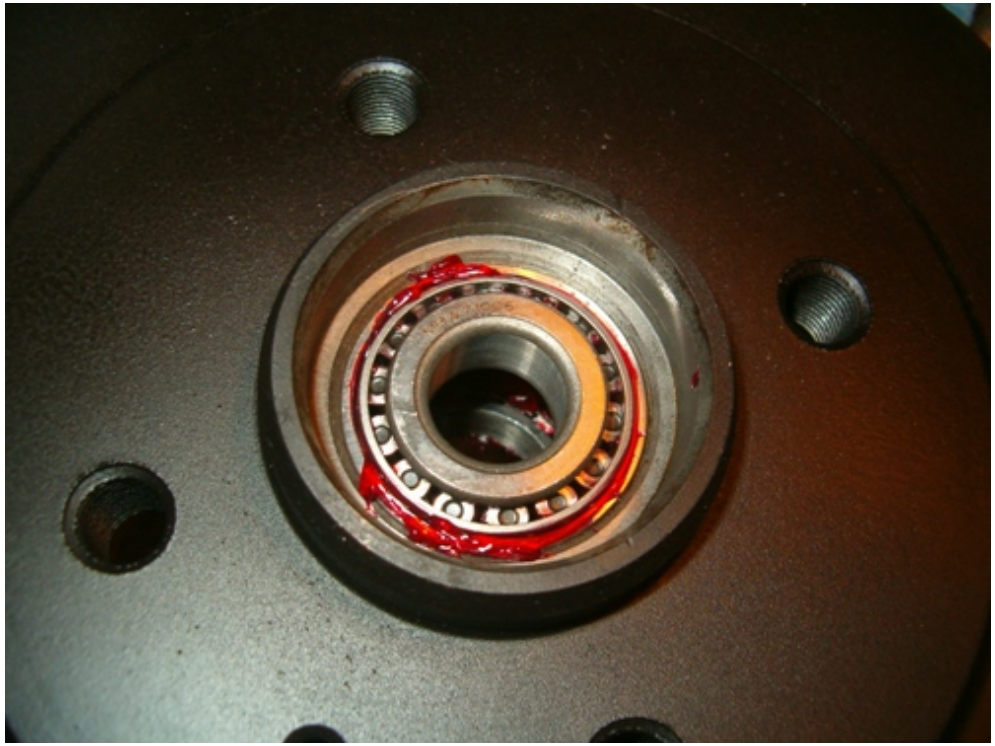


Do the same for the outer bearing. Apply grease in the bearing ring...

and install it properly.

Let's now move on to the rear axle. Remove handbrake trim and fully release the parking brake cables

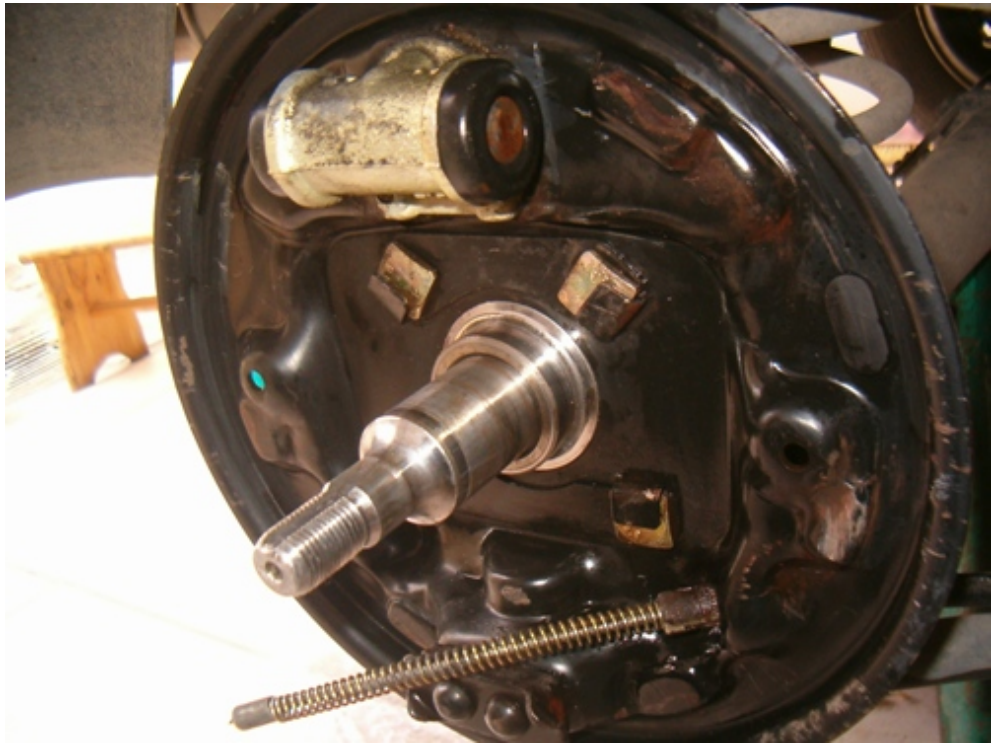
Remove dust cover, axle nut and drum.

Brake jaws are shown here along with wheel cylinder. Luckily the wheel cylinders look OK so no need to replace them (again)

I have applied loads of cleaner, in order to remove most of the brake dust.

Using a set of pliers remove brake jaws locking nuts. These nusts are used to keep the jaws firmly attached to the drum rear cover.

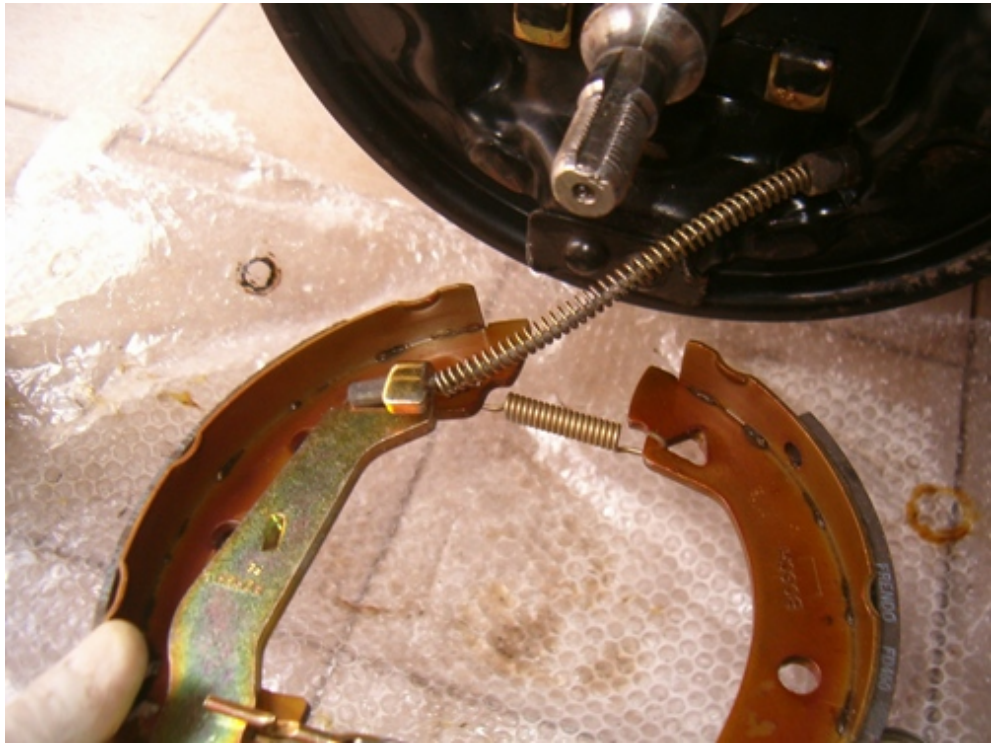

Once out the parking brake cable is exposed. remove it in order to free the jaws.



Brake assembly is now clean and it is hightime we had the new jaws installed

Be sure to have the axle thorougly cleaned as any trace of dirt may ruin the bearings

Lubricate the parking brake cable...



... and attach it to the new jaws

Jaws merely sit in place. We now need to firmly attach them to the drum rear cover

Install pin with direction from the rear cover, install spring....

and last but not least the locking ring which keeps the jaws attached to the rear cover

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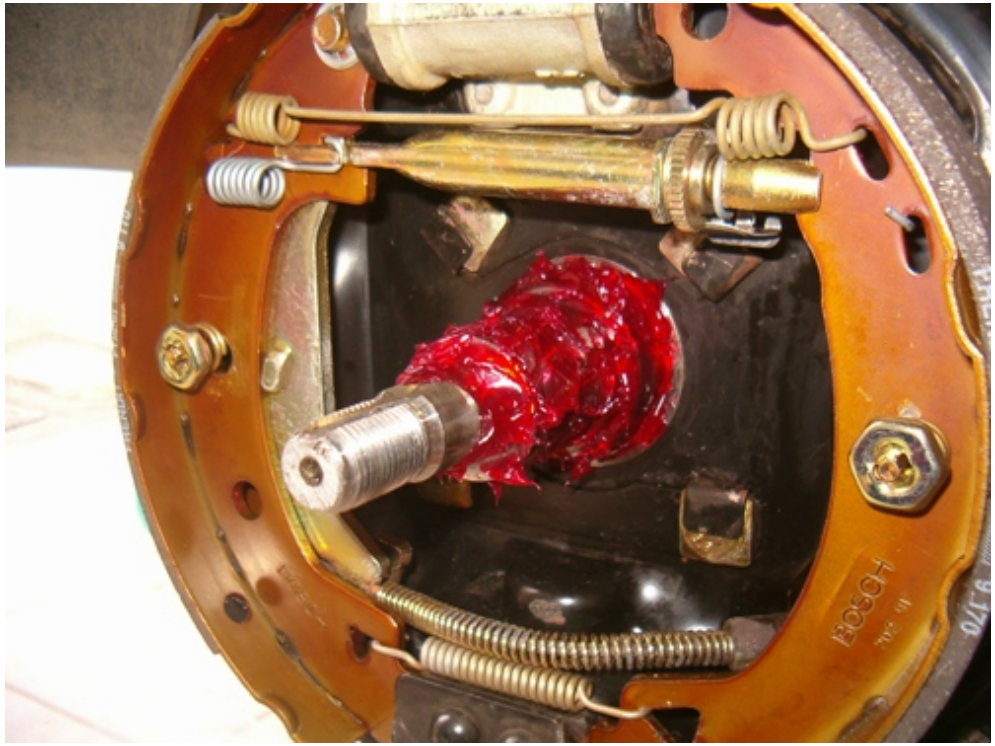


Apply grease to the axle and install drum along with relative washer and axle nut

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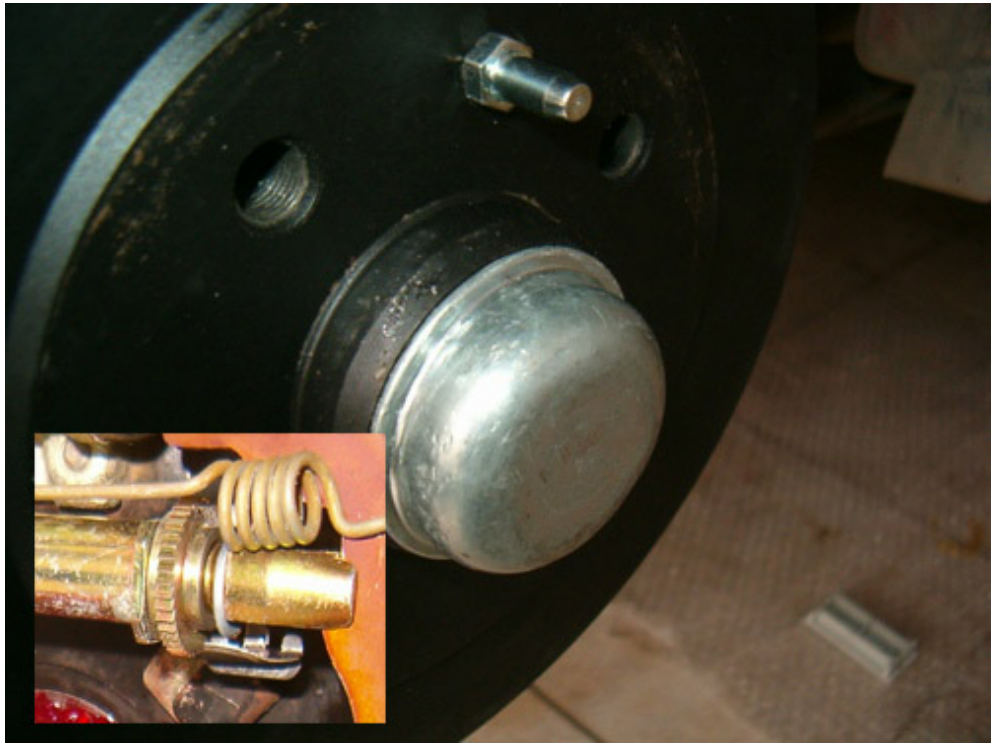
Again apply grease around the axle nut. Tighten the axle nut at the specified torque (25-29 Nm) and in the mean time rotate (CW & CCW) the drum several times in order the bearings seat in their position correctly. Then slightly slacken the nut, hit the axle with a rubber mallet and then punch the nut in order to lock it; be careful so that the nut does not lose it position.

install wheel guide pin

and apply some grease on the axle nut covers



Press the cover in and lets now proceed in adjusting the brake jaws

The process has been covered in a previous chapter but it is wise to repeat it. The adjusting wheel on the brake regulator acts on the brake jaws in order to extend them against the drum; it is possible to contract them but the drum needs to be removed as there is a locking pin that prohibits movement of the adjusting wheel backwards.

In order to extend the jaws, insert a long flat screwdriver and very carefully act on the adjusting wheel by rotating it upwards. Then act on the brakes pedal and handbrake in order to allow the jaws sit correctly. Repeat the same procedure until you can feel slight friction of the jaws to the drum; in addition an indication of proper adjustment is by being able to rotate the wheels by handby applying equal rotating force.

It may sond easy and simple within the lines of this text but it sure needs attention and patience to have the rear brakes correctly adjusted. Since the jaws and drums are new, it is essential to let them bed in and inspect them after some hundreds of Kms. Adjustment may be necessary but for sure a check has to be done.

1991 Alfa 33 1.4 IE

Athens - Greece