

# Brake Refurb, Using M030 Calipers

Waylander, 968 UK Forum, Cobalt Blue 968 Coupe

Brake refurb on a pair of 968 M030 Calipers

The first job is a clean and a full examination; the calipers are not in too bad condition and required only a reasonable clean

Things to note

1. Minor plate Lift on all four plates
2. The bolts are undoable with a T27 Torx Key
3. The bleed nipples are in need of replacement
4. None of the dust seals are split
5. The pad retainers are seized solid

Acronyms

BFI, Brute force and Ignorance

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So the strip down starts with the removal of the 8 bolts that hold the plates in, these are removed after cleaning out the recesses of the bolts then using a ¼ drive T27 torx bit from Snap-on 6 of the 8 came out, the remaining 2 required a bit of assistance from a blunt cold chisel to tap them round, if they are fully rusted away then the only choice is to MIG weld a 13mm nut on to the remains of the head of the bolt.

Once the plates are out of the way the next job is to remove the dust seals and pistons, it is possible to remove these dust seals but great care is needed.

My preferred method is to use a feeler gauge to ease down the sides of the seal and slowly release it all the way round inserting a little GT85 as I go,

With the dust seals removed it's now time for the pistons, these were removed with the help of compressed air, the larger pistons shot out no problem, the four smaller ones moved then stopped and needed levering out with some plastic trim tools,

There was no corrosion in the piston bores or the on the piston themselves, it was purely old lubricant and dust (very sticky)

All pistons were bagged and labelled so I know where they came from, its very important to put the right piston back in the right hole, they will be gently polished with 6000 wet and dry then lubricated and replaced.

New piston seals can be purchased; the genuine Brembo numbers are listed below

105.5955.51 26mm  
105.5955.52 28mm  
105.5955.53 30mm  
105.5955.54 32mm  
105.5955.55 34mm  
105.5955.56 36mm  
105.5955.57 38mm  
105.5955.58 40mm  
105.5955.59 42mm  
105.5955.60 44mm

Dust Caps for the Pistons Genuine Brembo

20.4872.40	28mm
20.4872.41	30mm
20.4872.42	32mm
20.4872.43	34mm
20.4872.44	36mm
20.4872.45	38mm
20.4872.46	40mm
20.4872.47	42mm
20.4872.48	44mm



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Individual Seals as above come as packs of 8

Individual Seals are

05.5955.51	26mm
05.5955.52	28mm
05.5955.53	30mm
05.5955.54	32mm
05.5955.55	34mm
05.5955.56	36mm
05.5955.57	38mm
05.5955.58	40mm
05.5955.59	42mm
05.5955.60	44mm

it is also worth getting some seal conditioner 04.8164.90, and the bleed nipples can be replaced with Mondeo ones for Standard or Ducati ones for Stainless

My Supplier is

Steve

Mode Performance

9A Cygnet Drive, Swan Valley, Northampton, NN4 9BS, United Kingdom +44 (0) 333 666 0680

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Next steps is to get the plates and plate faces cleaned and ready

Clean up





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The Cross you can see is the spring pad retainer, the two legs are well and truly corroded in there and will require some BFI to remove.



A big squeeze and up and down movement helps free them off, they also required a tap or two with a small hammer to get them out, the holes are full of rubbish, using a pick and brush I get them clean



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Now to move on to the real plate lift corrosion.....



This is the bottom of the caliper, the white crust is the corrosion and this takes up twice the space of the original material, the alloy from the caliper this has to be scrapped and files and wire brushed off and hopefully leaving the top and bottom lands for the plates to rest on, also where the side meets the end right in the corner there should be a groove to drain water out of them, I will cut this back in later.



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Some images of the process



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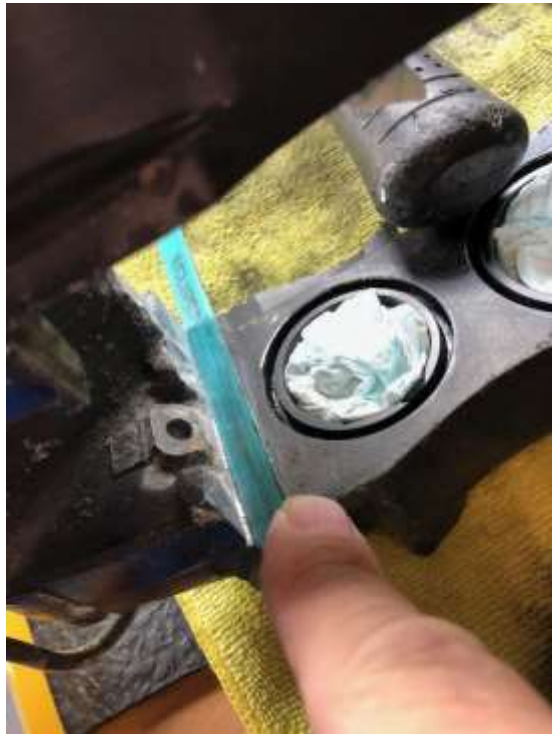
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Now reached the point with all the corrosion removed and just bright shiny alloy to see, now we need to protect it, I really don't think some of the tricks used are a good idea, like silicone between the plates and body, one little pocket fills with moisture and away it goes and you can't even see it, anyway I'm going to coat it with a water based corrosion barrier that once dry is as hard as steel.





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This stuff dries clear, so once dry I will give them a second coat, then remove the rusty bleed nipples



I have removed the bleed nipples and I tried to get a close up picture of the crap down the bleed hole, more corrosion due to infrequent fluid changes, brake fluid is hydroscopic so absorbs water and when its in a tight space possible for years and years , the result is in the picture.





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The start of reassembly

The Pad plates are not bent or damaged in any way so its pointless replacing them,

But they are a bit cruddy



So a little effort and they are nice and shiny again, ready to refit, the picture below is half way through the clean up but its to show they come up fine



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Plate Installed with A4 Marine grade Stainless Bolts, these will get a tiny bit of Locktite on final assembly



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## Parts





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Seal Replacement.

First thing to do when you are ready for this part is the new seals need soaking for at least 24 hours in the Brembo Seal Conditioning fluid, So do this well in advance New 36mm Seal having a paddle...



Now to get the old ones out, this needs to be done with plastic tools and a bit of care as any damage to the piston bores is catastrophic !!!!!



Here is the seal sitting in its groove, when you look closely you can see the seal is sitting at an angle making the the bottom or inside edge higher than the top edge, this provides the fluid seal and also aids piston insertion, the new seals are totally square cut so there is no wrong or right way to fit them, the grooves the seals sit in are machined at an angle

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Getting the old ones out, I use a panel trim tool to just get down the sides and lever them out...



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Fingers are the tool now, just get hold of it and lift them out.



Everything in the bore will now be cleaned maliciously ready for replacement.



A 36mm Seal fished out its conditioner bath, the fitting is in good old Haynes fashion, just steer the seal into the groove with your finger tip and start to push all the way round and it will just pop in



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Madonna stylee Back in the groove,



Now for the pistons, this is a one shot deal normally, once in they are a pain to get back out without blanking off all the holes and compressed air, so I fit the dust boots / seal first then polish the piston with a decent microfiber cloth,

Before.



After.



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The trick is to lubricate the piston with conditioner / build fluid, then settle the piston square against the seal in the bore.

once you are happy it's not on the wonk then increasing force with your thumbs plus a little wobble and it will pop right in, almost all the way at this point you just move your thumbs out and squeeze in the dust cap

Settled Square.

Most of the way in, just needs the last bit and dust seal



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All done, only another 7 to go





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They are now complete, so I just want to add some pictures,





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