

Rear Brakes

The rear brakes, the area I expected least trouble, actually came as a bit of a surprise as to how close I was to the edge with the component selection.

I'd picked the Mini rear disc based mainly on the overall diameter, the disc height (top hat) and the fact the disc bore was very, very similar to the Europa rear hubs. So even if I did have to re-drill the wheel stud holes the bore alignment would help minimise balance issues.

What's the saying ? A battle plan is perfect until you meet the enemy ? And my plan was fine until the discs met the car ! Ok, let's explain. Once the discs arrived I did a quick trial fit and found, much to my surprise, that the PCD on the Mini disc actually fitted neatly on the smaller, 3.75" PCD of the Europa.

It turned out the Mini has much larger stud holes and the extra large holes compensated for the smaller Europa PCD. The hub & bore lined up as expected, so hey, I'm good to go !!!



Fig 1. Trial Fitting of Mini Rear disc on Studs/hub

As explained previously, the front and rear caliper brackets are constructed on similar principles, and as with the previous rear brackets my aim was to keep everything as close and rigid as possible. Unwittingly, this methodology saved the day.

The first snag I found was that the pad depth on the Renault caliper was almost exactly the same as the depth of the swept surface on the disc. In fact it was too close for comfort and resulted in quite a delay as I measured, re-measured, rinsed, repeated to ensure the pads didn't come over the tops of the disc or catch on the top hat section of the disc.

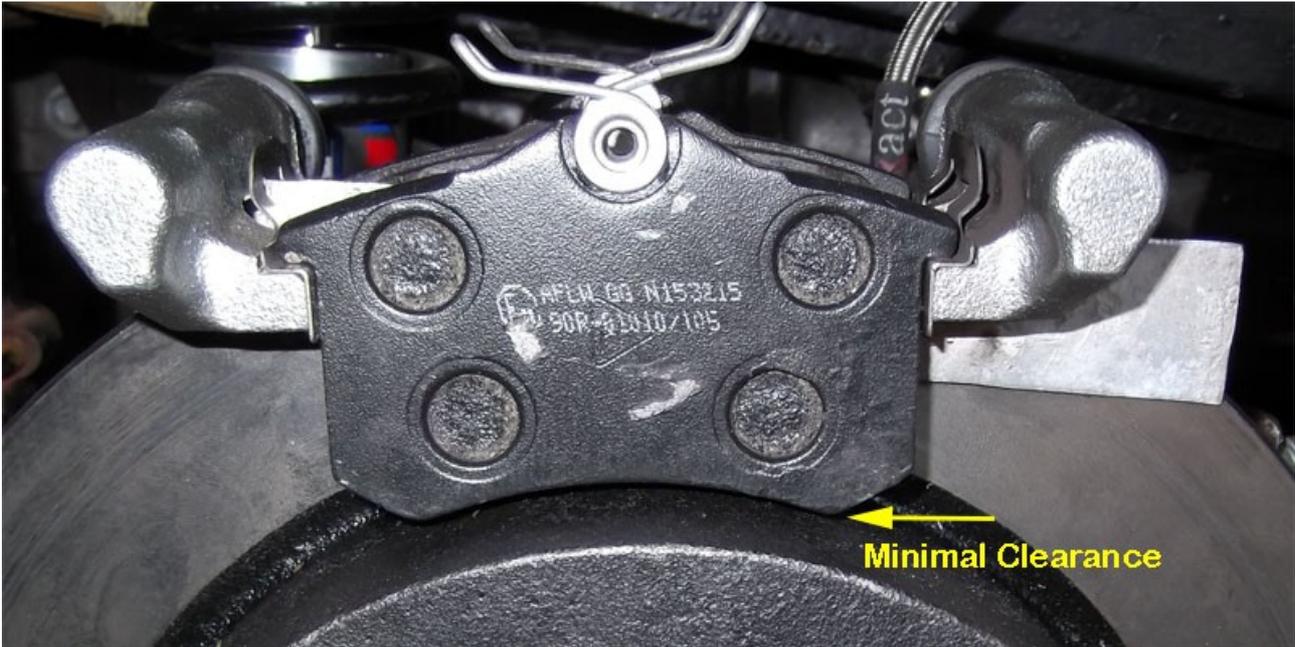


Fig 2 : Pad Clearance issues

Take a look at Fig 2, a photo taken whilst aligning the caliper mount centrally on the disc, and note just how close the bottom of the pad is to the disc body. Sure, I could have ground off part of the brake pad but that's getting very close to bodging, which I'd really like to avoid.

However a day later and I'm feeling happier. The caliper is mounted, no catching and it's looking pretty neat.



Fig 3 : Caliper finally in place

I put on the rear wheel and, purely out of curiosity put my hand behind the rim to feel how much clearance there is left and how much larger disc I could have used.

Surprise number two, there's nothing like the clearance I have at the front and that's with a smaller disc ! Yes, there is clearance but the caliper body is obviously higher/deeper than the front caliper and despite being mounted as tightly as possible there's not a lot of space there.



Fig 4 : Final assembly

The disc doesn't fill the wheel but the combination does, something I'd overlooked completely at the selection stage. Never even thought about it..... I was lucky with that one, phew !

In conclusion the selection process I'd used did work, but only just and more by luck than skill. Mind you, we need a bit of luck with a Lotus, don't we ?