

My Hawk build Part 8 by Stuart Clarke

Front hubs, brakes and brake lines.

There was still no news on my rear springs so I thought I'd find something else to get on with. I had the front hubs, brake calipers and vented discs from Gerry so I decided to assemble and fit these.



I thought I'd mate the hubs to the discs first, then I'd fit the bearings, spacers, shims and seals to the hubs.

The discs from Gerry came with the correct spacers and the holes all pre drilled. The bolts to bolt the hubs to the discs aren't supplied they are 3/8 UNF and I ordered these, together with some others that I needed, from a local engineering supplier. The bolts were a very tight fit. So I relieved the holes with my Cordless Dremel. (Well worth the investment if you are building a Hawk!)

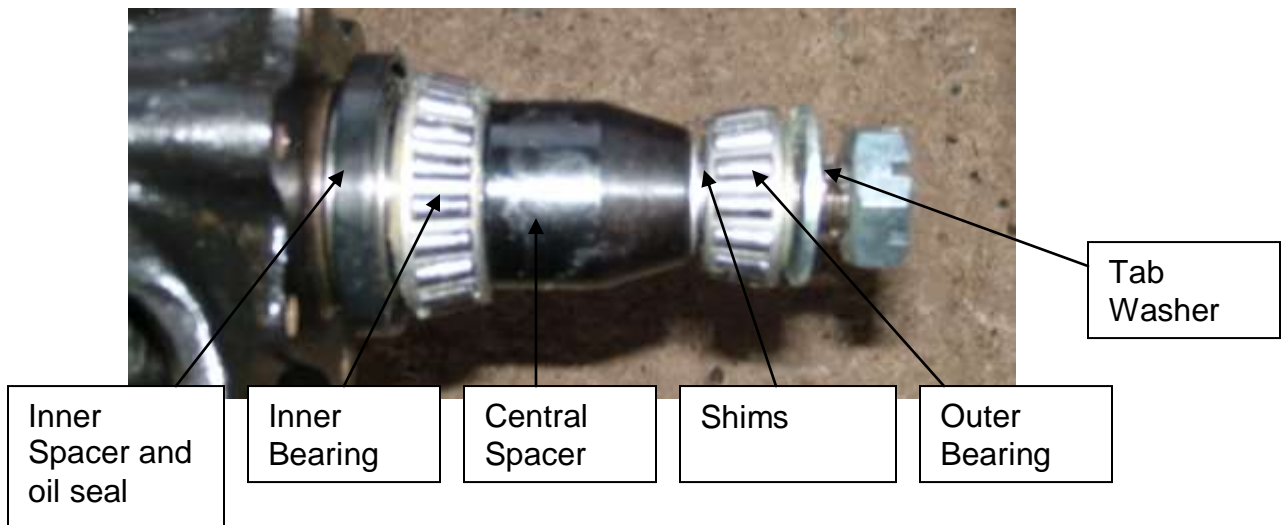


The bolts were still nice and snug (which they need to be) but doing this would make separating the hub from the disc much easier. They were torque up to 40 – 45 ft/lb. The next task was to assemble the bearings. I've never changed a wheel bearing and reading the Haynes Manual doesn't make the job any easier. There is a guy on YouTube called John Twist from University Motors who does a great job in explaining all matters MGB and his explanation of setting of MGB wheel bearings is easy to understand <http://www.youtube.com/watch?v=RJYIXZtnliw>. Or just type MGB wheel bearings into Google and it'll come up.

I bought a couple of front wheel bearing kits from my MG parts supplier and each kit came with the two bearings, oil seal, spacers, shims, tab washer, new castle nut and split pins everything I needed to do the job. The first job was to fit the bearing races into the hubs. Using a suitable size socket as a drift they are tapped into place.



It's quite easy to see where they fit.
This is the arrangement of the bearings and spacers that we were trying to achieve.



Once the bearing races are fitted I started the assembly. This is quite a fiddly job and many expletives were used. The first inner spacer needs to be slid onto the stub shaft. The black spacer then needs to be dropped in to the hub followed by the larger wheel bearing (pack the bearing with grease first). Then the oil seal can be tapped into the hub.

The hub can then be slid over the stub shaft until the oil seal slides over the first spacer. Then the fiddly bit! The shims need to be slid onto the stub shaft followed by the second bearing. I found the easiest way to do this was to stick the shims together using a bit of grease and then stick the shim pack to the bearing with another blob of grease.

Once this is on, the tab washer goes on followed by the nut. This assembly will probably need to be removed and refitted a couple of times until the correct number of shims has been found. The correct number of shims is found by tightening the hub nut to 40-70 ft/lbs (to line up to the next split pin hole).

If the hub spins freely and there is no end float (Movement of the hub back and forth along the stub shaft) then the correct combination has been found. If the hub locks up and doesn't spin then more shims are needed. If it spins freely but there is too much endfloat then less shims are needed.



The split pins are fitted next. The holes on my hubs all lined up which made this an easy job.

The next job was to install the calipers. These were supplied by Gerry and came preassembled and tested with the correct spacer for the vented discs that I had. I had ordered a spare special tab washer for both sides and the bolts to mount the calipers were supplied with the Hawk kit.

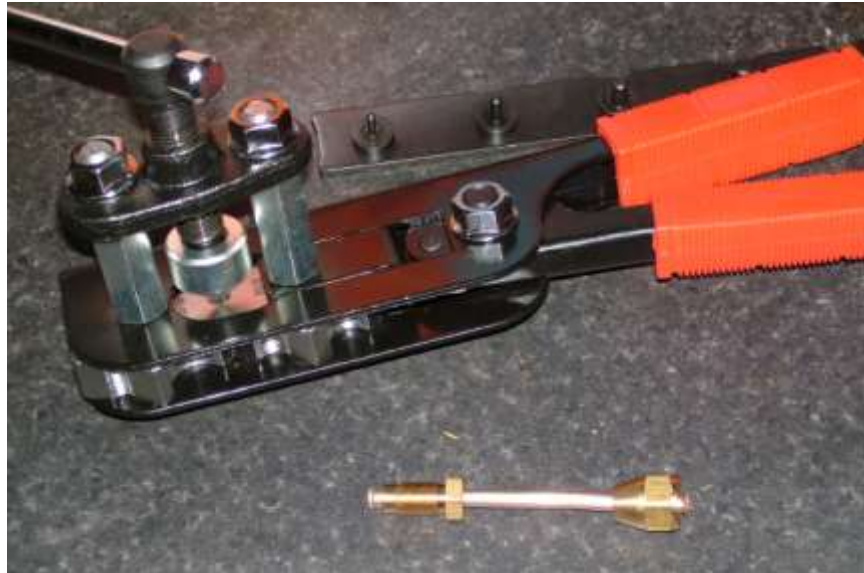


This was followed by fitting the grommets in the outriggers. These are 32mm blind grommets that fit in the holes on the outriggers to support the rear brake pipes on the offside and the fuel line on the nearside. I got these on ebay for a couple of pounds. A good tip is to warm them up in your hands before trying to fit them.



Now I was ready to start installing the brake pipes. I'd ordered the brake pipe kit from Gerry with the Hawk kit. It isn't that expensive and to be honest it saves a great deal of time as it contains all of the pipe and fittings that are needed. The only thing I needed to get was a brake pipe flaring tool. They aren't that expensive and if I didn't need it I could probably sell it on after I'd finished.

I did a couple of practice runs on the female and male flares.



The build manual shows the rough route for the pipes but I took some pictures of a rolling chassis that Gerry had at Hawk cars. It was a left hand drive version but it made it easier to understand the route none the less. I wouldn't be able to complete the job until the body was back on and the pedal box / master cylinders were installed but I could do the majority.

I bought a small pipe bender but I found that it was nearly as easy to bend the pipe carefully using my fingers, ensuring that the pipes didn't get kinked.



I started by fitting the front 4 way adaptor this is held on by the small threaded bar that comes welded to the chassis and just needs a M6 nut to hold it in place. The offside one is used for RHD cars. The left hand one isn't used. I used a piece of wire to get the length of the pipe, cut the pipe, pushed on the male or female connections needed and flared the pipe with either a male or female flare as required. If I ever built a Hawk again, I'd fit the brake pipes before I installed the engine and transmission. It would make it slightly easier.

4 way
adaptor



The main thing to remember is that the brake pipes need to be secured every 9 inches. P-clips are provided in the kit to suit the 3/16" pipe. There are a number of ways to fit the P-clips I just drilled the holes and tapped them to M4 and used bolts and washers to secure the clips.

I also had to make some bypass pipes for the Princess Calipers. A couple of the guys from the 289 Register advised which ports needed to be connected.



The last final job that I completed on this episode was fitting the clutch actuator kit which I got from Gerry. This was only a small job that took ages as I had to grind the bracket to suit where it fitted to the engine. It was probably made to fit a 302 engine and not a 289.

