

## Modded Mamod - Part 3

It doesn't stop there! Most people will know that I have a Mamod "Railmotor" and that I have done some modifications to it such as Radio Controlled regulator and whistle, gas burner and now this!

I had made a couple of pressure gauge syphons, but they were very weak and just didn't look the part. I then removed them completely and fitted a blanking plug. One day I was "playing" with the engine and thought to myself, I could re fit the pressure gauge and make new syphons. The project started with me thinking about how I could easily disconnect the pipes for maintenance. I decided to use 3/32" copper pipe, 3/32" union cones and 3/16"x40tpi nuts (which is the pressure gauge thread and that the pipe looks to scale). In order to connect the syphons together and to the engine's dome, I made a couple of union connectors (more about this further on). So now I had thought it all through, I began.

I bought some 3/32" pipe from EPK supplies and whilst I waited for it to arrive, I made the union connectors. They start life as a piece of 5/16" brass hexagon, which is cut oversize to allow the "facing operation". The part is then put in the lathe and the front is "faced" (this means taking a cut across the front to true it up). After that, I turned the part down to 3/16", so that I could use a 3/16"x40tpi die to cut the thread. After cutting the thread, I had to machine the other end, but there was a problem. I could not grip the part by the threads in the chuck, as this would damage them. So I put a union nut in the chuck and tightened the connector into this, which enabled the other side to now be machined. I applied the same procedure to the other side (facing, turning down and cutting the thread). I then began the drilling operation. I used a "centre drill" to act as centre punch, then I drilled the main hole through the work. I then used a bigger centre drill to add a countersink angle to the hole. This is to accept the taper on the union cone and thus be firmly tight. Once the pipe had arrived, I cut two pieces out of it and soldered the cones to them (not forgetting to put the nuts on first!). I then connected all the parts up and had to think about the pressure gauge. The normal 0 to 120 psi pressure gauge gives too high a reading for a Mamod boiler. As a customer of Forest Classics, I discovered that they sell a pressure gauge that reads 0 to 30psi, specifically for Mamods. I then fitted this and steam tested the loco, which passed with flying colours.



This is one of the union connectors.



This is one of the pipes, after having the union cones soldered on.



Here is the all important gauge.

That's it from me, thanks for reading.