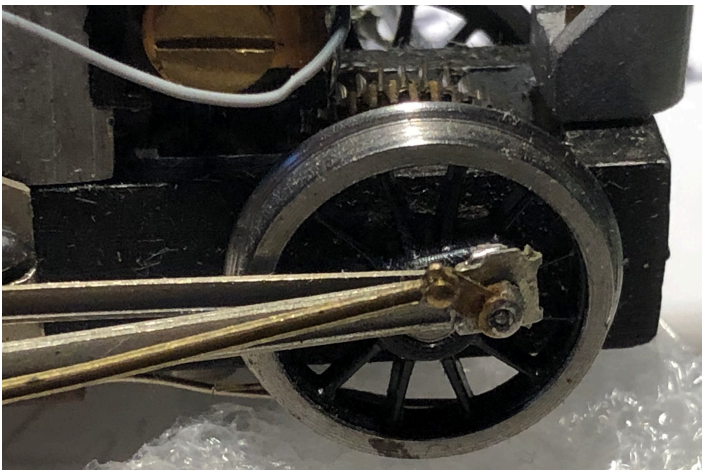




## Attaching Eccentric Cranks To Gibson Crank Pins

The following is some advice I received from Tony Gee, it relates to a problem I had with some GWR Steam Railmotor valve gear. I had a NuCast kit which I had built but had problem with the valve gear, the eccentric rod was too long. I replaced the NuCast eccentric rod with the one from a Blacksmiths etc. I was having one more problem, attaching the eccentric crank to the crank pin. Loctite worked for a short time, but was not up to the job. The advice I received from Tony gave me a couple of options.

Put an Alan Gibson threaded retainer on the crankpin and tighten it against a bush but do it wrong way round, with the flat on the outside. then mark the correct position of the return crank by placing it on the flat side of the retainer and touching both parts with a fine marker pen. Then remove the retainer, solder it on to the return crank with a chemically blackened spare crankpin (or any 14BA bolt) through the threads to keep them clear of solder. You should then be able to screw the retainer/return crank onto the crankpin and it should tighten up in the right place. It might take a couple of goes to get the angle dead right but you can re-solder it as many times as you like with no danger as you can do the soldering away from the wheel.



The Templars Telux flux will allow soldering to steel without eating away the chemical blackening but if you prefer phosphoric acid flux, use a cocktail stick to hold them together. Other possibilities are to use an Ultrascale retainer, which are Brass, or even a 14BA brass nut soldered onto the back of the return crank. You don't have to tighten it too much and once you have the threads to help, Loctite will hold it in place if it just slightly tightened against the crankpin bush. If you use a brass 14BA nut, you can

keep filing a bit off the nut to adjust the angle if you don't get it quite right.