



Coughs and sneezels spread diseases

To those who know my tastes in railways the sight of me buying and running a diesel, an American no less, would probably come as some kind of shock. After saying all those things about horrible smelly diseases, there I was one Tuesday night running my new pride and joy a GE DASH 8-40C #7598 (CSX) made by Spectrum. I had bought this at our last swap meet not because as some would like to think "that I had finally seen the light and converted to modelling US" but to test a theory that I had been toying with. The gears and motor could make for an easy method to power my LNER Garrett that is lying in pieces on the workbench waiting to be finished. The axle spacing at 23mm + 24mm is almost perfect (should be 23mm + 23mm). The first thing to do was to test run the loco, it ran quite smoothly but very noisy at anything over a fast trot. The sound would probably have made some diesel fans weak at the knees, it was a low growl quite like the prototype, but not at all suitable for steam so it definitely had to go! I decided to let it run for a few laps of Paradigm to see if the sound changed which might indicate gear or bearing noise caused by lack of lubrication but it didn't and was the same in both directions. It was during this "testing" that I was sprung by some other club members who greeted me with comments about changing to US and diseases. With all the ribbing over and an explanation given I carried on diagnosing the cause, I started by running the loco with the body removed in case something was rubbing but it made no difference. By watching closely the cause became obvious, one flywheel was wobbling quite violently, it must have somehow been drilled out of square during manufacture. This was a problem that must be fixed, not only for the noise, but also to save the bearing in the end of the motor which would be under quite a high sideways load and wear very quickly. Not having access to a suitable puller or other equipment to fill and then drill the hole accurately I decided to take it home and try to attack the problem from a different angle. If one can be wrong then there may be others that also need fixing so I will run through the procedure I used, it is not necessarily the best method but it is cheap and easy for anyone to do.

I started by stripping the loco down to a bare chassis and motor, not as big a job as it sounds, simply remove the body then one screw at each end of the chassis to allow the gearbox and wheel assemblies to drop out as a unit, the drive shafts just slip out. Putting all these aside where they won't get damaged or dirty I turned my attention to the offending flywheel. Putting some old newspaper down to catch the mess (you will need about 3 weeks worth if working on the kitchen table to keep the cook and bottle washer happy). I applied power to each half of the chassis to make the motor turn, not as good as a real lathe but not bad at the price, I held a medium file gently against the flywheel as it turned, the file took small bites off the high spots showering small shards of brass over everything (hence the newspaper). As I continued the flywheel slowly began to run true and when it was about as good as it was going to get I cleaned up the mess and removed the remaining screws to disassemble the chassis (don't lose the plastic spacers) I used an old paintbrush to clean off the motor and then washed the chassis in soapy water. After carefully drying the chassis I reassembled the loco for a test run. It was like chalk and cheese, much quieter and smoother, there was still a little noise probably from the driveshaft as this is driven from the end of the flywheel which of course was still out of true. If I use this mechanism for my Garrett I will only be driving from one end of the motor so this will not be a problem.

While I had the loco in pieces I took the opportunity to check the dimensions of the gearbox / drive train against a scale drawing and the body of my Garrett to see just how much modification would be necessary for it to fit, it comes close but would require some major surgery to the gearbox, so I may keep looking for another method or mechanism.

Catch you down the track....Tony Mikolaj.