## LSWR G6 Class 0-2-0- No: 217

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G6 posing in the yard on Horton Regis.



Some time ago, on a whim, I bought the Connoisseur kit for the G6. What, I hear you say, is a dyed-in-the-wool Great Western fanatic going to do with that? Well, my then local club's (Epsom & Ewell MRC) award winning, 0 Gauge layout is based on a might-have-been place called Horton Regis. Modelled on Plymouth Friary it is totally LSWR circa 1910. Shunting the yard is, I find, a pleasant way to spend a few hours and so why not have my own engine to shunt it with? It gave me an opportunity also to try out one of Jim's locomotive kits.

The kit itself is, as the instructions clearly state, basic and designed for the modeller with some skill and the possibility to upgrade using scratch building and bought-in castings. I had intended to use AGH castings for the wheels and make it entirely sprung with Laurie Griffin's milled horn guides. However, the layout was due to go to a show in the middle of March and I thought it might be nice to build something for myself for a change. The fact that I have about a month to get it completed is but a small detail (I started it on the 10 February!).

I decided to use compensation with Four Track horn guides on two axles, Slater's wheels, the ABC gearbox and motor I had already laid by and a large pile of Shedmaster castings, to which were added further castings (now of course from Laurie Griffin). The instructions suggest that the motor be fitted to the centre axle. Naturally, that would not do for me, it is difficult to compensate like that. I modified it so that the rear axle was fixed with the motor/gearbox attached and the front two axles compensated. The ABC gearbox fits it nicely.

This required some modifications to the frames, the addition of another pair of holes for plunger pick-ups since only the front and rear-mounting holes come ready etched, plus a pair of holes for the compensation beam pivot and cutting out rectangular holes for the horn guides. This picture illustrates what is required and where extra holes were drilled.

The frames are of the fold-up variety, of which I am not a fan since I use a jig to set up the frames and this makes it more difficult. I considered cutting the frames up and fitting them as separate



items but decided to stick with the fold-ups to save the time needed to make new spacers.

Because the motor has been moved, so too must the frame spacers and this allowed me to put one in the centre of the frames, which gave it a little more rigidity. Fitting the horn guides and compensation presented no problems and the following three pictures illustrate what was required to produce a robust set of frames.



The wheels, motor and rods were then fitted and tested out on the rolling road. It worked first time and so I left it running for a couple of hours in each direction to run in the bearings.



The rods as supplied are designed to be solid. Not a good idea with compensation so I modified them to be jointed as per the prototype by cutting the first and third laminate on one side of the joint, and the second laminate on the other side. They were then soldered up while held in the vice with pegs in the holes. I used lots of flux, 179 degree, 2% silver solder wire and an iron, a tool I use very rarely but for



this job essential. This picture illustrates the method; all they need now are a couple of 10BA steel nuts and bolts to make the pivot. The brake gear is well thought out, simple to fit and the brake blocks can be set very close to the wheels. I used nickel silver 1.3mm rod for the supports as that fitted the etched holes well and made a better joint. Sanding gear at the rear uses cast boxes soldered to the frames, the front pipes were fitted into suitable holes drilled in the frames. At each end of the frames, I built boxes using plasticard, fitted some tube to maintain a passage for the holding bolts and poured in liquid lead and dilute PVA. It gives a good deal of ballast low down where it is needed. However, it was all removed later after the disaster with the Prairie Tank.



All the parts for the chassis complete and ready for re-assembly. All that remains is to change the pivot bolts in the rods for some steel 10BA bolts. Once it was all put back together more testing took place on the rolling road and, later, at the club on a test track. It was then that someone pointed out the wheels should have been painted green!

Now a start was made on the footplate and body. All the parts fit well and appear accurate.

The footplate was strengthened behind the valances with some 1x1mm brass stock,



leaving spaces for the tabs that hold the cab to come through. Here are the parts partially assembled for the cab, tanks, boiler (which comes ready rolled) and

smoke box. The beading round the cab entrances and along the top of the tanks was fitted while in the flat.



There is no provision in the kit for a cab interior so it is necessary to scratch build. First, a plate was fitted to extend the cab front to the floor, leaving a

suitable gap for the wheels.

Extensions for the water tanks

were fabricated and fitted, after ensuring the inside face cleared the wheels.



Another plate was added to extend the cab back down to the floor and sandboxes fabricated and fitted. This picture shews the inside of the cab looking to the rear. The sharp eyed among will notice I forgot to put in a coalhole so the fireman has a tough job to do.

## Next, it will need a raised floor.



However, in the meantime, much of the remainder of the superstructure was completed. The dome proved bothersome and took a long time to get to fit correctly but all the other bits and pieces, whether part of the original kit or bought in additions, fitted well.

Here, most of the body is complete and the opportunity was taken to run it on a Horton Regis operating and improvement day. It

performed well but requires a little more ballast to be able to cope with the weight of some of the vehicles it will be required to shunt.



Here the smoke box has been completed, fitted and the back ring soldered on. The back ring started life as a length of 1mm square rod which was held in a groove in some timber so that the corner was uppermost and then filed to a round section. It was then annealed and bent round some brass rod of lesser diameter than that of the boiler. After sliding it onto the boiler, the smoke box

was soldered in place. However, this required some brass rod of suitable diameter to be passed through the smoke box to line up with the half hole in the boiler front. This ensured that the boiler



and smoke box are soldered parallel. The ring can then be soldered in place. Not easy but doable.

The steps needed strengthening with some 0.7mm wire behind them. The kit has a choice of cast white metal and etched front wheel splashers. I chose (naturally) the etched version since the picture of the engine I am building has square fronts and no beading while the cast version has rounded fronts and beading. The sand box tops



and operating links are castings from Laurie Griffin.

Finishing off took longer than expected because I had forgotten to check for things like a reversing lever. Fortunately, I had one very close to the drawing's shape in the spares box. There is a great deal to build for the cab as can be seen in these two pictures. The etched dimples in the cab front and back are where the ventilation holes would go but this engine seems not to have had them or the curious curved

handrail on the outside at the back. However, if someone knows differently then please let me know and I can still correct it.



The back head is held in with blue tack so the painter can get to it more easily. The floor had to be fabricated after the cab was built, it ought to have been thought of before; the job would have been easier and more accurate. The reversing lever is not quite right but what can be seen through the cab side looks OK. The cabinet on the back wall was fabricated from solid brass and then stuck on with Loctite 480. I had intended to leave the handrails off until after painting. However, the problems is fitting them - in several parts round the boiler - would have put the paint job at risk so they will have carefully to be cleaned when it comes back from Ian's paint shop.

These pictures shew the completed engine in my private siding ready to go for Ian's ministrations.



difficult and should not be beyond the ability of anyone with some experience of etched kits construction.

Here are some pictures of the, largely, completed engine on Horton Regis. It still needs to have the paint surface toned down because it is too shiny and there is no coal in the bunker. However, it does give some idea of what the finished model will look like.





## AFTER WORD

One of the problems of building to deadlines - whether self imposed or otherwise - is the ever-present danger of something not going right. Well this little engine was no exception to that rule. Though it ran nicely on straightish track, on some of the curves it occasionally shorted out. This turned out to be due to wheels touching the brake rodding. (Moral? test it out on some curves before completion, not just a rolling road). This necessitated taking the chassis apart, stripping the paint from the frames, repositioning the rods behind the springs, repainting and reassembling. Ah well, we learn one way or another. Whilst the chassis was in bits I took the opportunity to change the fixing for the motor by analditing half a pound of lead behind it, right over the centre drivers. Here



it is being checked out again, now weighing one and a quarter pounds. The body weighs another pound so it should be able to pull more than the skin of a rice pudding. The

tanks have been filled with liquid lead and PVA. We shall see when I take to the Guildford Group's open day later in April.

Well this turned out not to be a good idea after all. It made running poor and erratic so was all removed. A piece of stiff foam was fixed where the lead had been to hold the motor upright and the whole thing put back together again. It ran well at the Guildford Group's open day hauling about 30 wagons each weighing about 130 grams, getting on for 4 kilograms. Unfortunately, something was not well with the motor because after a dozen or so laps it burned out! This is still being investigated so more to come later. In the meantime, I have fitted an MSC unit. It runs nicely with that but now needs another long haul test.

This has subsequently been done on a visit to the Bo'ness railway in July where it hauled 50+ wagons up a significant grade; see the pictures at the top of the page.

After the disaster with the GWR 2-6-2 and the lead/PVA combination, I decided that the risk was too great and decided to bite the bullet by stripping the whole thing and removing all, the liquid lead from the tanks and the chassis. The paint job of course was destroyed in the process. Removing the stuff, once the engine had been stripped was simply a matter of dunking it hot water to soften the PVA and digging out the resulting sludge. Dirty, messy and unpleasant job. The chassis was re-ballasted using, custom cut, pieces of 5mm thick roofer's lead soldered in place. Some more sheet lead was added to the tanks stuck in with Evostick.

It went to Dennis for a repaint and then Ian for weathering and was subsequently sold to Eric Penn. It now shunts the yard on the railway for which it was built.