MODELLER'S WORKSHOP

A Baltic Tank in 7mm scale

PETER FITTON explains how he built the latest addition to his L&YR loco fleet...

Having a few years ago scratch-built my L&YR Hughes original Dreadnought 4-6-0 No. 1525 and later completed Warren Shephard's kit of the LMS version of the rebuilt loco No. 10464, it only remained to somehow construct a Baltic 4-6-4T, surely the most handsome large tank engine ever to run in Britain. This article will give you some idea of how it was done.

As is customary, Barry Lane kindly supplied me with all the suitable drawings, but it was soon apparent that none of them actually showed the bunker and cab rear views, or the coal doors inside the cab. Fortunately, excellent photographs do show these, so that I had to scale things out to make progress here, a process which, as you will see, took some time to get right! David Brooks (of JPL Models) was keen to make the chassis, bogies and wheels (Slaters don't make suitable ones) and the coupling and connecting rods, and surprisingly came up with a nickel-silver etch for some of the body parts – he had commissioned this some years before. He also supplied the whitemetal chimney and dome. His bogies are fully compensated with side control, and the frames can have fixed, loose or sprung axleboxes; in fact, I chose one of each. The visible bogie outer frames and certain other parts were drawn and the etches sourced by Society member John Firminger.

Making the running plate valances was perhaps going to be the most difficult challenge, but fortunately they were on the etch. An early discovery was that there was an error on the sheet – the cab sides above the windows were of incorrect height. This necessitated me adjusting the inward bends over the cab windows to position them higher by soldering reinforcing strips inside and re-bending. Also, the bunker was found to be 1mm too low at the top and needed building up. After remedying these problems I was able to start bending up the running plate and soldering it to the valances, followed by fixing the tanks and bunker sides, and things looked good! The bunker back could be positioned, but cab front and rear plates would require thought, especially regarding the triangular window cut-outs.

Next, a study of the drawings and photos revealed that there were ventilation holes at the tops of both cab plates, those on the back one being in a double row, making things more difficult. These were in the form of a 20-hole row above another of 19, obviously not vertically in line! Eventually, these were successfully drilled out on a milling machine after failed attempts using hand and stand drills. Cutting out those window shapes had then to be done with extreme care; the ones at the back look fine to me on the finished model, but were clearly tricky to do with no true dimensions... in the end I think it actually took me three attempts at each piece to get them right!

You can see that this wasn't a build for the faint hearted; some might even have given up. Eventually, though, after fitting the combined rolled boiler and smokebox, plus the firebox, I had a loco body looking about right and just needing a cab roof. Using the bent up etched original part, I got a reasonable fit, but needed somehow to make it clip in place. 1mm square nickel silver strip came in handy to hold the roof in shape, and, after some experimentation, I settled on using Z section brass strip to clip down the side edges, which worked well. Having successfully learned how to get this part right, I made another roof with a (non-working) sliding ventilator, which is pure guesswork, and may actually have opened upwards, but surely nobody is going to argue!

The 1938 photo of No. 11117's smokebox front showed 58 rivets on the outer ring, so this was also specially etched (I have spares should anyone want one), and John also half-etched hollows in the oval buffers to solder on Warren's turned buffer heads; 14BA screws running in slots prevent these from turning. Warren also supplied some of the valve gear parts, without which I would not have considered even starting the build.

Making the cylinders and fitting slidebars, etc. was fairly straightforward – each side was mounted on a removable plate to aid painting. Lining the bars up with the centre driving axle wasn't, and the motion plates do tend to be too close a fit to the steps (I do not like making steps). I am proud of the balance pipes, which were made in two sections each by bending ¼ inch solid brass bar in a vice and soldering them together.

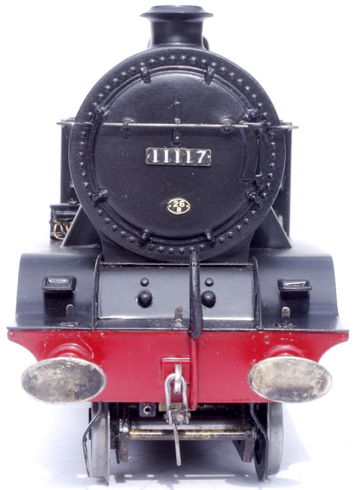
As for the valve gear, remarkably I got it running smoothly first time, which rarely happens. The valve rods were at first set in mid-gear, but after some comments are now in 25% forward, which gives them movement; I trust there will not be any mention of this when No. 11117 is running in reverse!

Each bogie is insulated from the chassis, with the wheels on one side live, but on the opposite side in each of course, as in American fashion, making for all-axle electrical pickup. Driving wheel pickups are the San Cheng cross-frame type which to me are much better than the usual plungers. The drive is with a Ron Chaplin 30:1 gearbox and Canon motor so as to be compatible with the LMS Dreadnought; I have a Frank Dean photograph of them double-headed and hope to do the same...

One problem that occurred when the body was first fitted to its frame was that there was some twisting which I put right by eliminating the tight spots at the frame ends.

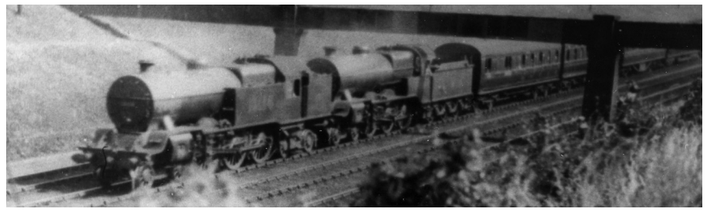
Simon Greenwood has done a superb job of painting this model to match his work on the Dreadnoughts; I chose No.11117 in late 1930s black as I have a photograph of it at St. Annes and the other Baltic models I have seen are LMS red, but have since noted another in black and with the same number. It's too late to change now! I have a firebox glow unit to fit and will wire in a DCC chip later to improve the route availability, but first she needs running in.

Hughes rebuilt 15 of the original twenty 4-6-0s in the period before the grouping and followed this up with batches of new engines to the same design (in practice, the rebuilds were virtually new engines). Then in 1924 came a batch of ten tank engines (LMS 11110-11119) which were virtually mechanically identical. The front bogie wheelbase was longer, the rear end of the frames was extended to take the coal bunker and side tanks added. It was intended to build a further 20 and the frames were cut but a change of mind resulted in them being built as tender engines, albeit retaining the longer wheelbase bogie. Here No.11117 rests at Bolton shed. LYRS Collection 12221



Left: **Full front and rear three quarter views of Peter Fitton's splendid Baltic tank engine.**

Below: **Hughes 4-6-4T LMS No. 1116 and Hughes 4-6-0 LMS No.10449 at Farington Curve Junction on a Manchester to Blackpool Club Train in August 1936.** Frank Dean



7mm scale Bury electric carriage

JIM GARTSIDE, of Queensland, Australia, reviews the Bury electric model from Electrifying Trains...

At Telford last year I ordered an L&YR electric driving motor coach from Electrifying Trains, 15 Hadley Highstone, Barnet, Herts EN5 4PU. The model is of one of the Bury electric trains which were an early example of suburban electrics.

The model duly arrived, well packaged, undamaged and it looked really good. I installed a chip for DCC control, which was not difficult to do, and in a very short time I was running a regular service from my 'Clayton' Manchester station to Royton. I imagine that there will be an even more intensive service whenever I get round to laying a third rail! I had an extra pickup fitted on the trailing bogie which I think is a useful aid to smooth running.

The coach runs very well, with a good turn of speed. Fitting passengers was easy, with no complaints about the seats or the ride. When ordering the coach, there is a choice of names on the roof destination board. I chose Clayton for my existing station and Royton, where I spent many hours as a boy watching Stanier 2-6-4 tanks on suburbans from Manchester.

The picture shows the coach passing the carriage sidings at Clayton, where the Blackpool Club train is awaiting its next turn of duty, with the viaduct and storage loops in the background.