This is another Mitchell 517 (the first was built as No: 848 circa 1930’s, which can be found on my website) and one of three in the pipeline. Building this kit is very straight forward, all the parts fit perfectly and the instructions are good. No: 848 was the first engine I built in 7mm, a good start for beginners. Anyone with some experience of etched brass construction should be able to good job of it, given a little time and care, it is not a quick build.

The kit will build a host of varieties of this long lived and much rebuilt class. However, it cannot cater for all the variations of this ‘Heinz 57’ engine and this one will require some scratch building. It was originally to have matched a photograph I have of No: 517 at Birmingham Snow Hill in about 1905. However, the side tanks need considerable work to modify them and I don’t want to have to take the tanks off again so it will instead be 1475, for which I also have a picture at Snow Hill in about 1895. To be finished in Wolverhampton livery, it will be one of three early 517’s. As you may have guessed, this project has altered somewhat since the original start.

Here the body and footplate are largely constructed but a few modifications were made. The tool boxes are removable, which was done by fitting a floor to each box with an 8BA bolt fitted in the centre. They are then bolted in place on the tank top. The dome and safety valve are also fitted using 6BA bolts. The cab – what there is of it – is not yet fixed. Better to leave until last as it makes fitting things like the rear sand boxes simpler. The buffers, heavily modified, came from a Scorpio saddle tank kit.
The bunker currently contains the sound chip (ZTC). The speaker for the sound is located in the smoke box, directly under the chimney. So far, the build has taken exactly the course mapped out in the instructions.

The chassis is compensated and built exactly as described in the instructions. I consider it virtually foolproof. It currently contains the DCC control chip (ZTC), hence the wires and miniature connectors to link it to the sound chip and speaker. The ABC motor & gearbox have been removed for now. Soon to be added is the
exhaust cam gear to the front axle and a passing wiper switch connected to the control chip. Once the DCC setup has been thoroughly tested, it will all be stripped out and the engine completed prior to painting. Then the whole lot will be refitted. The DCC chip can clearly be seen in this view of the underside of the chassis.

I usually turn up my own wheels (AGH) but in this case they are a set that were offered to me at a price I could not resist.

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It's about time I got some work done on this engine. Two years in a box seems not to have caused any problems and it was amazingly clean too. The ZTC gear was stripped out and put in a safe place though I shall probably look around for a different chip that will fit in the tanks and use the existing one in a larger engine.

There is an Armstrong Goods lurking in a cupboard along with lots of other stuff.

One thing it needs though is a wing plate fitted to the smoke box. This meant removing the damper cover. The plate was made from 0.5mm nickel silver sheet. Rather than punch up the bolt heads on either side, I used instead some minute brass domed bolt heads bought from Eileen's Emporium long ago. It simply meant drilling four 0.5mm holes in the appropriate
place, threading them through (a little like threading a needle) and solder from behind and file flush. I cut slots for the tabs of the damper cover too. The control gear for the front sand boxes would have better been fitted before the boxes, must remember for the next one.

A start had been made on the bunker until I realized I was working from the wrong photograph! The new side sheets were made in nickel silver by utilising one of those provided in the kit to use as a master and then sorting out rivets appropriately. The milliput for the flares was not a good idea, far too fragile. The front steps were somewhat flimsy I thought and so strengthened them with 1mm square strip from behind. The rear steps are designed to be double thickness and so did not need it. The tool boxes are removable as mentioned so that Dennis will have an easier time painting and lining, Wolverhampton style.

Now the correct style of bunker has been fitted, together with some of Laurie Griffin's fine castings too. The coupling hook is soldered in solid front and back. The couplings will be added after painting.

In 1900, the GWR used spiked lamps so two brackets need to be fixed to the footplate. Much perusal of photographs suggests that their actual position varied so these were set by eye, making sure that the lamps would fit without fouling one another.

The only big job now is the backhead.
Once that is completed there will not be a great deal left to do. There are some springs to be fitted behind the splashers, handrails and a few little bits of detailing.

Which turned out to be rather more time consuming than expected (what a surprise!) The backhead proved to be 'interesting'. Here is a shot of the basic unit with all its bits fitted and then another picture of it mocked up with the cab to shew the dials as well. Another reason not to fit the cab too soon or soldering in those dials would be a something of a trial. The cab needed a proper back fitting so that the backhead can be fitted with a sliver of Blue-Tack, which is how I generally fit them.

Here the chassis is near completion (the DCC kit will be added much later after painting and some testing) and only requires some restraint fitting for the ABC motor/gearbox.
The motor is temporary until I obtain a smaller unit from ABC that will fit the other way round and not foul the cab, thus leaving room for the speaker in the smokebox. I pinched the original unit for another project!

Now ready for the paint shop, for which the handrails will be removed. They are in two separate sections and join inside the knob on the smokebox. The only things missing aside from a crew at present are some long fire irons to go with the bucket hanging on the back. There is, unfortunately, no room on the footplate to fit a jack, which would have been bolted down, but not all these engines carried them anyway in 1900 and there are none in the picture I have.
Last picture of her running-in on the rolling road under DC as the DCC equipment has not yet been refitted. I later took it to East Sussex 0 Gauge Group’s test track where she performed faultlessly before despatching it to Dennis’s paint shop.

Three final pictures now it’s back from Dennis's paint shop and a few little extras added, like the fire irons, bucket and lamps, nicely painted by Ian Hopkins who did a tiny bit of weathering to make it look like it works for a living. The various cans are fixed with tiny pieces of Blutack. I almost put a number of the buffer beam but checked and found they came in much later. Must get another lens for the camera, this one tends to distort the view.