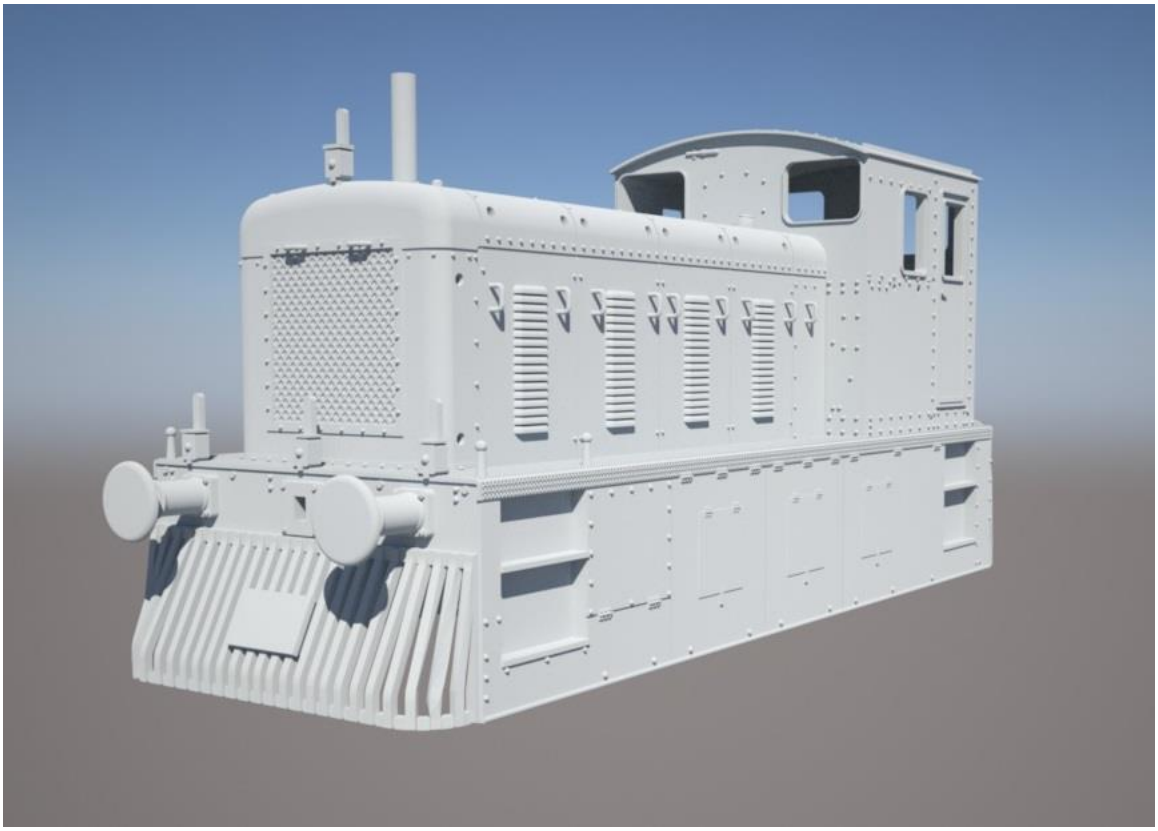
MISSENDEN ABBEY
RAILWAY MODELLERS' RESIDENTIAL COURSES

A Drewry for Lockdown Fen

A "warts and all" account of building a small 3d printed kit on a 00 RTR chassis with a few lessons learnt and additional tips - a project by Chris Hopper

During the various periods of lockdown in 2020 I built a small Wisbech and Upwell-inspired ex-GER shunting layout using the new Peco OO Bullhead track to provide an opportunity to run my J70 tram locos along with a few other almost plausible locomotives such as a J72 and an as yet un-weathered J15

I did however want to run a Drewry locomotive with the characteristic side skirts and cow-catchers and when I recently found out that Gavin Rose at Sparkshort Custom Creations produces an accurate 3D printed resin body I decided to try one. Sparkshot produce kits for both Bachmann 03 and 04 chassis options. This an image kindly provided by Gavin:



Very fortuitously I had a Bachmann 03 chassis which was not being used as the crankshaft had broken and the coupling rods were playing up. Obviously with the tramway side skirts the troublesome crankshaft was not required and could be removed. I also removed all the DCC sockets, circuit boards and hard wired the loco for a test run on DC. All was well and so a body kit was duly purchased.

This is what you get - I received 2 sets of buffers in a second package as there was a minor glitch with the first order.

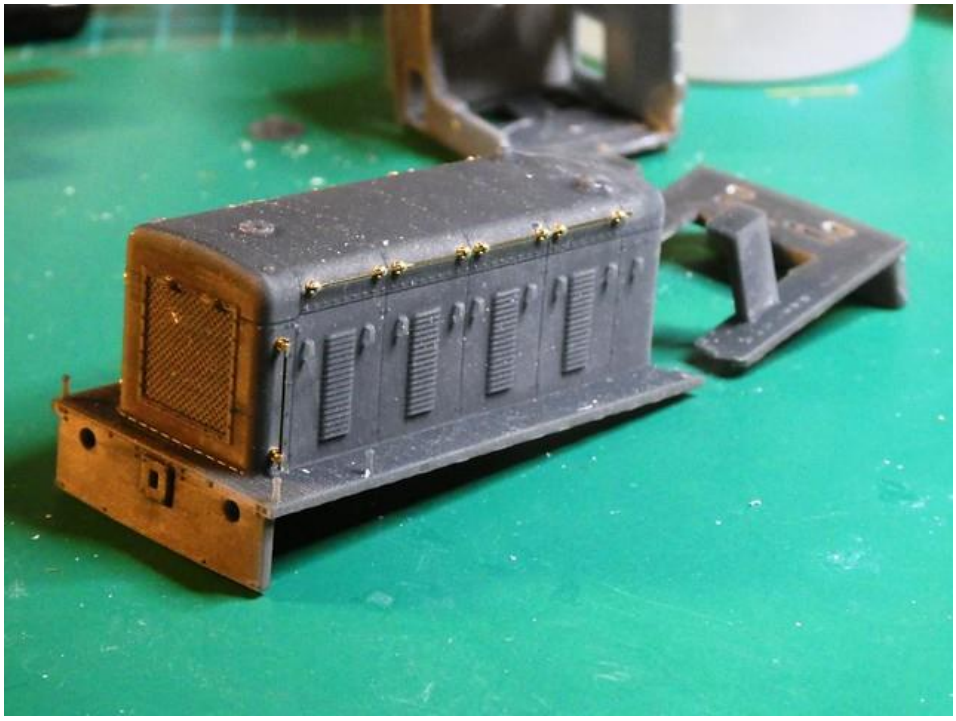
My first mistake was to shave a bit too much off one of the internal mounting points during clean up and I needed to add a bit of styrene to keep everything level. (In my defence I should add that the bottom plate on the Bachmann chassis only seemed to fit properly when screwed to the body and contributed to the error)

However, in the end everything lined up and when I fitted the body and cab to the Bachmann chassis everything compared well with a 4mm drawing that I found in MRJ #3 (Autumn 1985) in a very useful and detailed article titled “The many faces of the 04” by Monty Wells.

I added some extra bits - the Lanarkshire Modelling and Supplies buffers were included because although the buffers in the kit are very well done, I wanted something a little bit more robust for layout handling.

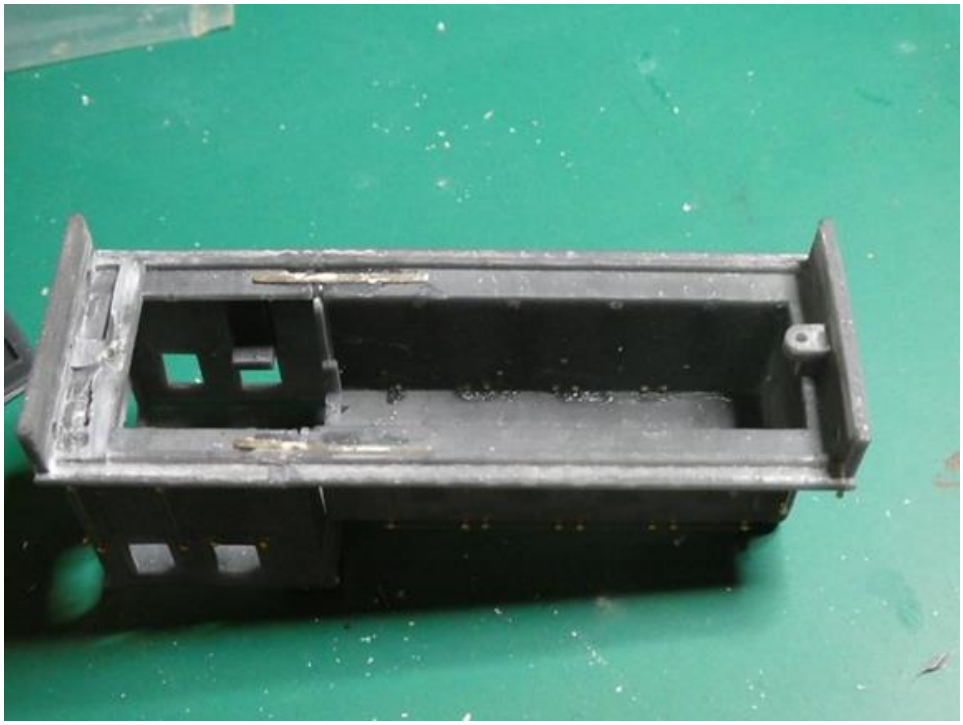
Because of the very nicely detailed cow catchers I will also use 3-link couplings.

I normally use Kadee couplers for hands-free operation but I will use a 3-link & Kadee equipped brake van as a "convertor wagon" for shunting on Lockdown Fen which is a simple one-ended shunting layout



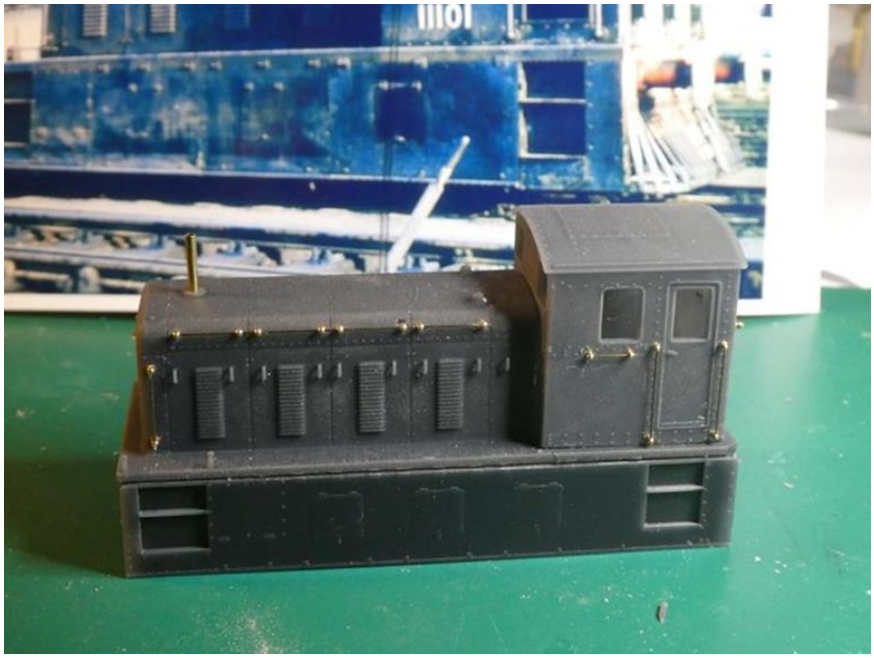
I have not done any 3D kits other than in 16mm and during the handrail fitting I discovered I was a bit heavy handed.

The resin is far less user-friendly than the materials I am used to dealing with and need careful treatment……a useful lesson learnt.

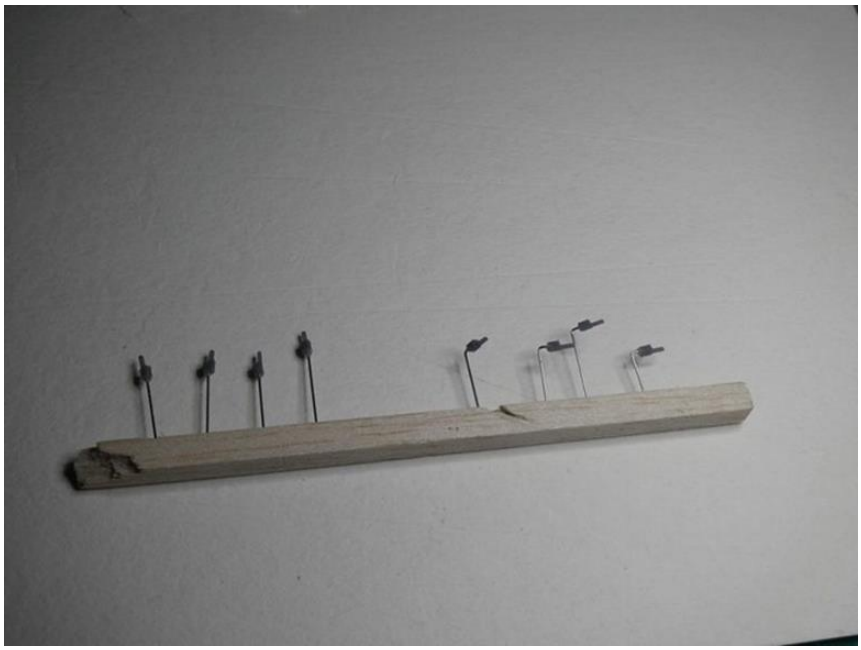


It was easily fixed...and the break would be under the cab when finished.

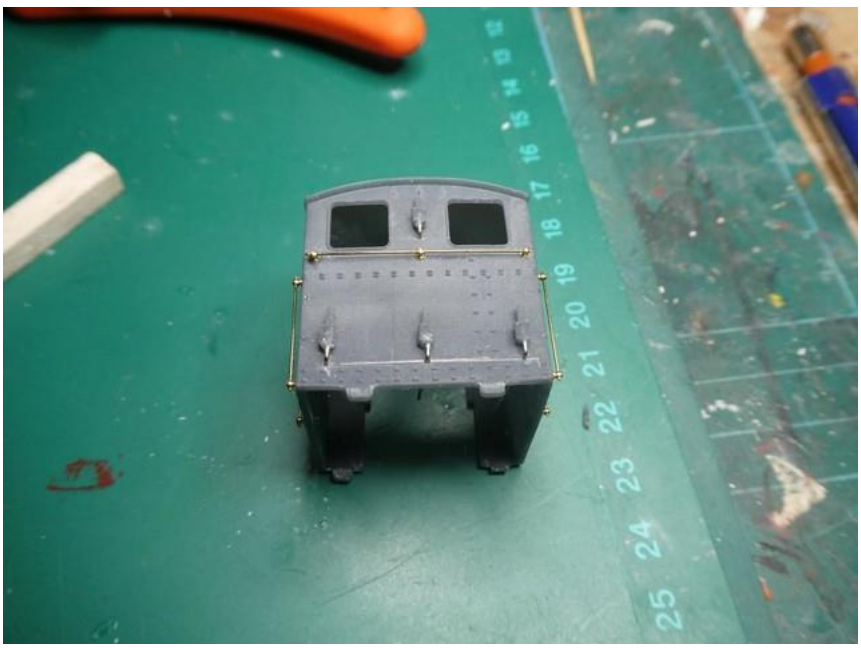
Sparkshot have since increased the size of the longitudinal beam on the 3D print.



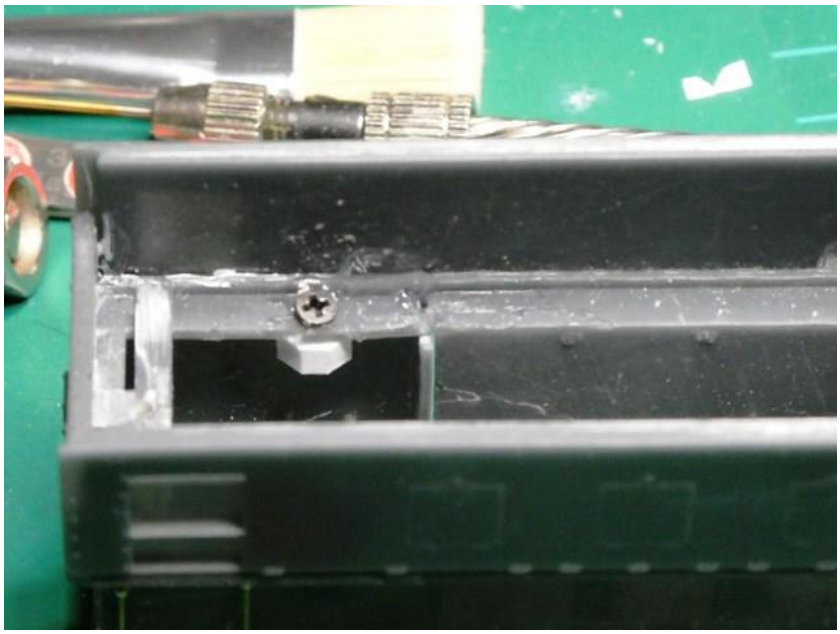
Once all the details were added the surface finish looked pretty good for a 3D print so I simply cleaned it with 99% IPA before priming.



The (non-working) lights were mounted on brass wire for ease of painting and fitting.



….and here’s a pre-paint test fit on the cab.

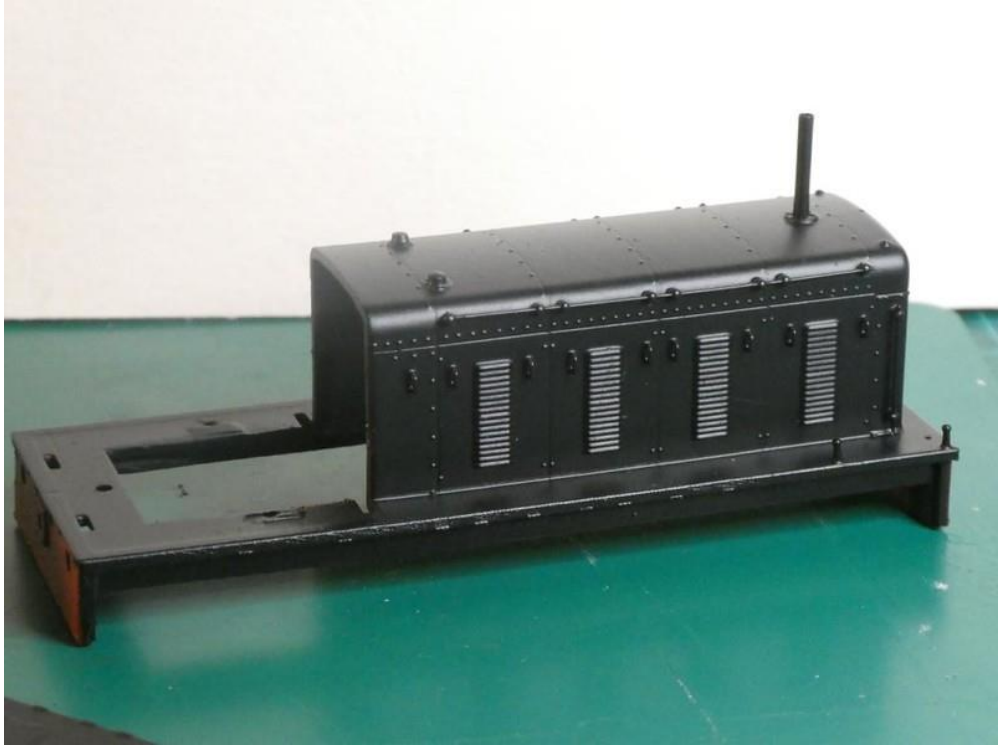


One innovation I added - small mounting blocks added inside the cab to help with secure fitting to the footplate when all was completed. I do like my models to be easy to take apart after completion as I planned to install DCC with sound.

I shared this idea with Gavin at Sparkshot and he may add the feature to the kit possibly with a matching hole in the footplate.

It was all going very well and everything was ready to prime when the shell decided to dismount energetically from the painting cradle and self-destruct on the garage floor.... I did try a repair but, in the end, a new body was purchased and slightly more care taken...fortunately all the handrails etc were recovered and re-used...the old body was used for paint trials!

This was a test of a finishing surface primer (on the left) over the initial Halfords coat on the broken part. I also tested the black spray paint.

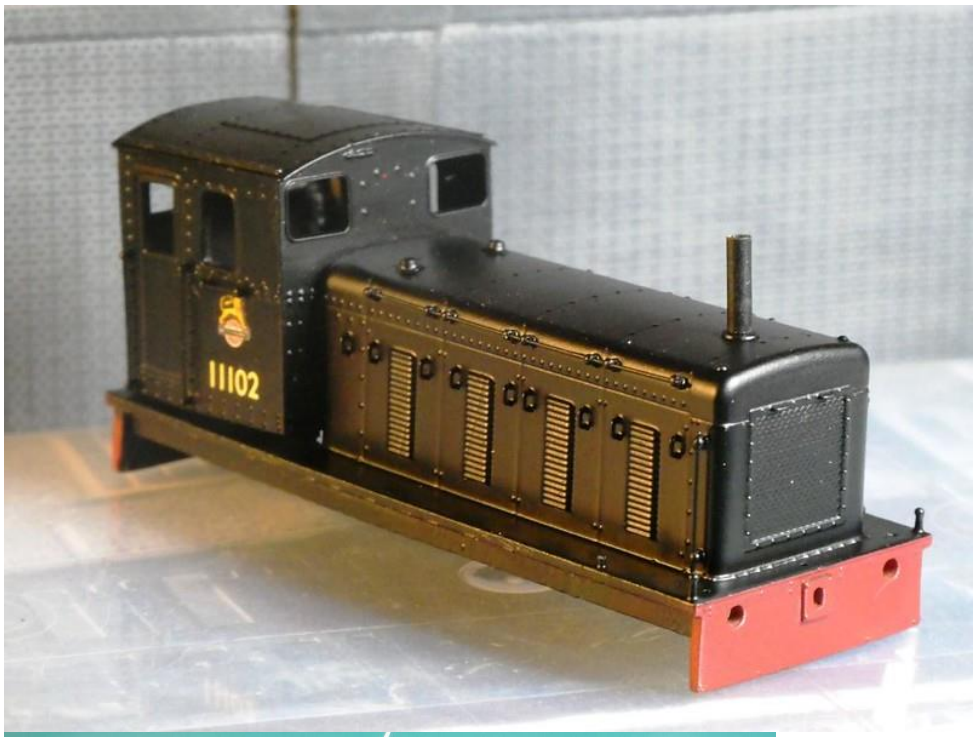


The parts then had their black coat.

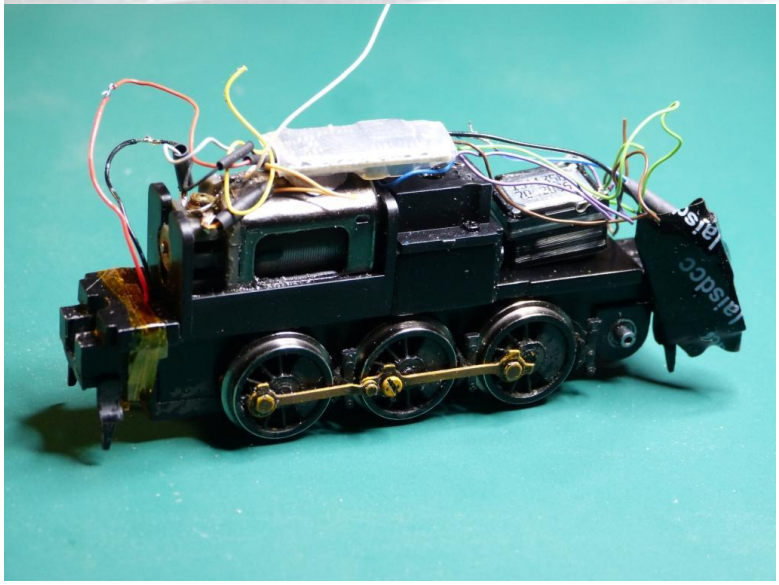
I used a well-warmed and shaken Halfords black spray can.

I was not entirely happy with the finish on the buffer beams after painting red and I re-did them after a bit of cleaning up even though they will most probably be quite difficult to see in detail once buffers, couplings and cow catchers are in situ.

Pressfix HMRS transfers were applied. Unfortunately, I had a limited number of “1” s left on the HMRS sheet so although I was working from a very good reference photo of 11101 with the later crest shown here the model loco became 11102 – another W&U loco - meaning I would now need to add vacuum pipes and use the earlier BR crest on the other side of the cab. My modeller’s licence was being well-used but my locos are only ever seen from one side at a time.



I also replaced the "slightly" incorrect stack I fitted earlier with a piece of brass tube.



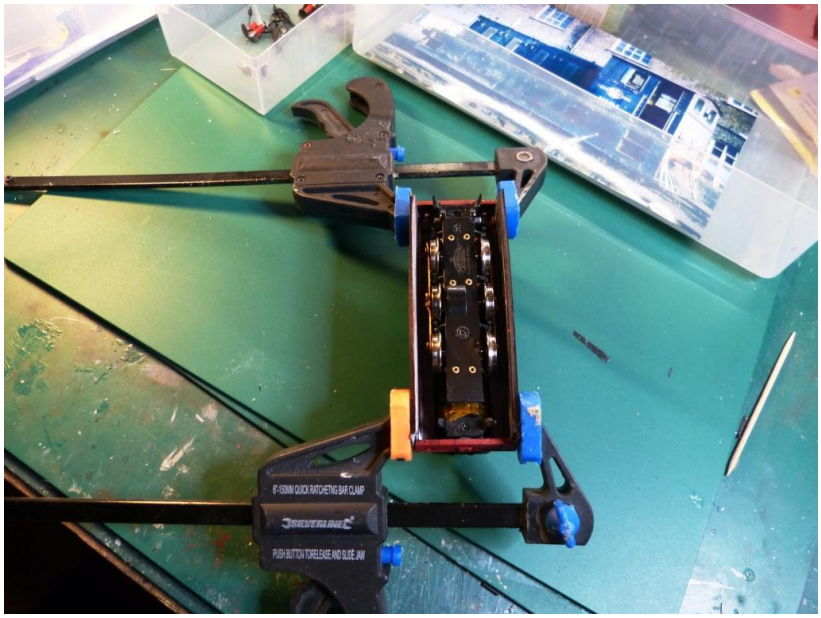
This shows the decoder, speaker and stay alive fitted for testing. Heat shrink has been added to the wires with soldered joints but is not yet in place

The decoder is a Zimo MX648 with a Digitrains zs03p sound project, 15x11x9 speaker and an 872007 stay alive.

After test running everything was fitted with liberal use of Kaplon tape and a small lump of Blutak. My preference is to shorten but retain and tidy up the unused wires such as the yellow and white ones in this picture for possible future use.

The loco with the glazed cab and body test-fitted on the chassis. The speaker and stay alive were sufficiently small that I was able to fix everything to the chassis and still have space to fit the body and cab as one piece. This makes life a lot simpler.
A short test run was then carried out before further work and adding the details.

I put some black electrical tape over the stay alive and speaker and added a spare driver figure before final fitting of the body. (The lack of arms is not apparent once the body is fitted.)



After checking and re-checking which was which the side skirts were attached one at a time. I used Formula 560 Canopy glue (sourced from Eileen's Emporium) as although it takes far longer to dry than a CA glue it is easily removed when it gets where it not wanted and still provides a reliable bond. The skirts did need a bit of cleaning up and filing where they attached to the rest of the loco.

After fitting the first skirt when the body was not attached to the chassis, I would now recommend doing both with it attached as the chassis helps hold everything square and in alignment. After this photo was taken, I decided to gently add a third clamp in the centre.

Once the skirts were firmly attached and the loco test run again, I added the final details to the body.

This took a while a few small repairs were needed.

I'd damaged a couple of the hand grabs at the top of the front steps. One was transplanted from the previously dropped shell and another was made up from some 0.5mm brass wire with a blob of Canopy Glue at the top. If I was doing it again, I would use brass handrail knobs with the holes discretely filled.
Between painting and final assembly, I also mislaid a light. Fortunately, I was able to find a spare from a very old Bachmann 04 body.

My Final thoughts
This set of parts builds into a nice layout model of an unusual but seemingly much-loved prototype locomotive. Now it is completed I expect a RTR version will be along imminently.
However, if you build one of these be very careful! Along with all the normal planning associated with a kit build the parts have to be treated with enormous respect.
This has been a very useful learning exercise but please note the slightest bump or pressure can easily damage a part. I will need to handle this loco carefully when I use it on the layout. **This is not a criticism of the kit. The resin is brittle - it is the nature of the polymer – and I was a little (!) heavy handed at times.**

References:
Modern Locomotives Limited No. 195 June July 2012 "The Small Shunters – excluding BR designs"
Model Railway Journal #3 Autumn 1985 "The many faces of the 04" by Monty Wells.
British Railway Modelling February 2017 "What goes on tour" (a colour picture of 11102 in 1956)

This is the YouTube footage of the loco body:

https://www.youtube.com/watch?v=okfvYWbEQNg&feature=emb_imp_woyt