
RAGSTONE MODELS

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General guidance for metal kit construction

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General guidance for kit construction

Instructions

Read through these carefully as they describe how the designer intended the model to be built. Generally there is more than one way of doing this and experienced modellers can often apply their own preferences, but if you have difficulty, check the instructions to make sure you haven't missed anything (not as I have occasionally done, find out you have missed a part when it's too late to fit it, because I assumed I didn't need to read them!).

Reference

You cannot beat lots of prototype photos –but often they just don't exist! Familiarity with the prototype makes kit construction far easier, so keep your eyes (and camera) open when visiting any railway - you never know what you might see.

I took several photos of a GWR 4000 gallon tender some years back that came in very handy - not unusual you might say - but as the body was loaded on its side onto a flat wagon, the picture of the top and coal space was completely different to the usual view.

Brass - etch

Before removing parts, gently clean the etched sheet with fine wet/dry paper or a fine abrasive block (like a track rubber) to remove any dirt or tarnish/finger marks that are present. Parts can be sniped from the sheet with a small pair of tin snips or cut with a strong knife (especially smaller parts). Only remove the parts you need and keep any extra parts in a small plastic box so that they are safe for when required.

Once removed from the sheet carefully file the edges to remove the remains of the fixing taps and the 'cusp' formed by the etching process, particularly important with thicker metal parts as they won't fit accurately and paint will flake off the sharp edges. In some situations this can be left until after the initial assembly has been done i.e. when laminating two parts to make a buffer beam.

Parts should be assembled using a clean, hot iron of sufficient wattage to make the solder flow without overheating the job. I generally use a 40w iron for most 7mm work, supplemented by a small blowtorch where extra heat is required. Apply the correct flux for your chosen solder and touch the iron to the joint (apply a small additional amount of solder to the iron first) until the solder flows. For longer joints start in the middle and solder towards the ends. If unused to soldering, practice on some scrap etch first.

Any excess solder can be removed with small scrapers, files or fibreglass brush. At the end of every modelling session, thoroughly wash the model in washing up liquid or kitchen cleaner to remove all flux residues.

Brass - castings

These are removed from the sprue with a fine saw or cutters. A cutting disc in a mini drill can also be used but care should be taken with small or delicate parts. Castings should be cleaned up with fine files or wet/dry paper to remove any residual casting powder or feeds/part lines. Sometimes round parts (i.e. buffers), can be mounted in the mini drill and cleaned with files and polished using wet/dry paper to produce an improved finish

Whitemetal

Clean any flash or moulding pips from the castings and burnish using a brass brush (available in packs of three from Poundland etc) prior to soldering or gluing. It is a good idea to drill any holes at this stage too. Have a 'dry' run to familiarise yourself with the assembly sequence and if required, parts can be gently filed, to ensure they fit snugly in the correct positions.

Whitemetal can be soldered with lowmelt (70^o) solder, or glued using epoxy or 'super glue'. With a suitable iron, soldering is, by far, the preferred method and it is possible to use a low wattage mains iron successfully, although care should still be taken so as not to melt the castings as a large casting will absorb much more heat than a small one and can often be easily soldered whereas small casting can easily be melted. This can be avoided by using a good quality temperature controlled iron.

We can replace any melted parts, provided they are returned to us with sufficient stamps to cover return postage.

On occasions, whitemetal castings need to be joined to brass parts. If the part is reasonably large this can be done (with care) direct using 145^o solder, alternatively the brass should be tinned with normal solder and the part fixed with lowmelt, again wash the model after every session.

Finishing

Provided you have cleaned the model, as you go along it should not be too dirty when you come to paint it, but a further thorough clean is essential prior to painting. Some people prefer washing up liquid, some use concoctions of their own, but I prefer a kitchen degreaser which will provide a completely clean (and bacteria free!) surface on which to apply paint. Give the model a final rinse in plain water and allow to dry completely. Grey car aerosol primer is often the best way to give a base on which to apply the final colour. Apply light coats, allowing to dry thoroughly between each one. Spray paints give a finer finish and should be used where possible. Again apply several light coats, allowing to dry thoroughly between each coat. Usually it is possible to spray the main colour(s), with details being done by fine brush.

Allow the paint to harden (at least a week) before adding any lining and lettering. Once this is complete a light coat of varnish (satin or matt) will protect the transfers and give a single 'surface' to the model.

You should now have a model to be proud of!!