

Mike Hughes, Marketing Co-ordinator for the NMRA British Region, who has been modelling for over 40 years, explains how he created a special livery to mark the 70th anniversary of the National Model Railroad Association British Region. *Photographs by the author.*

Making decals

A technique useful for any prototype



Whether you model American, European, or British, true to prototype, prototypically influenced, or completely freelance, there may come a time when you want to make something that applies to your personal model, whether it is rolling stock, structures, or some item of scenery such as a bill board. For those who model the most popular and well-known railways there is usually a wealth of commercially-produced items available, but what about those who model an unusual prototype or a purely fictional railway?

Such was the situation I found myself in when I needed to find a special livery to mark the 'Milepost 70' event for the NMRA-BR. We had been given an Athearn F59PHI diesel loco in Amtrak livery which needed to be modified. There is no doubt that the commercial manufacturers of decals produce excellent products with crisp, clear printing, including white ink, but having asked both Fox Transfers and Blackham, I realised that the prices quoted would be beyond the budget available for this project.

Making my own decals seemed to be the best solution, but I had never done this before. Having extolled the virtues of the NMRA 'sharing know-how' programme, I could hardly ask someone else to do it all for me, so, taking advice from as many people as possible, I decided to take the plunge.

Printing decals

The first step was to purchase some A4 size decal sheets from Crafty Computer Papers of Leicester. They are available with either clear or white backgrounds. I chose clear.

Using Microsoft 'Publisher' I prepared a single sheet of A4 with various combinations of logos and sizes to maximise paper usage. The decal paper was printed using a Canon MP610 inkjet printer set to high quality. It was then left to dry overnight.

The instructions stated that the inkjet printout should be sealed using an acrylic varnish. Although they suggest two coats of varnish, leaving two or three hours between each, I added a third coat the following day to be sure.

Above left
The original model.

Above
The A4 sheet of decals.

The locomotive

I then turned my attention to the loco. Various options had been tried by another NMRA member using a Photoshopped image. Some needed to have white lettering, and all required a white background to the logo. Another possibility required very careful masking to produce a curved livery lined up with the existing white line on the original. As this was beyond my current skill level, I decided to make a 'patched out' livery as this should, in theory, be easier.

Preparation

I assembled my working tools: scalpel, small steel ruler (with a strip of masking tape underneath to prevent scratching the work area), cutting mat, wooden barbecue stick cut to a chisel shape, pair of tweezers, masking tape, and paints.

The first step was to mask out the required area. On the recommendation of NMRA member Martin Boyask, I had purchased Tamiya paints and masking tape. Using 6mm tape I laid the first strips along the upright details on the loco, then added tape to the top and bottom, finishing with 18mm tape to cover all the non exposed areas. Careful cutting exposed the front numbers. All was ready for painting.

Painting

A tip I had been given was to paint a coat of the base colour first to seal any gaps in the masking. As I did not have the right colour, I used a coat of varnish hoping this would seal the area.

Then using Tamiya pure white and black I sprayed the relevant sections. Spraying should be done in a well ventilated area, and a mask should be worn. Fortunately for me it was the warmest recorded day of the year so far (in early July), so I was able to get this done in the open air, the high temperature helping the drying. The black took just two coats whilst the white took three coats to cover the dark blue.

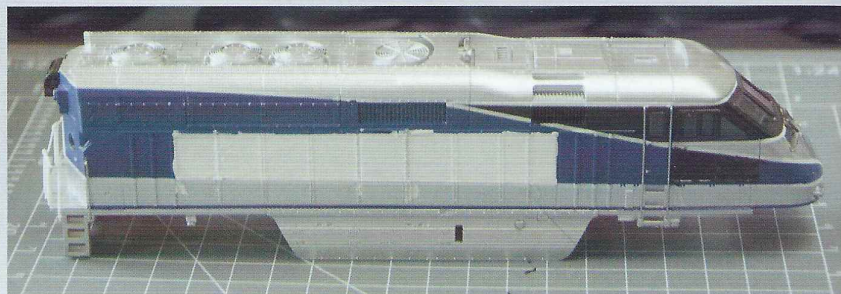
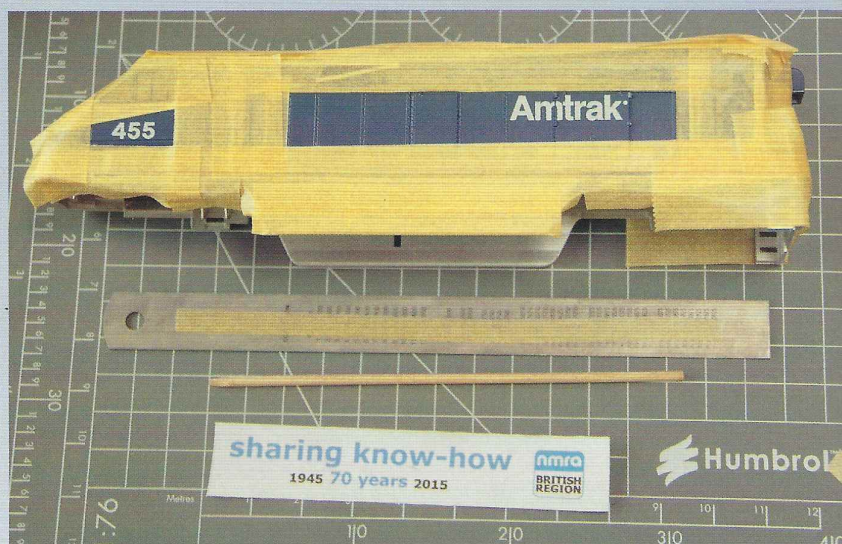
I left the whole thing overnight to dry fully, then with anticipation, removed the masking. It was a disaster! Where the masking had not been pressed fully home, the paint had seeped under it. My original intention to use a raised part of the loco detailing as a masking line had backfired as I had not allowed for the various indentations. Too much detail on the moulded shell had worked against me.

Recovery

What could I do to recover the situation? I tried a small area with some solvent: all it did was take away the base colours, making everything look worse. I would have to try something else. While my brain was working on this problem, I decided to press on with the renumbering.

I already had Microscale decal sheet ref.90101 which provided letters and numbers in various sizes. I carefully cut out the numbers I required. 0 and 1 were next to each other, giving a base reference which made it easier to fit the other numbers each side. Following the instructions, I slid the decals in place using Micro Sol and Micro Set solutions.

Now for the home-made decals. These were bigger than the individual numbers I had used. Would they work? Would the ink run? I cut them out of the sheet and put them into the water. They curled up, but I knew this was normal. The important thing was that the text did not run. They worked!



Using tweezers and the wooden stick, I carefully slid the decal into place. As the side of the loco has a lot of detail, I used Micro Sol to get the decal into place then added some Micro Set to further soften the decal so that it would snug down over the detail underneath.

When the decal is first put in place it looks a little crazed and wrinkly. The temptation is to try to work it so that the surface is flatter. Do not touch it! Leave it overnight and the setting solution dries fully leaving a flat surface.

My brain had still been working on the original problem while I was busy. Then I remembered that I had some part-used decal sheets which I had bought at one of the NMRA-BR meets. A rummage through these revealed Microscale ref.87-354 which was for Union Pacific diesels, which included red lines of various thicknesses. This could be the saving of the whole paint job! I applied these to the upper part of the side area and continued them around the back so that they joined both sides. Not 100% perfect but it hid much of the previous mess.



Top
The necessary tools laid out next to the body shell masked ready for spraying.

Above
The freshly re-painted shell.

Below
When first applied, decals do not always 'snuggle down' over moulded detail.



Lessons learned

Modelling is all about trying something new. That is the only way we learn. Even though I had tapped in to the shared know-how of NMRA members, I still made mistakes. These mistakes have helped me learn the following lessons:

- Making decals is not too difficult if you work carefully.
- Proper masking prevents paint creep.
- Get as much advice as possible before you start.
- Be patient and work slowly.
- If you decide to have a white background, buy some white decal paper!

In true NMRA sharing know-how spirit, I can now pass on these lessons to others so that they may learn from my mistakes.

I consider myself an average modeller. This was my first attempt at repainting and lettering an item of rolling stock. If I had had more time, I would have tried all this on a simple item of old rolling stock first, but I wanted to get this model done in time to meet self-imposed deadlines for promoting the 'Milepost 70' event. My results are not perfect, but I hope they are good enough to be acceptable.

The model can be seen at the NMRA British Region convention, Derby Conference Centre (open to the public on Saturday 24th October), on the NMRA-BR stand at the Warley NEC show on Saturday 28th and Sunday 29th November, and at other events in 2016.

Above
After the application of a setting solution, the decal follows the contours of the moulding very well.



Below and right
The finished model, with the added red line decal.

