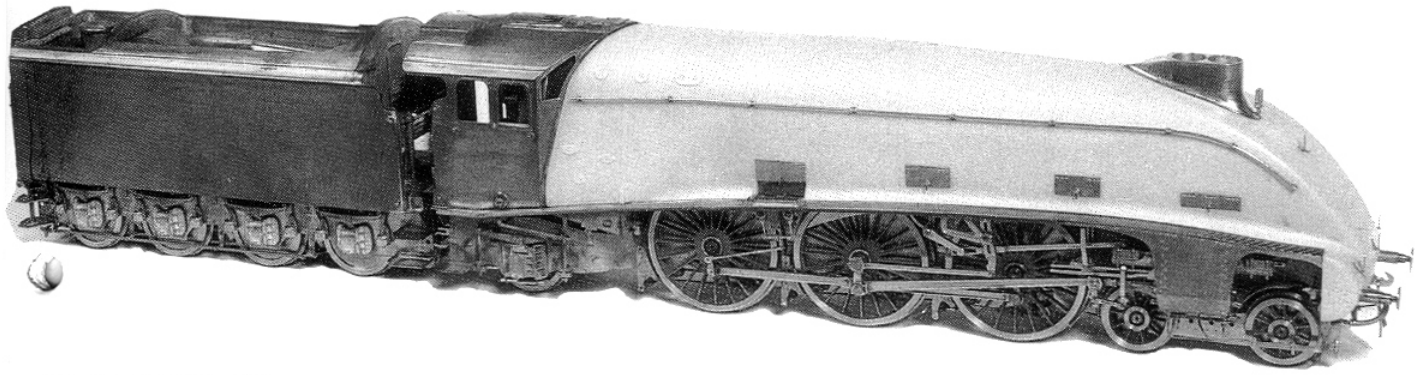
MALLARD

TIM WATSON concludes the building of his 7mm A4:



THE MILKY BAR KIT

It is amazing how stick-in-the-mud we modellers can be. A new technique or material comes along and the reaction is often: 'Well, it's not made of the right stuff, you know' or 'It's cheating. I would much prefer proper metal – much stronger, more weight for pulling things'. My feelings on the matter will become apparent.

A few model railway kits have successfully used polyurethane resin as a basis for boilers, saddle tanks, etc. However, the material is much more widely used by our colleagues in military modelling circles and fully accepted by them. When I saw the plastic casting it was immediately apparent that it was an entirely accurate representation of an A4 – I should know because my Lonestar hack involved a lot of studying of the real thing to get the shape correct. 'Ah', you say, 'but does it fit the metal bits?' Unequivocally, yes! The design and execution of the kit is so good that you can almost hear the air escaping from the cab front as it is offered up to the boiler. The amount of cleaning up is minimal and, if the instructions are followed, there is absolutely no problem joining the dissimilar materials. I cannot believe that there won't be enough room to put a slug of weight in the boiler to give sufficient traction. So if the thought of a plastic-bodied 7mm A4 puts you off, don't let it.

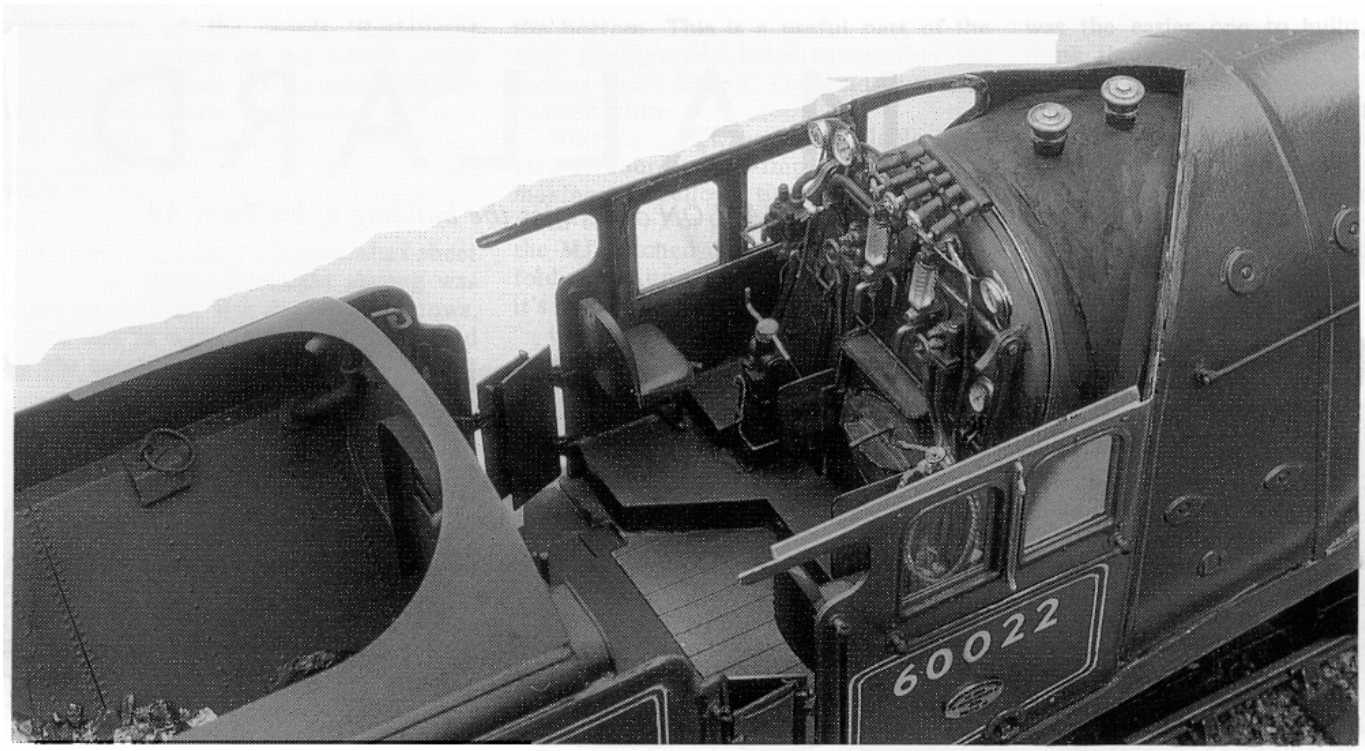
Metal bits: There are of course, a significant number of metal bits in the engine body. The running plate and the cab could obviously not be cast in resin. The cab folds up reasonably easily, but read the instructions – the corners should most definitely be scored deeply. I thought that the cab sides were a trifle thin for sufficient strength in this scale, and so I soldered on a layer of scrap material below window level to beef things up a bit. Similarly, the top edges of the cab are a bit too fragile, as the roof is a removable feature. These edges were made more rigid by soldering some nickel silver strip along them, on edge, as can be seen in the photographs.

The cab roof goes together very well. It is a good idea to polish the etched surface of the metal before assembly, so that if you start to put any wrinkles into the thin sheet it will show immediately. The instructions mention no techniques for rolling the roof. I read John Hayes' article for some guidance and started rolling the roof sheet with a steel rod over some rubber inner tube. Results were imperceptible and I think I would still be doing it today if I hadn't changed the rubber for a more compliant material (a fairly solid foam dish cloth) which rapidly helped generate a curved roof.

The cab backhead is a whitemetal fitting, as are other bits of the flooring and the reversing gear pedestal. Numerous brass castings make up the fittings. The water gauges are solid and so I filed out the bits where the glass should be and substituted solid perspex instead. The instructions include a useful drawing, but you really need to have some decent photos of the real thing to get a feel for the job. Control gear is required for the injectors, close by the driver's and fireman's seats. I made the firebox door in an open position and put in a bulb (just like Tri-ang!). The driver's brake controls need to line up with the ejector pipe along the side of the boiler, because otherwise any mismatch will be fairly obvious through the cab windows.

As I had elected for a tender and engine body of different polarity, it was necessary to replace the fall plate and cab doors with some insulating material. Copies were made of the brass etchings supplied, using very thin double-sided (0.020in) copper-clad Paxolin. The brass hinges were soldered onto the Paxolin and insulated from the doors by cutting through the copper around them.

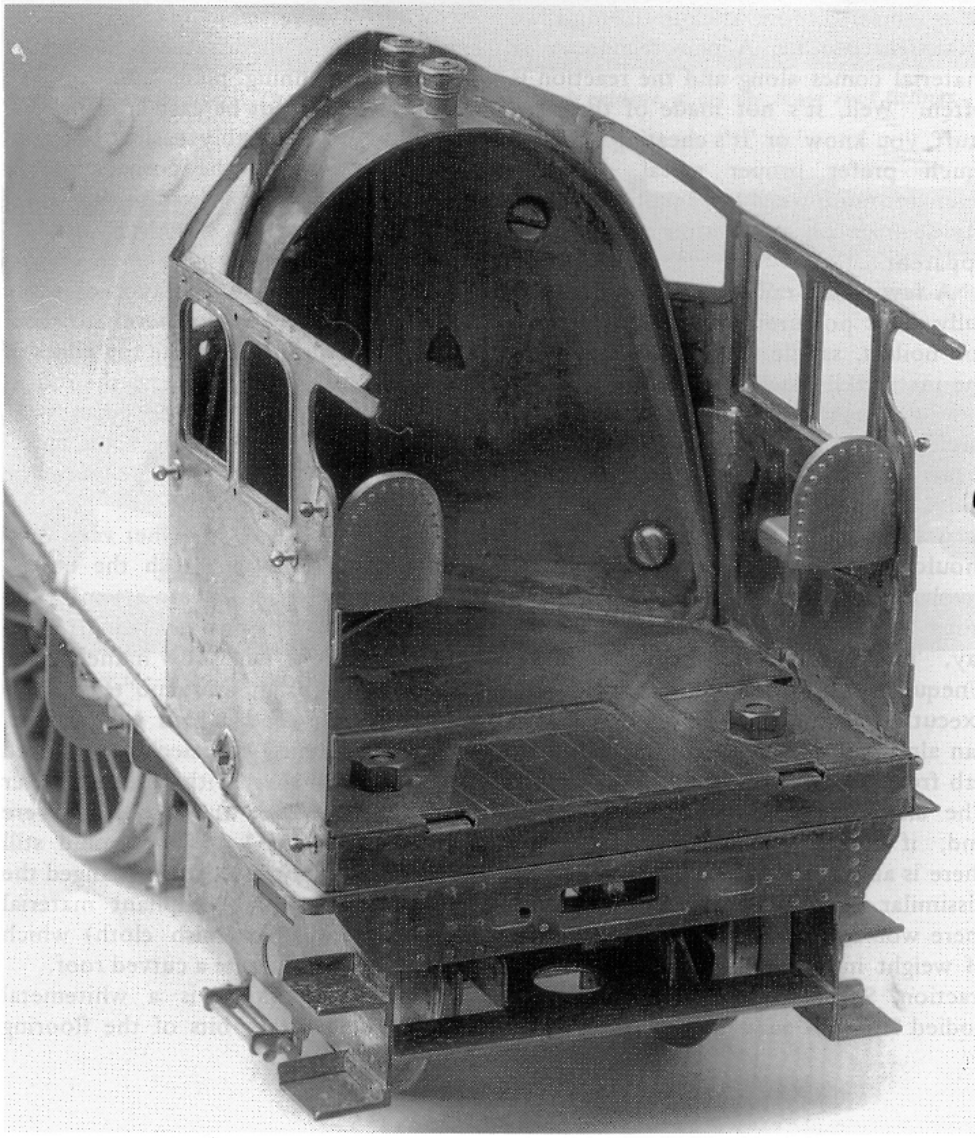
Fitting out: All the required components are provided as nickel-silver or brass castings and there is a choice of double or single chimney. My locomotive obviously required a larger respiratory capacity and



so the appropriate casting was fettled and made to fit the front end. Martin represents the fixings around the flare of the chimney base, but I sacrificed these, especially at the front, to ensure a really smooth transition from plastic to metal. Do not forget that the whistle is effectively rooted in the flare of the double chimney. Once this was Araldited into position, the plastic casting was drilled out for the orifices. I still can't make up my mind whether or not to put a double smoke unit in. If I do 'other things' to the model, then perhaps I will.

The handrail stanchions are brass turnings with a knob on the end. These are OK for the cab and tender, but I believe that those on the boiler need to be less conspicuous. This is achieved by filing them down so that the end is cylindrical in shape. It is advisable not to fix the front pair of stanchions initially so that the handrail can be removed and re-threaded after the engine is painted. I used pivot steel for the cab handrails because it is much tougher than nickel-silver.

Trimming and adjusting the body and chassis to fit one another was not difficult, because very little work was required. The body is solidly fixed by four 6BA screws. I found it easier to use cap head screws for these because the Allen key can be used to locate the screws deep inside the engine. The much less elegant alternative is to use Blu-tak in the slot of the screws provided. People

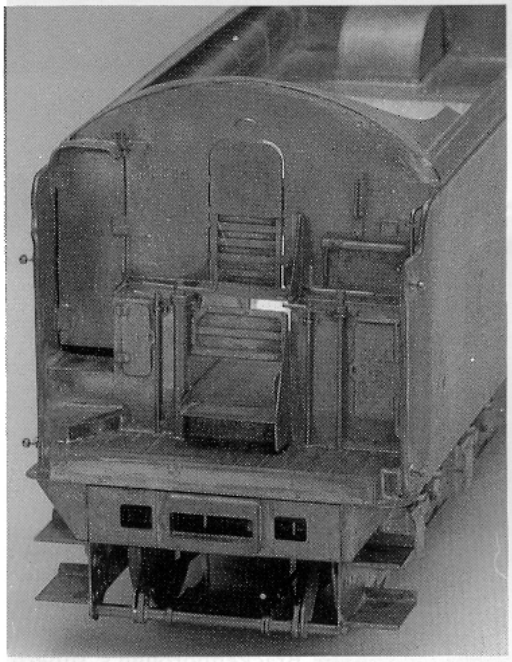


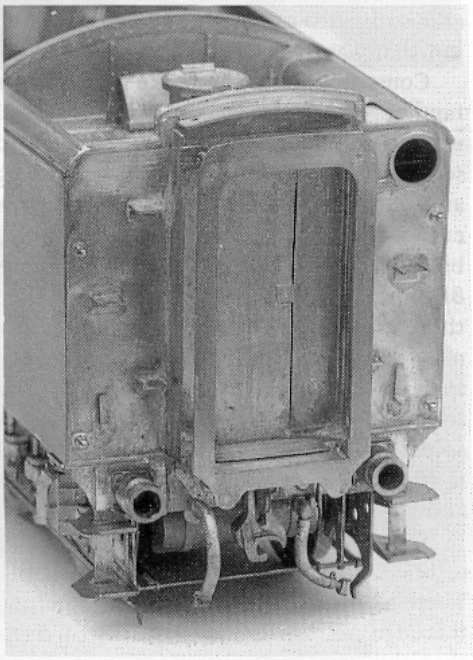
seeing me use the Allen key also think I'm winding up a clockwork engine – now there's a thought.

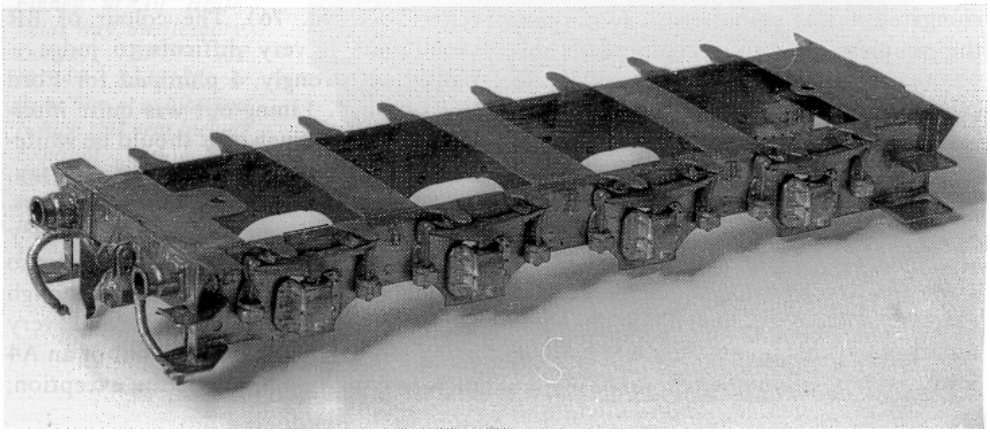
Tender

This consists of three pieces, the internal chassis, the external frames and the tank body. Needless to say, the fit of most of the components is 100% correct. The instructions make it quite clear how to assemble the required version for an A4. I found some of the photographs in Yeadon's Register particularly helpful for details of the tender front. My chosen loco was going to need the cut-down rear end which was a requirement of the locos involved in the Locomotive Exchanges. These roving engines had to travel to other companies which suffered from vertically-challenged water columns.

The tender body has the lion's share of rivets, and because I was embossing with a slightly blunt point at the Olympia show, ended up with distortion in some components (like the tender tank top). Rest assured, however, for that clever fellow Finney has designed these components to be laminated onto stout sub-assemblies, so that they get pulled flat again, without too much need of Uri Geller's touch. It is also useful to find that there are convenient holes in the structural layer to give good access for the solder. The coal hole and water tanks look quite masterly and it would be a terrible shame to cover them in coal.







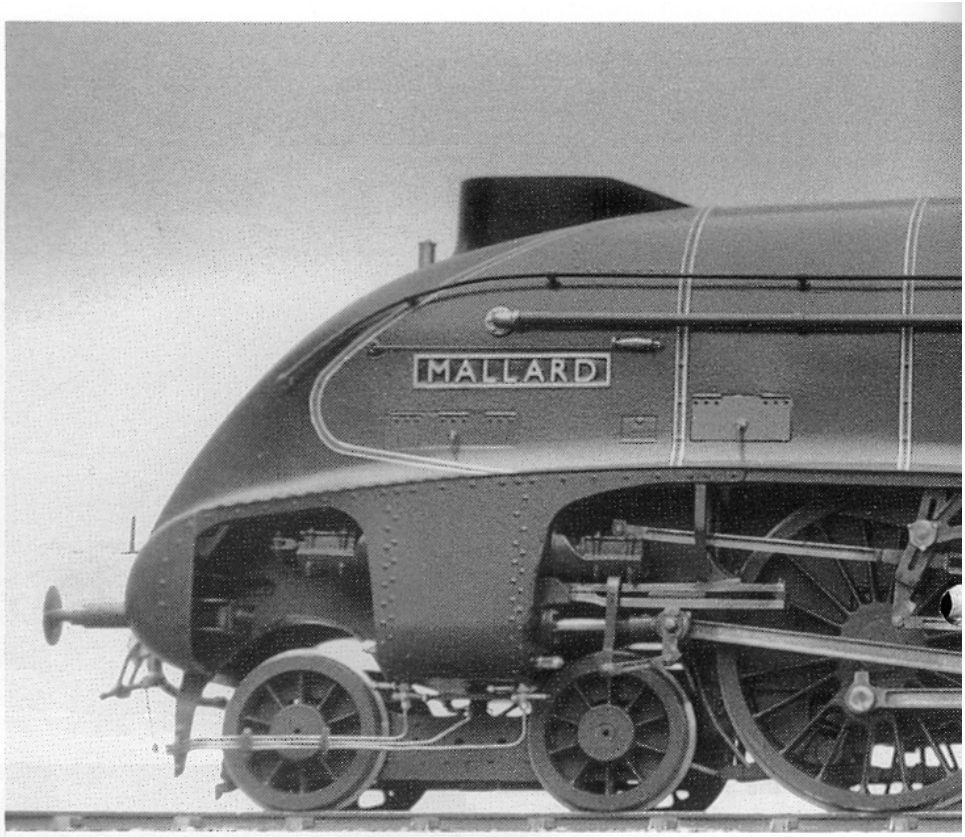
There are various curves which need to be formed into the tender body. The instructions are quite explicit about how this can be done with rods and fold-out bits, but I simply made a pair of bending clamps out of ¼in thick acetal sheet, with a radius of the correct size for the tender sides filed onto one of them. The soft brass was easy to persuade around the former. There is some half-round beading which required sweating along the tank top – about the only tricky thing to do in the whole assembly. Care taken at this stage will obviously pay dividends in the appearance stakes.

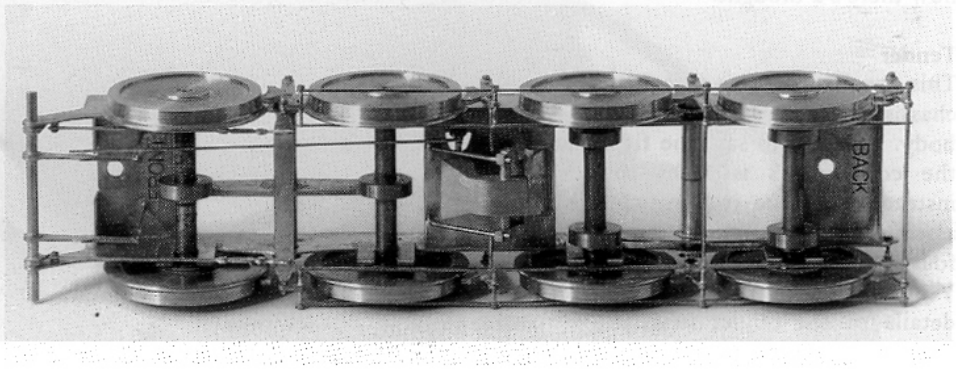
Running gear: I felt that the chassis was a bit under-engineered in the bearings department, so I turned up some phosphor-bronze bushes which were soldered to the compensation beams. The water scoop is fitted to the centre of the chassis and is quite an interesting little assembly. I could not get one of the cross-shafts into quite the correct place and so had to cut it through the middle, but that was probably my mistake.

Construction of the brake-gear follows familar principles to the locomotive. I wanted to make mine easy to remove and so it is held in place with 16BA studding and nuts. These were also soldered at the end of the cross ties, to make them look a bit more businesslike. Martin provides 8BA nuts to retain the sprung buffers at the back. However, the prototype doesn't need as much space as the model to spring its buffers and I did not manage to squeeze the nuts in. A piece of wire soldered across the buffer shank was all that was required to retain the spring, anyway.

The visible chassis has a wonderful set of brackets which support the water tank. There is also a riveted flanged strip along this edge. Martin admits in the instructions that this strip will become distorted and elongated during embossing. I found that the simplest way to accommodate this was to cut it and join it in the middle, so losing the extra length. Axlebox components consist of four separate whitemetal pieces; they go together very well and quite look the part.

Etched brass drawbar components that are laminated together are provided, but again I felt something a bit stiffer was necessary. The replacement was made of nickel-silver bar and has a plastic insulated bush at one end.



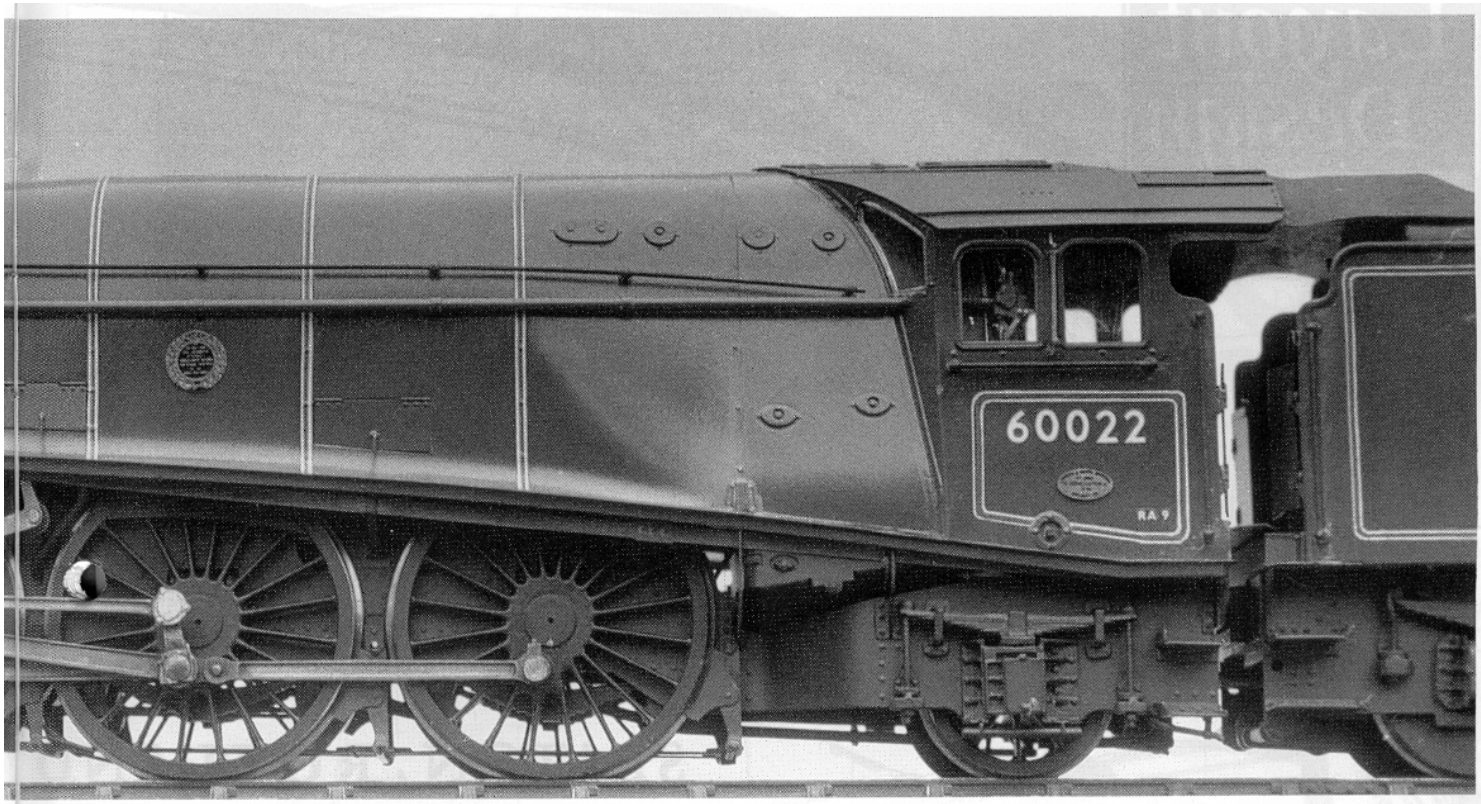


Painting

Cellulose is my preferred medium for painting models and many of the techniques employed are described in my article on the Baldwin 2–6–0 (MRJ No. 86) and Alan Brackenborough's superb text (MRJ No. 76). The colour of BR steam blue is very difficult to judge – rightly or wrongly, I plumped for Ford 'Royal Blue'. Lining out was quite interesting because much of it should be white-blue-black-blue-white. Needless to say, subdued colours were used for these lines, but they are still quite prominent, as they were in the real thing. I like my models to look as if they are in service, even though they may be clean. Therefore, I very rarely use pure black. The front of an A4 in good condition has to be the exception, however, because it doesn't look correct if its dirty!

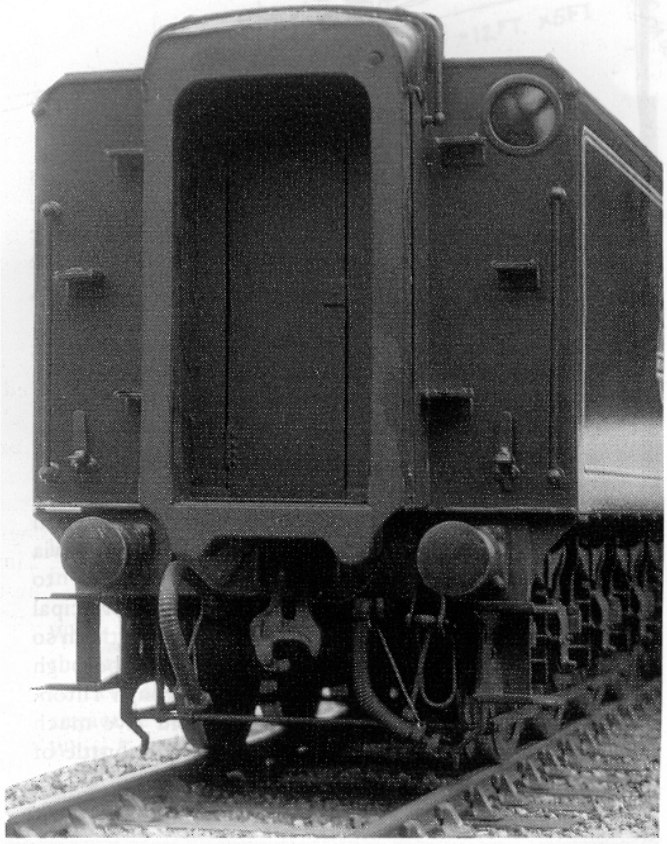
Conclusions

The construction of this model has taken just over a year of my modelling time. My diary of work says it took 272 hours, excepting painting. The alterations to the mechanical bits and pieces accounted for about 40 hours of this time. It took longer than I anticipated, but isn't that always the way? The last time I clocked the building of a model was for a Johnson Single in 2mm scale – it took 472 hours. I am not the world's fastest builder ('think twice, cut once') but I am well pleased with the resulting product, considering the time invested.



The quality of the kit is obviously exceptionally high. There are others in the marketplace but I don't think they are in the same league. The cost of the model is also not insignificant, but this investment pays dividends because you are not spending huge amounts of time to correct bad design or the incorrect choice of materials. Most of the modifications that I have described are due to quirks of the Watson character – making the kit as presented will still produce a superb model.

The 64,000 dollar question is 'Will this follower of the small scales see the light, do the fashionable thing and change to 7mm scale?' The politician's answer is 'I don't see why people have to be committed to just one scale. Variety is the spice of life.' I find 2mm scale so much more convenient and, dare I say it, more challenging, but the big size does have its attractions. Middle son seems quite interested in it at the moment and so small developments could happen with him. Building a big A4 has fulfilled one of my childhood dreams, but now that I see Mr. Finney is making a Duchess, perhaps another childhood dream could be pandered to. Isn't that the business we are in?



This locomotive kit costs £320.00, corridor tender £102.00, hornblocks £8.50. It is available direct from Martin Finney at 10 Heathfields Way, Shaftesbury, Dorset, SP7 9JZ (01747 853813) or from him at exhibitions (which this year include ExpoEM in May, Chatham in June and Railwells in August). Post on mail orders is £4.00 extra.