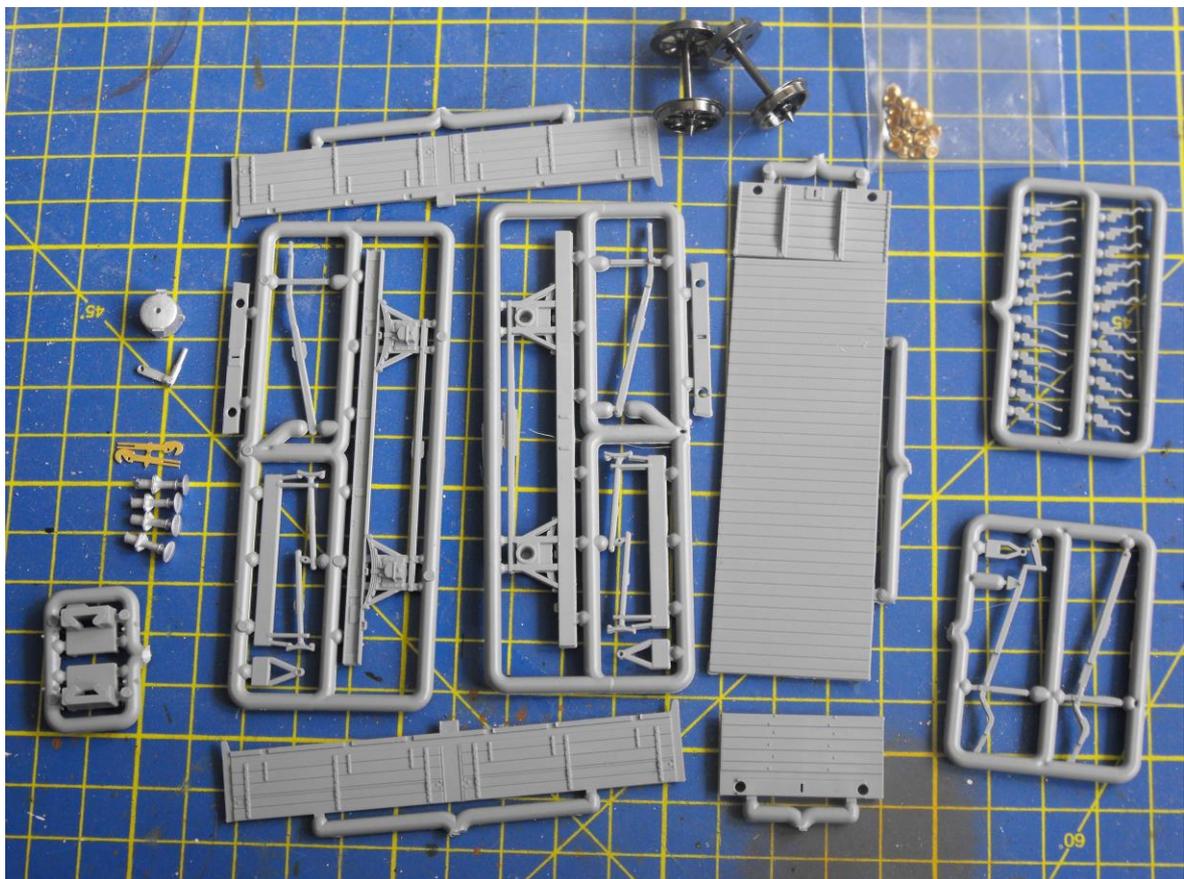


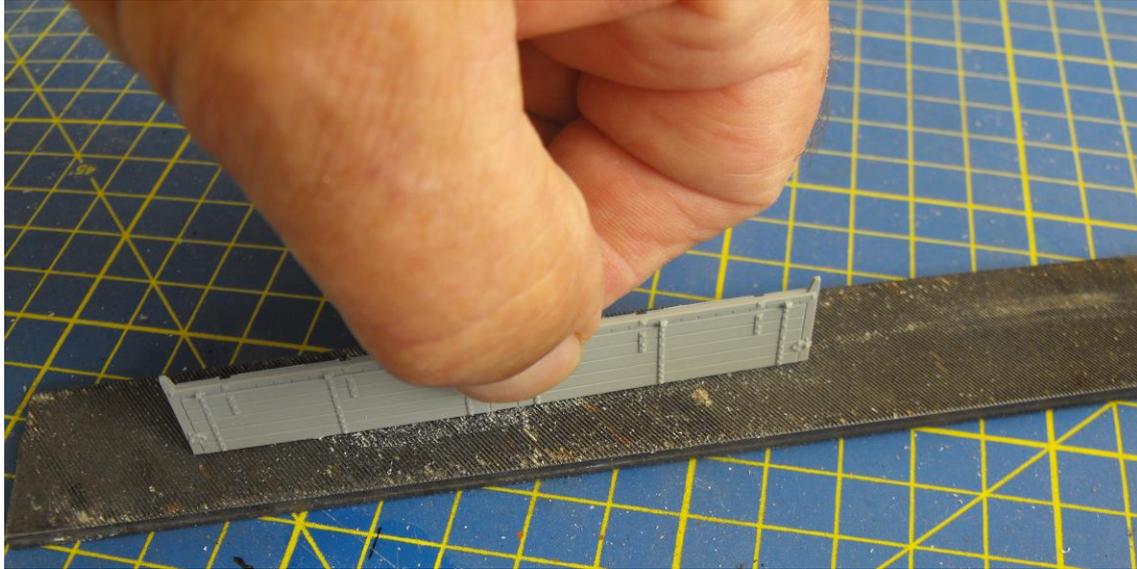
When there are so many excellent ready to run wagons, why bother to build one? Well, for a start I like making things, I also like to have something a little different (which I think is particularly important when exhibiting), and quite often the only way to make a particular vehicle that is needed is to make it. If you've not built a wagon before, then I say have a go – when you see the end result on your layout you'll feel far more satisfaction than if you've just taken one out of its box.

What I plan to do is take you through the building of a simple plastic kit. I've chosen a Chivers Finelines ex Southern Railway Tunney (kit RC 448). I've built several of this series and know they go together well, so it is a good way to start. One of these will look good in a train of the excellent rtr engineers' wagons that are available, and having a timber body it is obviously different to the all metal Grampus.

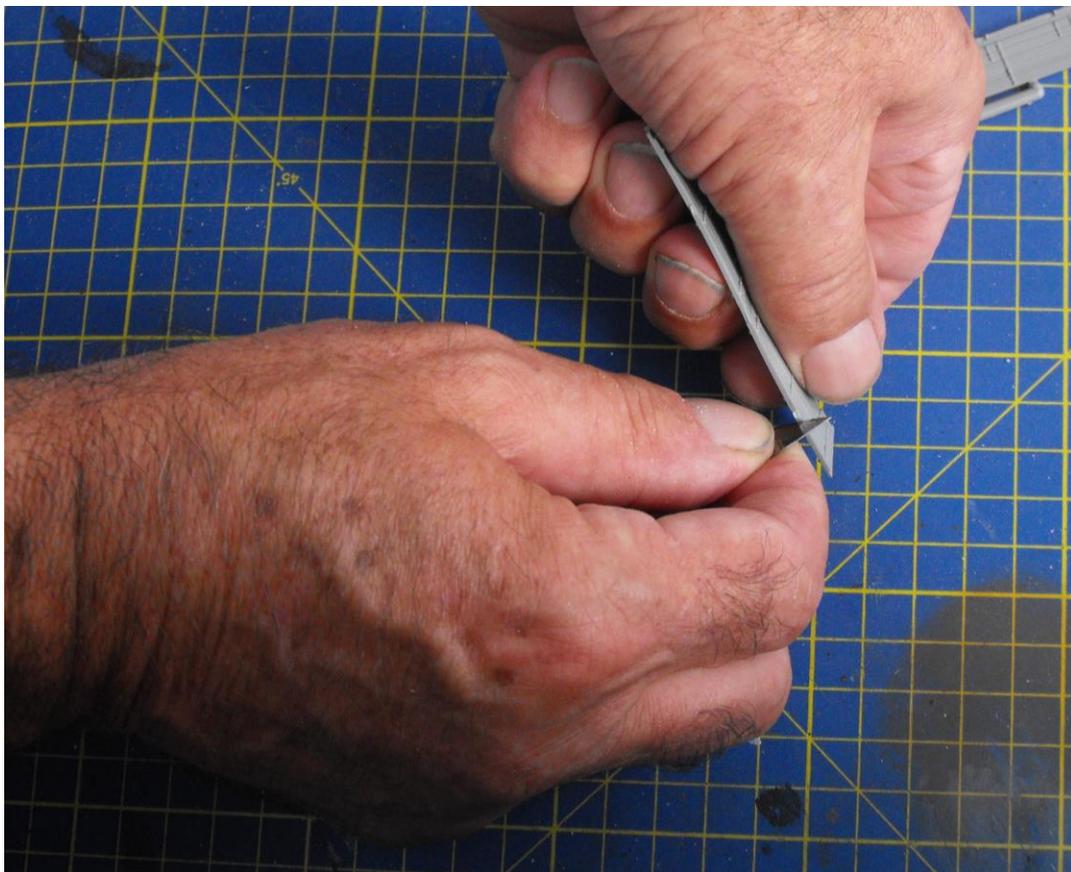
The first thing to do is to spread out the pieces on your cutting mat, or piece of card or hardboard, you need something to work on which will protect the table and stop the knife slipping. Then read the instructions. I know Tony Wright says that he never does this, but we mere mortals will find life very much easier if we do. The instructions in this kit are clear and concise, and there's no need to vary from them. I'm not going to repeat them, but will amplify some things and explain others, so that all the mistakes that I've made in building well over a hundred wagons can be avoided.



When cutting parts from the sprue place them firmly on the cutting mat and cut down with a sharp blade some distance from the part, alternatively a fine pair of side cutters can do the same thing if the gap between the part and the sprue is big enough. The moulding pip can then be cut back closer to the part before being finally taken off either by drawing the part along a large file laid flat on the bench (doing it this way stops the file digging in)



or by scraping with a scalpel blade. When doing it this way support the blade between the fingers to keep it rigid, it makes a much better job (I've only just learnt this from fellow Canterbury Club member Peter who is a professional model maker – it helps to have friends).

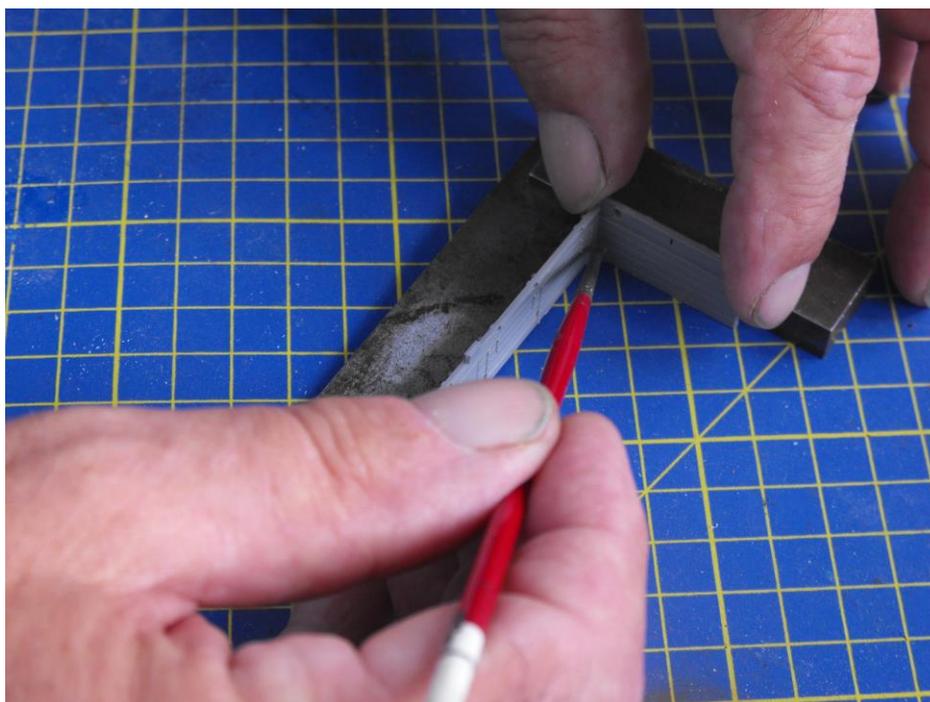


For sticking plastic I favour a liquid solvent such as Slater's Mek Pak applied with a small brush. Any cheap brush (but not with a plastic handle!) will do as long as it's not too big as we want to be able to control how much solvent we use. I have an old brush that I've used for this for years, it's scruffy and good for nothing else, but it serves its purpose.

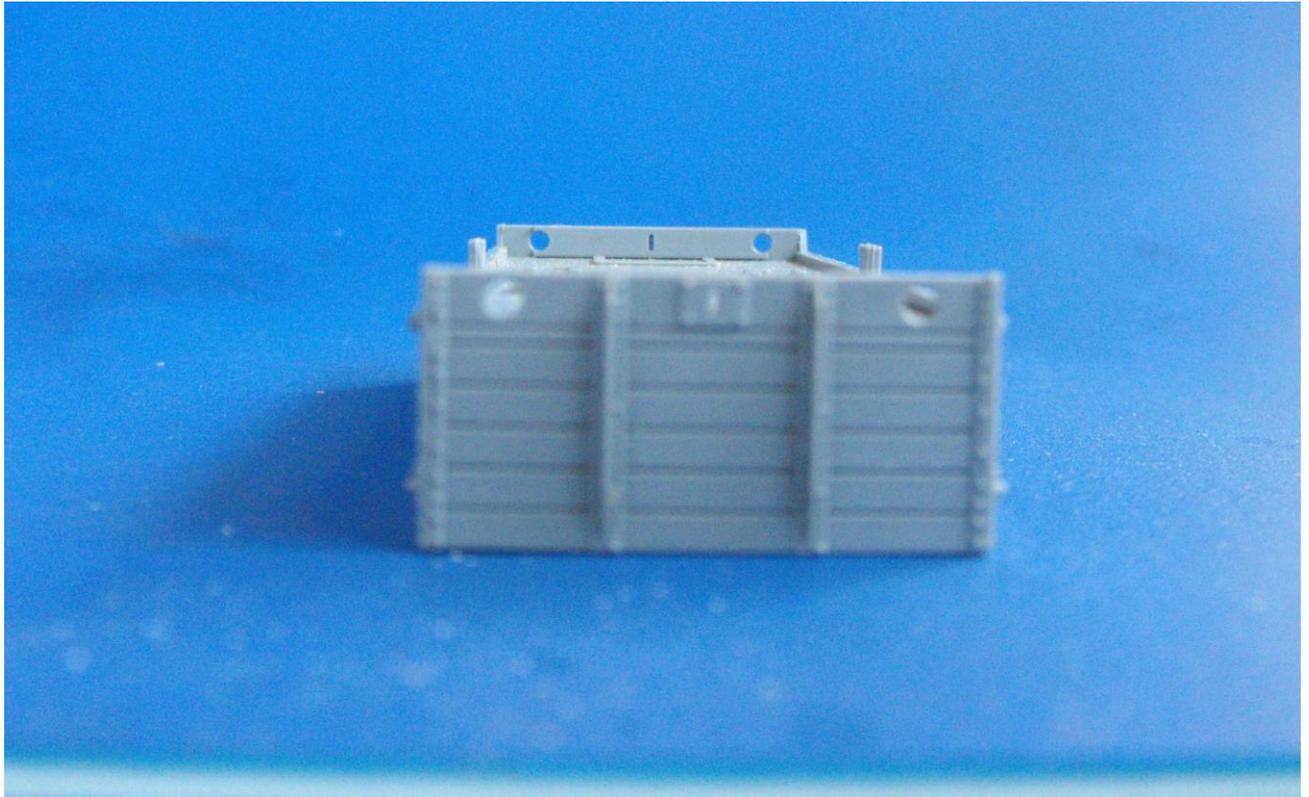
Clean up the sides, ends and floor. The ends have some mould marks that need taking off, and when removing the feeds for the floor take care to remove the slight thickening of the edge that they cause. Stick one side to one end using a small amount of solvent. Make sure the top corners line up perfectly as that is the area you will see most of. To get the corner at a right angle use a small square.



Or like this



Then do the same for the other side and end (make sure that you get these the right way round so that the two pairs fit together properly, I know from bitter experience that it's only too easy to do it wrong). When they're firm, but not set solid try them for size round the floor. It will be a pretty good fit, but might need a little filing of the edges, again do it on the big file laid on the bench to keep it square, and file off just a little at a time so you don't take off too much. When it's a good fit, glue the body together. The most important stage in making the wagon work properly comes next – **YOU MUST MAKE SURE THAT THE BODY IS ABSOLUTELY SQUARE.** Do this by looking at the underside of the wagon from one end and ensuring that the edges of the buffer beams line up exactly.



As the glue hasn't yet set you can tweak it if necessary until all lines up. Now put it on a flat surface and leave to set firmly. It's best not to touch it again until the following day. If the body is twisted then the wagon will never stay on the track without rather more drastic intervention.

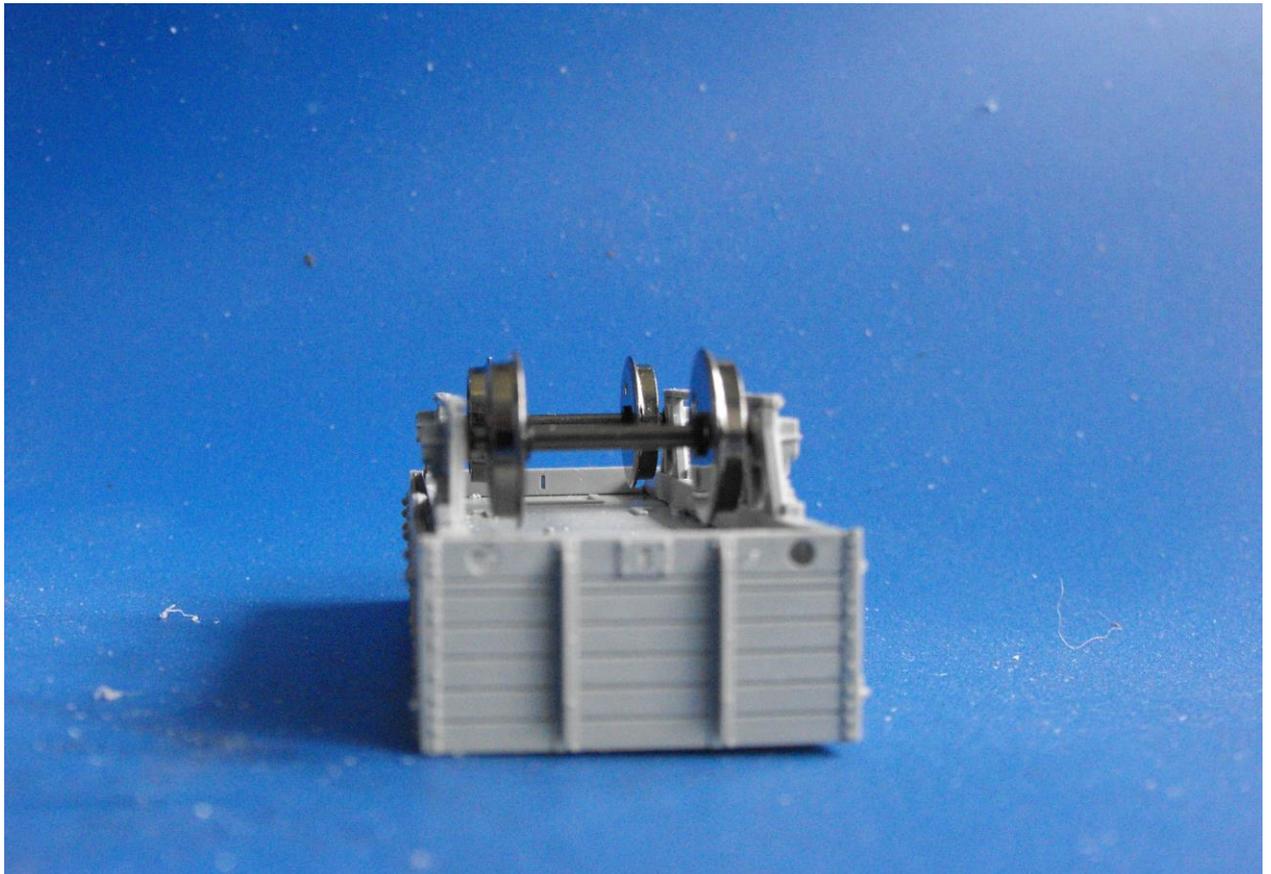
When cleaning up the sole bars I like to taper off the rear of the tie bar between the axle boxes so that the top appears more like the metal strip of the original than the thick bar that is needed to give strength to the plastic. Rest the tie bar on the cutting mat and scrape away the excess with your scalpel. You'll have to scrape right into the corners to get rid of the little frayed bits that will be there. Make sure the top of the sole bar is absolutely flat and square.

Next is the wheel bearings, you'll need to buy these separately, either from a trader at an exhibition or by mail order, I'm afraid not many local model shops can afford to stock such things these days. I like the waisted kind as they fit in the holes better, and I file a little of the pointed end before fitting them, just to make sure that they go right down in. The easiest way to hold them is to drill a 2mm hole in a thin piece of plastic or metal, and place this over the bearing so that the flange holds the bearing in the hole. Once you're sure they fit properly fix

them with a small drop of Evo Stik or similar – super glue sticks them too well if for some reason you need to get them out again later.

This kit, like most (the main exception is Parkside Dundas), comes without wheels. These days most model shops sell Hornby and Bachman wheels at modest cost, and they're pretty good. Try to avoid the older Bachman wheels which had a plastic axle as they often wobble. All metal wheels/axles are best. For use on finer scale track it is advisable to check the back to back measurement using an appropriate gauge, this shouldn't be necessary on proprietary track.

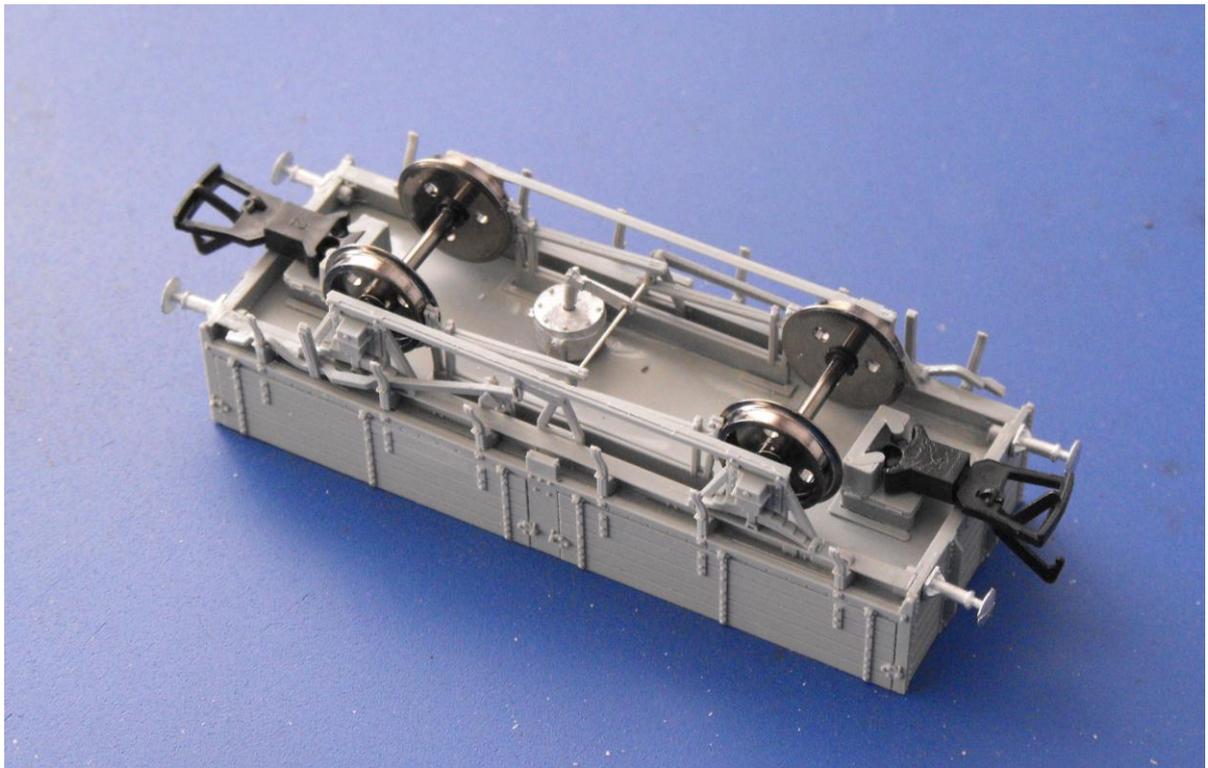
Now have a dry run with fitting the sole bars to the floor whilst holding the wheels in place. It is important that everything fits properly at this stage, and most times it will. However if you've not pushed the wheel bearings in tightly enough, the sole bars won't bed down properly on the floor. Don't just stick it all together anyway, but push the bearings in tighter, and check again. If there is still a problem (some bearings have a shallower dimple than others) then take out the bearings by gently levering behind the flange (that's why we didn't stick them in too firmly), and countersink the hole slightly by using a 3mm or 4mm drill twisted gently in the fingers so that the bearing goes in a little further. Repeat until all goes together well. This can be a real bore, but again a little patience now will reap rewards. When you're satisfied glue it all together with the wheels in place. Check that the sole bars are against the locating pips, and then again look along the underside of the wagon and if your preparation has been thorough the two axles should be absolutely parallel. That is all of the critical bits done, so again set aside to set firmly overnight.



Now it's just a question of following the instructions to the finish, but I would suggest that you put the brakes in between the wheels and thread the wire through the holes before putting

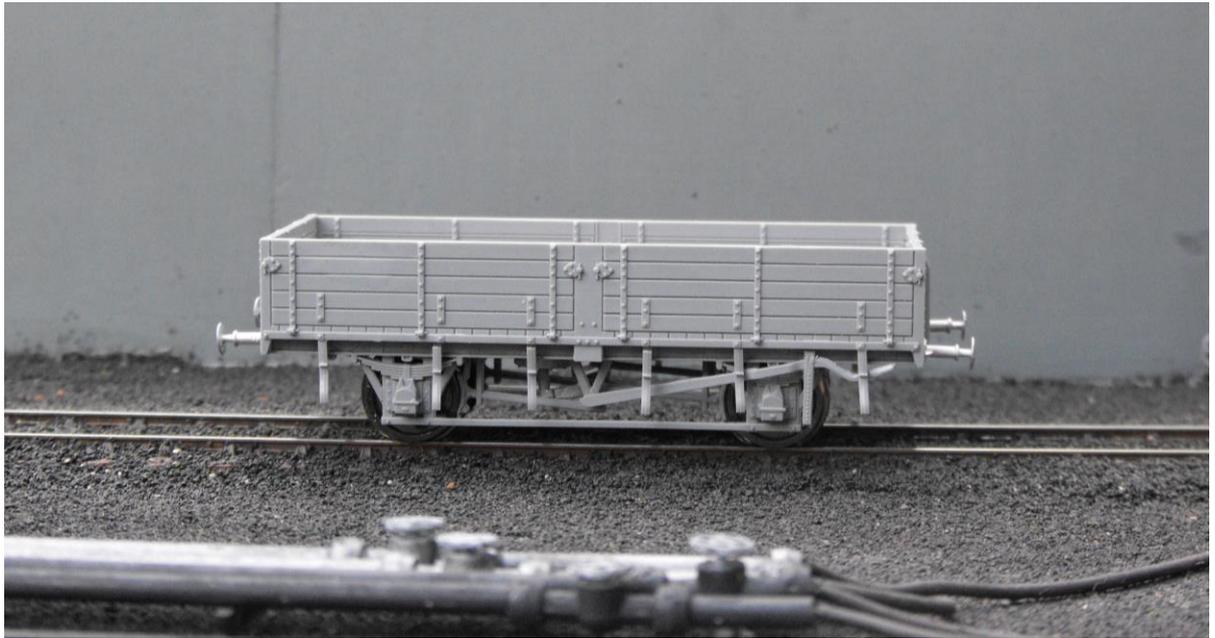
on the operating levers – it's much easier. Make sure that the brakes don't touch the wheels, they are a very close fit. I like to scrape the top edge of the brake gear in the same way as the tie rods between the wheels.

Some weight will need to be added under the floor. I managed to cadge a bit of old lead flashing from a roofer some years ago, but any piece of metal will do to bring the wagon up to about the same weight as all of your others.



When it's all finished then it can be painted. This is very much a matter of personal taste, but I suggest spraying with Halfords red primer, and then applying top coat to taste. Halfords matt black or satin black sprays give an excellent finish for my period, or you can brush paint if you'd rather. The instructions give details of the different colours these wagons have been painted over the years.

And there you have it, a wagon that's different, and all your own work. You'll be surprised how satisfying it will be to see it running on your layout.



On the layout with some finished wagons.

