Plastic wagon kits – trouble shooting.

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Gently does it.

You will find the word 'gently' crops up quite often, just remember that thin plastic mouldings are fragile and break easily and are not too easy to stick together without putting a reinforcing piece over the join, and this sort of repair usually shows. They can bend too, and aren't that easy to straighten out.

Spare parts

A lot of kits provide bits you don't need as it simplifies their mouldings. Keep every last piece you don't use, it WILL come in useful one day when you break or loose something, or just want to ring the changes.

Not square?

Every now and again I have come across a wagon kit, that no matter how hard I try where I cannot get the body exactly square. No amount of twisting, tweeking and fiddling will make the buffer beams line up with each other at the same time all the corners of the wagon join up properly. I guess something warps as it comes out of the mould. Just leave the body to set as before and think about the next step. Whatever you do don't just leave it out of square and carry on regardless, it will never stay on the track.

If the discrepancy is less than a quarter of a millimetre or so then you can carry on as normal, but just slipping a sliver of thin plastic card under one end of one solebar, adjusting the thickness until the axles line up perfectly. It can be a bit of a fiddle getting it just right, but it works. If you're tempted to use this method when the discrepancy is too big it will work, but the wagon will look odd as the solebar will be very obviously out of line with the floor.

Real wagons were often a bit twisted after a hard life, and the suspension took care of this. We can do the same using compensation. One axle stays fixed in the bearings in the axleguards, and the other is allowed to rock from side to side in a simple etched brass unit obtainable from MJT/Dart Castings. You need item no. 2290 00 Wagon Compensation Units, which has enough parts for four wagons. They give comprehensive instructions on their website, so I won't repeat them. If you haven't worked with etched brass before just remember that you fold the pieces along the half etched lines, with the half etched groove on the inside of the fold, and support the brass on one side of the fold by holding in a pair of pliers. Ideally you should run a fillet of solder down the inside of the fold when all is made up to your satisfaction, but if you're allergic to soldering you don't have to. I guess you could try using superglue, but don't let it gum up the moving parts. You will need to remove the pointed axle ends to give things room to pivot. MJT suggest doing this before fitting the wheels into the unit, but I find this makes it difficult to press the wheel back onto the axle so I do it after putting it together. You can file off the points, or use strong wire cutters, but don't use a cutting disc in a mini drill, the heat from this will melt the plastic insert in the wheel. A back to back gauge will help you to set the wheels accurately on the axle.

Having prepared the etched unit we have to prepare the wagon, basically the floor where the unit is to be fixed has to be flat. The easiest way is to use a burr in a minidrill, but a pair of wire cutters can be used to nibble away the obstructions, finishing off with a scraper such as a small chisel. All that is left to do is fix the unit to the floor. First just stand the wagon on the unit on the track to make sure it is level, it should be but if needed you can put in a piece of

plastic card in to get the wagon standing level, once you're happy with this apply glue, I prefer an impact adhesive like Evostick so there is scope for adjustment as now you have to position the rocking unit exactly between the axleboxes and square across the underframe. Once this is done you now have a compensated wagon. You will find that extra weight will be needed to keep it on the track, otherwise one wheel can climb up over the outside rail on a curve.

Binding brakes?

Not all standard wagon wheels are the quite same size, there is not much difference between the different makes, but it can mean that the brakes rub against the wheels if they are moulded to be a tight fit. If you find this out before gluing them in place then you can gently file them down using a half round needle file until they clear the wheels. Taper the brake shoes towards the back to match the tapered wheel profile.

Sometimes things might move a bit while the glue dries, then it's difficult to get a file in the right place. The answer now is to try to work a new (it must be really sharp) long tapered scalpel blade between the wheel and the brake shoe and gently pare away the surplus plastic. I use Swan Morton No 11 blades for this as they have a longer point than the more popular No 11a. An alternative is to try to work a narrow strip of fine abrasive paper, say 400 grit, between the wheel and the brake shoe and work it up and down a time or two by holding it onto the wheel tread and rotating the wheel.

Moulting brake levers?

The Slimrails kit used in the original article came with wire to make the brake cross shaft. Many kits provide a plastic rod which is not nearly so strong so I like to use wire on all my wagons. This means you have to drill holes through all of the brake components using a small (0.5mm or so) drill in a pin chuck to hold them. You should be able to buy these from a tool stand at an exhibition or from a reputable trader on line, such as Eileen's Emporium. Whatever you do don't buy cheap Chinese drills on line, I did recently and they were a total waste of money, they wouldn't even make a mark on soft plastic. Even good drills this thin are easy to break, so buy several.

To get the hole in the right place use a pin, or other fine point to mark exactly where you want to drill to stop the drill point wandering when you twist it, it's usually easier to leave the components on the sprue to do this. When all the holes are drilled thread a length of straight 0.45mm wire through each component in turn before gluing them in place, this keeps all the holes lined up. Apply a touch of superglue where the wire goes through the holes and cut the wire off leaving a couple of mm projecting each side. This allows you to thread the brake levers onto the wire which gives a very secure fixing. Before gluing check to see that the lever will touch the solebar where you need to glue it, often the springs get in the way so just bend the lever gently between the fingers until it fits round the obstruction and glue in place.

Gross blunder?

One of our club members realised after the body was assembled and the glue well and truly dry that he had put the sides on upside down. When he noticed it he passed it around the group asking us to see what was wrong and it took ages for any of us to spot it (and no, I didn't notice). So lesson one is that you could well carry on and not worry too much, but he couldn't live with it and had bought a replacement so he could do it right. I took the remains and left it in a box for ages, but now and again regretted the waste, so one day, having

decided it was time to actually do something I carefully started trying to ease the sides apart, starting at the top corners. As he'd been careful not to use too much solvent they gradually split down the corner joints and after a while I had a kit again. Some filing was needed to clean up all the joints but it went back together again quite nicely. Lesson two is that if you think you have a write off on your hands you have nothing to lose and everything to gain by taking drastic action.