

BATCH BUILDING

Having 'proved' the build sequence on a single example of the 1 plank already (see [GWR Open wagons](#)), the time has arrived to begin building the remaining 19, so I thought I'd explain how I go about batch building a number of kits of the same vehicle. For the sake of accuracy, I consider to be more than three enough to be a 'batch'.

When I buy large quantities of a single kit, I usually try to get the etches packed as one lot and all the ancillaries as another pack, with one set of instructions. This is how Bill Parker supplies them for me anyway.

The first thing to do is decide to what degree the various components are developed and then start in small batches. The etches arrived in threes, folded



into tissue paper, so I did three at a time.

This is one sheet of etch reduced to a pile of part constructed bits. The springs are all assembled as are the ends together with stanchions, coupling hook and plate. All parts that needing

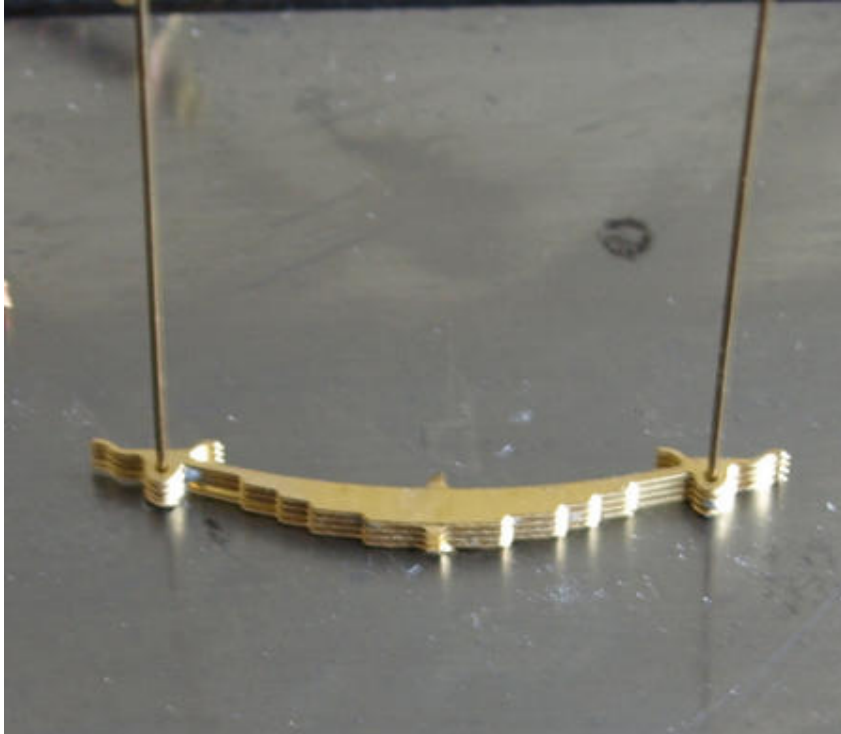
bending have been scrawked and bent except for the chassis, which will be dealt with after a number of other parts have been fitted and the parts for the single sided brake gear are assembled ready to be fitted. Parts like the sole bar must be kept in pairs since they are handed. In addition to this some 208 bolt heads for each wagon have been pressed out too.

It is worth perhaps going over the assembly of the springs again. The pictures I think make it fairly straight forward though I have used long lengths of wire here for clarity; I normally use very short pieces about 10mm long - no point in wasting a costly resource. The outer laminate is put in first, front side down, a few spots of solder cream are dotted over it and the next laid on top and so on. This is done on one wire only until all four laminates are stuck together with raw solder cream. Now the other wire is inserted through the laminates and into

the second jig hole in the steel plate. I hold them down with a scalpel blade and

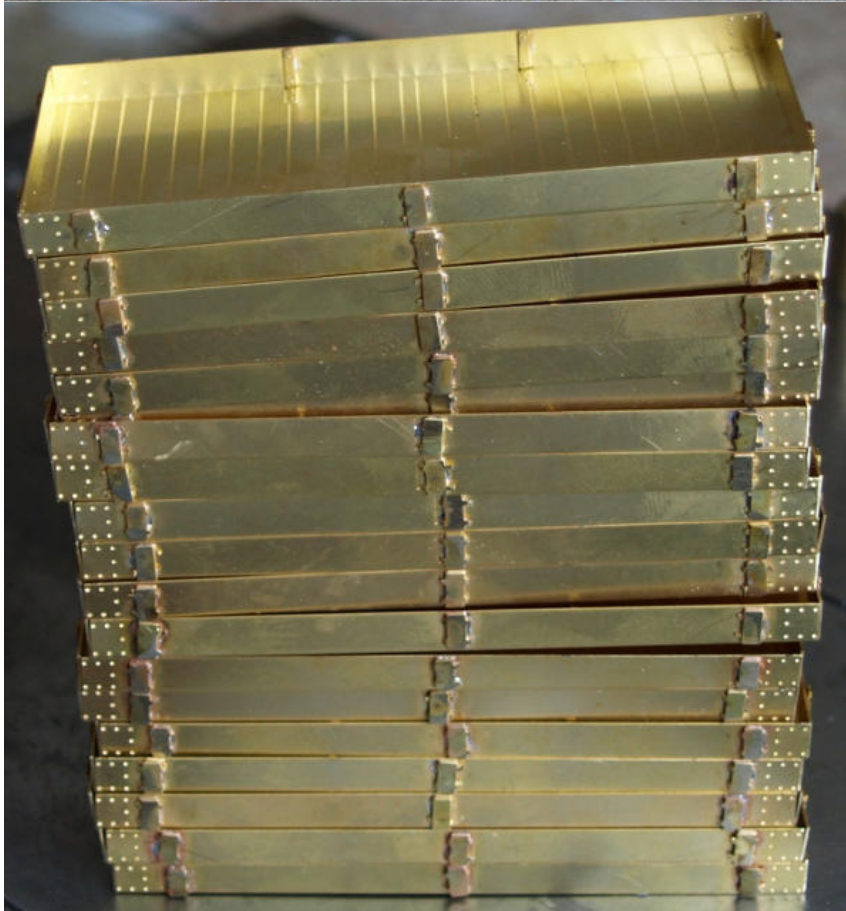


apply the RSU probe, making sure that there are no gaps left. Remove from the jig, cut off the front extension wires with side cutters, clean up with a file and file off the etch tabs. Simples tssk!



Exactly which order one does these things, and indeed which parts one assembles in each stage is a matter for personal judgment. However, the test build of the first example should provide ideas on method; simply make a note of them. In the past I have tried taking one part, say the body shell, and doing all the work on that for all

twenty and then moved on to another part. It is mind bogglingly boring. Working on three at a time meant only assembling a dozen springs at one go. Doable, without the need for a Zen like trance!



Once we have reached the stage of piles of parts ready for constructing, it is time to decide what to do next. For me it will be the body because I cannot find the bag containing several hundred grease axle boxes, so the chassis will have to wait. (Needless to say, they came to light about half an hour after I wrote that.) The piles look nice but are not a

good idea; all the small components will now be replaced - for safety's sake - in their individual containers until required.

I began by fitting the ten spacers to each body fold-up and adding the four pieces of strapping that go on the inner walls. These are fiddly jobs so getting



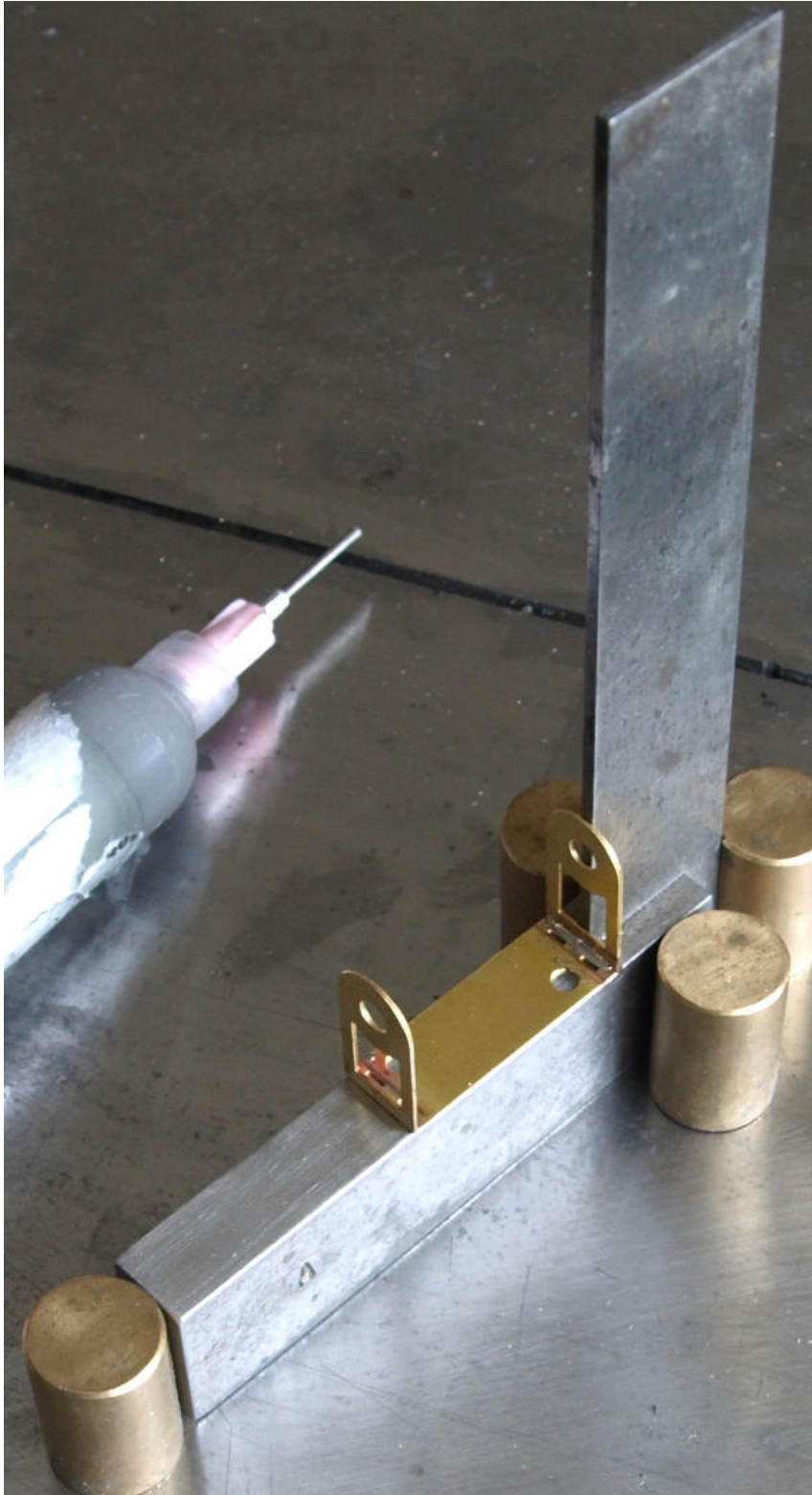
them out of the way early is a good idea. A pair of body fold-ups were done at a time by using the magnets to hold them in place while they were soldered up. The resulting pile of part finished bodies is quite satisfying.

The outer sides were then done to finish off the strapping since these are very small parts and easily lost. I continued to build the bodies. It is, I think, important that the

various tasks are tackled in a way that reduces boredom - and therefore, the probability of error. Each body consists of the inner planked fold-up, two ends, two sides and four corner straps. This provides enough variety while at the same time concentrating on completing a major part of the construction.

All nineteen took the length of all Beethoven's piano trios and a couple of symphonies spread over three afternoons. A wonderful way, I think, to spend time. Here are the completed bodies, minus only buffer housings, ready for the next stage.





I started next on the under frames by fitting all the springs, so much easier to do while it is all still 'in the flat'.

Were I to solder the axle boxes in place, I would do this also before folding up to fit the sole bars. However, I shall be gluing them and the buffer housings using Loctite408 so the job can wait.

The wheel bearings in the latest kits are intended to be used as they come, just a hole etched out in the side frame. I disagree with this method as I think it will wear the bearing out rapidly, especially where much running is the norm and so spent a pleasant half hour drilling

all the holes out to 4mm.

Next job is folding them. It is essential that they be at right angles before running solder into the fold. To do this I use an engineer's square, cleaned nice

and shiny to improve electrical flow, and held in place with four magnets. Initial folds are made with pliers and then checked against the square. Once happy, it is soldered while still being held in the angle of the square. Result - piles of the things all nicely trued up and ready for the bearings to be fitted.



All the bearings were then soldered in place. Then a taper broach was used to remove the bur that stops the axle going in. This is also a good test of how well the bearings are soldered in too.



Having prepared the mounts and bearings, it is time to fit the wheel sets. I am not sure whose they are as they were supplied in bulk by Geoff Strafford but I think they may be Haywood. They are already

chemically blackened so all that is required is to cut off the parallel axles ends. I do this by removing both wheels, cut off the required section from each end, file the burr flat, replace one wheel and insert in the bearings. However, it is sensible first to ensure that said bearings are lined up correctly so I slide a length of rod in and, if necessary, touch the RSU probe on to one or other bearing to re-melt and shift it slightly until I can spin the rod easily. That then is the time to offer up the wheelset and check that it really does spin freely. There was no need of any packing washers, they fitted perfectly.
TO BE CONTINUED.