Rumney Models - Peak Pony Truck Instructions

Notes

This set of instructions covers Rumney Models Peak Pony Truck kits D.03 and D.03A. D.03 is intended for P4 and D.03A for EM.

This etch provides a sprung, self weighted pony truck to suit the Bachmann Class 40, 44, 45 and 46. Side control springing is catered for if required. Whilst designed to suit my sprung bogies for the above classes the pony truck reuses the pivot point on the plastic bogie moulding and so can be used as a direct replacement in a Bachmann loco.

The suspension is of the end load cantilevered beam type for both the pony truck and side control springs. This is dictated by the small dimensions that are available and also the lack of mass in the finished weighted pony truck. Springing is provided by 0.009" steel guitar wire for both the pony truck and side control springs. Don't be tempted to use a heavier gauge of wire. The suspension will not work properly if you do. The springs will need to be soldered in place and to do this you will need a suitable flux. I use Carr's Black Label flux.

Read through the instructions first and familiarise yourself with the components. Drawings and photographs taken during the construction of the test etches are included to make things clearer.

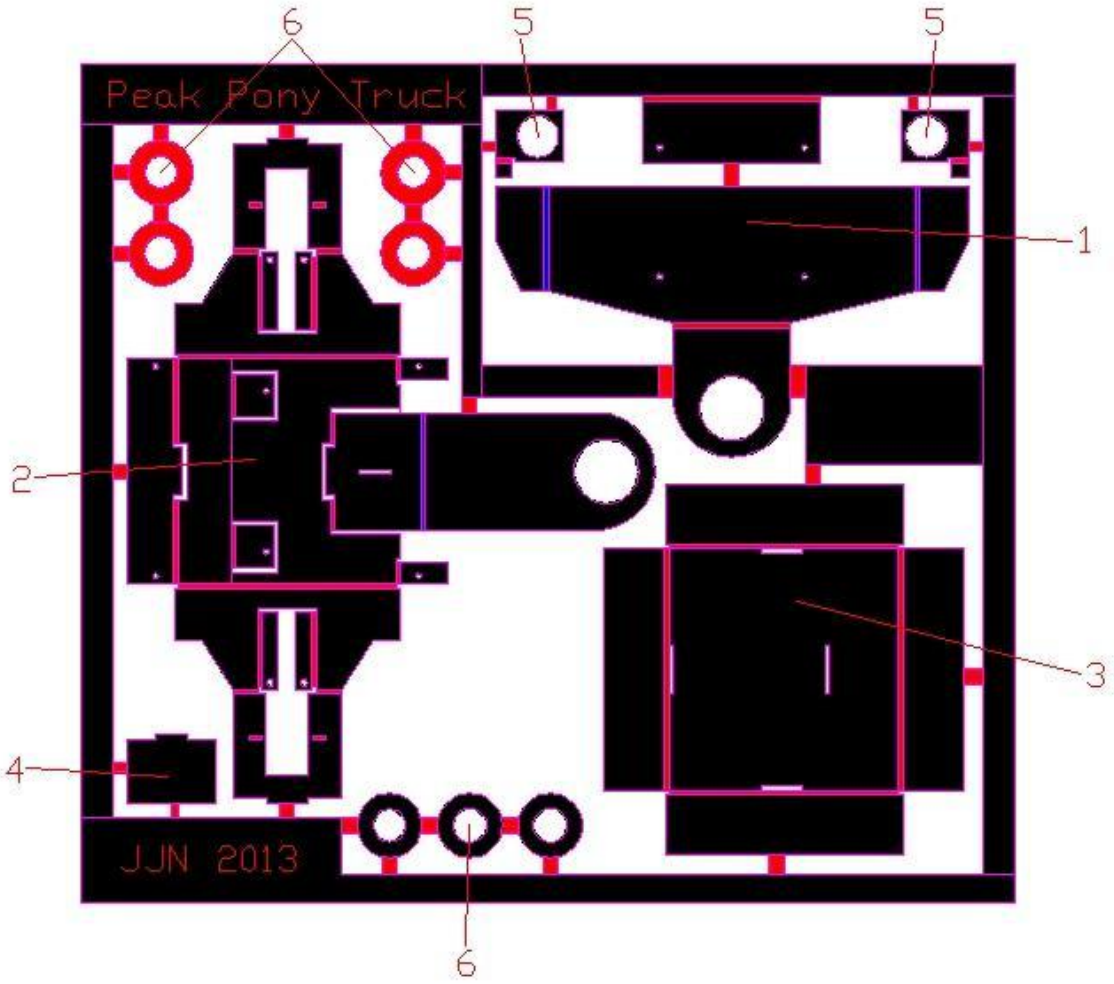
All fold lines are through 90° with the fold line on the inside unless stated otherwise.

Everyone has their own soldering methods. I now use a temperature controlled soldering iron with predominantly 145° solder and La-Co paste flux. For a long time I used an Antex 18W soldering iron on virtually everything with few problems.

Components list

1 - Side control spring plate
2 – Pony truck
3 – Ballast box
4 – Reinforcing plate
5 – Spring bearers
6 – Axle Washers

Note that the diagram below shows the P4 version. The EM version will look a little different but still has the same components in similar places.



Materials List

0.31mm or 0.4mm wire for retaining the bearings.

Construction

Side control spring plate

If you wish to provide side control springing for your pony trucks then this needs to be done first. You will need to solder the springs in place on the side control spring plate (1). I have included a guide to help keep things aligned while you do this. Refer to Fig.1 and the photographs.

Cut through the connecting tag shown in green and whilst they are attached to the fret carefully fold the sections marked in yellow through 90°. I found it easiest way to keep things in the correct place was to clamp the fret whilst forming these folds. I also found it useful to clamp the fret in place when fitting the springs. Reinforce the fold in the side control spring plate with solder. Bend two pieces of 0.009" spring wire into an L approximately 5 x 13mm. Pass the wire through the holes in the side control spring plate and the guide and then solder the wire to the back of the side control spring plate. The side control spring plate can then be removed from the fret, the remaining folds completed and reinforced with solder.

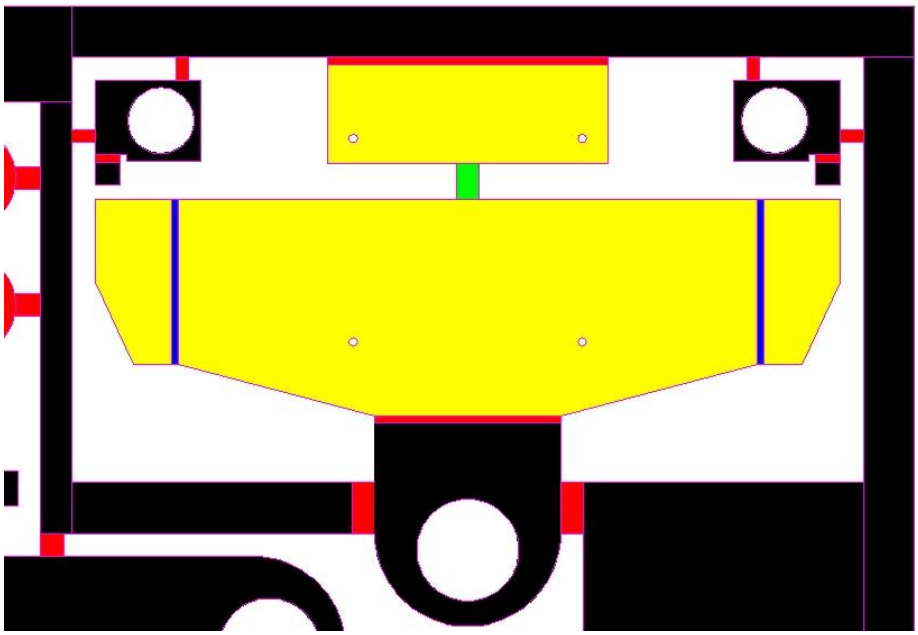
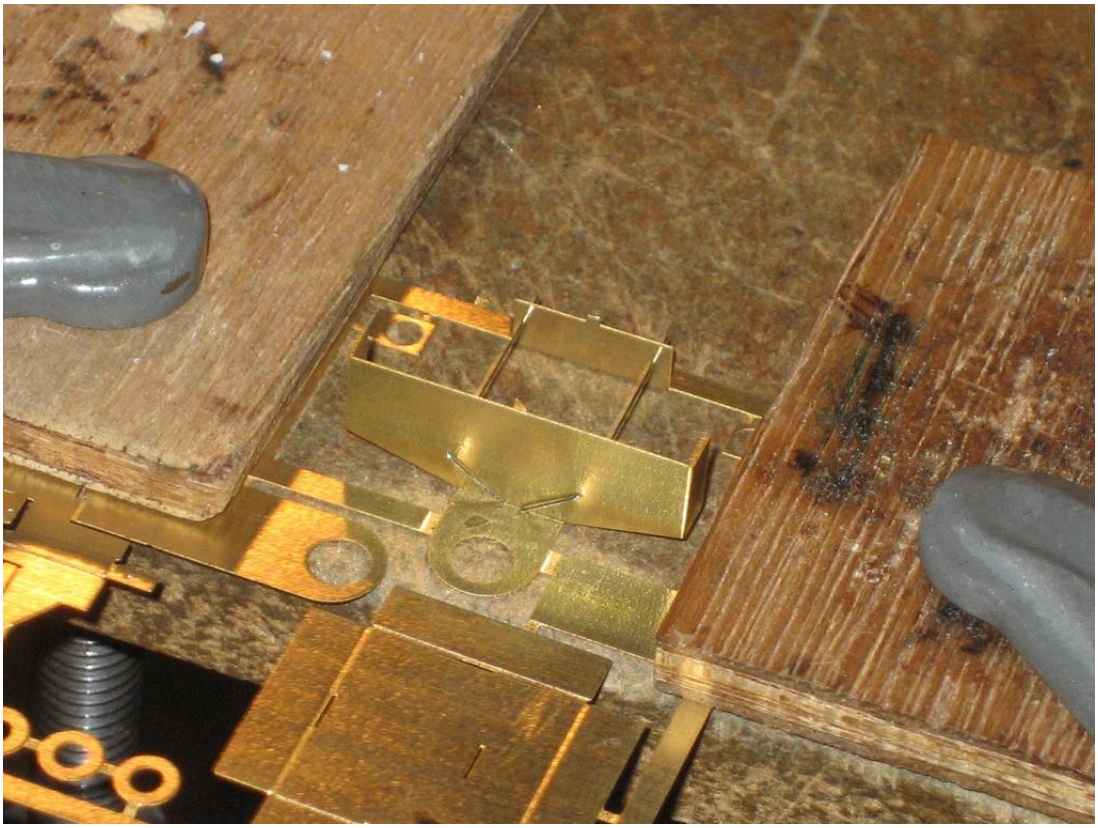
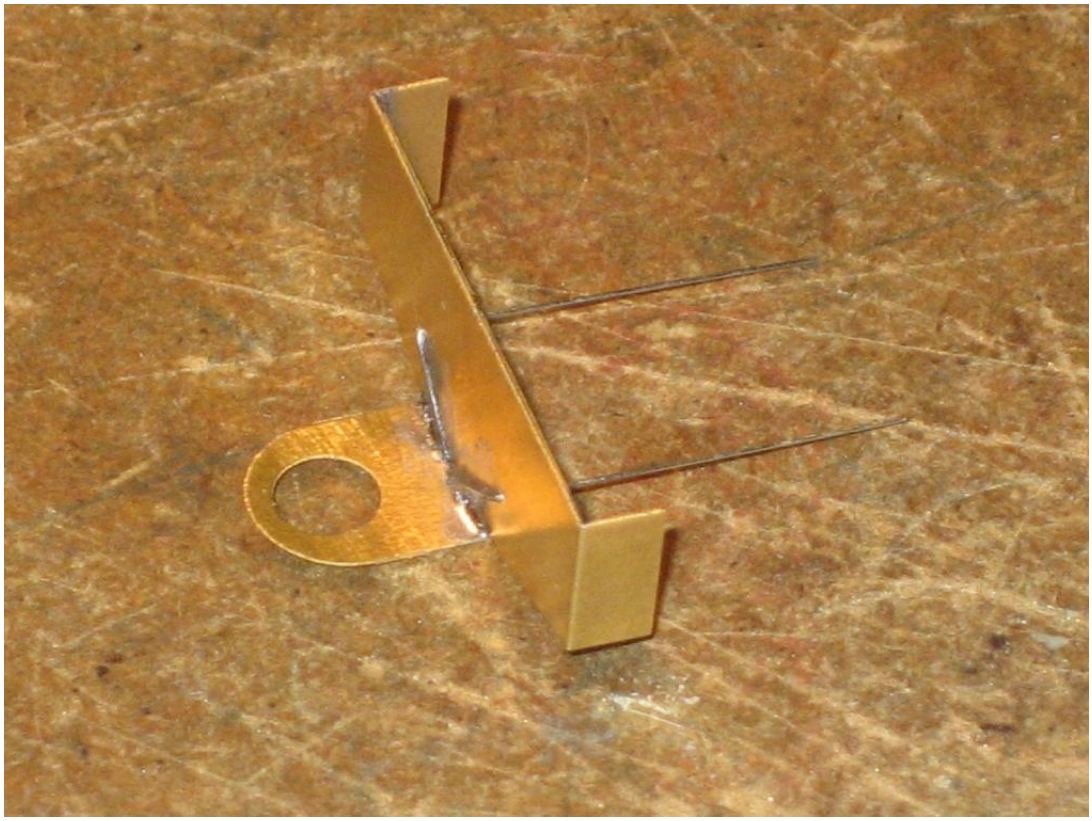


Fig. 1

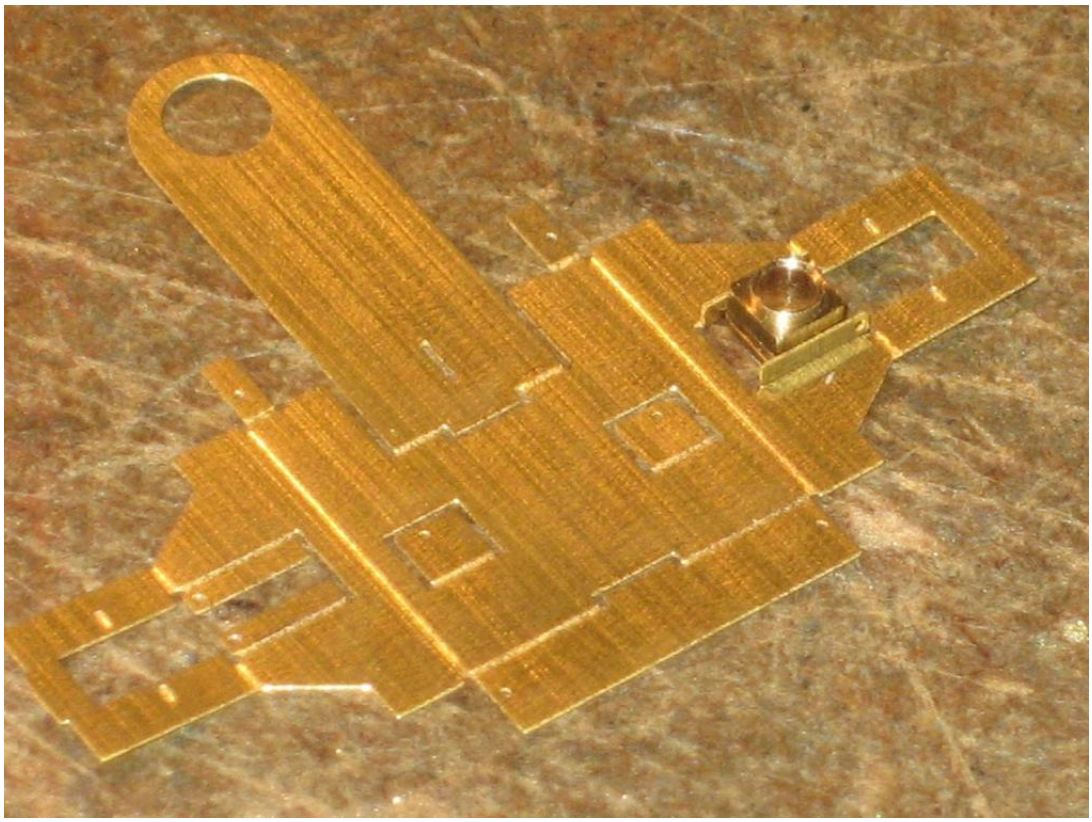




Pony truck

Refer to Fig. 2. The first thing to do is to check the fit of the bearings in the spring bearers (5). If the holes need opening out a little do so whilst still attached to the fret using a tapered reamer.

Next remove the pony truck (2) from the fret. Fold out the horncheeks and check the fit of the bearings in the hornguides and the horncheeks. Note that although the bearings are supposed to be machined from 1/8" square brass bar they aren't in fact slightly rectangular in section. One pair of sides is slightly longer than the other. Thus if the bearing is a little tight or lose try rotating the bearing through 90°. The horncheeks can be adjusted slightly as well until a nice fit is achieved. Once happy with the fit mark the base and keep them separate so you know which one goes on which side and also reinforce the horncheeks with solder.



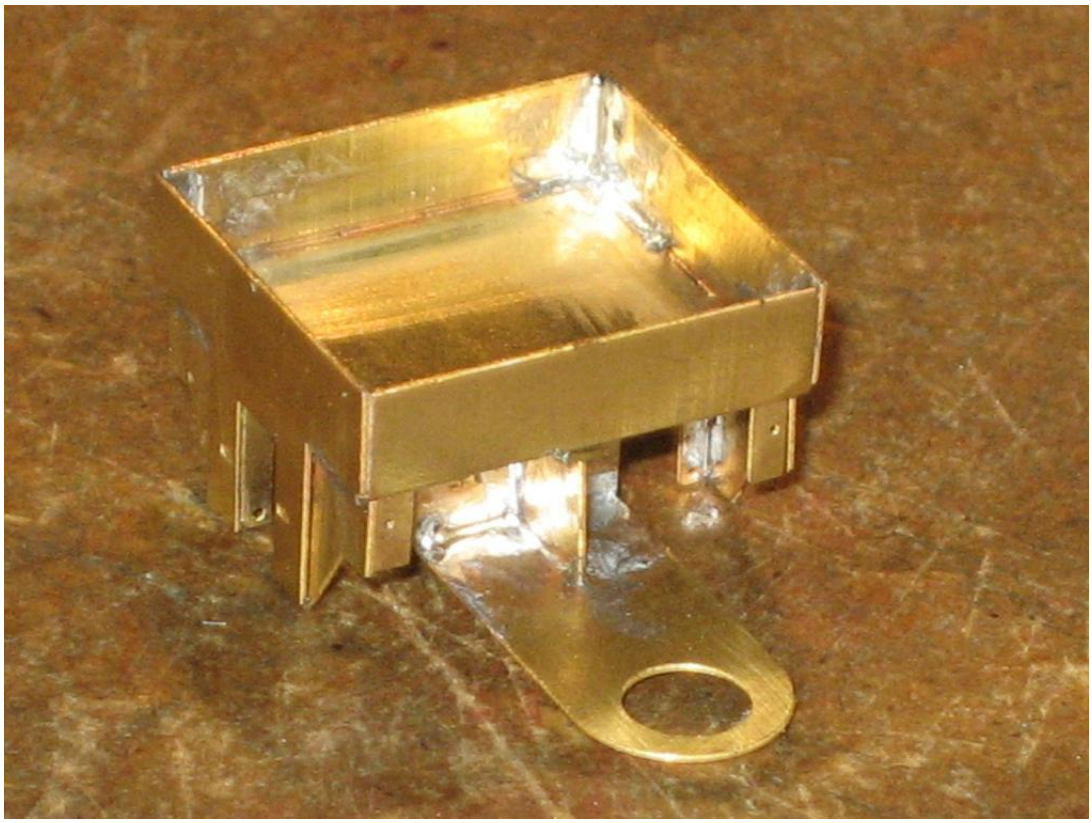
Remove the spring bearers (5) form the fret and fold out the little tabs. Solder to the back of the bearings noting that the tag goes on top of the bearing and towards the rear of the pony truck (the pivot point end).

Fold up the pony truck. All the fold lines are through 90° except for the fold lines marked in green in Fig. 2. These should be folded through 180° with the fold line on the outside.

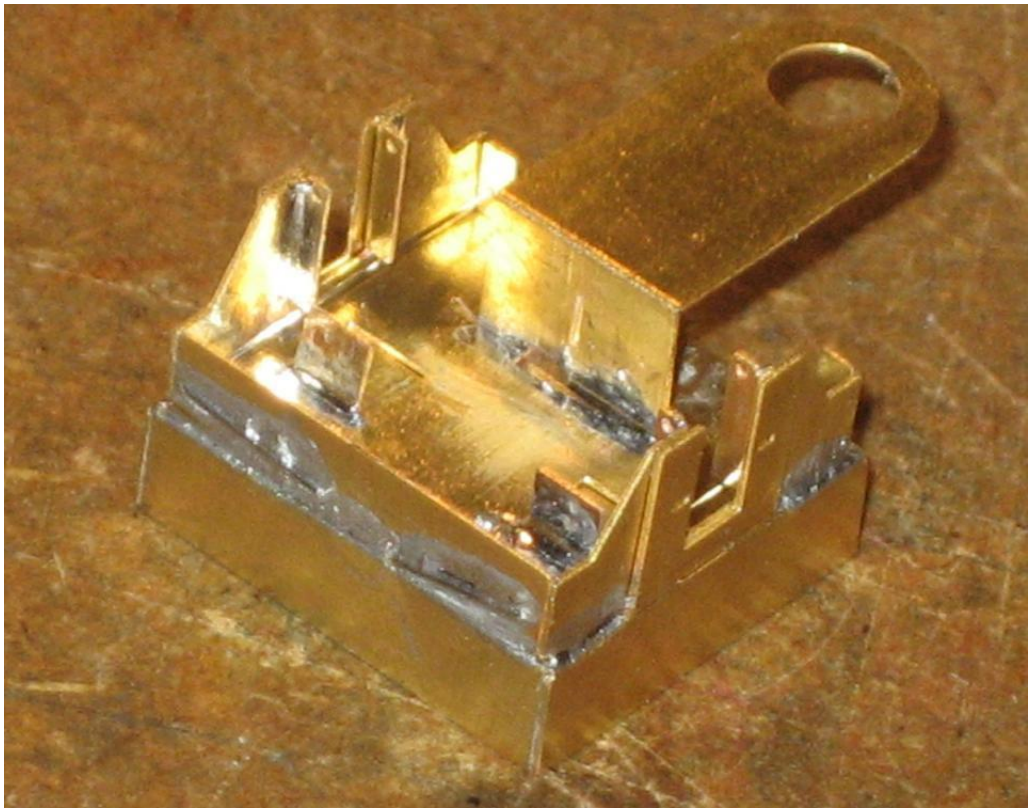
Remove the ballast box (3) from the fret and fold up. Reinforce the fold line on the ballast box with solder.

There are tabs on the pony truck which locate into slots in the ballast box. Locate the two parts together. This will ensure that the hornguides are held against the rest of the pony truck. Solder the two parts together and reinforce the fold lines on the pony truck except for the parts marked in yellow in Fig. 2. Once in the spring is in place these two locating points will be removed to allow the springs to work properly.

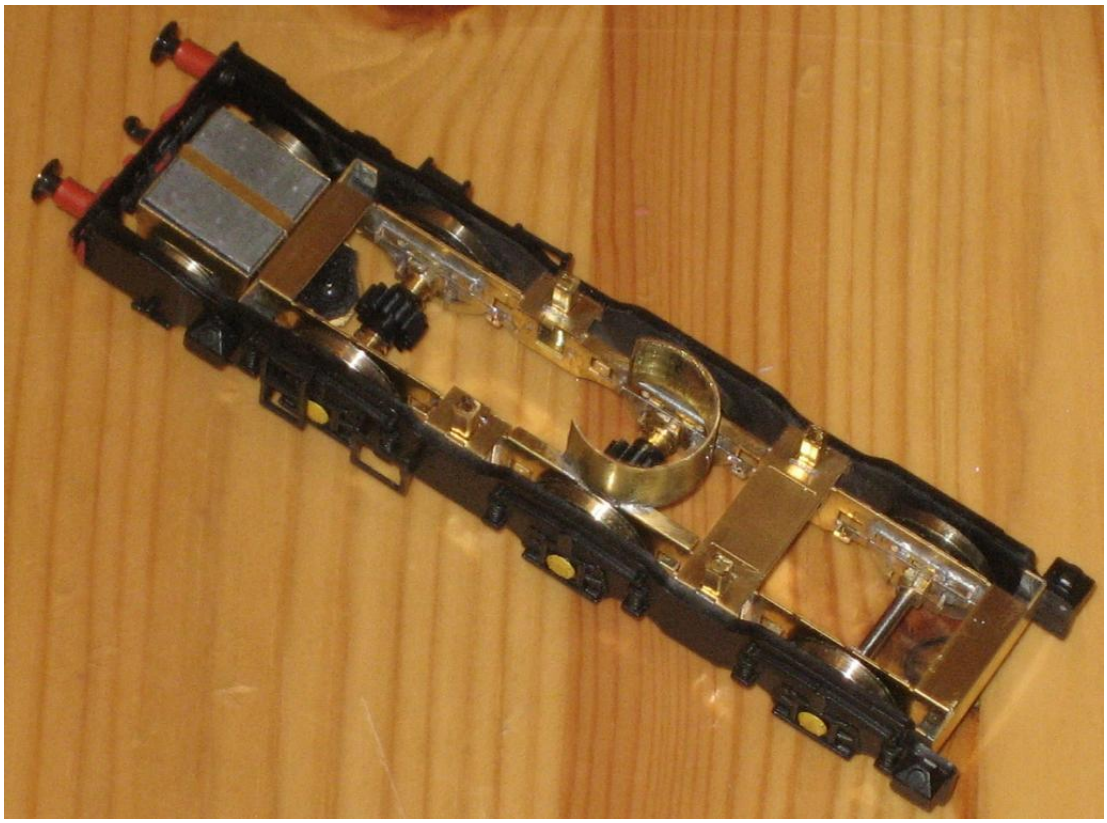
Remove the reinforcing plate (4) from the fret and locate in position on the tail of the pony truck. Solder in place. See photograph below.



Attention can now turn to the pony truck springs. Bend two pieces of 0.009” spring wire into an L approximately 5 x 15mm. Locate them through the pairs of guide holes with the short side of the L at the front of the pony truck. See photograph below. Once happy with the fit solder the wire in place. Trim the ends of the wire so that they are as close to the rear suspension soldering guides (those parts marked in yellow in Fig. 2) as possible. These guides can then be folded back and removed from the pony truck.



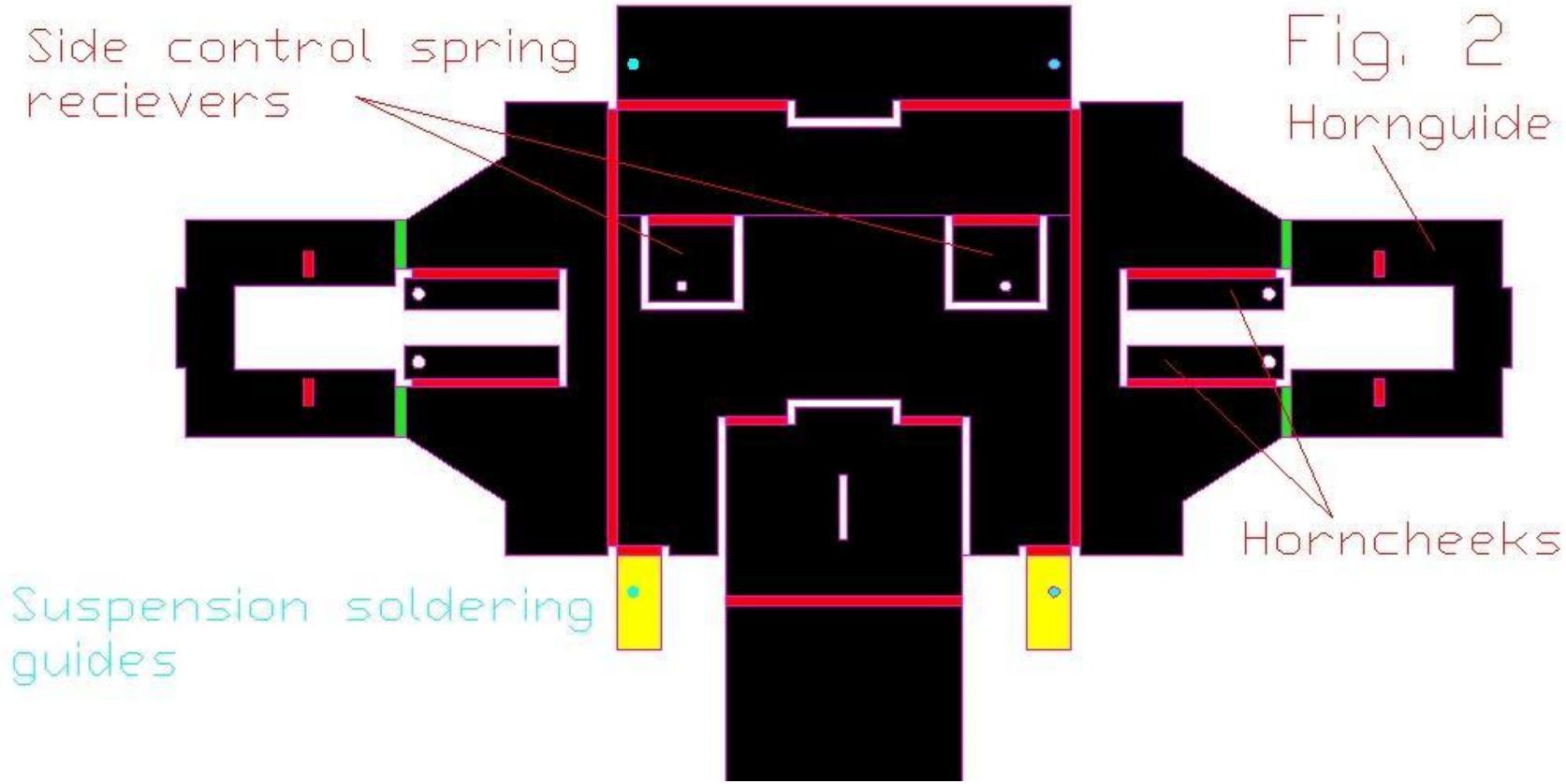
There isn't a lot of space for weighting the pony truck but I managed to get mine up to about 12g total weight. This will be fine for the springing to work. I used three pieces of lead flashing carefully cut to size and fitted in the ballast box. I would avoid the use of liquid lead in this case as you will find it hard to get as much weight in the ballast box due to the amount of air between the lead balls. A piece of scrap fret was placed over the lead and soldered to the pony truck to keep the weight in place. See the photograph below.



Once the pony truck has been cleaned up the bearings can be refitted to check that the fit in the hornguides is still good. Make sure that the spring bearing tabs on top of the bearing are towards the back of the pony truck.

The wheels can be fitted at this point. I used Ultrascale 3' diesel disc wheels on mine which were a good fit with virtually no sideways movement but they do vary between batches and other makes will no doubt vary. Axle washers (6) included on the fret to take up any side play if needed.

Short lengths of 0.31mm or 0.4mm wire can then be used to retain the bearings. These fit through the holes in the horncheeks.


Side control spring recievers
Fig. 2
Hornguide
Horncheeks
Suspension soldering guides

Fitting

In order to create enough space for the pony trucks the Bachmann moulding needs altering slightly. The coupling pockets moulded on the back of the headstock needs to be removed as does the section immediately in front of the pivot point. Also make sure that the sides are free from any locating pips. There are various parts that are located through holes in the sideframes and sometimes they protrude through the back. Make sure if there are any they are flush with the sides.

The side control spring plate should be a nice tight fit between the sideframes and shouldn't move once in place. Check and adjust if necessary.

The easiest way of fitting everything is to locate the pony truck and side control spring plate together feeding the side control springs though their locating points on the pony truck. See Fig. 2. Once together the assembly can be fitted to the bogie reusing the Bachmann screw to keep the pony truck in place.