

Rumney Models – LNER Clasp Brake Wagon Chassis Instructions

Notes

This set of instructions covers the LNER clasp brake chassis kit B.61. This kit is specifically for a standard 17'6" x 10' wagon chassis fitted with the LNER clasp brake and 'BR axleguards'. This covers wagons built from around 1946 onwards (the term 'BR axleguards' is slightly misleading as they really represent a change in the RCH spec on such things which occurred around 1945/6). For those wanting the equivalent chassis with RCH axleguards Dave Bradwell does a very good kit. I see no reason to duplicate this which is why it isn't in the range.



Please note that due to the nature of the brake yokes this kit is only suitable for EM/P4 as it is. It could be used for OO but the yokes would need modifying.

These kits are designed to build into a fully detailed and accurate 4mm LNER clasp brake wagon chassis. These were used under LNER vans, LNER and BR 13T all steel opens, BR all steel Shocopens, BR built Shocvans and Lowfits. They are mainly designed around Parkside Dundas wagon bodies though others can easily be used. They are to scale length over headstocks so their suitability will depend on how accurate in length the model body being used is (the Parkside kits that I have encountered so far are spot on in this regard). They follow the prototype wherever possible but are simplified in certain areas to ease construction.

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 attempt to make my waffle clearer. Note that not all the photos are of these particular chassis but suitably illustrate the item in question.

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.

Check all holes before removing parts from the fret. The drawing process for etching if you use a CAD program as I do is extremely accurate but the actual etching process itself not an exact science. If the fret is slightly over etched then there is no problem but if they are under etched the holes will need enlarging. I find that this is easiest to do before removing parts from the fret. The hole sizes will be noted at the appropriate points.

Technical

The suspension is individual springs made from 0.008" steel guitar wire soldered to the etched spring/bearing carriers. For this you will need a suitable flux. I use Carr's Black label. If the finished vehicle is weighted to 50g with the weight evenly distributed then this will produce a spring deflection of 0.5mm. Don't be tempted to up the gauge of spring wire. Even moving up to 0.009" springs will have a significant effect on the spring deflection. Also don't over weight the wagon or the springs will not have enough upwards movement before they hit the W-Irons. Think of the 50g total as an ideal weight but also a maximum. There are notes on weighting the wagon at the end of the instructions.

The chassis is designed to produce a buffer centre height, when the kit is completed and weighted to 50g of 13.8mm when using Exactoscale wheels. The Exactoscale wheels are 13.4mm (3'1½") in diameter. Different makes of wheel may slightly affect the ride height depending on their diameter.

Materials list

Several sizes of wire are needed to build the chassis. Eileen's Emporium are good source for these and they do a mixed sizes pack if you don't want to buy large quantities.

- 0.31mm - Most of the brakegear, axleguards keeps, brake lever guards, safety loops
- 0.5mm - Alignment pins for Shocopen wagon door springs
- 0.8mm - Main brake cross shaft
- 1.0mm - Alignment pins for the axleguard assemblies

You will also require items such as buffers, vacuum pipes, axleboxes and springs as well as couplings to complete.

For buffers I would recommend those produced by Lanarkshire Model Supplies. They are by far the best around and a lot of types of buffers are available pre drilled for fitting sprung buffer heads. This service is particularly useful for heavy duty buffers with their large 2.5mm shanks. The quality is excellent. Metal buffer heads and springs are available from Wizard and MJT. Buffers on these chassis would have been mainly 1'6" or 1'8½" spindle types. The same supplier does upright cast vacuum pipes which are very nice. They also do the BR swan neck type but I find these quite vulnerable and prone to being broken. I find that much better method is to fashion them from 0.7mm (ish) soft brass or copper wire with something like 41 SWG wrapped around it.

Wagons with these underframes had 5 leaf springs and oil axleboxes. Rumney Models produces suitable 5 leaf spring castings with BR 2 part (FA.05), BR 2 part square (FB.05), BR welded (FC.05) and BR Platefront (FD.05) axleboxes. In addition to these, earlier oil type axleboxes are in preparation and will be released in the autumn of 2017. These will include LNER cast and welded axleboxes as well as the RCH 2 part type. See the Rumney Models website for further details, including illustrations. They are listed under wagon castings in the 4mm scale section.

Vacuum cylinders will be needed. They were the 18" type on these underframes and are available from Rumney Models (F.01). These can be found in the same place as the spring and axlebox castings.

Rumney models produces coupling hooks suitable for these (B.94) and also BR Instantan links (B.95A). These can be found in the 4mm section of the Rumney models website under wagon detailing. Exactoscale supply links and these are available through C&L. If you need screw couplings Masokits supply them and something is in preparation from Rumney Models.

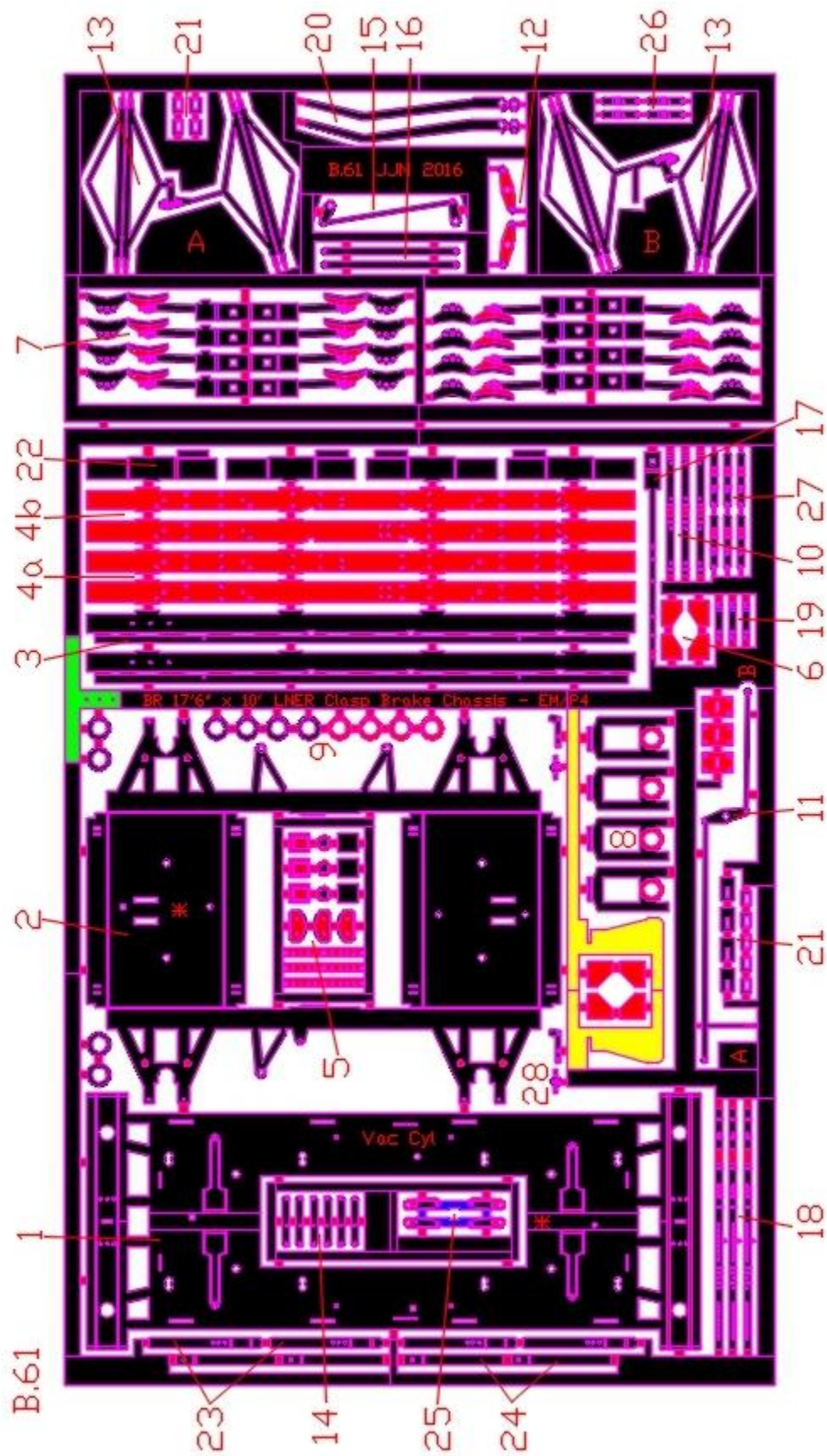
Contact details for the above suppliers can be found at the end of these instructions.

For those wishing to model a Shocopen wagon Rumney Models also produces an etched kit (B.91) for the spring brackets and covers used on shock absorbing wagons with the gear fitted to the solebar.

Component List

- | | |
|------------------------------------|--|
| 1 - Chassis top plate | 14 - Clasp brake crank overlays |
| 2 - Axleguard assembly | 15 - Brake lever reversing rod |
| 3 - Solebars | 16 - Brake lever reversing rod overlays |
| 4 - Solebar detailing overlays | 17 - Brake lever reversing rod safety loop |
| a – Standard wagons (vans, etc) | |
| b – Open wagons | 18 - Brake lever guards/brackets |
| 5 - Solebar detailing | 19 - Brake lever guard stays |
| 6 - Solebar/Headstock corner plate | 20 - Brake levers |
| 7 - Clasp brakes | 21 - Coupling pocket detail |
| 8 - Spring carriers | 22 - Shock absorbing wagon end bracing |
| 9 - Bearing washers | 23 - Open wagon door springs |
| 10 - Axle keeps | 24 - Shocopen wagon door springs |
| | 25 - Vacuum cylinder actuators |
| | 26 - Lamp irons |
| 11 - Brakegear linkage | 27 - LNER type lamp irons |
| 12 - Brake shaft crank overlays | 28 - BR swan neck vacuum pipe brackets |
| 13 - Brake yoke assembly | |

The areas shaded yellow in the parts diagrams are the jig for forming the safety loops. This should be removed from the fret when the appropriate time comes. This will be noted in the instructions. The areas shaded green in the parts diagram are the jig for drilling locating holes for the lamp irons. This will be covered at the appropriate point in the instructions.



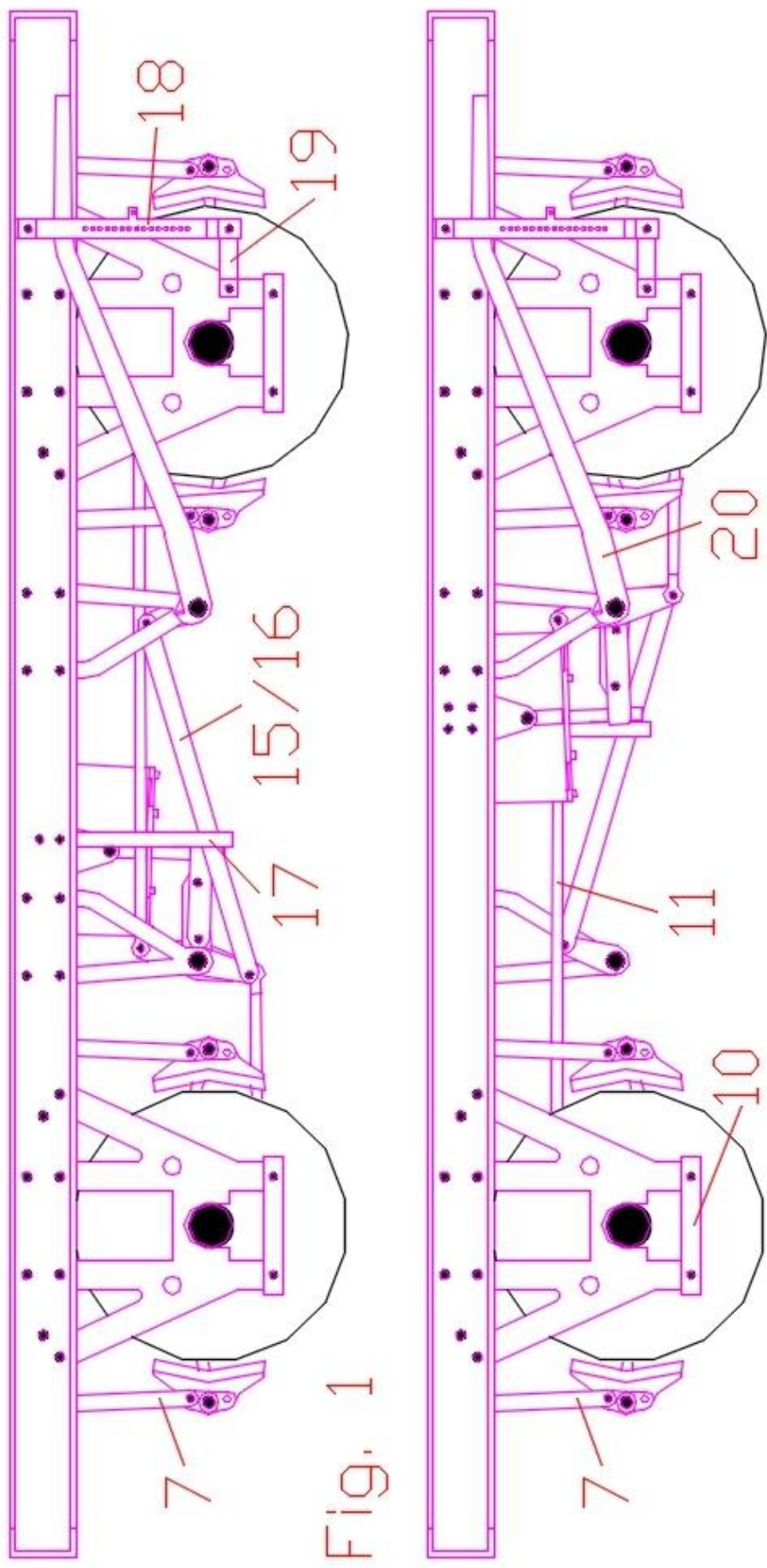


Fig. 1

Construction

Main Chassis

Start with the chassis top plate (1). Firstly check the fit of your buffers in their holes in the headstocks. It may sound a bit odd starting with something that usually goes on at the end but it will be much easier to open out the holes now rather than later. Push out the half etched rivets on the headstocks. I find the easiest way to do this is with a drop head rivet press with the fret placed over one of those ubiquitous green cutting mats. Remove from the fret.

The headstocks as supplied are full width, however not prototypes all were. Shock absorbing vans and opens had narrower headstocks at around 30.5mm. Now is a good time to make any adjustments necessary so that they are correct for the body the chassis is intended for. I used a piercing saw to do this.

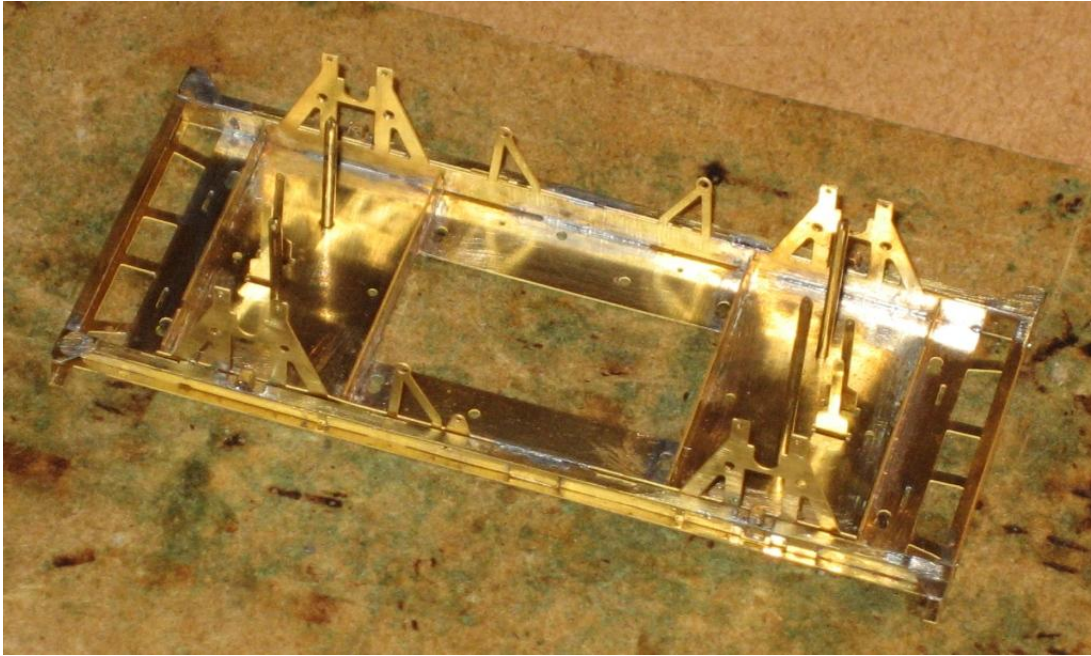
The headstocks need to be folded up. This is best done with the chassis top plate clamped to something or held in a vice to avoid distortion. There are two sets of fold lines as the headstocks need to be folded into a channel. Starting with the outermost part of the chassis top plate fold through 90°. You can reinforce this fold line if you wish but I haven't found need to do this. Next fold the headstocks through 90° to form a channel. Do not reinforce with solder yet.

Fold out the clasp brakegear hanger brackets through 90°. These will be adjusted later but need to be at this angle for the moment.

Check that the brake shaft holes in the in the vees on the axleguard assembly (2) will accept 0.8mm wire. Drill out the holes on the backs of the axleguards as per your prototype (they did vary) using a 0.85mm drill bit then remove from the fret. Remove the detailing from the middle of the axleguard assembly and clean up connecting tags.

Carefully fold up the sides and the four spring supports. Make sure that the sides are at 90° and adjust if necessary.

The chassis top plate and the axleguard assembly need to be solder together. Note that there is a correct way around for these. There is an asterisk on both the chassis top plate and axleguard assembly. These should coincide. There are 1mm diameter holes on both the top plate and axleguard assembly to aid location. Using short lengths of 1mm wire with the ends tapered slightly pin the two parts together. You may need to open out the holes slightly but make sure the wire is a tight fit. Solder the two parts together and then remove the locating pins.



Next remove the solebars (3) from the fret and fold into an L shape. I find the best way to do this is in a vice.

Remove the solebar detailing overlays (4a or 4b) from the fret depending on what type of wagon you are constructing the chassis for. Overlays 4b are for open wagons with door springs attached to the solebar and 4a are basically for everything else.

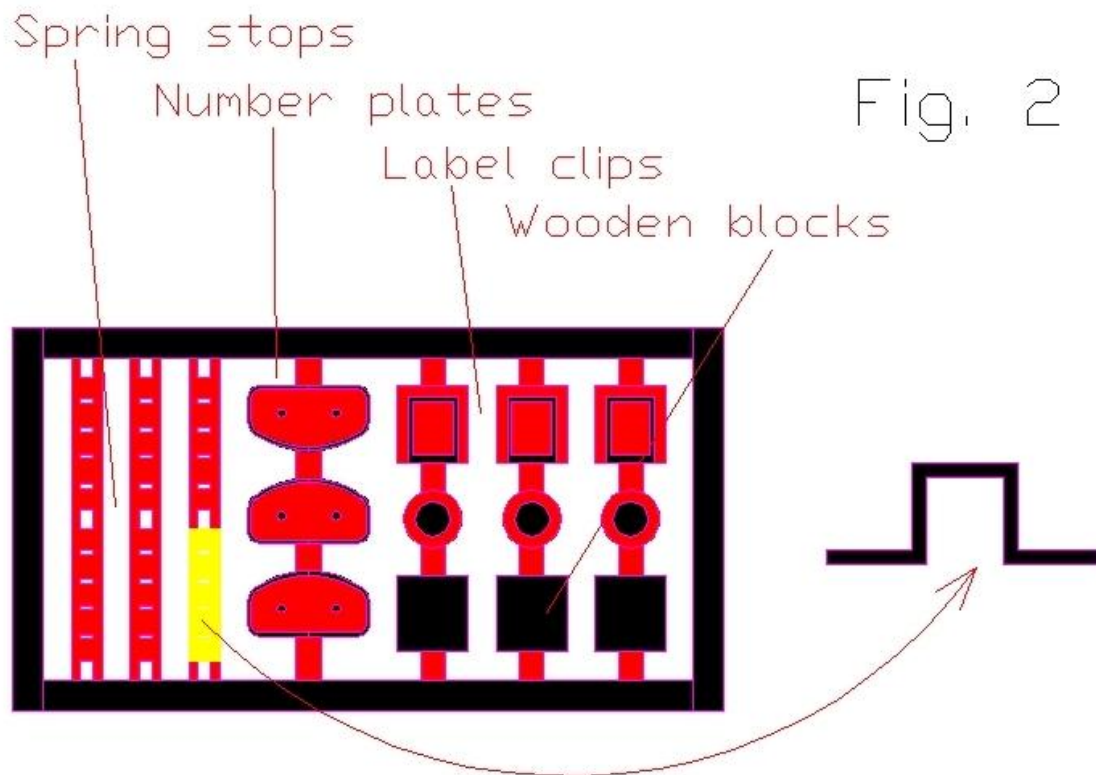
As a result of the etching process there should be a curve through them with the ends closer to you if looking at the rivet detail side. Carefully bend them so that the curve is reversed slightly and that the ends are further away when looking at the rivet detail. This can easily be done between thumb and forefinger but take care not to put any folds into it.

The solebar overlays are designed to fit into the slots in the solebars. The completed solebar then locates into the slots in the chassis top plate. Locate the solebar detailing overlay in the solebar and tack solder in place. Note that there is a right way up for all the overlays (if in doubt note that the notches for the brake lever guard should match those in the solebar).

Now is probably the easiest time to attach the solebar detailing to the solebars so I shall cover this now before returning to the business of assembling the chassis.

Solebar detailing

The solebar detailing (5) comes contained in its own little fret. See Fig.2. On it you will find fabricated axle spring stops, number plates, label clips, a rectangle that is actually a block of wood on the real thing and some small round dual depth plates. I have no idea what the purpose of the last two items is but the rectangular block of wood was quite common and the round plates could be found on shock absorbing vans where the springs were mounted in the centre of the wagon. The positions of all this stuff varied so check your prototype. The details can be soldered on or glued. If you wish to glue the detail on its best left until the chassis is assembled.

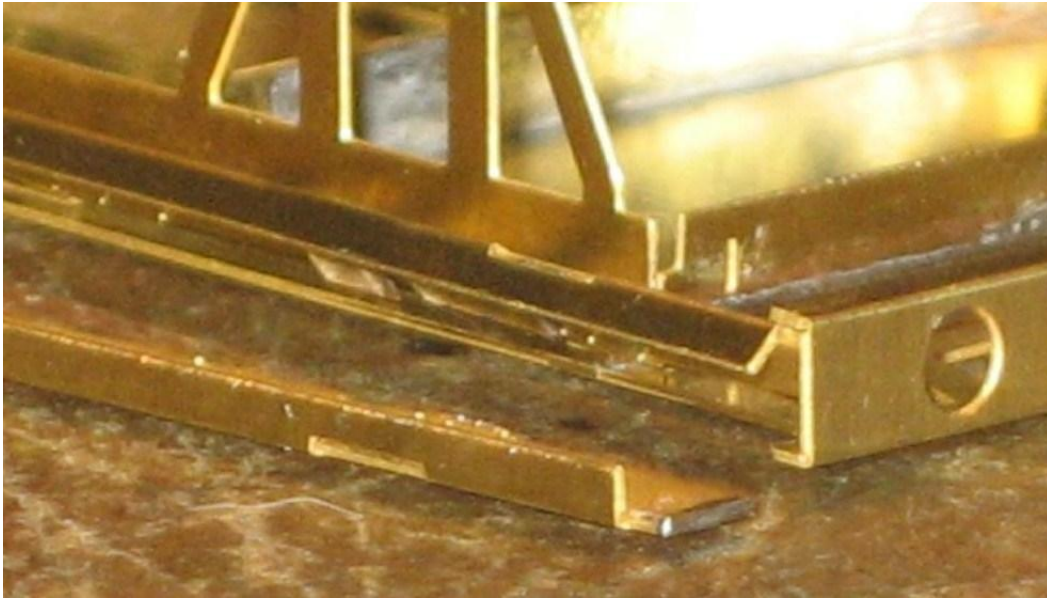


Main Chassis Continued...

The solebars can now be fitted to the chassis. Note there is a correct side for the solebars. There rivet detail should match up with the vees and the vacuum cylinder bracket. There are slots and tabs to aid location and the ends go into the channel that is the headstock. Fit the solebars at an angle and then straighten locating the slots and tabs at the same time. Once in place then the solebar can be soldered in place.

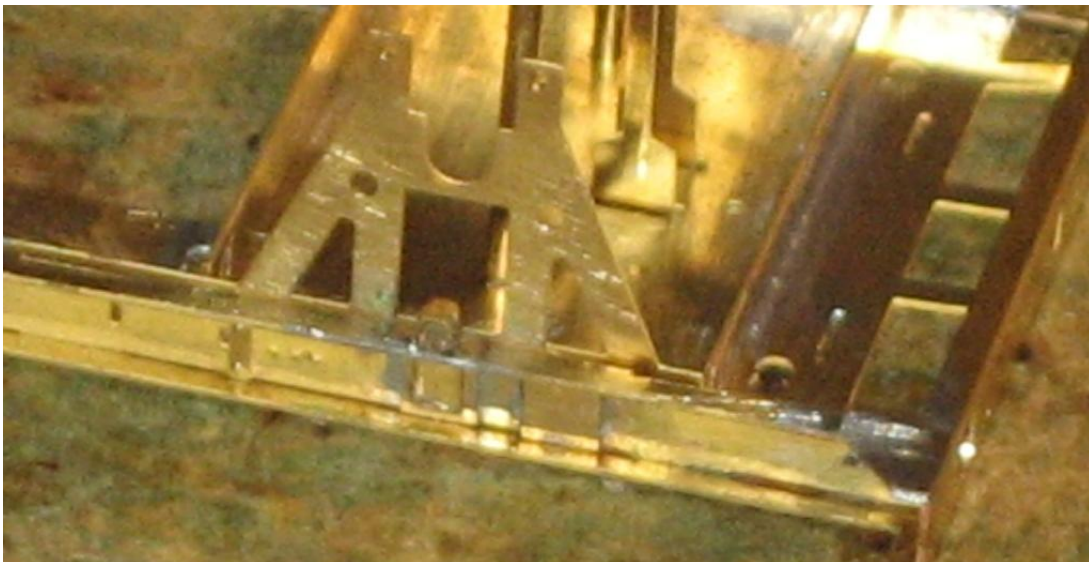
Add the Solebar/Headstock corner plates (6). These should be arranged so that the two straight sides go along the outer edge of the headstock and the inside of the Solebar. Note that there are two sizes. The narrower ones are for Shock absorbing wagons with the larger ones for everything else.

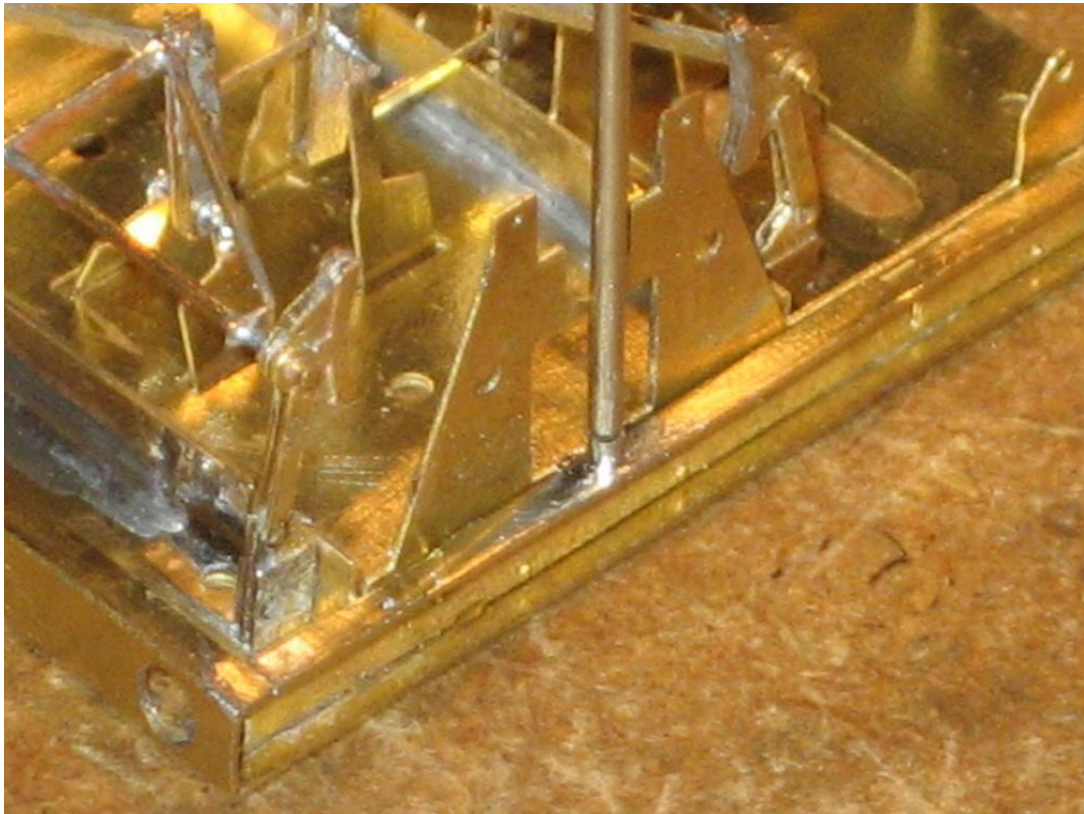
I have noticed a tendency for the top plate to lift in the centre after the solebars are fitted. There is a tab on the axleguard assembly beneath the vees that butts up against the top plate. If you solder this tab and the top plate together this will prevent the top plate from lifting.



Spring Stops

There are 6 fabricated spring stops on the solebar detailing (5) fret (see Fig.2) which can be folded up and then soldered in place. I find a small pair of self closing tweezers good for this. Some wagons had round pattern spring stops. I have used 1mm wire for these. I cut almost all the way through the wire with a piercing saw and then solder in place. The cut can then be completed without the joint breaking.





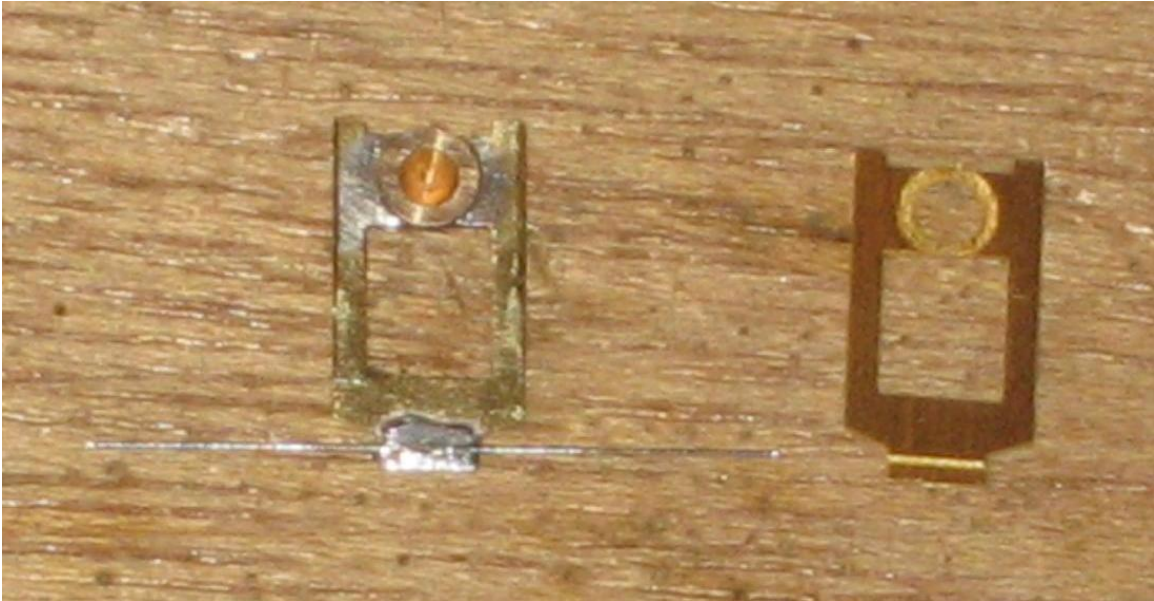
Spring Carriers

The spring carriers (8) can now be assembled. They are designed so that the springing wire is soldered to the carrier using the half etched slot as a guide.

The distance between the backs of the axleguards is 24.5mm. This measurement is wide enough that if you are using pin point axles you shouldn't have to hunt around for bearings that are deep enough but you may find that the carriers need packing out a little to take up any slop. Bearing washers (9) are included for this purpose. There should be a good fit between the axles and the bearings with ideally no sideways movement at all. If using pinpoint axles use a waisted type of bearing to avoid having to remove any more material from the cast axleboxes than is necessary. I have used Exactoscale waisted pin point bearings which are just about perfect for the job with only occasional ones that require packing out.

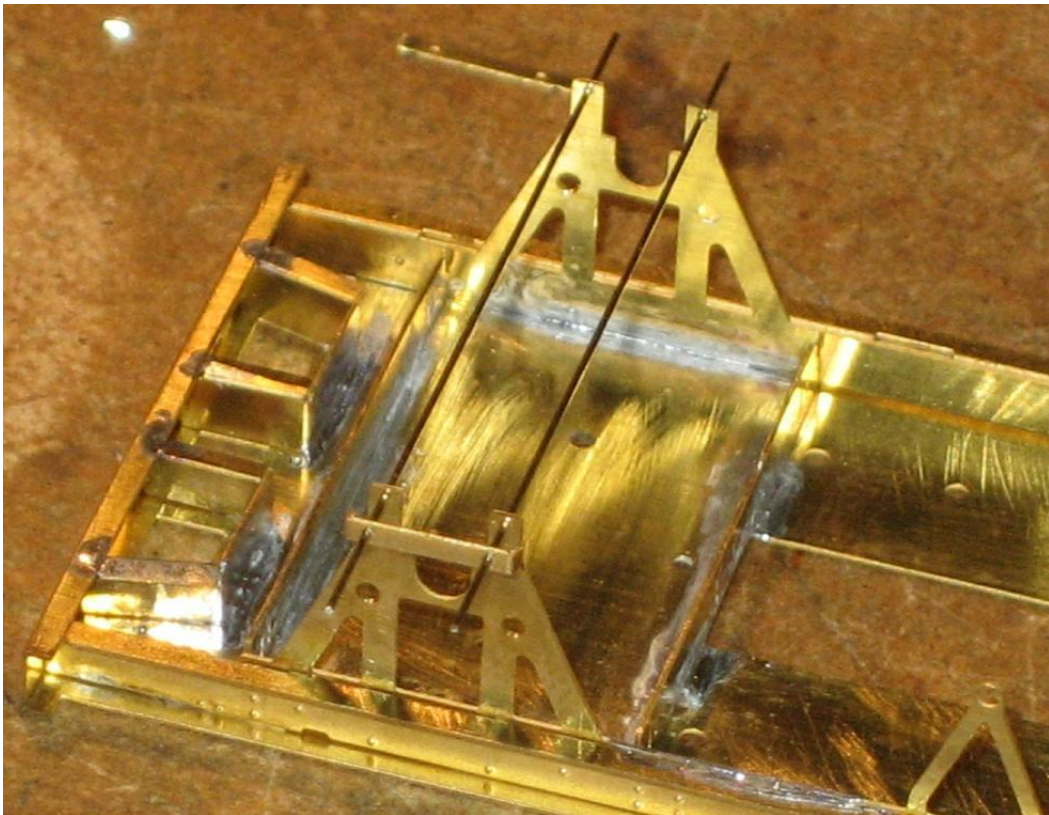
Due to the removable nature of the axle guards you can easily use Exactoscale parallel axles and bearings if you wish. If doing so then you will need to pack the bearings out on the back of the spring carriers before soldering them in place due to the length of the axle. Use the bearing washers provided.

I find the easiest way to assemble the spring carriers is to make a small jig consisting of an off cut of wood with a 2mm hole drilled into it. The spring carrier can then be placed so the half etched guide slot for the spring is facing towards you and the bearing locates through the hole in the carrier and the wood. The bearing can then be soldered in place. The spring wire can then be located in its half etched guide slot and soldered in place using a suitable flux. I use Carr's black label. The spring wire needs to extend at least 7mm either side of the point where it is attached to the carrier.



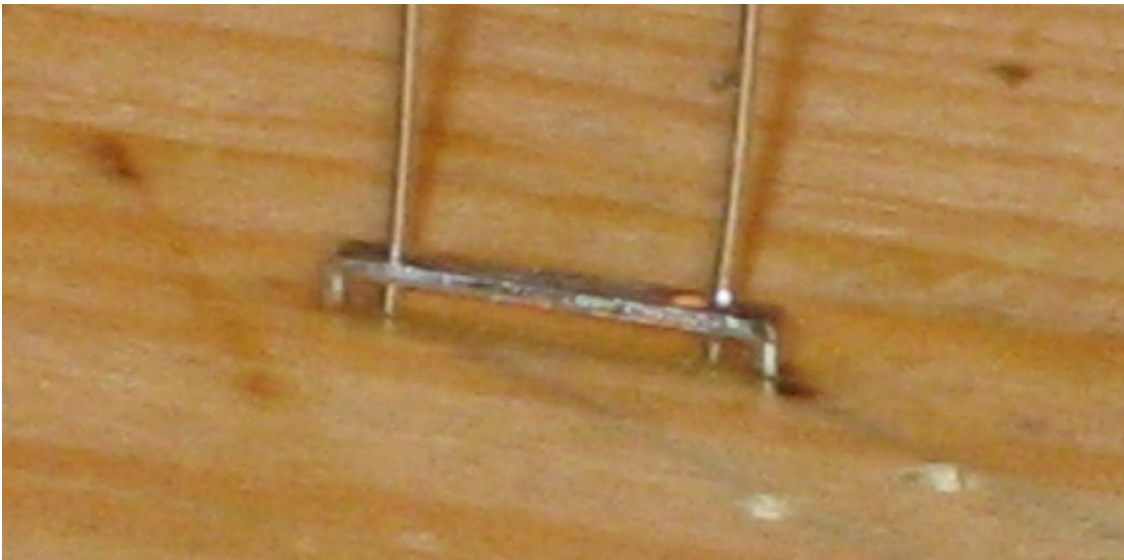
Axle guard keeps

The axleguard keeps (10) are designed to be removable if you wish in order to allow the wheel sets to be easily dropped out. They can be soldered permanently in place but either way you will need to make sure the holes will accept 0.31mm wire before removing them from the fret.

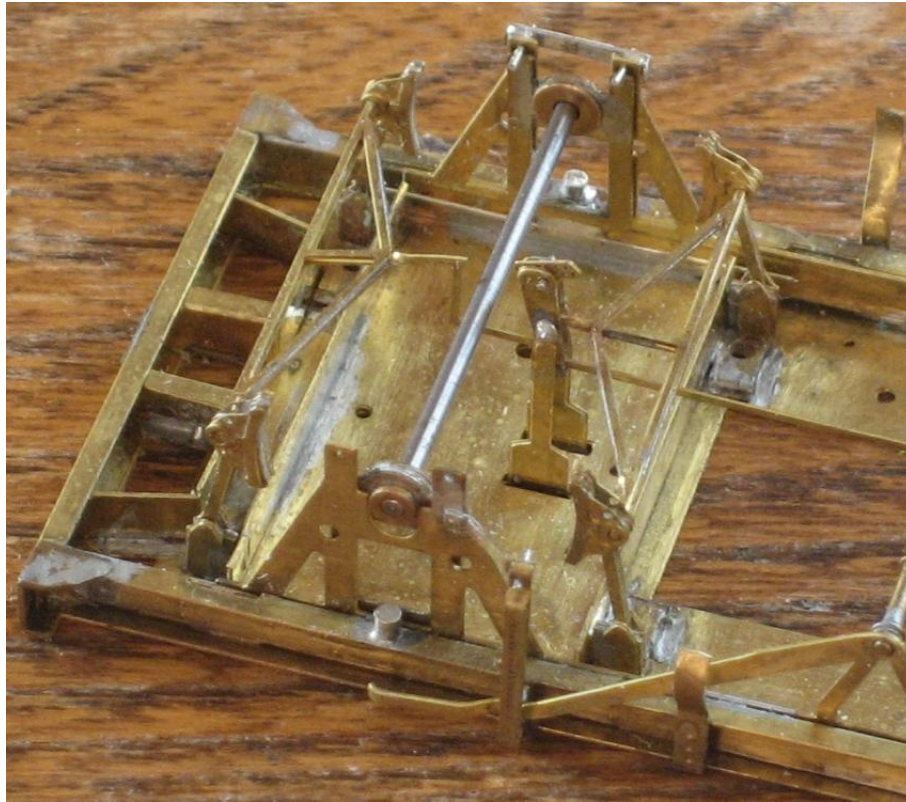


If you are not planning on making them removable then they can be pinned and soldered to the axleguard. Remove from the fret and fold the ends up. Thread lengths of 0.31mm wire through the axleguard keep and the holes in the axleguard, then through the corresponding holes on the opposite axleguard. Solder in place. Fit the other axleguard keep and solder in place. Trim the wire so that it represents bolt heads on the front of the axleguard keeps but extends approximately 0.5mm from the back of the axleguards. These pins will prevent the springs from becoming disengaged from their slots.

If you want to make them removable to allow the axles to be dropped out then you will need to solder 0.31mm wire 'pins' through the holes in the axleguard keeps. I find the easiest way of doing this is to use one pair of holes as a jig and drill a pair of 0.3mm holes into a piece of scrap wood. Short lengths of 0.31mm wire can then be threaded through the axleguard keeps locating into the holes in the wood. These can then be soldered in place and filled back to represent bolt heads before folding up the ends. I found it easiest to fold the ends in this order and then quickly reinforce the fold lines with solder before removing the axle guard completely. You will need to make sure there is at least 0.75mm of wire projecting from the back of the axleguards otherwise the spring carriers will be able to fall out of place when everything is assembled. It is also a good idea to leave at least one of the pins in the axleguard keeps as long as possible to give you somewhere to hold them when painting. Once the axleguard keeps and the chassis are painted they can be tack glued together on final assembly. The glued joint can be broken and the keeps removed if you find it necessary to remove the wheels at any point.



The following photo should make the general arrangement of the spring carriers and keeps clear.



Brake Shoes

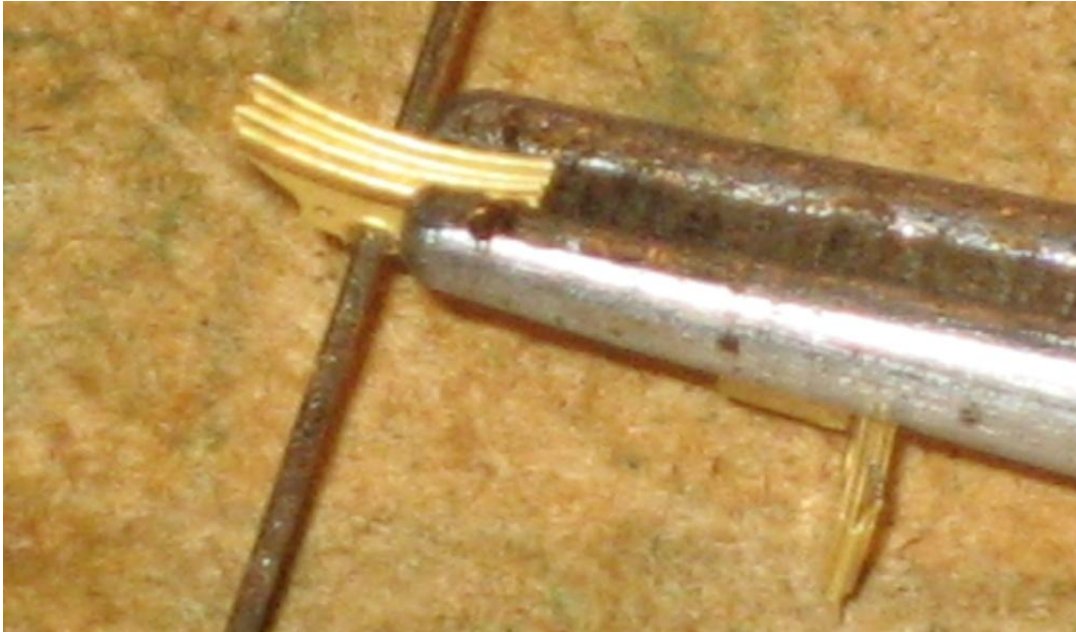
The clasp brakes (7) are designed to be folded up as one piece, soldered together and then tidied up afterwards. If you wish press out the half etched rivets at the top of the brake shoe. I use a drop head rivet press for this with the parts held on one of those ubiquitous green cutting mats. Remove from the fret and fold up as follows:

There are four parts to the actual brake shoes: Two outer detail parts and two inner shoes. The inner shoe parts needs to be folded through 180° with the fold line on the outside.

The remaining fold lines are through 90° except for the one between the two plates with the holes in which is through 180° with the fold line on the outside.



The four parts of the brake shoes need to be aligned and soldered in place. I do this by putting a 0.5mm drill bit or a suitably sized tapered reamer through the holes for the yokes and clamp the four etched layers together using a pair of self closing tweezers. If you hold the drill in one hand you can rest the base of the tweezers on the workbench leaving one hand free for the soldering iron. It's easier than it sounds, see attached photo. Solder together. You can now clean up the clasp brake assembly and the shoes in particular.

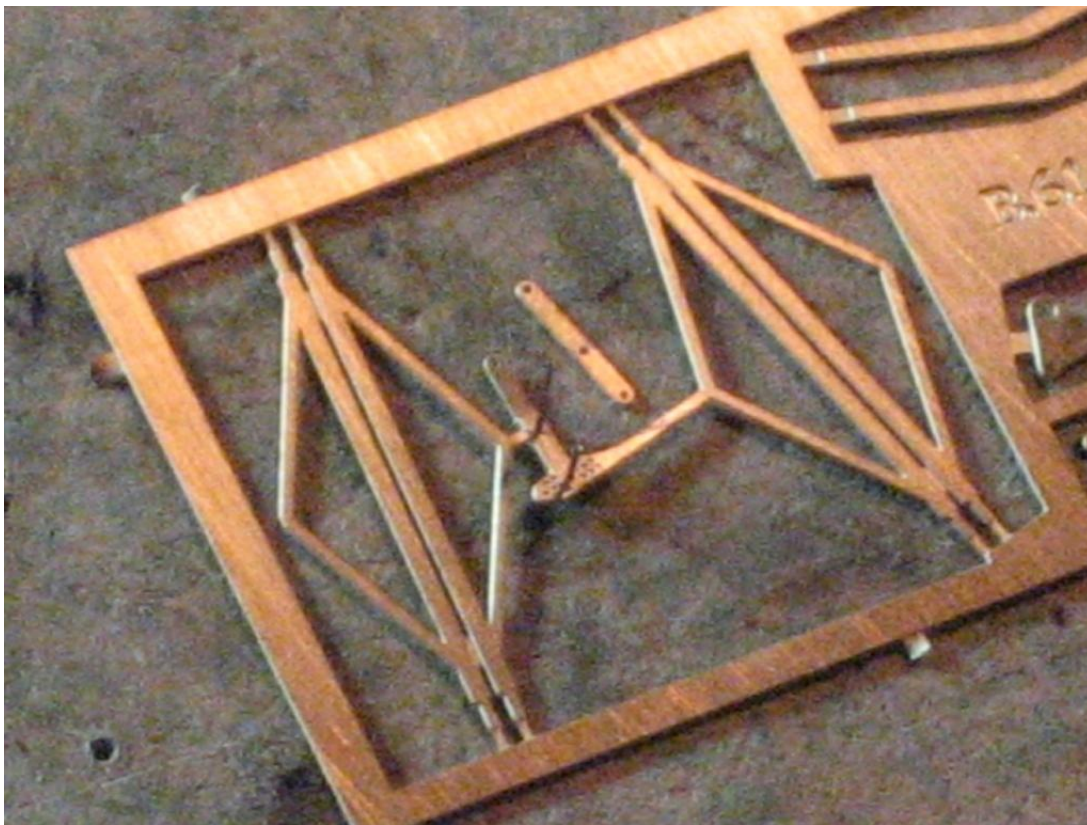


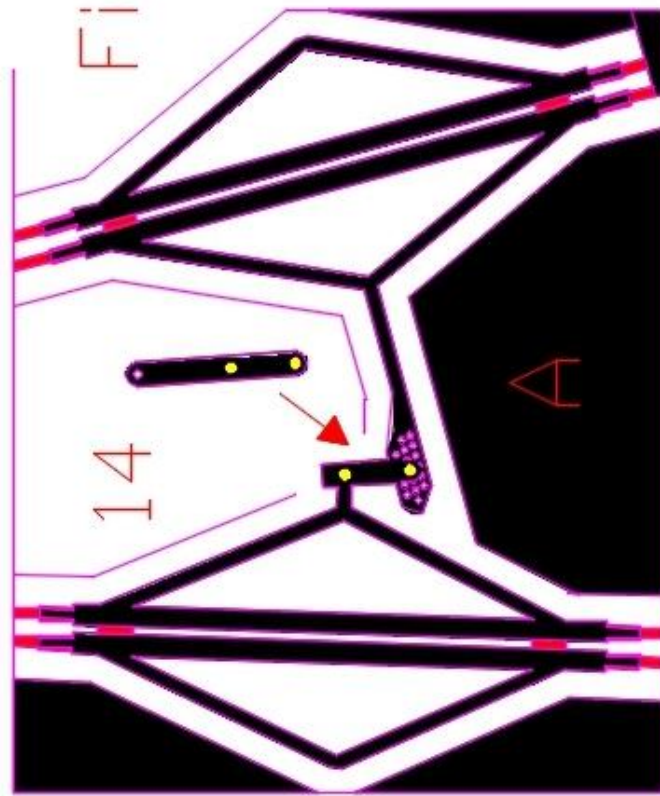
Do not fix to the chassis yet. Put to one side and continue with the rest of the brakegear for the moment.

Yokes

The brakegear needs to be tackled next. We'll start with the brake yoke assemblies (13). There are two of these as you might expect. Note that they are labelled, one A and the other B. Keep a note of which one is which. Make sure that the holes that are marked in yellow in Fig. 3 below and also the holes in the clasp brake crank overlays (14) can accept 0.31mm wire. Remove from the fret. The overlays need to be soldered in place on the yoke assemblies. See the photograph below and also Fig. 3 again. I found the easiest way to do this was to use a yoke assembly to drill 0.3mm holes into a piece of wood and then use 0.31mm wire to pin everything together. Leave approximately 4mm of wire either side of the outside of the overlays on the hole next to the shorter of the yokes and trim the other one to represent a bolt.. There should be two overlays for each of the brake yokes.

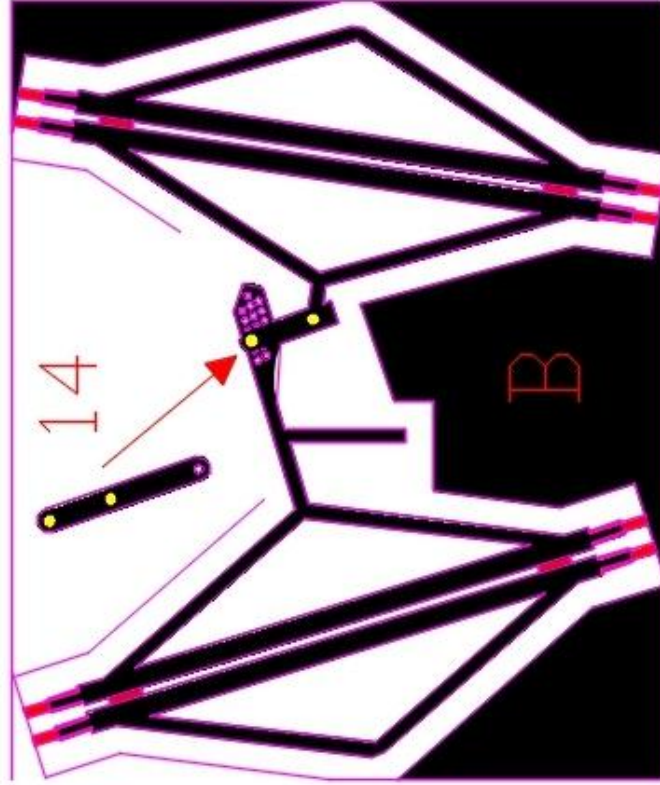
Once the overlays are soldered in place the yokes can be folded double and soldered together. You will need to fettle the ends of the yolks to fit the holes in the brake shoes. A little work with a file should suffice and the holes can always be opened out a little if necessary. It is much easier to make sure all is well now rather than when the clasp brakes are attached to the chassis.





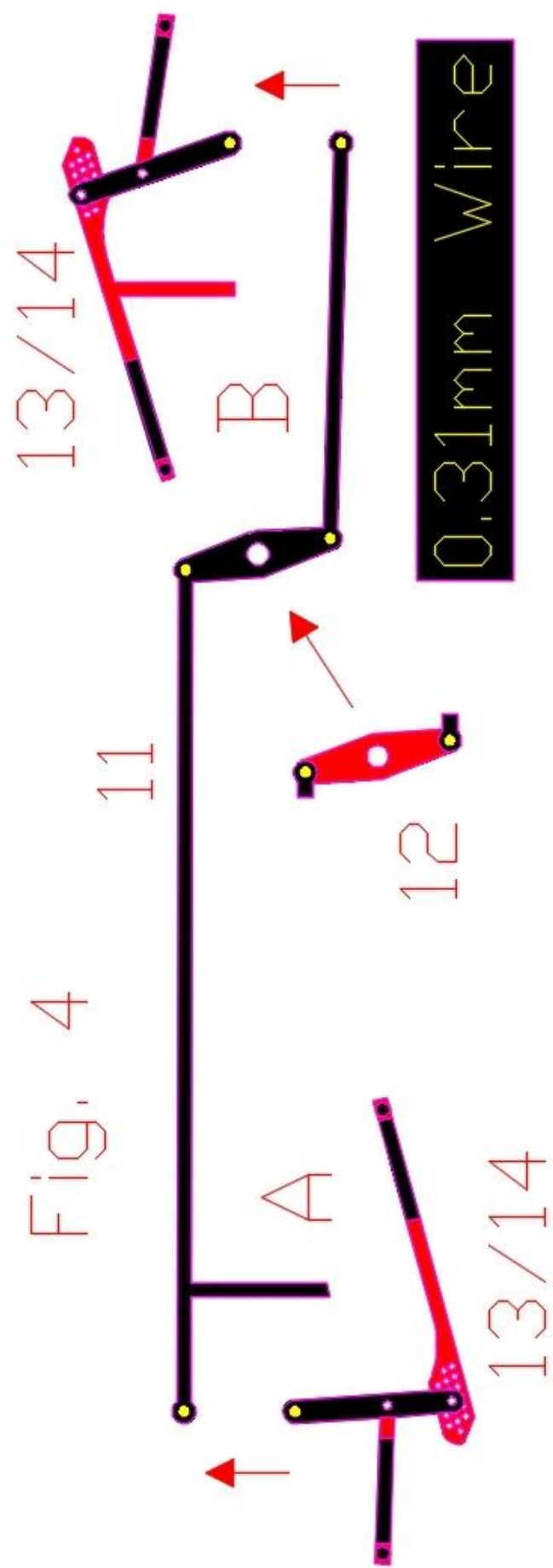
13

Fig. 3



13

0.31mm Wire



Brakegear links

Next attention can turn to the brakegear linkage. Note that the brakegear link is marked A and B at either end. Make sure that you know which end is which as this will ensure the correct end is fitted to the correct yoke assembly. Make sure that the holes in the brakegear linkage (11) and brake shaft crank overlays (12) which are marked in yellow on Fig. 4 can accept 0.31, wire and remove from the fret. As with the overlays on the yoke assemblies use lengths of 0.31mm to pin the brake shaft crank overlays to the brakegear linkage and solder together. Trim the wire to represent bolts. The large hole in the centre for the main brake shaft can now be opened out to accept 0.8mm wire.



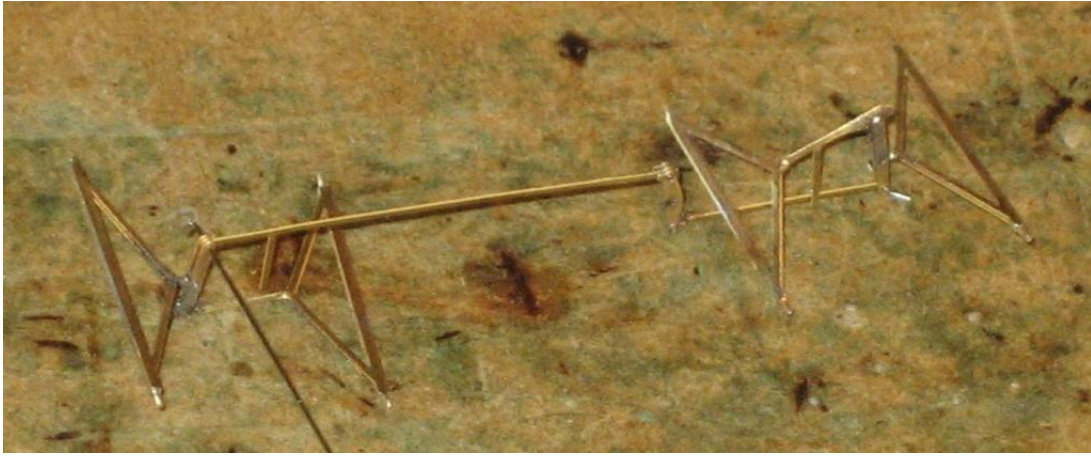
Assembling the Brakegear

You will now have three sub-assemblies that need to be fitted together.

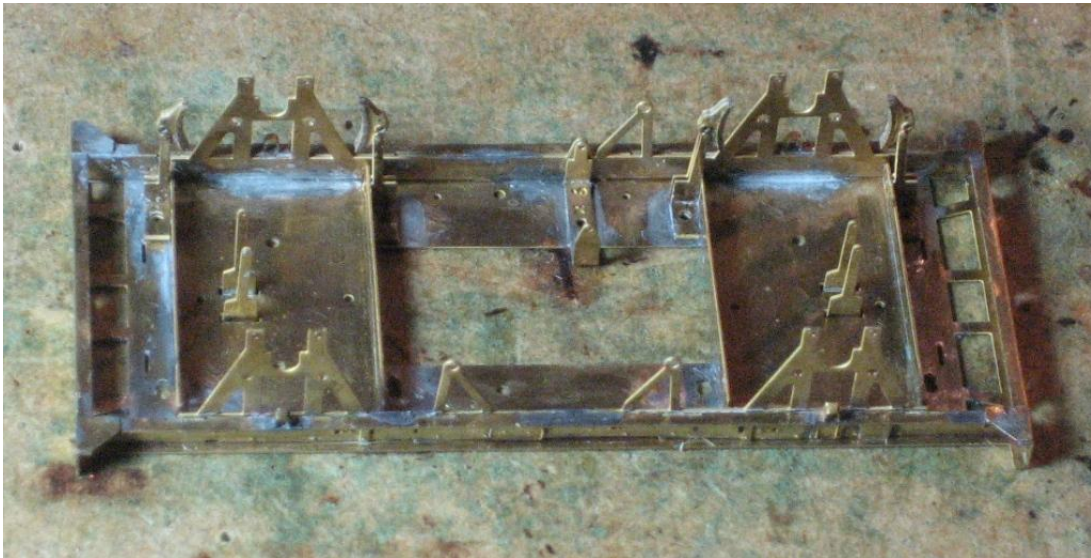
Carefully twist the yolks through 90°s as shown in the photo below.

Use lengths of 0.31mm wire to pin the yoke assemblies to the brakegear linkage. The ends of the brakegear linkage go in between the clasp brake crank overlays. See the photo below and Fig. 4 above. This is where remembering your As and Bs is useful as end A on the brakegear linkage goes with yoke assembly A.

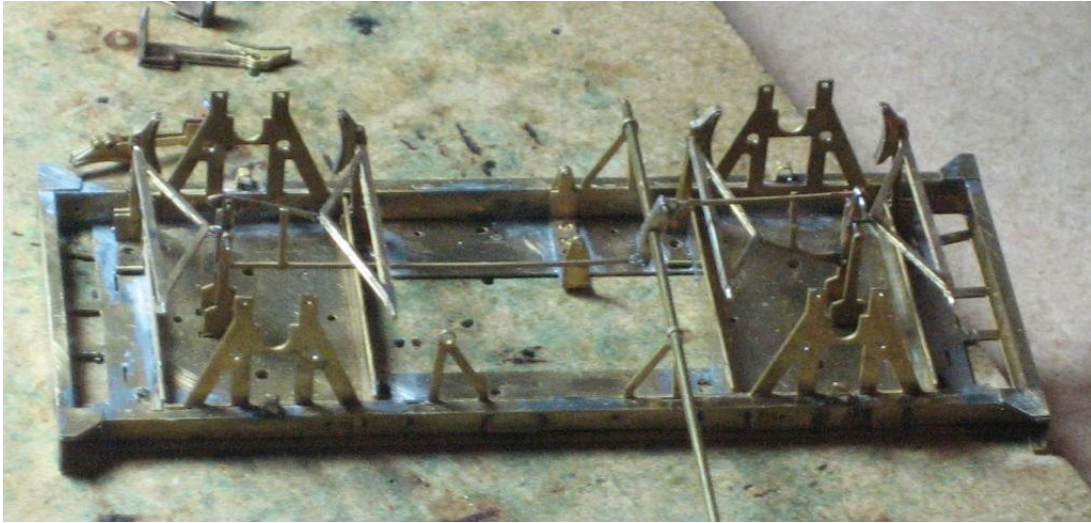
Don't solder the wire in place rather bend it either side of the clasp brake crank overlays so that the parts can't become disengaged. Trim the lengths of wire so that they only extend a couple of millimetres. They can be soldered in place and tidied up once everything is in place.



Next attach the clasp brakes to one side of the chassis. There are tabs on the clasp brakes that locate into slots in the axleguard assembly (2). There are two different sets of slots depending on which gauge you are building to. The outer ones are for EM/P4 and the inner ones for OO. The clasp brakes can now be soldered in place on the chassis but only do one side of the wagon at the moment. Make sure that the clasp brakes are hard up against the axleguard assembly. The holes can also be used to help pin the clasp brakes to the chassis top plate when soldering.



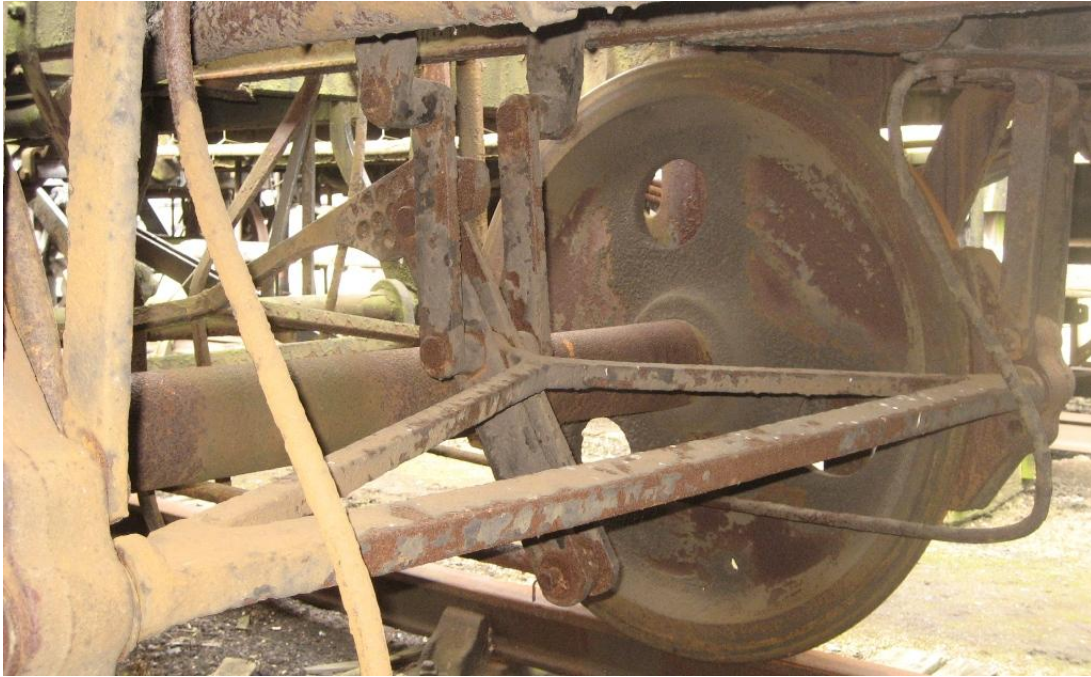
Take the brakegear assembly and attach it to the chassis so that the yolks go through the holes in the brake shoes and the protruding pins in the brakegear linkage engage with the holes in the clasp brake hangers attached to the chassis top plate. See photos below. Note that there is a correct way around so that the brake shaft crank lines up with the vees for the main brake shaft. Solder in place and trim any excess wire.



Add the remaining clasp brakes to the other side and solder in place.

Once everything is soldered together you can cut slots in the brakegear links for the axles to pass through. Fit the wheels and spring carriers and check the fit of the brake shoes. These can then be adjusted if required.

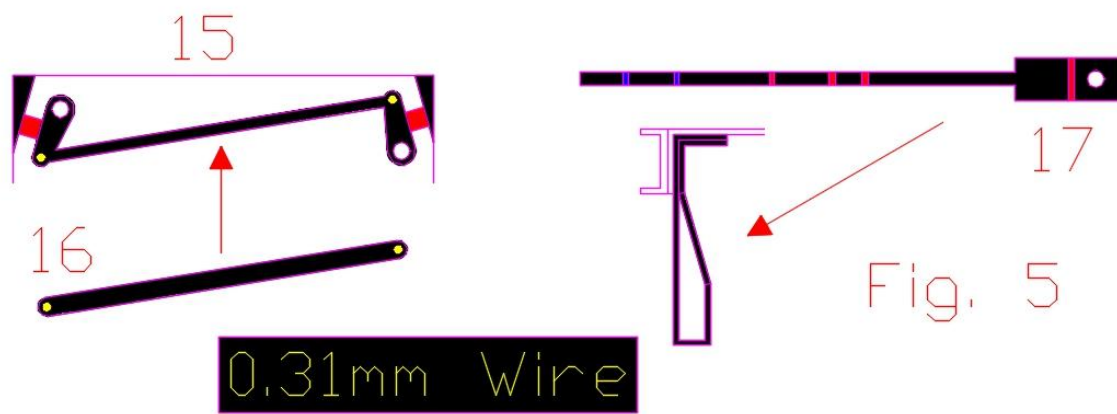




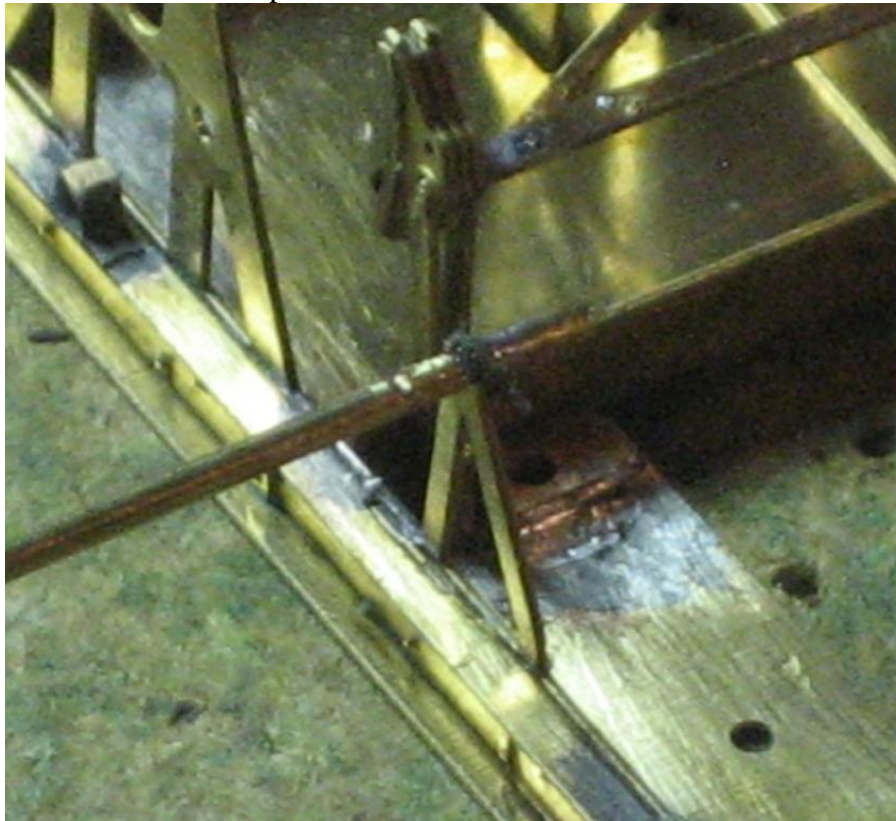
Brake lever Reversing Rod

The brake lever reversing rod needs to be assembled next. Make sure that the smaller of the holes in the brake lever reversing rod (15) and the holes in the brake lever reversing rod overlays (16) can accept 0.31mm wire. See Fig. 5 below. These need to be pinned together in a similar manner to the yoke assemblies and brakegear linkage. There should be an overlay either side of the reversing rod. Solder together and trim the 0.31mm wire to represent bolts.





A short length of 0.8mm wire needs to be soldered to the single brake vee. I used a long length and soldered it so that it extended 3/4mm from the inside of the vee and then trimmed the wire on the outside using a piercing saw so that it extended about 1mm from the outside of the vee. See the photo below.



The assembled brake lever reversing rod can now be fitted behind the vees. Note there is a correct orientation for it. See Fig.1. This can be carefully soldered in place to the short shaft on the single vee.

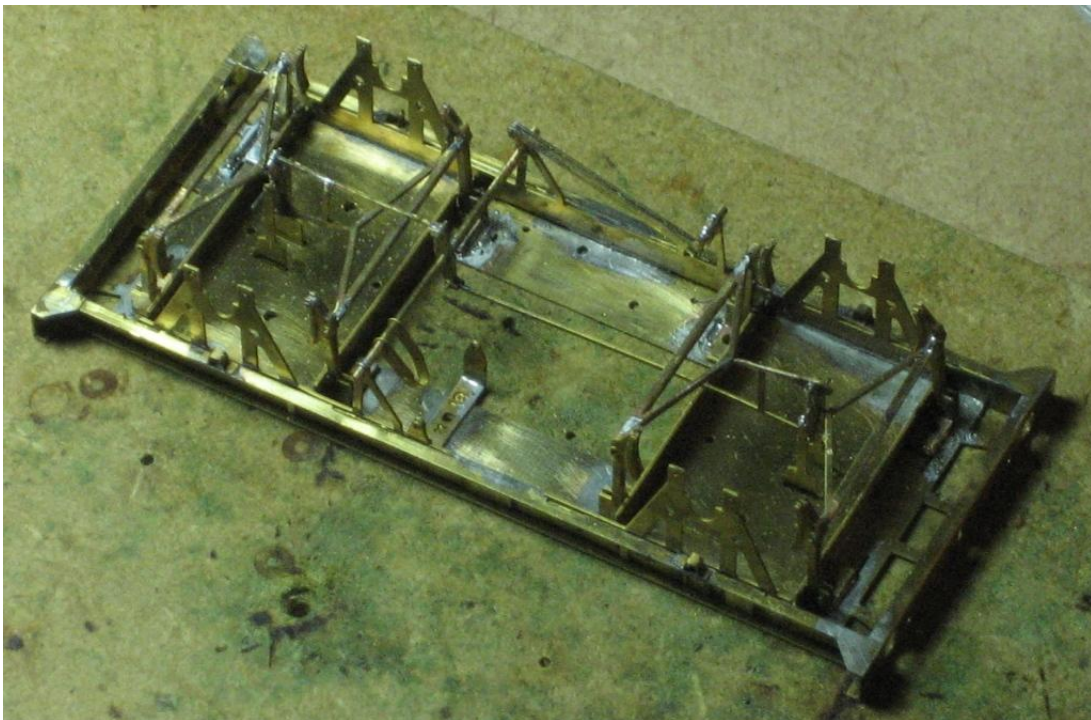
Now is as good a time as any to fit the main brake shaft.

Cut a length of 0.8mm wire to form the main brake shaft. This should extend approximately 0.75/1mm either side of the brake shaft vees.

Check that the vacuum cylinder actuators (25) can accept 0.8mm wire. The actuators need to have their half etched rivets pressed out and then folded over. They are designed for the ends to wrap around a 0.6mm piece of wire extending from the vacuum cylinder. These can be fitted along with the brake shaft (0.8mm wire) through the vees making sure that the brake lever reversing rod is in place as well. Solder the brake shaft in place and trim the ends if necessary but leave soldering of the actuator until the vacuum cylinder is in place.



The vacuum cylinder can be added now or later and then the two halves of the vacuum cylinder actuator soldered together and to the brake shaft.



Shock absorbing wagon end bracing

Now that all the brake shoes are in place you can add the end bracing (22) if building a shock absorbing wagon. These should be folded up to follow the profile of the chassis at the ends and the tops folded over to represent the channel section used on the real thing. This was only found on the main longitudinal beams with the angled pieces being L section. Note that they are handed depending on which side they are for. Locate in the chassis using the tabs and slots to aid alignment and solder in place.



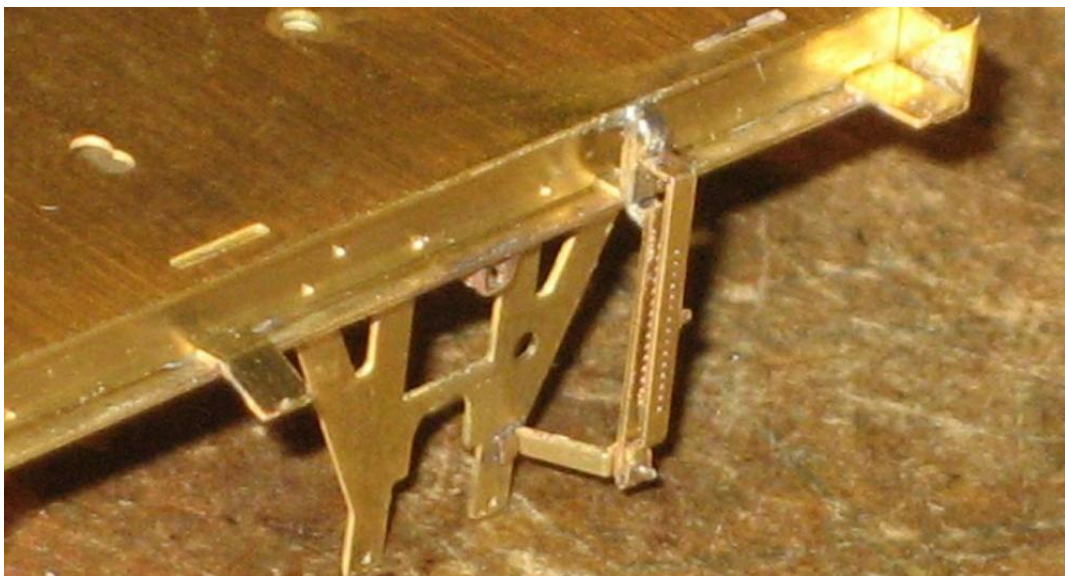
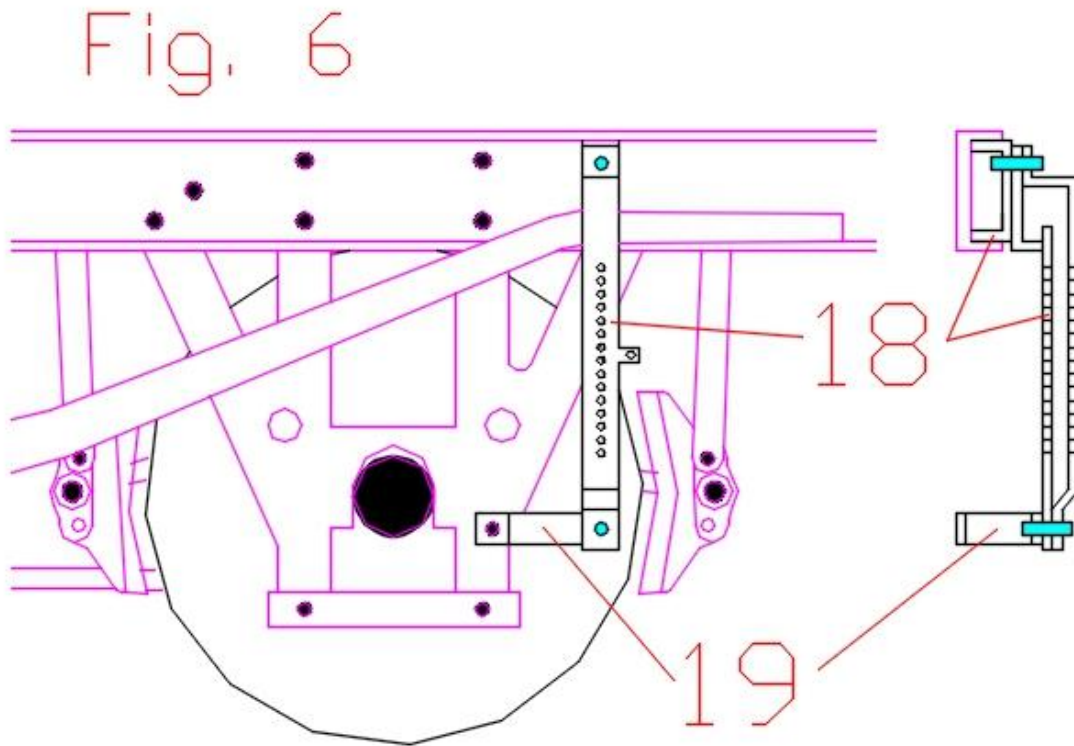
Headstock detailing

Now is as good a time as any to fit the coupling pocket detail (21). There are three different types. There is a riveted overlay, a welded overlay and a taller welded overlay. The last item is specifically for use with 13T all steel opens. Check your prototype. The vast majority should have the welded type. Solder in place using the hole for the coupling as a guide. I find the easiest way of doing this is to shape the end of a cocktail stick to fit in the slot. This can be used to align the detail on the headstock and hold it in place while you solder them together.



Brake Lever Guards

Make sure that the holes in the brake lever guard/bracket (18) and the lever guard stay (19) can accept 0.31mm wire and remove from the fret. Separate the lever guard from the lever guard bracket. Fold the lever guard along with the lever guard bracket referring to Fig. 6. Solder the lever guard and bracket together using 0.31mm wire to align them. Trim the wire on both the front and back to represent a bolt. The whole assembly can then be located in the solebar and soldered in place. There are slots in the solebar to receive the lever guard brackets. Press out the half etched rivet on the brake lever guard stays and fold both ends through about 30°. The stay can then be pinned to the bottom of the lever guard using 0.31mm wire and then soldered to both the lever guard and the axleguard and any excess wire trimmed off.



Axleboxes and springs

Now is a good time to fit the cast axle boxes and springs. It will make life easier when bending up the brake levers as they should be bent, like the prototype, to clear the axleboxes and springs. The back of the axleboxes will of course need slotting to allow the wheel bearings to move with the springs and drop out if making them removable.

Brake Levers

Make sure the holes in the brake levers (20) and cams can accept 0.8mm wire. The levers and cams can then be removed from the fret but note that the small connecting tab between the lever and cam should be left intact. Once removed from the fret the connecting tab between the cam and the brake lever can be folded through 180° with the fold line on the outside.

The brake levers then need to be bent up as per the prototype clearing the axleboxes and then cranked for the handle. Check on the model and adjust until you are happy with the shape. Once you are happy the brake levers can be soldered in place.



Safety loops

Formers are included on the fret for making safety loops from 0.31mm wire. These are marked in yellow on the parts diagram. Once formed they can be soldered to the chassis. They follow the prototype which covered two yokes and will need a small amount removing from the centre to allow the axles to be removed.



BR swan neck vacuum pipe brackets

There are two BR swan neck vacuum pipe brackets (28) included. These are quite distinctive and come in two parts. There is a bracket which attaches to the solebar and a round head that has 'tails' that fold up. Press out the rivets on the bracket and remove from the fret. Twist the base of the bracket through 90° so that the interface with the head faces away from the rivets. This bracket can then be soldered to the back of the head (the side with no half etched areas). It is easiest to do this while the head is still attached to the fret. There is a small slot to help provide a positive location. Once soldered in place the assembly can be removed from the fret and the 'tails' on the head folded out. If you're brave these fold lines can be reinforced by the use of a very small quantity of solder and a very quick soldering iron. Some step soldering might be a good idea but I haven't encountered many issues with just using 145° solder. These can then be soldered in place on the headstock.



Door Springs

There are two types:

Open wagon door springs (23) are designed to locate into the solebar. There are slots in the solebar and solebar detailing overlays which facilitate this. Push out the half etched rivets and remove from the fret. Fold up noting that the fold nearest the rivet detail should be made through 180° with the half etched line on the outside. Bend to shape and solder into position.



Shocopen wagon door springs (24) are designed to fix behind the solebar for shock absorbing opens. There are locating points on the chassis but note that the springs should coincide with the bang plates on doors. Fold the ends, bend to shape and align appropriately.

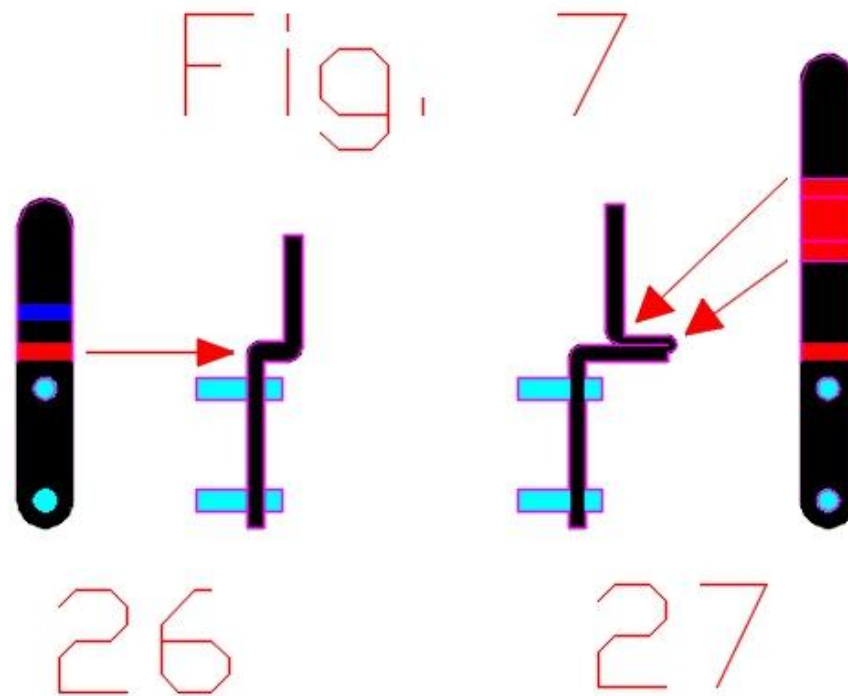
Lamp Irons

There are two types of lamp irons included. There is a standard type (26) and an LNER type (27). These are included for fitting to either the wagon body or the headstock if required. Check your prototype. The method of fitting is the same there is just an extra fold in the LNER type. See Fig.7 below.

For each type there are two pairs included, one with half etched holes for pressing out the bolt heads and one with the bolt holes etched out completely. I dislike relying on glued joints for these sorts of things on plastic bodies and so have included these for use with 0.31mm wire pins to provide a more positive location. I have also included a drilling jig which has the correct spacing for drilling holes in plastic bodies. This is the part shaded green in the parts diagram. Use a 0.3mm drill.

If you wish to use the half etched bolt type then press out the rivets whilst still in the fret and then remove and fold up and fix in place.

If using the pinned type then check that the holes will accept 0.31mm wire and remove from the fret and fold up. Two short lengths of 0.31mm wire can be soldered in the holes and then the lamp iron glued in place on the body having drilled receiving holes for them. Alternatively simply glue the wire and lamp iron in place at the same time without the solder.



Painting

One of the advantages of having the chassis as a complete unit with solebars and headstocks is that you can paint it separately from the body and then glue the two together afterwards. If using an airbrush or aerosol this means you can prime it and then paint it all black with no masking at all which makes life a little easier.

I now use Halfords grey primer in a tin through an airbrush with cellulose thinners to prime just about everything, including plastic bodies. The primer is synthetic and has no adverse effects on the types of plastics used on RTR railway models and kits. The cellulose thinners used evaporate so quickly that they don't have time to attack the plastic. You can then put your choice of paint over the top including cellulose. Don't use the red oxide in a tin on plastic though as it won't adhere and the paint will just come off.

Notes on wagon bodies and weighting

Some modifications may be necessary to the body to get it to fit the chassis. Principally this will revolve around removing the plastic headstocks from the ends of the kits. In some cases this will present no problems as a lot of BR built stock had a clear distinction between underframe and body with no stanchions extending from the body onto the headstock. Where there were such items though a little work will be needed to remove the headstocks and then thin down the backs of the stanchions to a near prototypical thickness. Careful use of a piercing saw and file will do the job.

The suspension on the underframe is designed to work optimally under a 50g load. As there is limited space on the underframe due to all that brakegear the best place for it is in the wagon body. This is easy enough if the wagon is a van but if it's an open wagon then some work may be needed.

I make a new floor for open wagons and minerals and recess it from the bottom so that there is room for a piece of lead flashing to go between the new floor and the underframe. This does reduce the depth of the wagon but it isn't too noticeable on most types and saves trying to work around the brakegear. Unloaded Conflats and Lowfits are another matter. The only solution would be to try and get as much weight as possible into the underframe.

Finally

Thanks must go to the staff of The Great Western Society at Didcot for letting me measure up and photograph at close quarters some of the wagons in their care which have greatly helped in the preparation of these kits.

Last but certainly not least if you haven't come across the wonderful resource for BR wagon photos that is Paul Bartlett's website then I would thoroughly recommend a visit to:
<http://paulbartlett.zenfolio.com/>

Justin Newitt - Updated January 2017

Suppliers List

Eileen's Emporium (brass wire)
Unit 19.12 Highnam Business Centre
Newent Road
Gloucester
GL2 8DN
UK
www.eileensemposium.com

Lanarkshire Models and Supplies
(buffers and vacuum pipes)
9 Nairn Avenue
Blantyre
G72 9NF
www.lanarkshiremodels.com

C&L Finescale (Exactoscale wheels,
bearings and couplings)
Aran Lodge
Severn Road
Hallen
Bristol
BS10 7RZ
<http://www.finescale.org.uk>

Masokits (Screw couplings)
Michael Clark
c/o 27 Crotch Crescent
New Marston
Oxford
OX3 0JL
www.scalefour.org/masokits

MJT (buffer heads)
Dart Castings
17 Hurst Close
Staplehurst
Tonbridge
Kent

TN12 0BX
www.dartcastings.co.uk

Wizard Models (buffer heads)
PO Box 70
Barton upon Humber
DN18 5XY
www.wizardmodels.co.uk