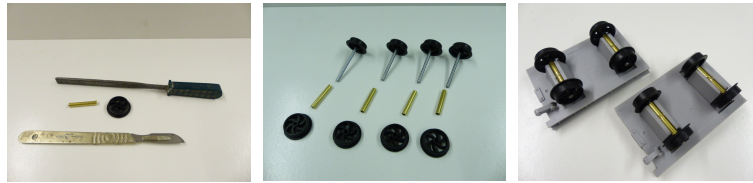


1.

File off the moulding pips from the wheel flanges. File the ends of the tube smooth and de-bur. Assemble the wheel sets with a drop of car engine oil on the axles. Glue the wheel sets into place.



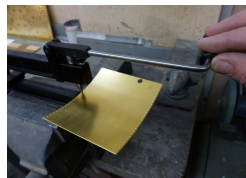
2.

Trim off the flash found on the 'W' iron and brake castings. Glue one 'W' iron per side, making sure they line up with the rivets on the side frame, and they overhang the side frame 1mm or so.



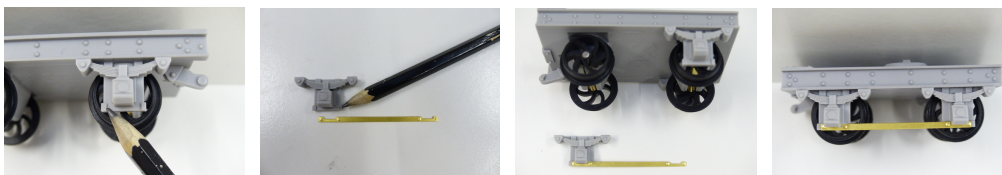
2a.

There are a number of half etched dots on each sheet brass parts. These are rivet marks and will need to be punched or pressed out with a rivet press, or other. The picture below is of our Midland Railway Centre rivet press being used on a Tin Turtle roof. This press is available from ([www.midrailcentre.com](http://www.midrailcentre.com))



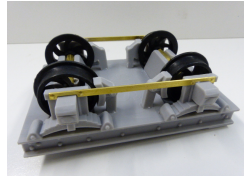
3.

Trim down the piece of casting being pointed to with the tip of the pencil in the first picture. It is only the 'inboard' casting that needs to be trimmed. On the opposite 'W' iron to be fitted, trim off the same part so you have a handed pair. Cut out a bogie bar from the etch, press the rivets and glue it to the 'W' iron that is not yet glued to the bogie. Once dry, glue the 'W' iron assembly onto the bogie. We have found it much easier to assemble this way as you have 3 points of contact for alignment.



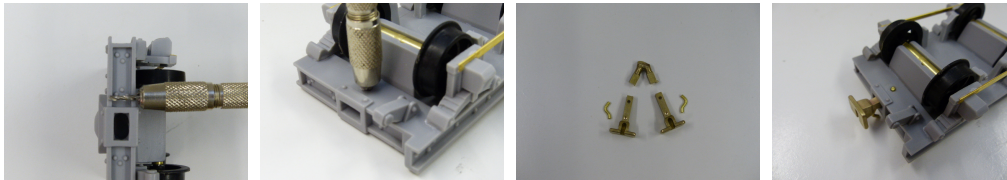
4.

**Glue on the brake blocks as per the picture.**



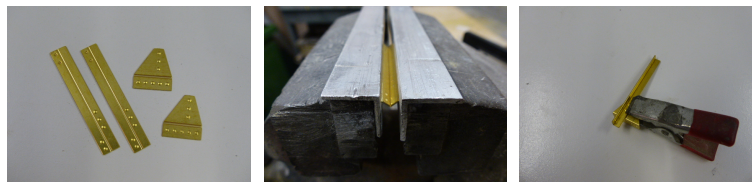
5.

**Set a 1.6mm drill in a mini drill, so that it cannot brake through to the top side of the bogie casting. Drill the dot on the underside of the coupling pocket. Cut off the buffers and drill a 1.7mm hole all the way through the rear dot and half way through the front dot. Bend up two hooks from the brass rod and solder into position. Fix the buffers using a short length of brass wire with a spot of glue to hold in place.**



6.

**Cut out the brake handle etchings and press the rivets. Bend up the triangle part to 90 degrees. We have found that the best way to bend the long vertical, is to place it in a vice with FLAT SMOOTH jaws with tweezers, and simply close up until square. Line up the three rivets, make sure that the assembly is square and solder.**



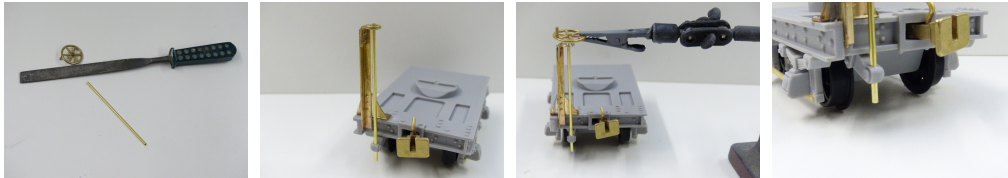
7.

**Run a 2mm drill through the cast hole in the wheel bracket casting to clean it up. Solder the bracket to the top of the post. Drill a 1.6mm hole in the bogie brake arm casting. Glue the assembly onto the bogie with epoxy or strong super glue, make sure the surfaces are roughed up so that the glue can grab.**



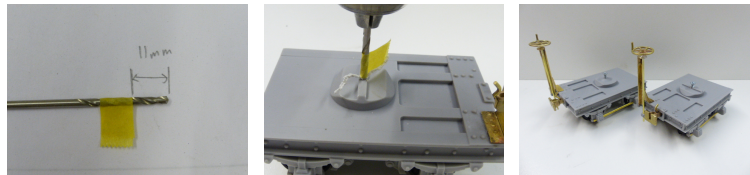
8.

File up the end of the brass rod and the hand wheel rod, so that the wheel rod fits the hole well. Fit the brass rod and hand wheel into position and solder. We have found that holding the wheel in a 'handy hand' (as we call it) makes lining up and soldering much easier. Trim the brass rod at the bottom to about 6mm.



9.

Mark up a 2.6mm drill to 11mm and drill for the pivot screw, fit screw, finished.



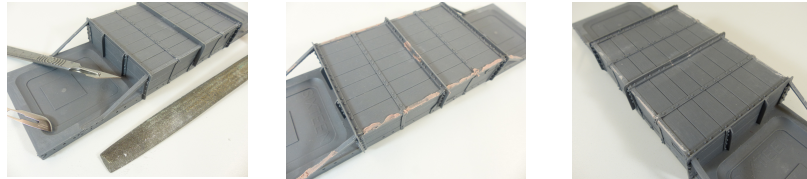
10.

The flash around the bottom of the wagon is deliberately cast so that it will snap off with very little effort. Clean up the remaining waste resin by scraping off with a scalpel and a sharp file. Please do not obsess to much about some lost detail or some slight misalignment, remember this is the bottom of the wagon and the detail will not be seen under normal running. keep checking the SIDE of the wagon as you clean up the flash as this will be the aspect that is seen ! The casting pour point can be cleaned up as much as you personally like. If you fancy re-carving the angle back in, Dremel the bulk of the resin off and carve the rest with a very sharp 1/4" wood chisel.



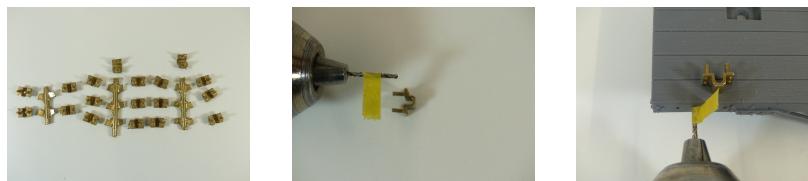
**11.**

**Once you have removed as much waste resin as you are happy with, fill any gaps with Isopon P38 car body filler. Clean up once dry with a file and fine wet and dry paper (wet). Please again, remember you are working on the **BOTTOM** of the wagon and this detail will not be seen under normal situations!**



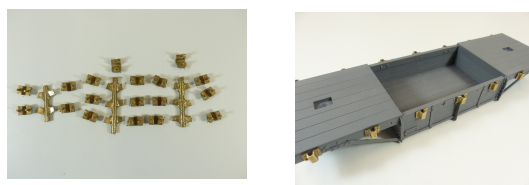
**12.**

**With a 2mm drill, drill in all the post holes. A good tip is to mark the depth of the drill with a little bit of tape. The post holes are marked with a slightly bigger 'drill start' mark and are closely spaced.**



**13.**

**With a sharp 32 TPI hacksaw, cut off all the post keeps and file or bench grind the cut edge to the finished edge. Pour a little glue on a plate and wipe the ends of the mounting posts in the glue. Push into place and maybe give them a tap with a **SMALL** hammer, just to 'seat' them home if needed.**





**14.**

**With a 1.5mm drill and in the same way, drill all the holes for the lashing ring holders. Cut off the ring holders from their sprues with a good pair of wire cutters. Leave as much length as you can so the holder has more pin to go into the body. Wipe the ends in glue and push into place. Please note 16 eyes go in vertically, but the 4 that are over the frame rails are HORIZONTAL !! This is prototypically correct. Then the fiddly but rewarding bit, split the ring with a gentle twist, thread it through the eyelet and close back up, repeat for another 19!**



**15.**

**Screw the bogies into place making sure the 'ball top' can move in all directions and the 'bar top' can move freely, but NOT side to side. File or sand the covers so they fit nicely in their recesses. Fit the pivot covers into place with a dot of silicon. Using silicon will allow the bogie to turn but also allow the cover to be removed if ever needed.**

