

I would offer the suggestion of using a 80 Watt soldering iron, Barrie Stevenson liquid flux, (available from Eileen's Emporium) and a Midland Railway Centre rivet press (www.midrailcentre.com). I DO NOT recommend the use of a blow torch to build this model.

A Note about the power bogie.

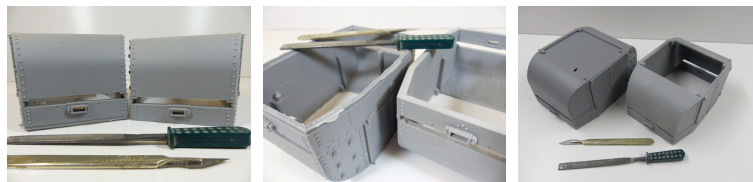
These power bogies are "ready-to-run" in as much as they are not in kit form. They can have power fed to the motor in whatever way suits your railway. If you run track fed models, you will need to add your own wheel pickups.

1.

With a sharp scalpel and SHARP file, (buy a new one if you have to), remove the moulding panel from around the top opening and buffer beam slit.

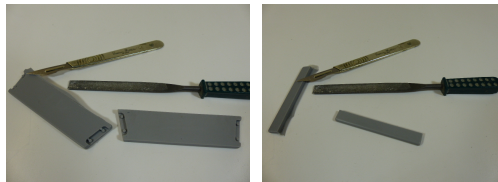
With the sharp file alone, file off all the moulding flash from around the bottom of the body. Take care not to file off too much.

Due to the complexity for the body casting, you may find the odd small air bubble. These are simply filled with car body filler and sanded back. I recommend Davids IsoPON P38.



2.

Clean up the moulding flash on the four underside body plates.



3.

Glue the two blocks onto the chassis, making sure the block with the two dots is in it's correct recess.



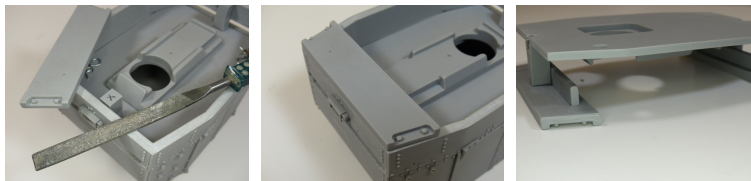
4.

With a sharp scalpel or dremel, cut off the moulding flash on top of the chassis posts so the posts are fractionally lower than the thickness of the chassis plate when the chassis plate is fully in position. Drill a 2.7mm hole in the middle of the posts about 8mm deep. Screw the allen bolts into the holes, but stopping short of 'fully home,' by about 2mm. Clip the 'R' clips onto the bolts and adjust the height of the bolts so it keeps the chassis tight to the body with no slop, but not so tight that the 'R' clips cannot be slipped out.



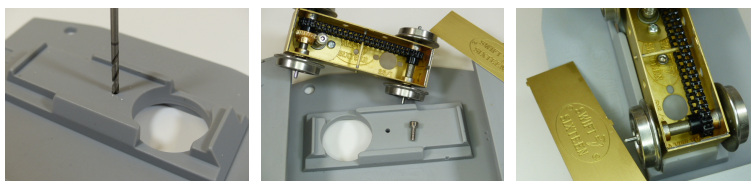
5.

File, grind or sand the tops of the blocks, so that when the underside plates are placed onto the bottom of the body, you can see a FRACTION of light. You are wanting the blocks not to be touching the plates. When you are happy this is the case, put a large drop of thick glue, (thick super glue or Epoxy) on top of the block and position the plates. Allow to fully dry. The position of the plates should be totally flush with the buffer beam on the front, and evenly spaced on the sides. Please note that the plates are narrower than the body width by about 1mm per side, this is correct. When the glue is fully set, glue the cross bar into place. This bar gives strength and support.



6.

Drill a 2.7mm hole into the marked dot in the middle of the chassis plate. Remove the power bogie cover plate and bolt the power bogie into place with the allen bolt using a 'Ball Ended 2.5mm Allen key'. Using the 'Ball End' type Allen key, will enable you to screw the bolt into place very easily around the bogie bar. DO NOT CUT THE BAR OUT! Replace the cover plate.



PLEASE NOTE.

A short while ago, we introduced the 25:1 gearbox. Unfortunately we forgot to adjust the chassis to fully accommodate the slight change of motor position. If you have a 25:1 bogie, you may need to elongate the slot for the motor with a half round file, sand paper on a dowel or Dremel type tool by about 2-3mm. . Alternatively, please feel free to return the chassis and we will send you a Mk2 chassis free of charge. We have made a MK2 chassis to accommodate both gearboxes.

7.

Cut off the waste brass from the four roof posts with strong metal cutting pliers, dremel or file. Make sure you leave the long post as long as you can. Drill a 2.2mm hole in each of the four inner body blocks where marked. Drill a 4mm deep, vertical 1.4mm hole in each of the 8 marked dots on the top of the body noses, just in front of the inner body blocks you just drilled. Make sure the roof bars are straight, (they can be a little out of shape due to the casting process). Position each roof bar into its holes, making sure the pads on the tops are facing the right way for the curved roof ! When you are happy the roof bars are correct and vertical, put a small drop of thin super glue onto an old scalpel blade and apply the glue to the bottoms of the posts.

Applying glue via a blade will stop the 'flooding' of the glue and give more positional control of the glue.



8.

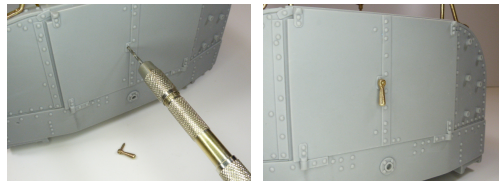
Cut the buffers off the waste brass with a hacksaw. There is a cast cut line, make sure you cut on the 'waste side', and clean up the cut. Drill 2 1.6mm holes, (if you intend to fit a standard 16mm type buffer hook) in each buffer shank where marked. Cut two 12mm long pieces of brass wire and also make two buffer hooks. Solder or glue the hooks into the buffers in the first hole behind the buffer head. Mark out exactly halfway along the bottom of the buffer beam and drill a perfectly vertical 1.6mm hole all the way through and 2mm into the upper part of the beam on the other side of the buffer slot.

Make sure you do not break through the casting into the slot above!!



9.

Cut off the two door handles from the handle sprue. The 'door' handles, are the ones that do NOT have the three lugs cast into the tops of them, and there are only two like this on the sprue. Drill a 1.6mm hole into the marked dots in between the cast rivets on the doors. Glue the handles on in the downward position.

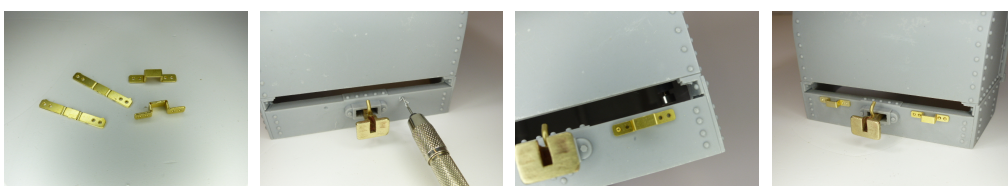


10.

Only use the small rivets.

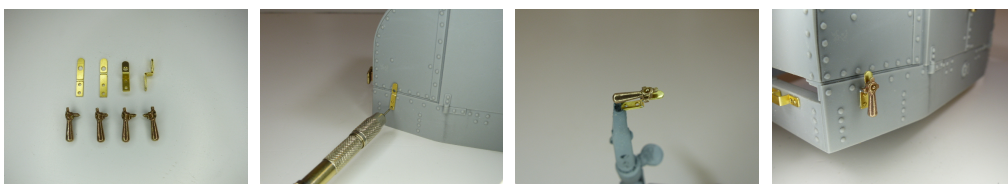
If your kit has twelve larger rivets, these are to be used in step 14 only!

Cut out the four steps and fold. Drill the marked dot with a 1mm drill. Fit the step using one brass rivet. Line the step up perfectly and glue it into place with super thin super glue on a scalpel blade. The marked dot is for the end hole on the step. When stuck, drill the other three holes and put the other three rivets into place. Apply glue from inside the body to the hole the rivets are in.



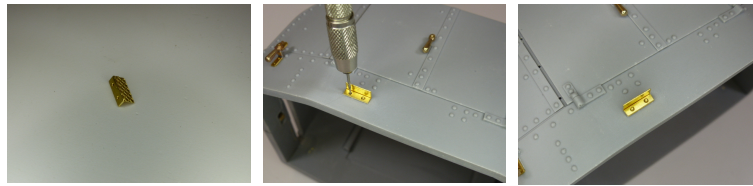
11.

Using the same method, make up the door latches, but this time you will need to solder the latches onto their brackets. The marked dots are for the top hole in the bracket.



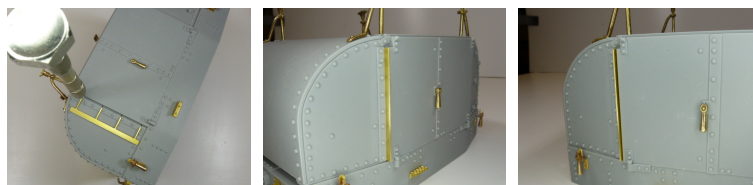
12.

In the same way, fit the step. Note that the marked dot is for the hole on the right side of the step.



13.

Place the strip onto the body side so that the prongs come right to the edge of the moulded strip. Make sure that the bottom of the brass strip touches the moulded line, like the moulded strip does. Very carefully mark out where each prong needs a hole using a 1mm drill. Once the holes have been marked, drill them all the way through. Push the prongs into the body so that the strip is tight up against the body. You are wanting the illusion of angle iron. Apply super glue to the prongs from inside the body. Once the glue is dry, trim off waste prong material intruding into the body.

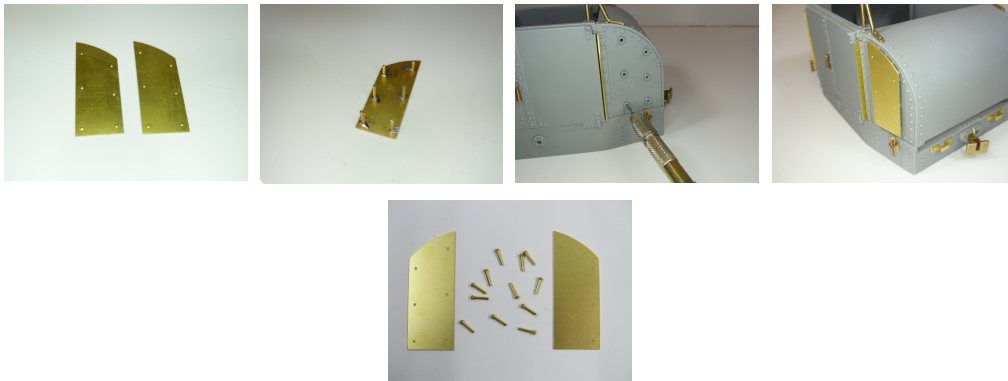


14.

Cut out the two corner panels and press the rivets. File a slight point onto the end of a piece of 1.6mm brass wire. Place the point into the back of the rivet and solder the wire onto place, make SURE it is totally square. Snip it off at about 6mm long, repeat for all the others. Clean off excess solder. Drill 1.8mm holes into the six moulded posts on each corner on the body. There is a slight counter sink in each end of the posts to help centralize your drill.

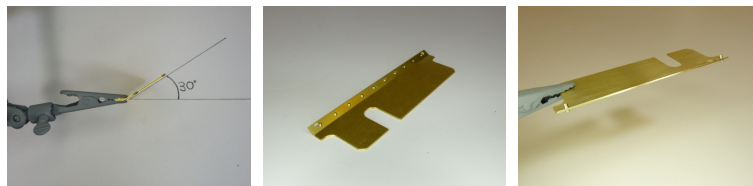
Push the panel into place. If the wire you soldered is not quite lining up with the moulded posts, re-adjust with a soldering iron. Because the wire has a slight point, it will stay located in the rivet and allow you to adjust the angle of the wire. Once the panel is fully 'home', apply super glue from inside the body.

If your kit has six holes in the panels rather than rivet marks for pressing, then the panels are to be held in place with the twelve LARGER brass rivets. You will need to open out the 12 holes in the panels to 1.2mm. Drill the holes into the body at 1.3mm. Glue the panels onto the body in the same way as the other fittings using the glued rivet method.



15.

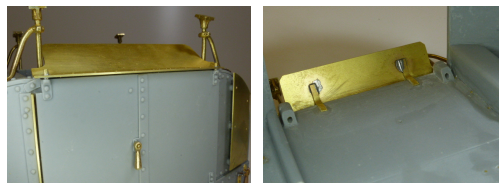
Cut out the door deflectors and bend an angle of about 30 degrees. Note that the half etch line will be on the **UNDERSIDE**, so it is not seen when folded. Press the rivets. Solder a length of 1.6mm brass wire into the holes at the ends of the plates leaving about 1.5 to 2mm of length sticking out of the top. Once soldered, trim off the excess wire from the bottom. Keep filing or grinding off the waste wire until the bottom of the wire just touches the door hinges when the main panel is resting on the body side. You are trying to achieve the look of a protruding bar from the hinge through the panel.



16.

Glue the plate on the top of the doors, making sure the wire you just soldered is perfectly lined up with the hinges. Snip off a few lengths of waste brass strip from the fret and make up some support bars to glue and solder to the inside as extra support for this panel.

MAKE SURE YOU FIX THE PANEL WITH NO SLOT, ON THE STEP SIDE OF THE BODY.



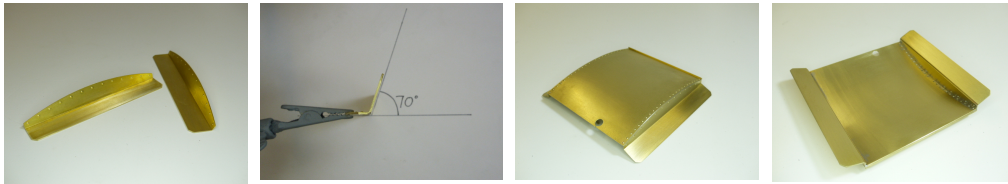
17.

Press the rivets in the pre-rolled roof panel. Clamp in a vice **WITH FLAT SOFT JAWS**, (we used new, sharp edged alloy angle) and fold the gutter upwards.



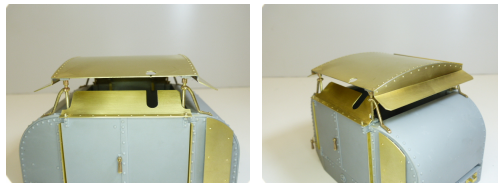
18.

Cut out the roof end panels. Press the rivets and bend to about 70 degrees, note that the half etch fold line will be facing inwards. Solder them onto the roof panel.



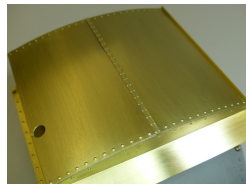
19.

Hold the roof on with 3 elastic bands and position the roof perfectly, making sure the roof support pads are in full contact with the underside of the roof panel. Once happy, solder the roof onto the roof supports. Make SURE the roof exhaust hole is over the slotted side panel !



20.

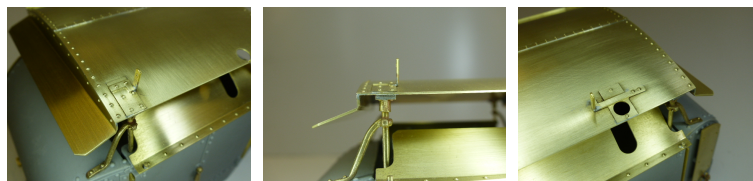
Solder on the riveted roof strip etch.



21.

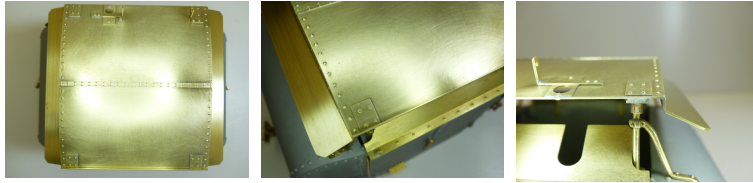
Cut out both exhaust brackets and press the rivets, there are two per bracket. Place the front one, (without the large hole) over the roof post, making sure the cast bolts on the pad, and the etched bolts on the bracket line up, (see pic) and solder the bracket into place. It is a good idea to solder the folded angle as well for extra strength.

Line up the rear bracket so the two holes are perfect, (the roof hole is 1mm bigger than the bracket hole) and the pressed rivet and etched rivet are also lined up. Solder into place and the folded corner for strength.



22.

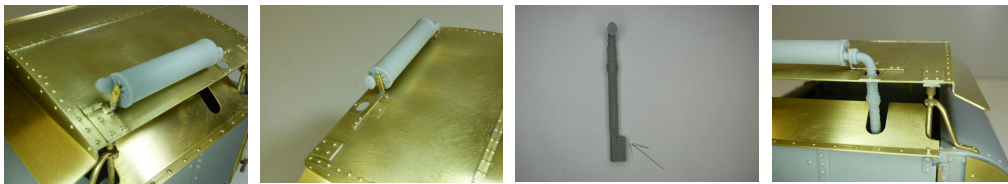
Cut out the three roof corner plates. Be careful here, there is a way they go! Take a close look at the pictures and note the orientation. You will see that the plates have more metal above the rivets and towards the edges of the roof, this is correct and how it should be. Line up the rivets and solder on.



23.

Sand off the excess resin on the silencer flange so you end up with about 1.5mm of flange. Drill a 1mm hole into the dot on each end of the silencer. Place the silencer between the mounts, and hold into position with two brass rivets. Rotate it so that the flange on the rear is vertical and glue into place using the glue on a scalpel trick. Sand off the excess resin on the exhaust down pipe flange so you end up with about 1.5mm of flange. Thread the down pipe through the roof hole and offer it up to the silencer flange. You will need to sand off the tab at the bottom of the down pipe until you end up with the down pipe fitting vertically and perfectly against the silencer flange.

Glue the flanges together and glue the bottom of the down pipe to the body side.



24.

That's it, finished, just paint.



25.

We used a light coat of Acid 8 grey primer (from Halfords) to dust over the brass parts and standard Halfords grey primer over the top of that as a good base for the colour. For the colour, we used Humbrol Acrylic Light Olive 86 spray can and a coat of Humbrol Satin Varnish spray can 135. You could use a Matt Varnish instead to protect the colour base.

Please remember to send us your pictures so that we can add you to our 'Customers Page'

Thank you.



26.

This is how we laid out our R/C equipment using the 12volt Strikalite battery we also sell in the options list on the Tin Turtle info page.

