Rumney Models
Bachmann Anchor Mounted Tank Wagon Detailing Instructions

Prototype and Model Notes

Anchor mounted tanks were introduced in the 1940s and continued to be built into the early 1960s. Indeed I believe that the last unfitted wagon built for use on the British Railways network was an anchor mounted tank wagon built for Berry Wiggins. They were built for various capacities and types of load with different tank diameters. Most common were 14T class A, 14T class B and 20T class B.

The Bachmann model actually lies somewhere between the correct diameters for a 14T class B (6'7") and 14T class A/20T class B (7'3"), these later two types having the same diameters. The tank and anchor moulding is very nice though and can provide a good basis for a finescale model of one of these vehicles.

With the chassis provided the Bachmann model is most suitable for the 14T tank wagons. It has been sold with markings for 20T wagons which the model is less acurate for. There were a few obvious differences between the 14T and 20T versions. The underframe of the 20T wagons had different pattern axleguards along with heavier springs (7 leaf) and axleboxes. Also despite the tank being the same diameter as a 14T class A example it was longer and extended beyond the headstocks. If you are willing to extend the tank and overlook the greater diameter of the tank then the Bachmann model can be used to represent a 20T wagon.

Construction Notes

This set of instructions covers the detailing kit B.106. This is designed to provide additional detailing for the Bachmann 14T anchor mounted tank wagon. Additional ladders along with valve wheels, tie bars (if required), brake levers and guards are provided. There are sufficient parts for two wagons.

As is usual with such things there was more than one sort of ladder fitted to these wagons. Two types have been provided for. Study the diagrams and a photo of your chosen prototype to see which is more appropriate.

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.

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.

Materials list

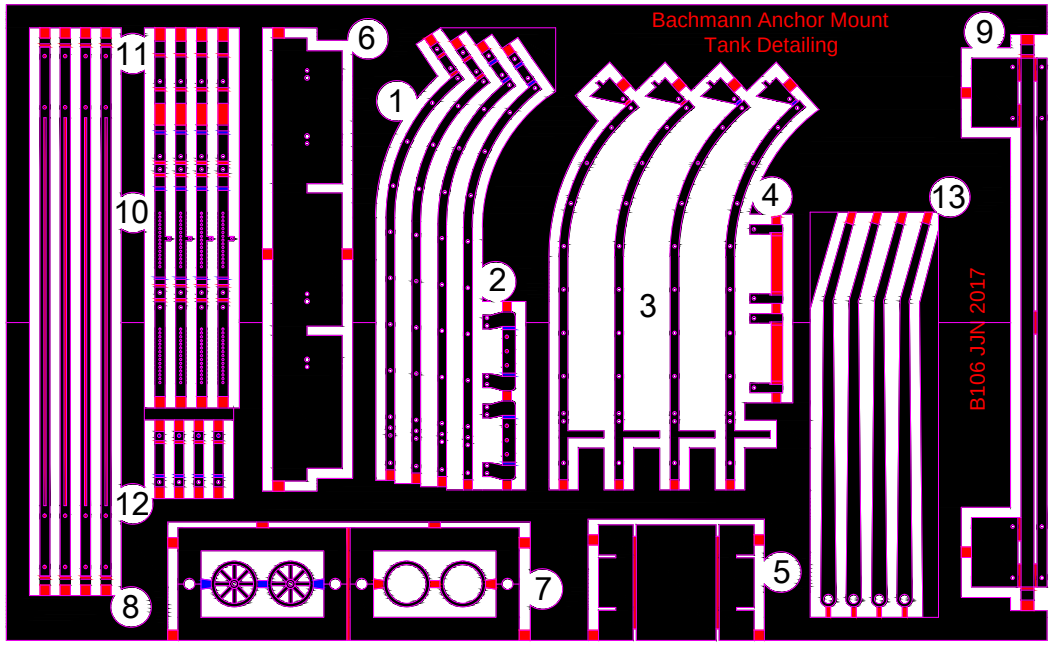
A good quantity of 0.31mm wire are required for this etch. Eileen's Emporium are good source for this. Their contact details are listed below. 0.8mm wire may also be required if you wish to replace the brake shafts when adding the brake levers and also 0.4mm wire for pinning the valve wheels in place.

Eileen's Emporium
Unit 19.12 Highnam Business Centre
Newent Road
Gloucester
GL2 8DN
www.eileensemporium.com

Parts List

1 - Ladders (Type A)
2 - Ladder solebar brackets (Type A)
3 - Ladders (Type B)
4 - Ladder solebar brackets (Type B)
5 - Ladder assembly jig
6 - Ladder drilling jig
7 - Valve wheels
8 - Tie bars
9 - Tie bar drilling jig
10 - Lever guards
11 - Lever guard brackets
12 - Lever guard stays
13 - Brake levers

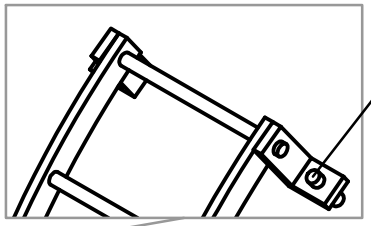
Parts Diagram



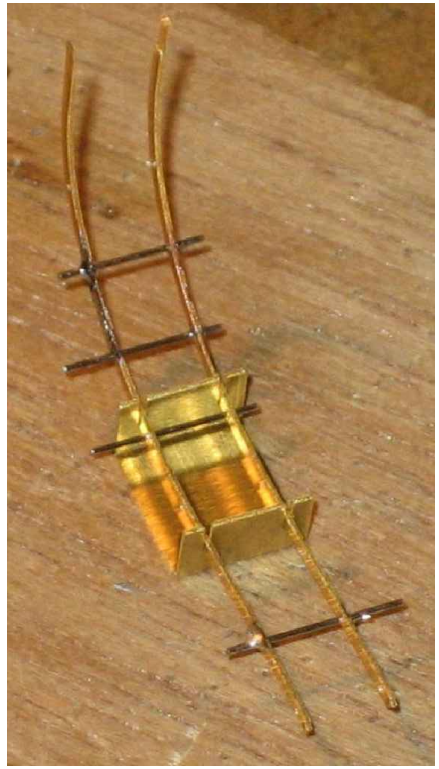
Ladders

Provision has been made for two slightly different types of ladder. The differences are down down to how the ladders are attached to the wagon. If you are following a prototype then examine the diagram to see which is more appropriate.

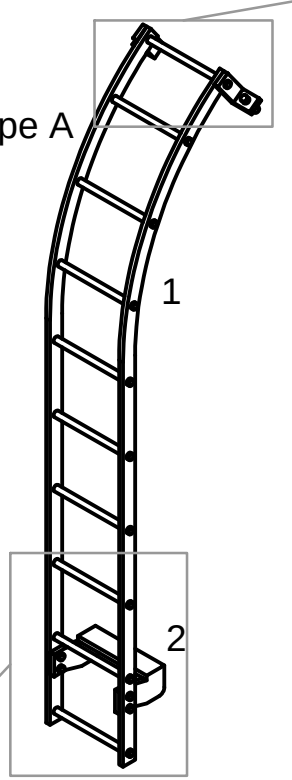
In both cases make sure that the ladders (1 or 3) and brackets (2 or 4) can accept 0.31mm wire and then remove the jig. Fold up the ladder assembly jig (5). Fold up the brackets and the tops of the ladders then assemble using the jig and 0.31mm wire for the rungs and bracket bolts. Once soldered together clean up the wire rungs/bolts.



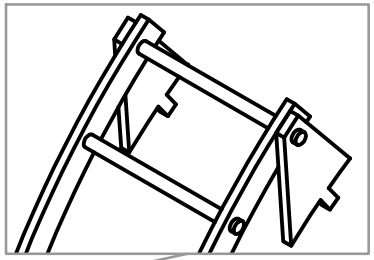
Type A ladder - 0.31mm wire pin for locating on tank



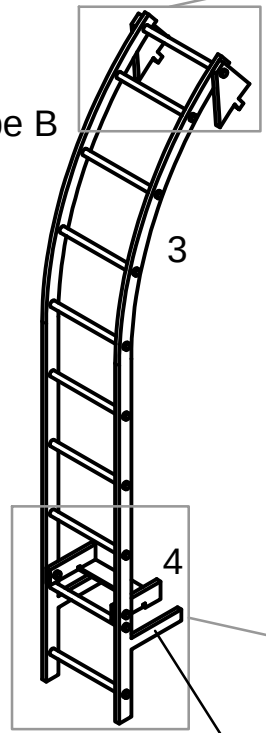
Type A

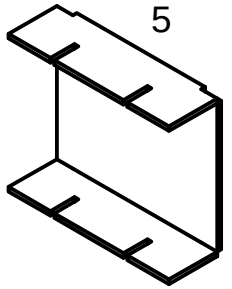


Fold up tops of ladder as per diagram. Wire pin (1) or tab (2) will locate into holes in tank drilled using jig (See page 4).

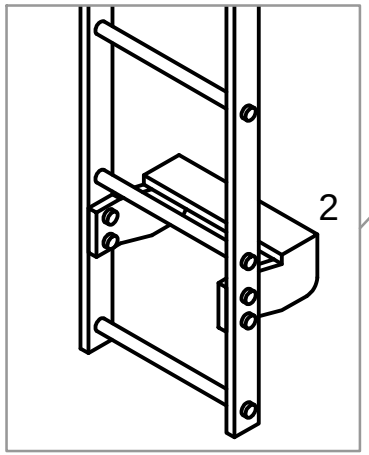


Type B





Fold up ladder assembly jig (5) and use to keep sides of ladder aligned.

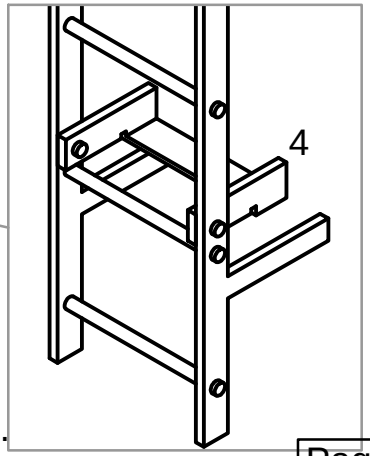


Brackets

Ladder Type A bracket (2) fits underneath the solebar. Press out half etched rivets if required.

Ladder Type B bracket (4) locates on top of solebar.

Type B ladder - Prong inserts into hole in Bachmann solebar where palstic ladder was located.



Fitting Ladders

Once the plastic ladders have been removed from the Bachmann body the holes that are left can be filled in. The new ladders are fitted in position using the wire or etched pins attached to the ladders. These are located on the tanks via holes drilled using the ladder drilling jig (6). Note that there are two sets of holes on the drilling jig. One will provide for a central location for the ladder and one for an off centre location, the prototype varied.

Remove the ladder drilling jig (6) from the fret and then insert into one of the walkways on the top of the tank so that the holes align for the position of your choice. Hold the jig down so that the part of the jig with the holes in is against the tank and drill two holes as follows:

- Use a 0.3mm drill bit for Type A ladders through the outer pair of holes on the ladder drilling jig.
- Use a 0.4mm drill bit for Type B ladders through the inner pair of holes on the ladder drilling jig.

Repeat for the other side. Note that the off centre ladders were always towards the same end and in line with the tank filler hatch.

The ladders can be located in place using the holes and glued to the solebar via the bracket. To make life easier this can be done once the ladders have been painted.

Valve Wheels

Replacement valve wheels (7) have been provided. There are two parts to these a rim and a spoked wheel. There are designed to be folded double whilst attached to the fret and then soldered together. If you are worried about alignment then 1mm wire pins can be used though the holes in the fret to locate the two halves together. Solder a length of 0.4mm wire though the hole in the centre of the valve wheel so that the wheel can be pinned in place. Once everything is soldered together remove form the fret and tidy up.

Remove the solid Bachmann valve wheel on top of the tank. To do this make a cut though the shaft immediately below the valve wheel. Carefully drill a 0.4mm hole into the shaft to locate the replacement valve wheel.

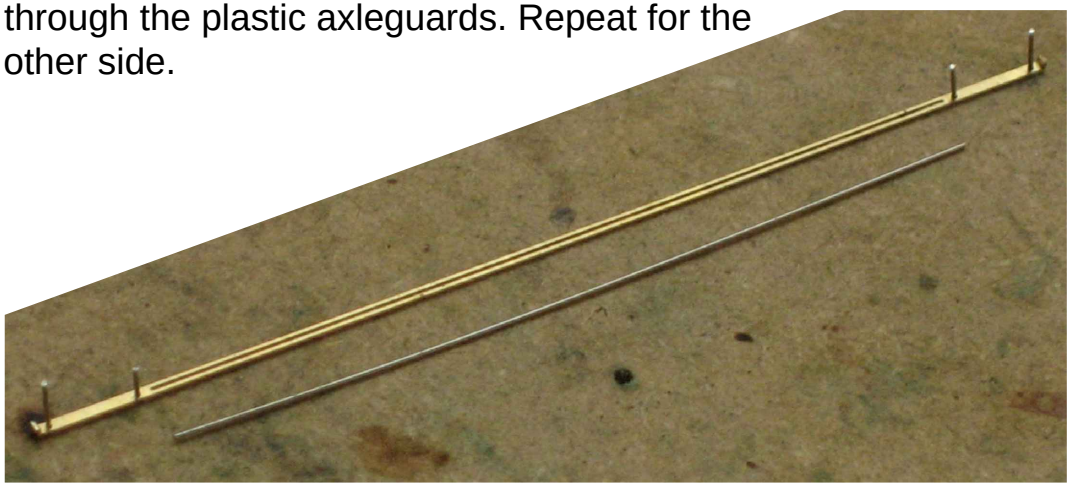
Tie bars

Replacement tie bars (8) are included on the fret. Most 14T anchor mounted tanks had individual keep on each axleguard and so these parts are not necessary. If you intend on using the Bachmann model to represent a 20T wagon then you will need to fit tie bars.

You can press out the four half etched rivets on each tie bar to represent the fixing bolts if you wish however I dislike replying on glued joints between plastic and metal components especially with something as vulnerable as a tie bar. I would recommend drilling out the half etched holes and using 0.31mm wire soldered in place to act as pins which can locate into holes drilled in the plastic axleguards using the tie bar drilling jig (9).

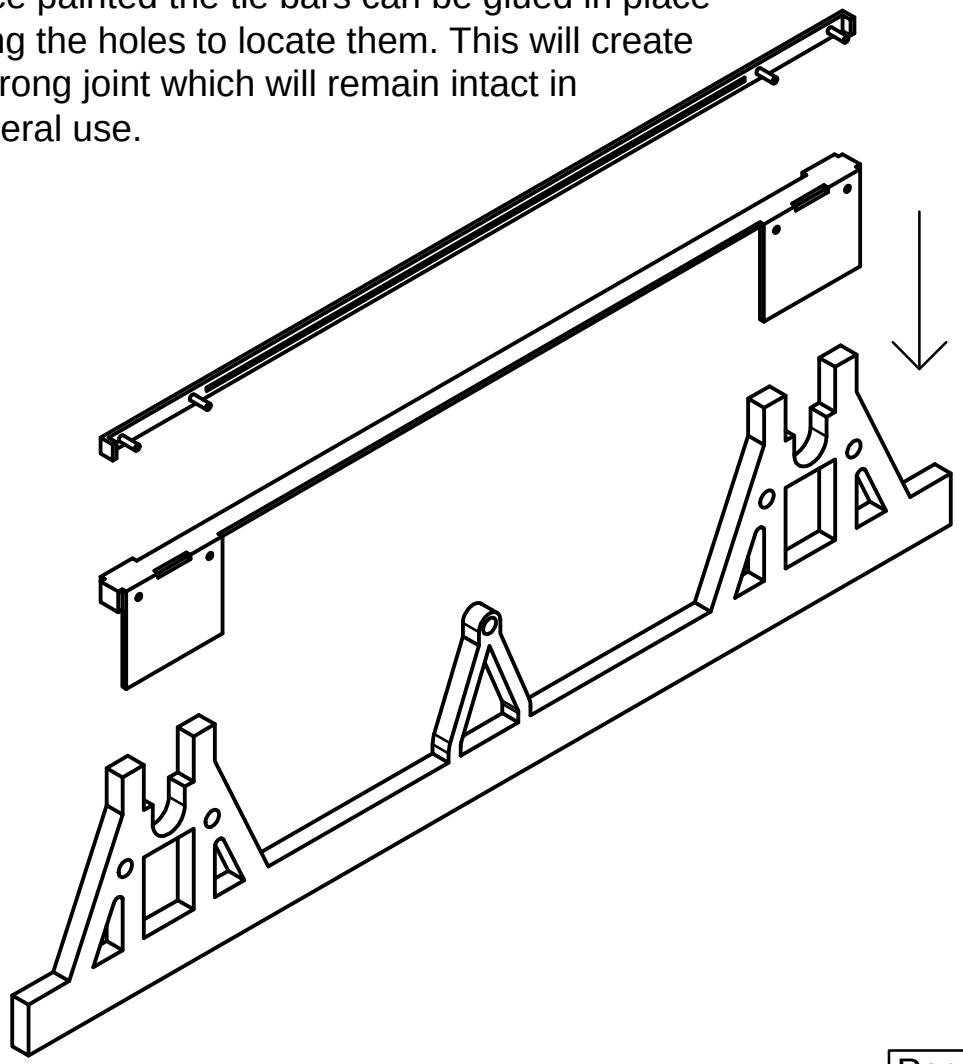
Tie bars are also fragile things so I have included a half etched slot on them into which a length of 0.31mm wire can be soldered. This makes them much stronger and wire is virtually invisible.

Remove the plastic keeps from the Bachmann axleguards. Fold up the drilling jig and then fit onto the Bachmann underframe. Use a 0.31mm drill to drill four holes using the jig to locate them through the plastic axleguards. Repeat for the other side.



Drill two pairs of 0.3mm holes into a piece of scrap wood. Fold up the end of the tie bar and thread short lengths of 0.31mm wire through the tie bars locating into the holes in the wood. These can then be soldered in place and then filled back to represent bolt heads. You will need to make sure there is at least 0.75mm of wire projecting from the back of the tie bars to locate on the axleguards. Whilst you are at it solder a length of 0.31mm wire into the slot to reinforce the tie bar.

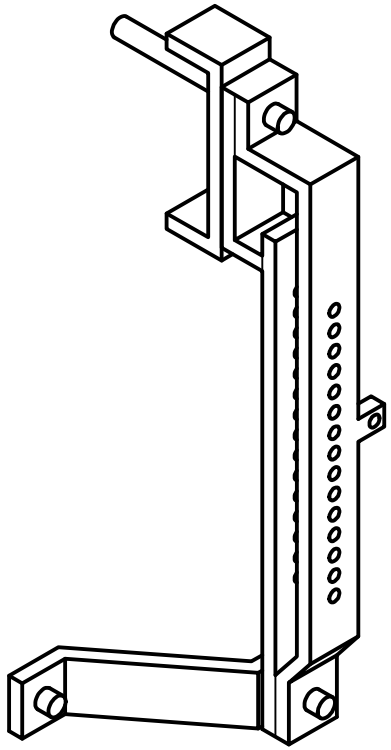
Once painted the tie bars can be glued in place using the holes to locate them. This will create a strong joint which will remain intact in general use.



Brake Lever Guards

The replacement brake lever guards come in three parts; the lever guards (10), lever guard brackets (11) and the lever guard stays (12). These need to be folded up and soldered together. The assembly can then be fitted in place on the Bachmann solebar using the hole left where the plastic one was located.

Make sure that the holes in the lever guard, bracket and stay can accept 0.31mm wire. Push out the half etched rivet on the stay and remove the three components from the fret. Separate the lever guard from the lever guard bracket. Fold the lever guard along with the lever guard bracket referring to diagram. Solder the lever guard and bracket together using 0.31mm wire to align them. Trim the wire on both the front to represent a bolt and leave about 3mm on the back to locate into the Bachmann solebar. Fold both ends of the lever guard stays through about 30°. The stay can then be pinned and soldered to the bottom of the lever guard using 0.31mm wire.



Once painted the whole assembly can then be located in the solebar and glued in place.

Brake Levers

Make sure that the holes in the brake levers (13) can accept 0.8mm wire and remove from the fret. Solder a piece of 0.8mm wire approximately 5mm long in place on the lever guard to represent the brake shaft. The easiest way of doing this is to drill a hole in a piece of wood in which to locate the wire and then locate the brake lever on the wire and on top of the wood and solder together.

Remove the Bachmann brake levers and drill 0.8mm holes though the vees and the crank part of the brake push rods.

Bend up the brake lever as per the prototype clearing the springs and axlebox and then cranking them for the handle.

They can be glued in place once they've been painted.

Justin Newitt - March 2017