

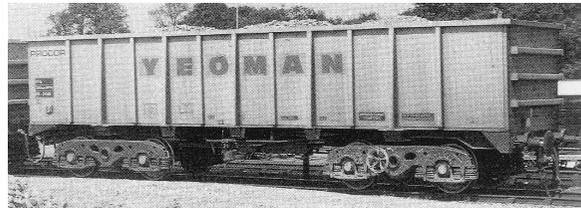
**PR** MODEL RAILWAY PRODUCTS

STOCKISTS OF 7MM MODERN IMAGE KITS.

[prmrp@fsmail.net](mailto:prmrp@fsmail.net)

[www.prmrp.com](http://www.prmrp.com)

07807225801



**7mm/0Gauge BRF – 028  
PTA Stone Tippler**

**SCALE MODEL PRODUCT FOR ADULT MODELLERS ONLY.**

**WHITE METAL CONTAINS LEAD WASH HANDS AFTER USE.**

**MAY CONTAIN SMALL PARTS. ETCHED BRASS HAS FUNCTIONAL SHARP EDGES - HANDLE WITH EXTREME CARE**

**Thank you for purchasing this kit.**

**This instruction pack should provide a guide for building this model, given some experience of soldering and the basics of etched kit construction.**

**Please read all the pack before starting to build.**

**Drawings and photos are essential for builders to acquaint themselves with the prototype they wish to model. I find that there are various website that provide excellent pictures of the real thing to help you complete the kit.**

**[www.wagons.wordpress.com](http://www.wagons.wordpress.com)**

**[www.ukrailrollingstock.fotopic.net](http://www.ukrailrollingstock.fotopic.net)**

**For builders of modern image in 7mm, consider joining MIGO+1, the Modern Image Gauge 0 & 1 Organisation. For more details check out the website [www.migo.org.uk](http://www.migo.org.uk)**

**Transfers are available from Fox Transfers**

## **Suggestion of tools that maybe required and general kit assembly**

### **Preparation**

Before any parts are cut from the etched frets, push through any rivet holes from the back of the fret. These are represented by half etched holes on the rear of the fret. The same also applies to pre-formed loco.

### **Forming the Etched Parts**

When forming the etches, unless otherwise instructed, the fold lines are on the inside. A pair of bending bars are ideal for this job or a vice, (without serrated jaws), would suffice.

### **Soldering**

The key word for a successfully soldered joint is cleanliness. If the parts to be joined together are clean metal surfaces and are well coated in a good flux and providing the soldering iron tip has sufficient heat, a perfect joint which is also very strong will result.

A good strong joint can be achieved with glues but it is not easy to rework. A soldered joint can be easily undone, altered, corrected etc. by just re-applying some flux and heat from the soldering iron. The flux transfers the heat from the tip to the metal surfaces to be joined and stops oxidization at the joint. I allow the multi-core solder to stay molten on the joint and, when the iron is taken away, will cool to form a solid metal joint.

When undertaking any kind of soldering always hold the parts to be joined together securely and comfortably. You will learn with experience how long to hold the iron on and in turn how much pain your fingers can endure. The use of small clamps such as hair clips, mini G clamps, (not rubber bands!), a small vice, various pliers etc. will make life easier. A simple jig soldered together out of scrap metal or made from wood may also help for holding parts you find awkward to hold.

You can use the various temperature range solders to your advantage during building. Multi-core for larger pieces will give you the main structure. A solder called Carrs 145 or 177 solder is used to apply the finer etches and laminates. Finally white metal solder, Carrs 70 Red Label, is used to fix the castings on.

Remember to take care not to apply too much heat near laminates or casting you have already joined as you may disturb them.

### **Cleaning Up**

When assembly is finished, all excess solder should be cleaned from the model. Files, small wire brushes, fibre pens and Wet & Dry paper are all useful aids when performing this task.

On your model there are joints between etches and castings that may require some filling. Car body fillers such as Isopon are ideal, (avoid flexible/elastic fillers). When any solder or filler has been cleaned up the body should be washed in warm soapy water to remove any grease or flux that would prevent paint from adhering. Some washing up liquids leave a film on models, so it is recommended that Cillit Bang is used as a second wash. This removes all films, grease etc.

Plastic window boxes sold in the big DIY stores make an ideal size container for washing your models.

Rinse the model in clean water and leave to dry naturally over night.

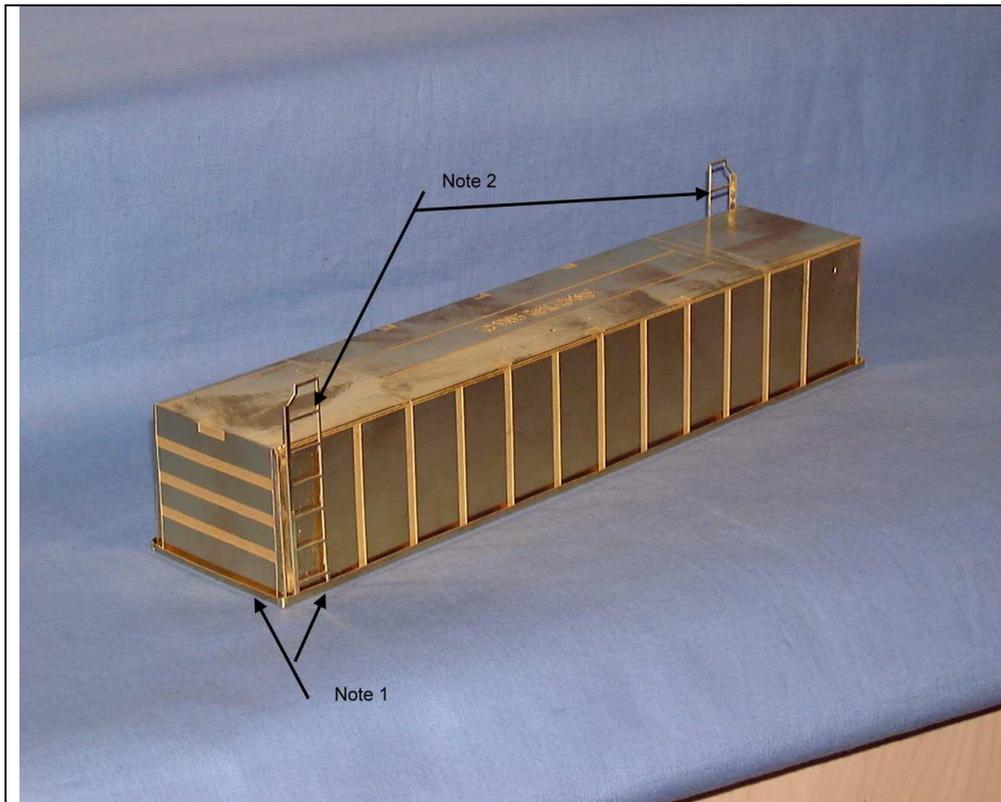
### **Keeping the body square**

Always build on a level surface. The last you thing you want is for your model to derail or wobble. Use a piece of 7mm Glass the squarest material you can get. This will ensure that you stand every chance of building a square model.

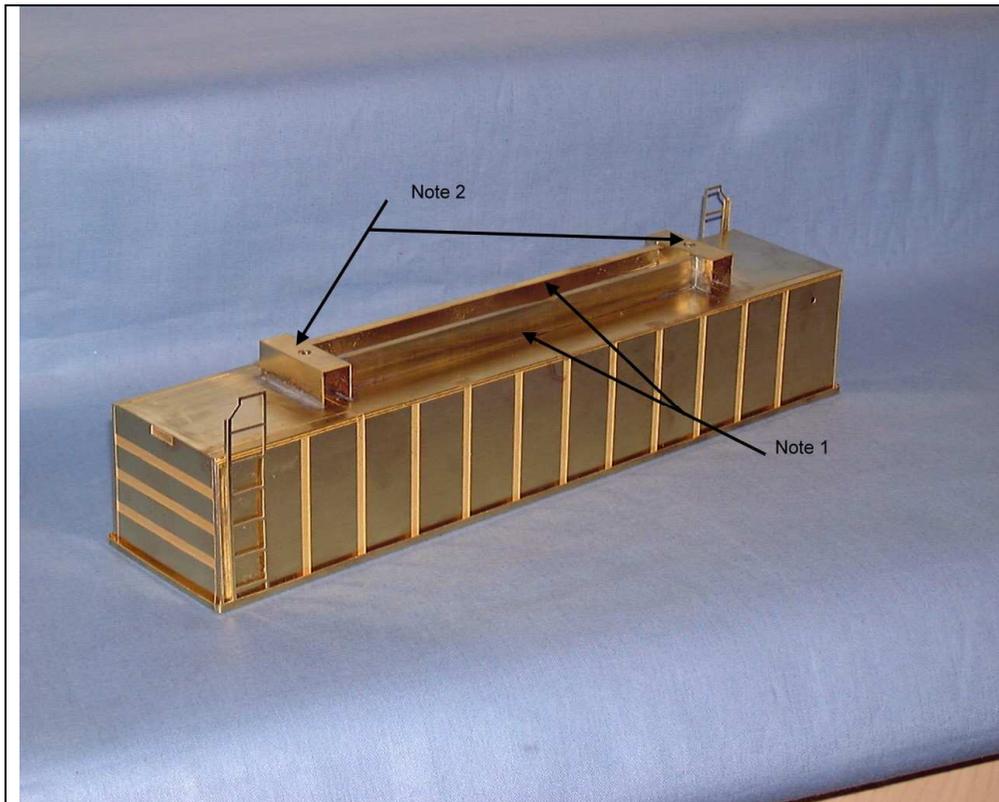
## **Tools**

- A soldering iron with range of bits from large to very fine, for example a Weller temperature controlled iron (60 watt)
- Multi core solder, Carrs "Green Label" flux aids the running of the solder#18-24"
- Steel rule
- Folding bars such as those sold by M&M Models
- Range of Swiss files
- Medium cut bench knife such as Stanley Knife or short bladed scissors for cutting out etches.
- Evo Stick/Super Glue and Epoxy
- Good quality side cutters
- Fine pliers and duck billed pliers
- Mini drill and a good range of drills

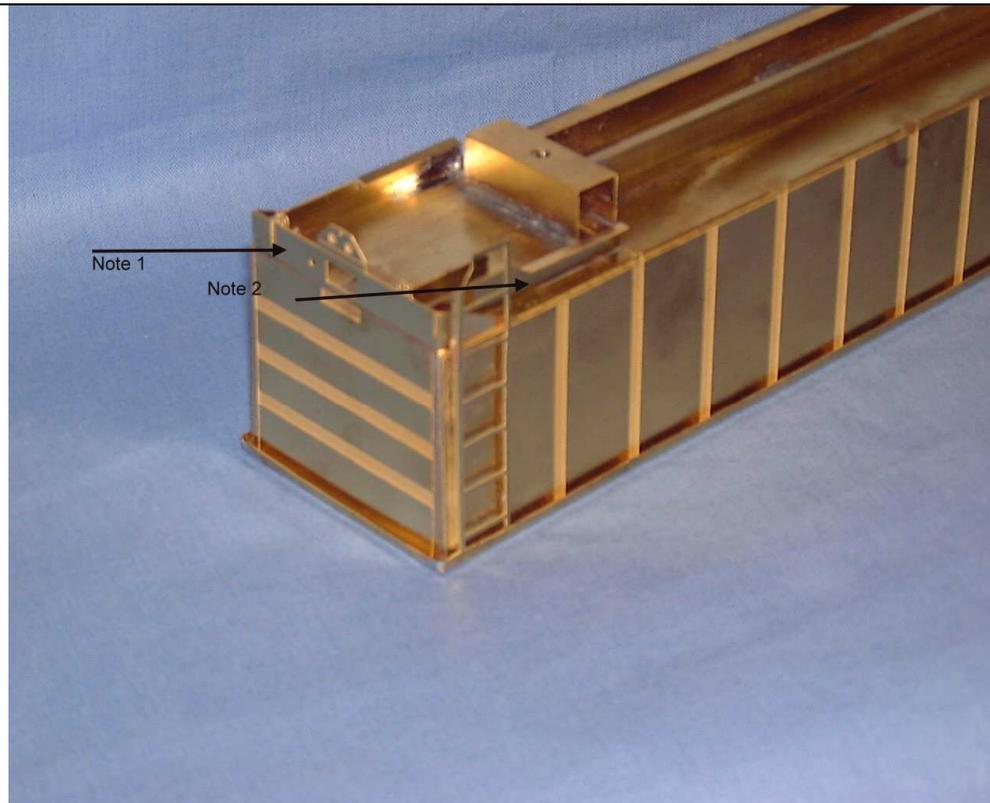
**Right lets get started!!!!!!!!!!**



- 1) **Fold up main body, ensuring that you fold the top lip as indicated in Note 1**
- 2) **Fold up the ladders and fit to the body side as indicated in Note 2. (Please note that in the picture, the ladders need changing round as the cropped corner should face inward and not outward. This allows for the bogies to pivot without fowling) See the finl picture if you are unsure.**

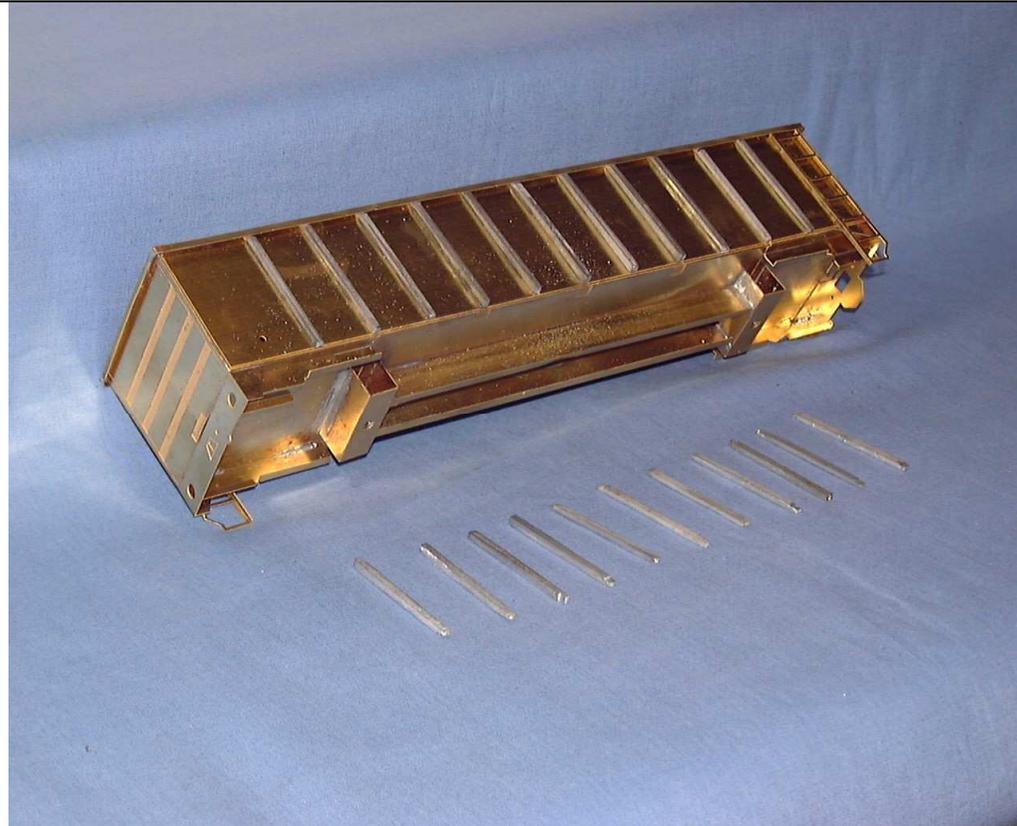


- 1) **Fold up the two under frame girders and fit as indicated. Once again note that these face outwards and not inwards as show. This will allow you to trim a little away if you have tight curves.**
- 2) **Fold and add the two bogie pivot box, remembering to solder in the nut or bolt provided dependant on which way round you want to fix the bogies. (before you do this, the kit does contain two cross girders that fold and are fitted under the pivot box before it is fitted. These can be seen in the pictures at the end of these instructions.**

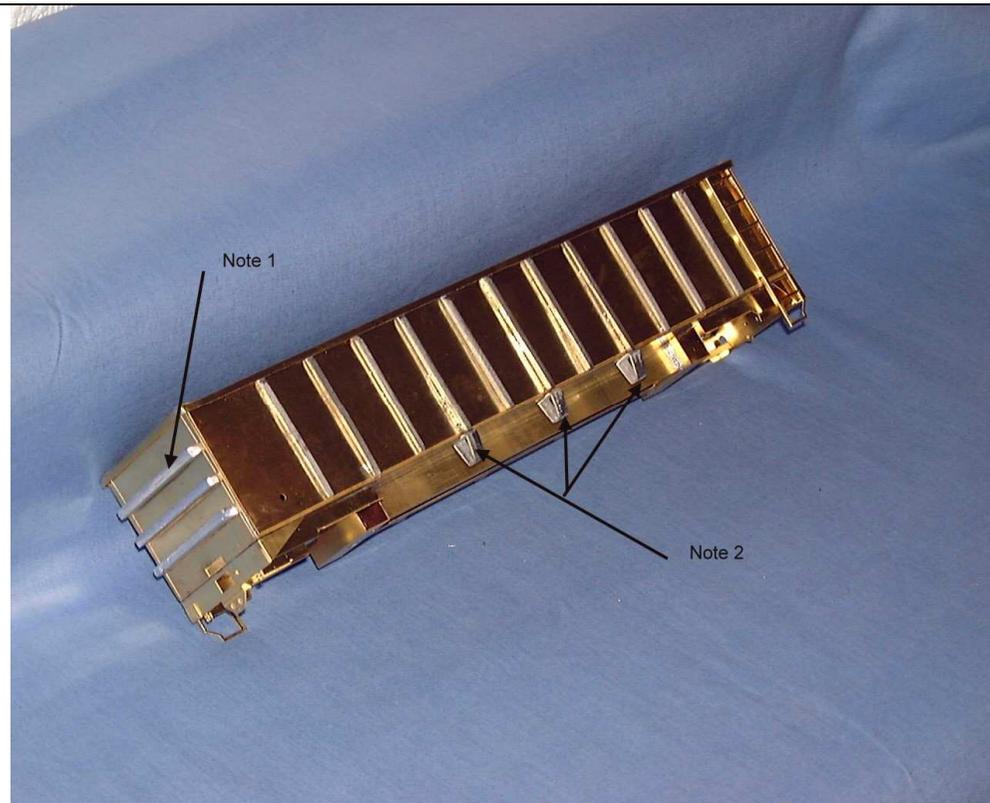


**This kit makes both an outer and inner version of the tippler, so you need to decide which variant you are modeling. The Outer has buffers at one end and none at the other, where as the inners have no buffers at all.**

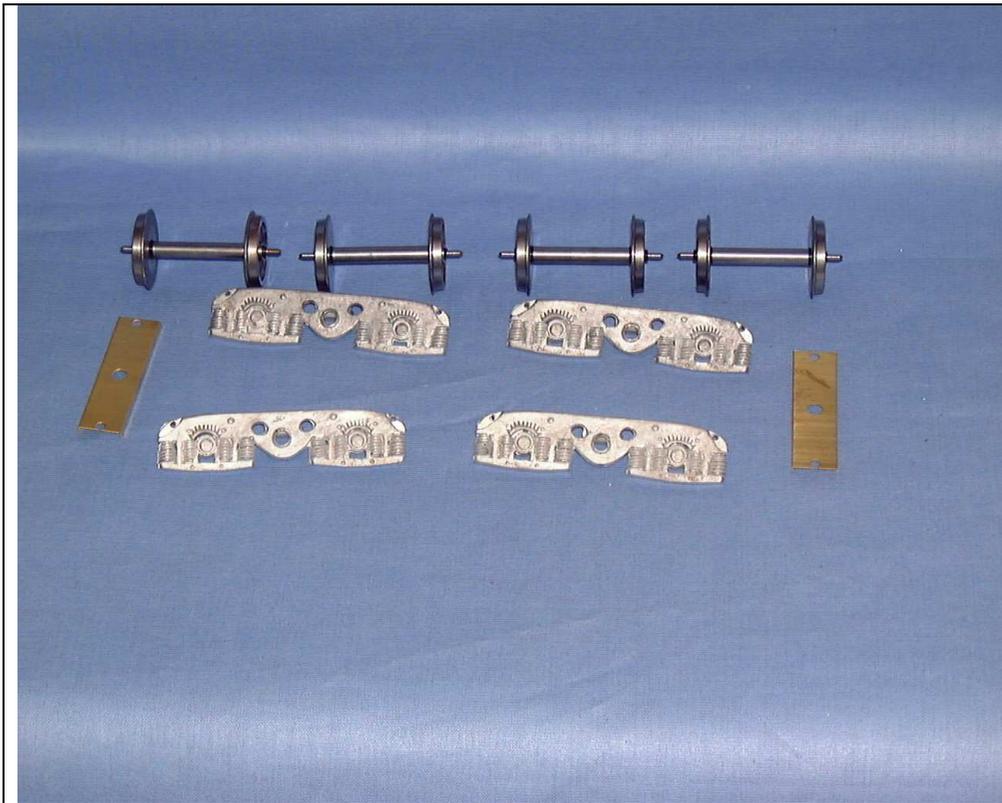
- 1) Fold and fit the appropriate buffer beam as per note 1**
- 2) Fold and fit the buffer beam end girders as indicated details of how this is bent are shown in pictures at the end of the instructions**



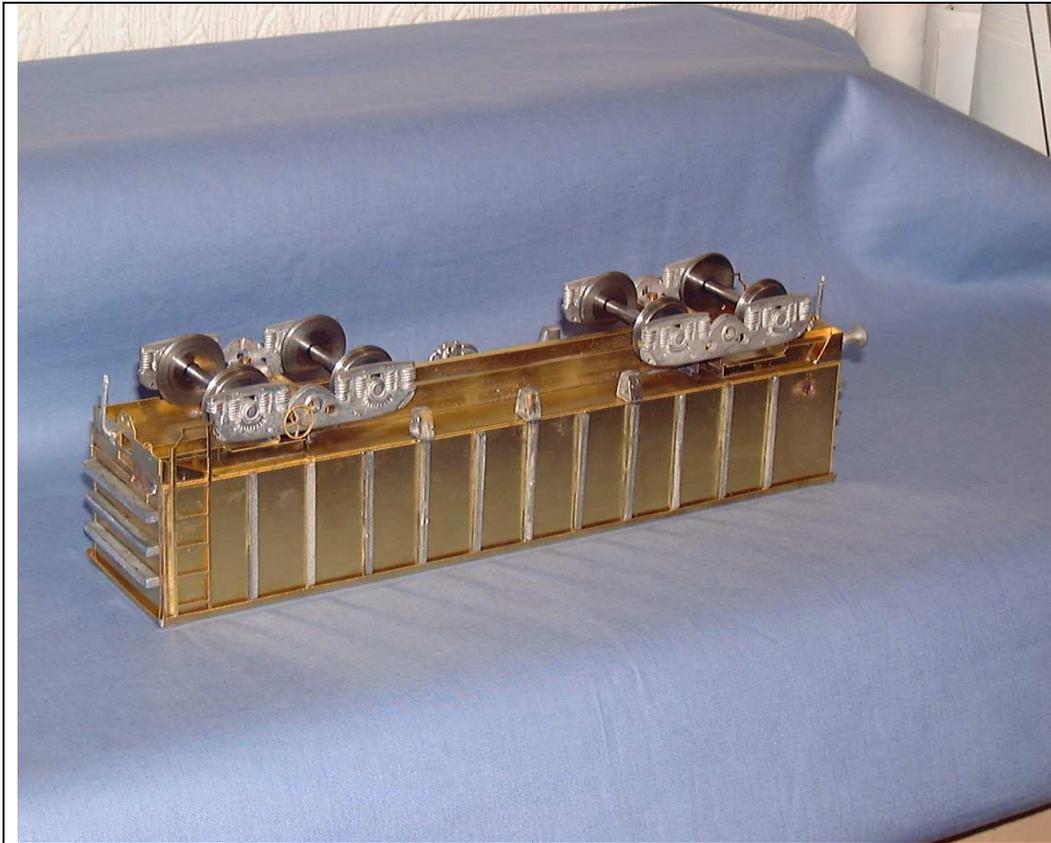
- 1) **Fit the 11 side stations and repeat on the second side. Note that you will have 6 square stations and 5 tapered stations. Start the side with a square station and alternate down the body side, square, tapered, square, tapered. The thick end of the taper goes at the bottom of the wagon.**



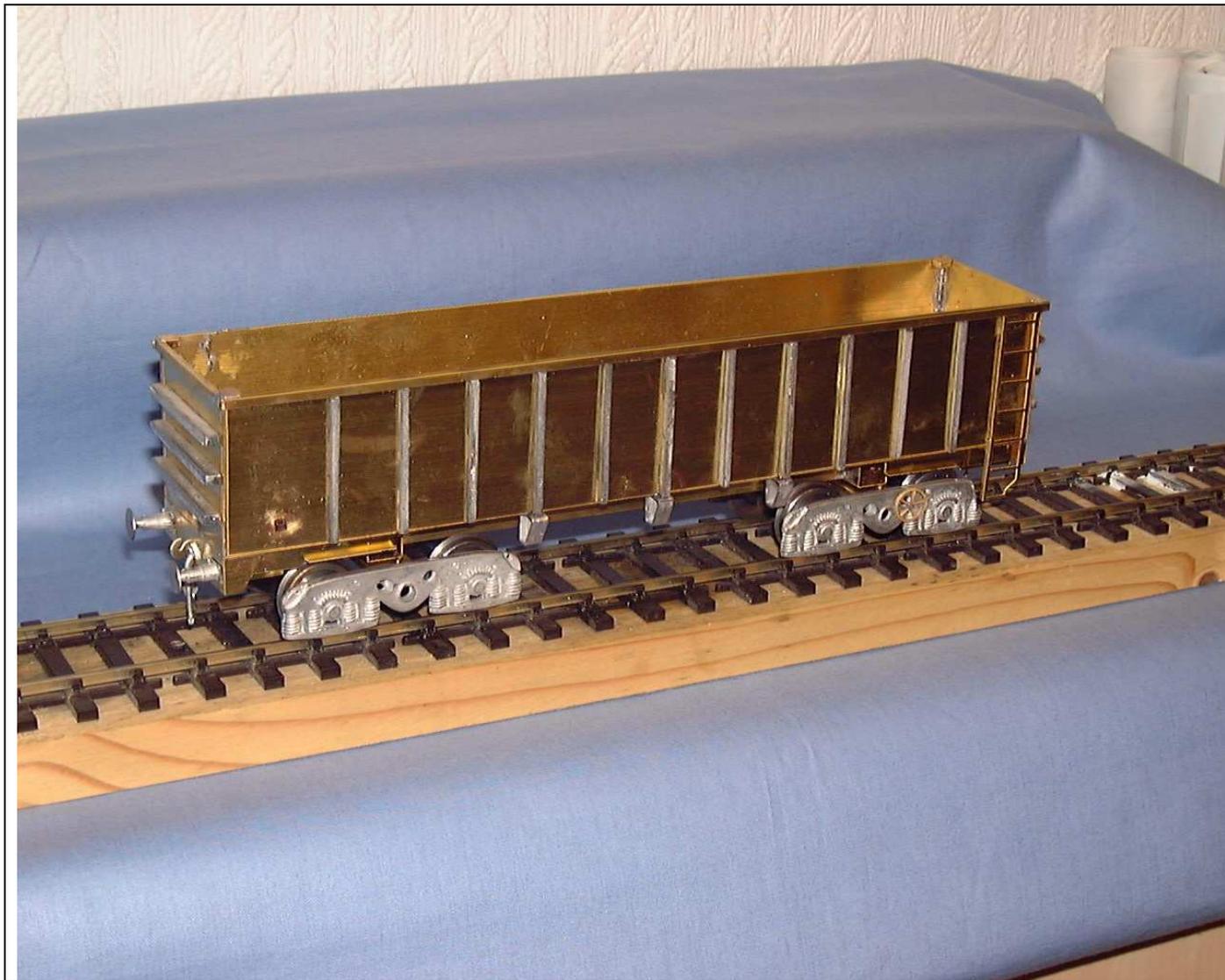
- 1) Fit the 3 end stantions and repeat the opposite end Note 1
- 2) Fit the three cast girder ends under the three central tapered stantions. You will note that if you have fitted the etched girders as mentioned earlier under the bogie pivot boxes, all 5 tapered stantions now have a girder end underneath them!



- 1) Identify the bogie components
- 2) Drill behind the axle box to accept the top hat bearings of your choice and glue in appropriately making sure they are square



- 1) **Solder the bogies together and fit the etched handbrake wheels. You can fit these now or latter if required.**
- 2) **You may want to fit the Air tank and Distributor valve, buffers (If required) and air pipes**
- 3) **Please note that if a end unit has been made, then this will accept a screw coupling. On the inner ends, I would recommend that a kadee coupling is used and as such, you will need to cut the buffer beam away to accept this. Alternatively a dummy buckeye is included that needs to be soldered in place. Pictures of the finished wagons at the end of these instructions demonstrate this.**



**Buffer End with Coupling fitted**



**Inner end awaiting buckeye. The next pictures show a finished wagon with Kadees in place.**

