

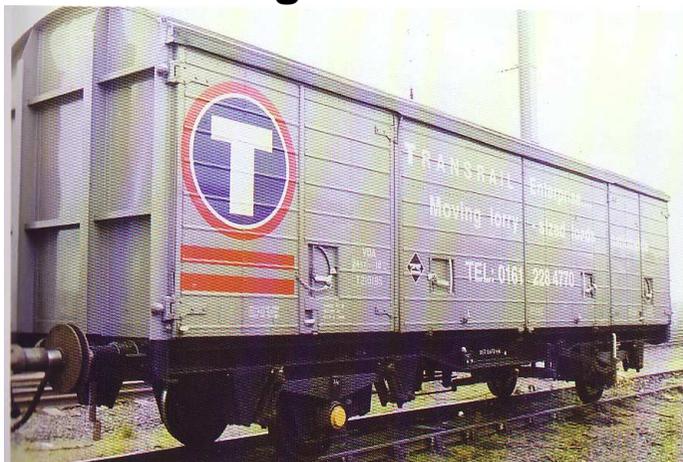
PR MODEL RAILWAY PRODUCTS
STOCKISTS OF 7MM MODERN IMAGE KITS.

Tel – 07747 018544

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BRF-017 Type VDA Covered Van

Building Instructions



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

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

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 Isoxon 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

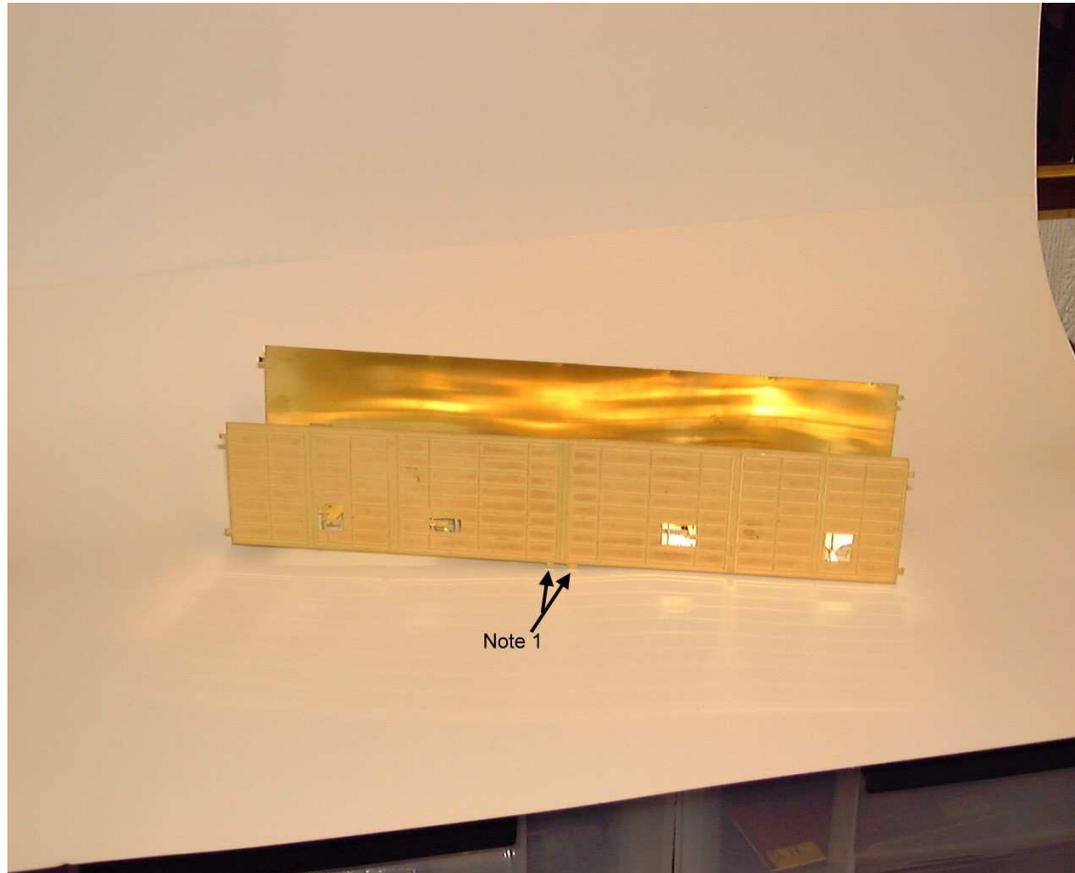
Always build on a level surface. The last thing you want is for your model to derail or wobble. Use a piece of 7mm Glass the squarest material you can get. This will ensure that you stand every chance of building a square model.

Tools

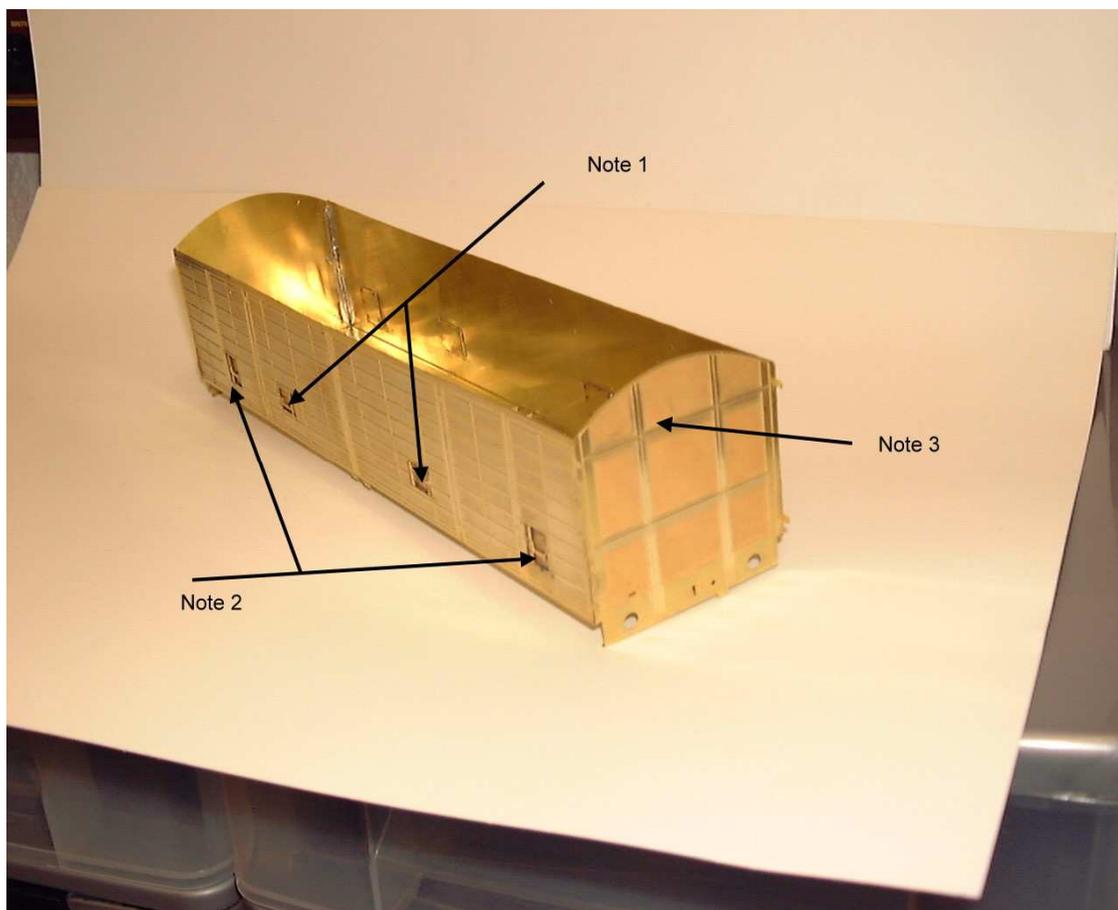
- A soldering iron with range of bits from large to very fine, for example a Weller temperature controlled iron (60 watt)
- Multi core solder, Carrs "Green Label" flux aids the running of the solder#18-24"
- Steel rule
- Folding bars such as those sold by M&M Models
- Range of Swiss files
- Medium cut 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!!!!!!!!!!

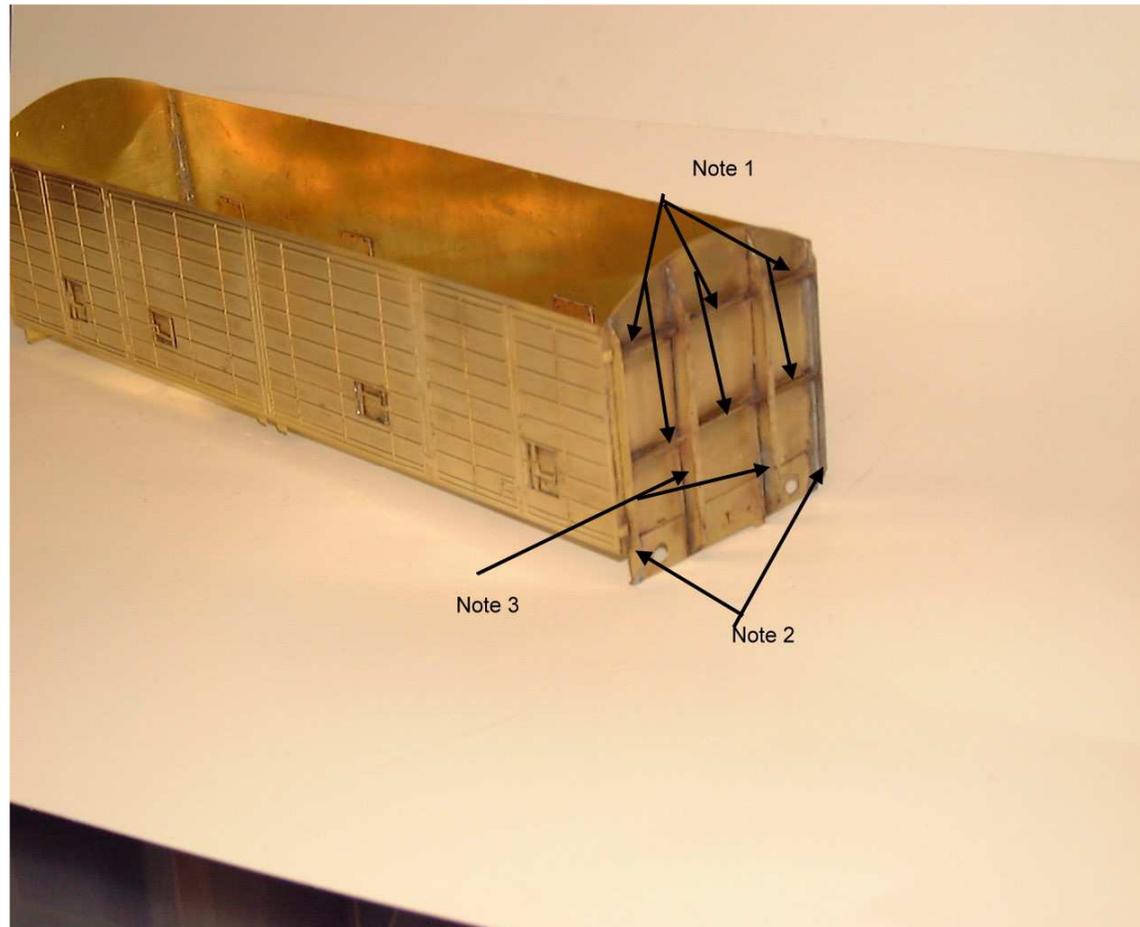
1. Fold up the main body making sure that the two tabs on both sides stick out as indicated in note 1.



2. Fit the two sets of backing plates behind the door opening mechanisms. Note 1 shows where the plain plate goes and Note 2 shows where the plate with the small curved line goes. Now fit both ends making sure that the wagon is square and you have bent over the lip at the bottom of the buffer beam.



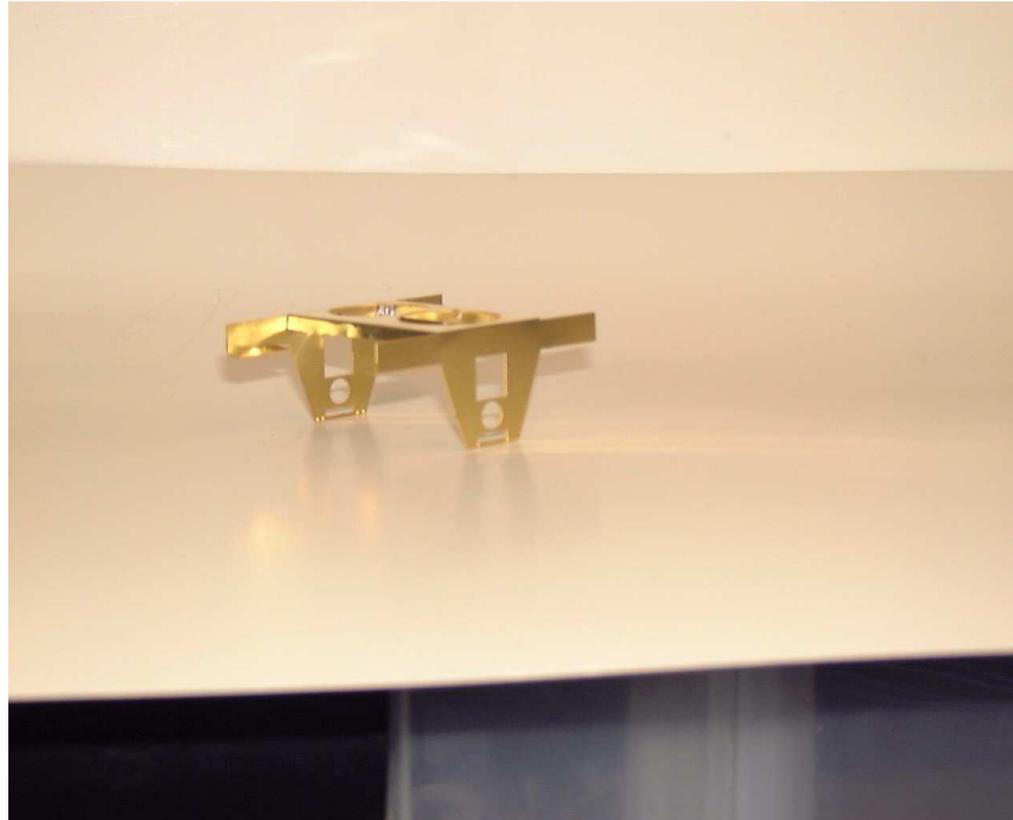
3. Fit the 4 vertical end stations notes 2 & 3. Now fit the horizontal stations by first bending into an L-Shape as note 1. Make reference to the fact that the outer ones bend downwards and the inner ones bend upwards. Bend the body end tabs around the ends. 4 at each end (2 on each side)



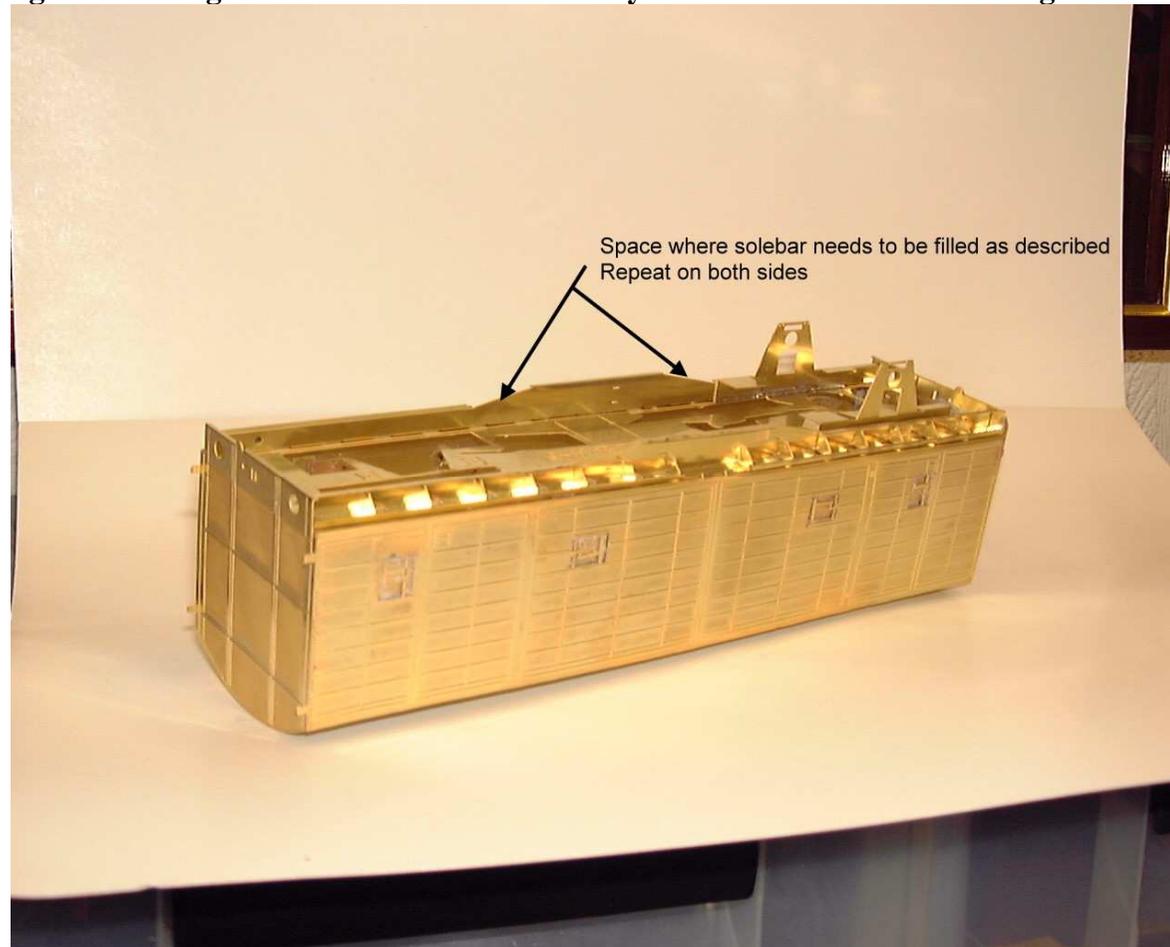
4. Bend up the two solebar units as show in the picture below. You may want to strengthen this with some solder joints.



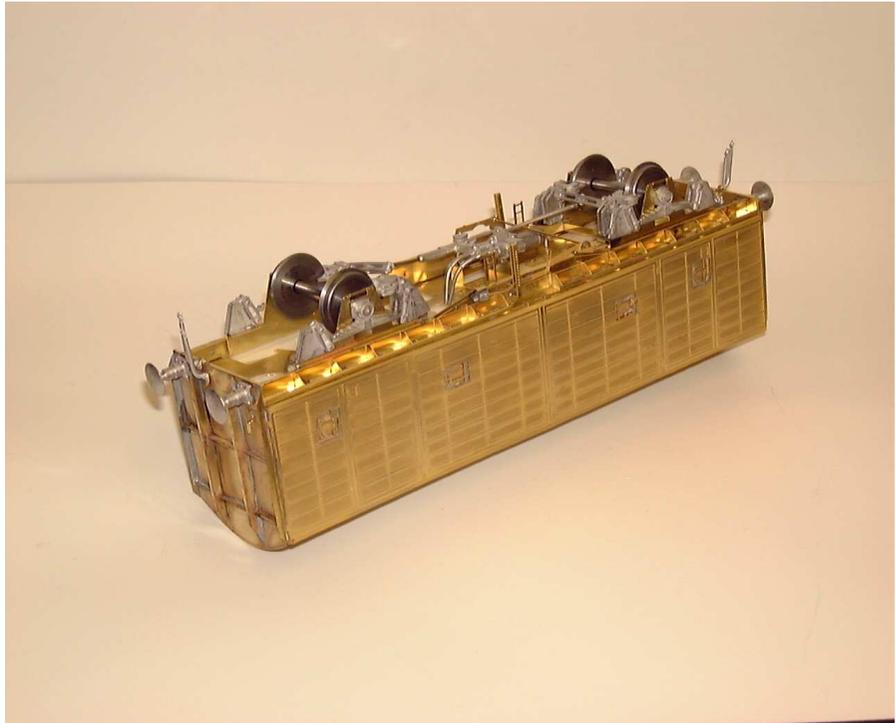
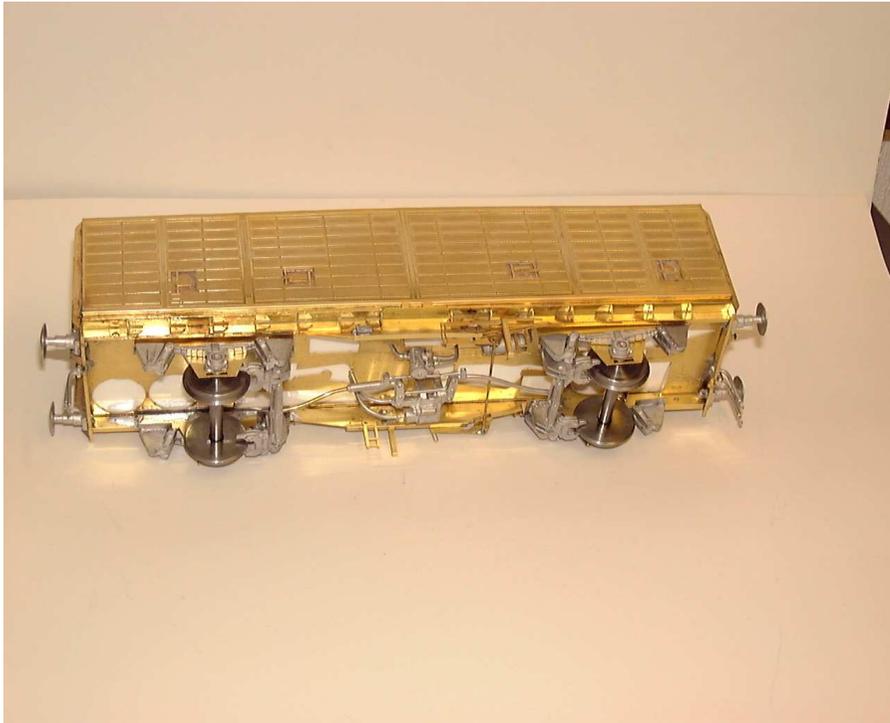
5. Now fold up the wheel compensation unit. You will note that on the underside of the body, there are two tabs that fold down to accomodate this by passing a length of wire through the tabs and the unit, securing to the tabs only allowing the wheel to pivot and compensate.



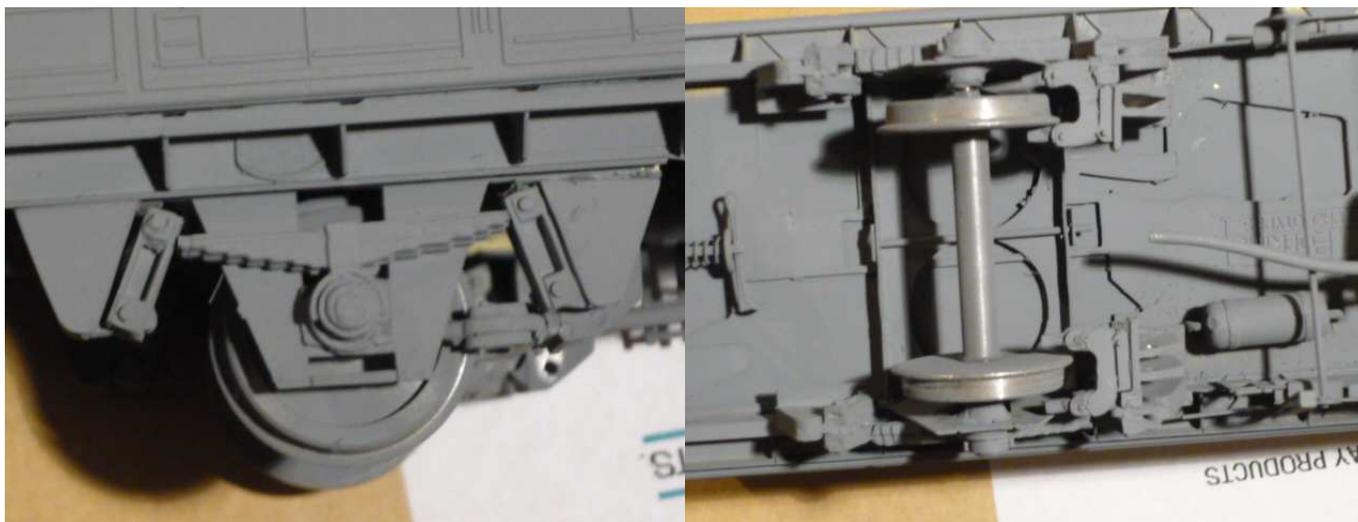
6. Fit the solebars and compensation unit into position. You will note that the lip of the solebar is not constant, with four sections on the diagonals not have this lip. Use the four identical sized pieces of brass to fill these gaps, thus continuing the flat of the solebar the length of the wagon. These are identified as they have a half etched line through the middle of them.



7. Now fit all of the underframe castings, buffers and air Pipes. Note before fitting the wheels, the brake disc etc should be fitted.

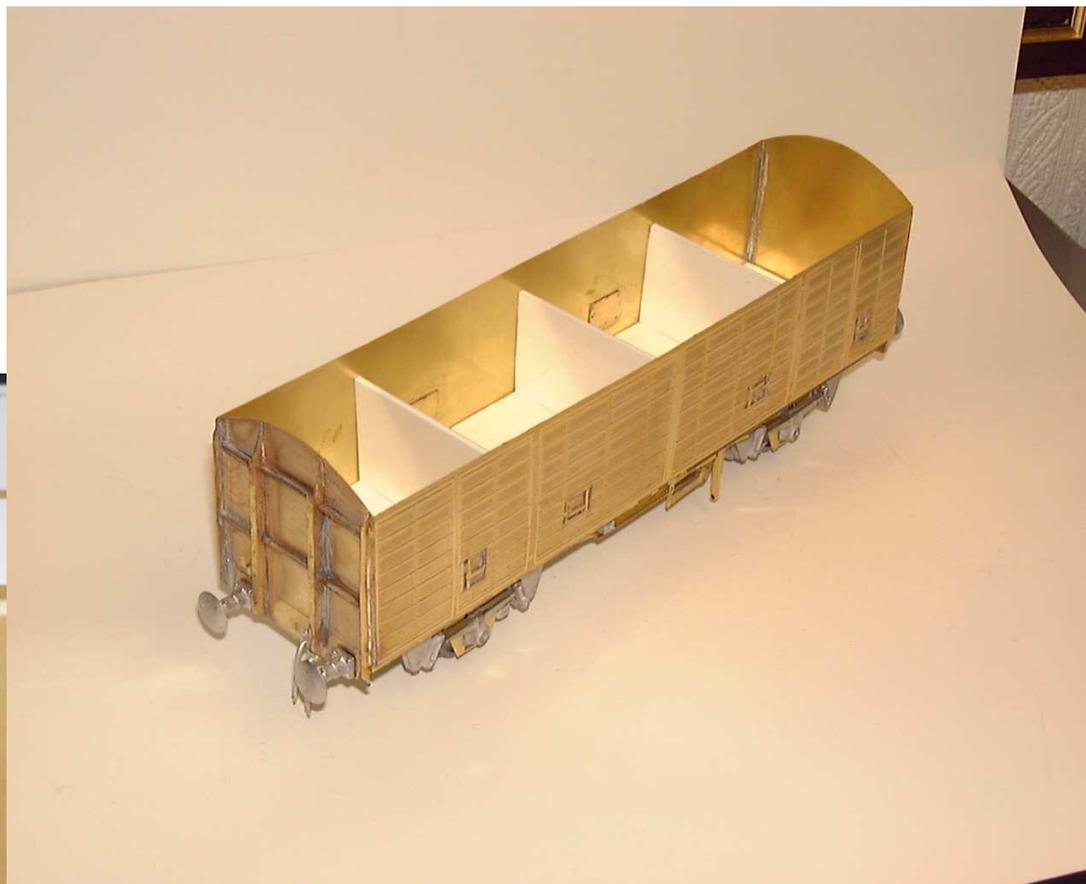
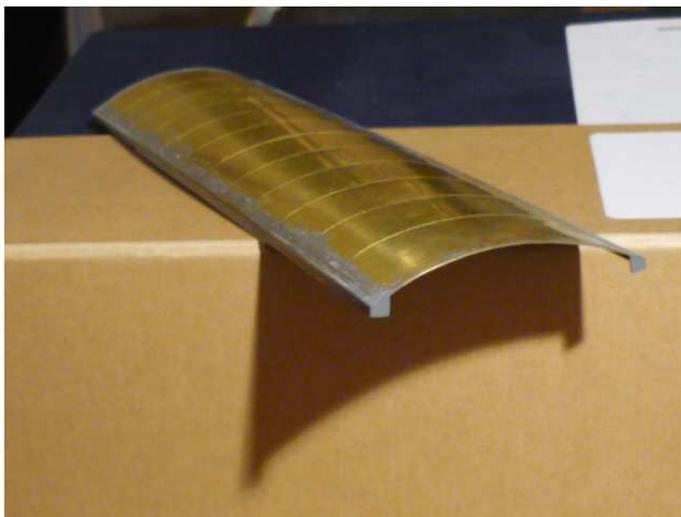


8. Fold up the Hand brake levelers and fit. Finish off by fitting the lamp brackets, work plate and load clip, along with the remaining castings. I have now added a selection of photo's that will bring the last two sections together a little more clearly.





9. All that is left is to fit the roof. Bend as show and solder fit. An option to strengthen the wagon is fit a plasticard inner (Not supplied). Using 1.5mm Plasticard fit a piece that fits in the base approx 231mm x 59mm. You may have to trim this to fit. Then fit three uprights approx 36mm x 59mm. See the picture below to highlight this. You will find that it is easy to handle the model with this extra rigidity.



Further reference material (old instructions)

Type VDA, covered van

USE PWP WAGON SCREW COUPLINGS.

Other Optional Packs available are:-

1. Sprung Oleo 1'8 $\frac{1}{2}$ " Wagon Buffers - Large Head.
2. Working Lost-Wax Air Pipes.

Castings.

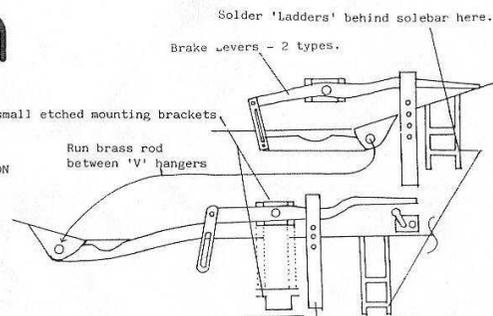
- 4 Axleboxes.
- 8 Suspension Brackets.
- 4 Caliper Brake Units.
- 2 Brake Cross-shafts.
- 1 Brake Linkage Assy.
- 1 Distributor Valve.
- 1 Air Tank.
- 4 Buffers.
- 4 Air pipes
- 2 Brake Force Change-over levers.

Use Pemberton Models Solid Disc Wagon Wheels/Bearings - See Enclosed Order For.
Home of 'O' Gauge Wheels can be used if preferred.

Fit Disc Brake Inserts to all Wheel Faces.

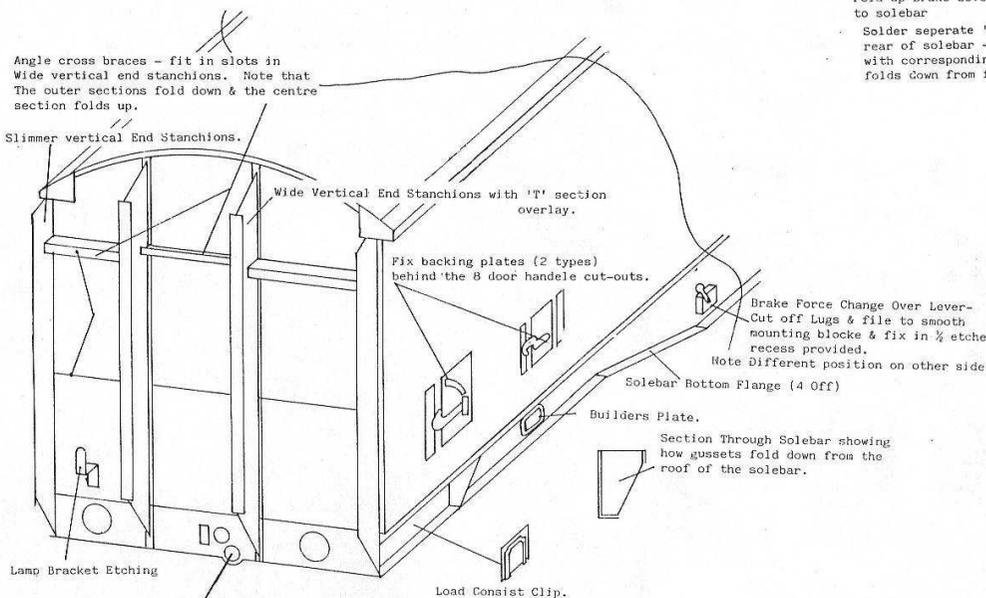
Brake levers solder to small etched mounting brackets.

BRAKE LEVER LAYOUT - USE IN CONJUNCTION WITH UNDERFRAME INSTRUCTIONS BELOW.



Fold up Brake Lever Guides & Solder to solebar

Solder separate 'W' iron etching to rear of solebar - to line up with corresponding 'W' iron that folds down from floor.



Single Air Pipe System - BR are rapidly going over to this system for Freight Stock, & so the lower hole for the Reservoir Pipe is only 1/2 etched from the rear. This hole can easily be drilled out if a Twin Pipe layout is preferred.

STD. 45t. WAGON UNDERFRAME.

Fold up 'W' Iron Assys. Unit With Side Panels is the Compensated Unit. This fits in the Fold-Up Cradle That should be soldered on the Wagon Centre Line. Note on VDA - the Compensation Cradle Tabs fold down from the wagon floor, and also serves to determine Wheel-base of wagon. There is also a different arrangement at the Non-Compensated end - where One 'W' Iron Assy. folds down from the Wagon Floor & another is soldered opposite.

Fit Calliper Brake Units to Platforms on 'W' Iron Assy. so that wheels fit between them. Add Brake Cross-shaft castings in holes in Calliper Units.

Run Brass Rod between Deep 'V' Hanger & bottom of Long Brake Lever used on other side.

NOTE THAT ON THE SPA & VDA THE SOLEBAR IS STRAIGHT & SO THERE ARE NO SOLEBAR FILLETS TO FIT.

OCA/OBA/OTA - Fold & Fit 8 Etched Solebar Fillets.

Fold & Fit Etched Mounting Bracket for Distributor Valve to Floor - and add D. Valve to this.

Jack Solder Air Tank to Floor As Shown.

VDA NOTE - The Mounting Platforms for the Brake Linkage Assy., & The Distributor Valve fold down from the floor, as opposed to be separate items.

Fit Axleguards into holes in 'W' Irons - Different type on VDA.

Solder short Brake Lever to rear of 'V' Hangers.

Shallow 'V' Hanger.

Make this Rod up from Brass & solder to Linkage & into hole in other Brake Cross-shaft.

Seperate Br. Lever 'Ladder' Unit.

Fold & Fit Brake Lever Guides to Solebars

Fit Cast Brake Force Change Over Levers to bottom of Solebars & run wire between as shown. This arrangement does not apply on VDA - see above.

Fit Suspension Brackets to underside of Solebar - touching Leaf Springs on Axleguard.

Br. Lever Overlay - Both Sides.

Shallow 'V' Hanger.

Bend Rods up to meet floor.

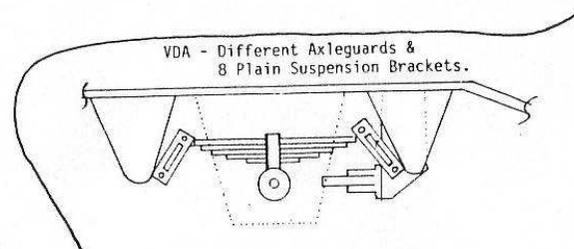
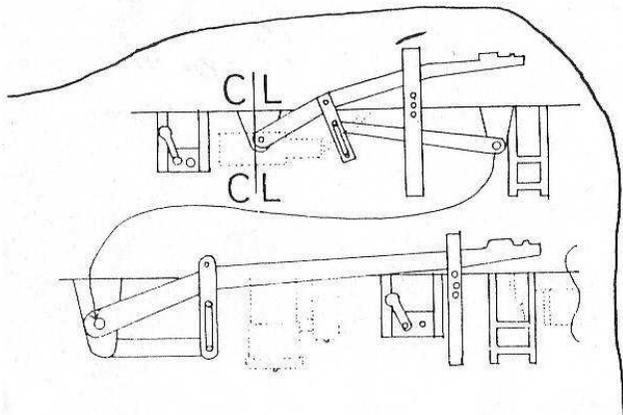
Fold & fit Ethed Brake Unit Mounting Platform to Floor as shown & add Cast Brake Linkage to top of Platform. Cast Rod fits into hole in side of Cross-shaft. Do Not Solder.

Fit Solid Suspension Bracket in This Position - and diagonally opposite on other side of wagon.

Deep 'V' Hanger/Br. Lever 'Ladder' Unit.

NOTE ON VDA - THE BRAKE LEVER ARRANGEMENTS ARE DIFFERENT - SEE ABOVE. ALSO - THE MOUNTING PLATFORMS ARE FOLDED DOWN FROM THE WAGON FLOOR AS OPPOSED TO BEING SEPERATE ITEMS. THIS DICTATES THE POSITIONING OF THE BRAKE ASSY. & DISTRIBUTOR VALVE. ALSO THE AIR TANK FITS INTO HOLES INTO THE FLOOR.

N.B. ASSY. OF THE U/F COMPONENTS WILL BE ASSISTED BY CROSS-REFERENCING THE MAIN DRAWING WITH THE SCRAP-VIEWS SUPPLIED.



The finished Article

