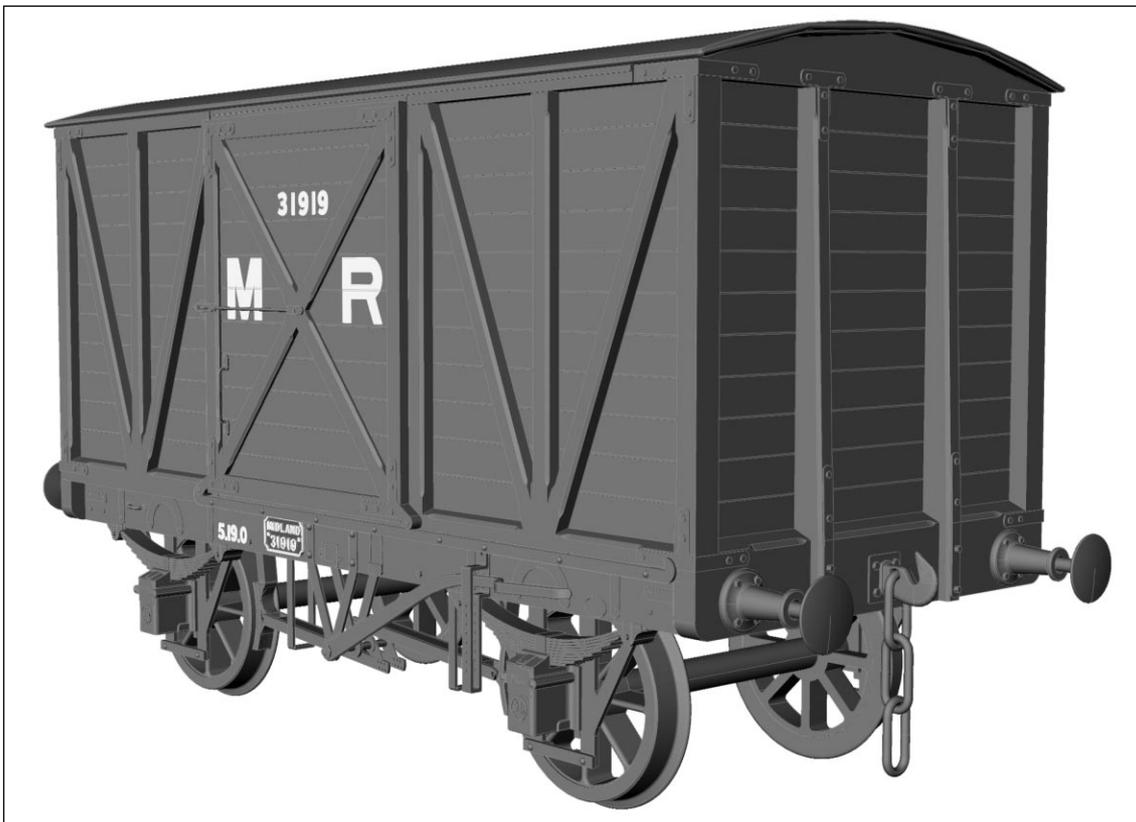


## Ref. 8024 - Gauge 1 (1:32) Midland Railway 10 Ton Covered Goods Van



### INTRODUCTION

#### Prototype Information

The M.R. 10T covered goods wagon and their ventilated cousins, cover a range of over 7866 vehicles plus a further 250 vehicles with end windows classed as tariff vans.

As the permutations are considerable, modellers are recommended to consult **Midland Wagons Vols. 1 & 2** by R J Essery, published by O.P.C. We are grateful for additional assistance that R. J. Essery and R. Betts have provided in the manufacture of these kits.

The basic variations are listed as follows. NOTE: that early batches built with grease boxes and brakes one side only would be rebuilt later in their lives with oil boxes and brakes both sides if still in service when this became mandatory. Also the reference to some vehicles being fitted with automatic vacuum through pipes was a method whereby the vehicle could be marshalled in a complete train fitted with A.V.B. without the actual vehicle being so fitted, the through pipe carrying the actual vacuum to vehicles marshalled behind the unfitted vehicle, from the locomotive.

**Diagram 362.** Original batch first built 1893 fitted with grease axle boxes, 3'-2" dia. 8 spoke wheels. Brake gear one side only. Rated as 8 tons.

Tare: Standard vehicle 5-12-0

A.V.B.through pipe 5-14-0

A.VB. + Westinghouse through pipe 5-15-0

Diagram 363. First built 1902 oil boxes 3' 2" dia wheels. Brake gear one side only when new. To carry 10 Tons.

Tare: wagons without through pipes 5-17-2

wagons fitted with AVB through pipes 5-19-0

wagons fitted with AVB and Westinghouse through pipe 6-0-0

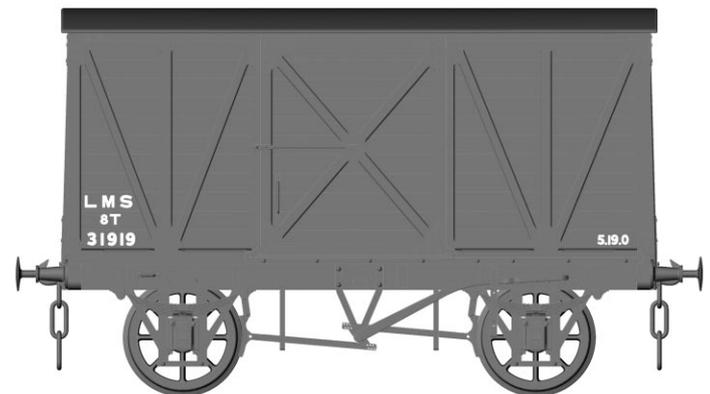
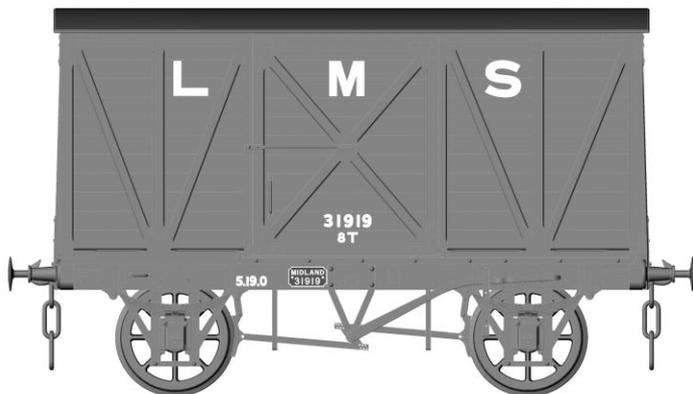
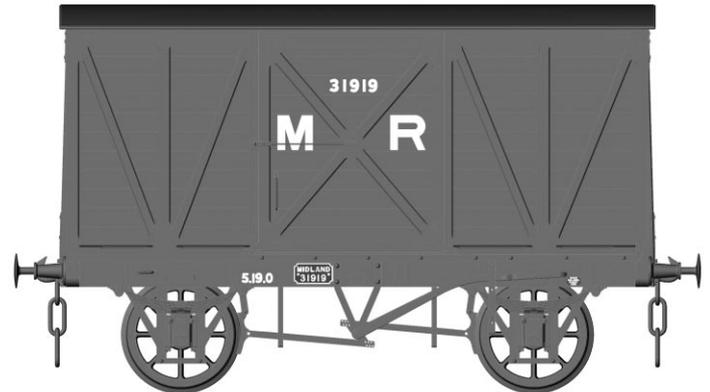
## Painting Details

As built, these vans were painted in the standard Midland Railway mid-grey colour, with all "ironwork" below floor level picked out in black. Those which survived to LMS days would have been repainted into LMS darker grey, and later into LMS bauxite. All these colours are available from Precision Paints.

## Lettering Details

Prior to the mid-1890s, any of these built would have carried no lettering apart from the cast iron numberplate fitted to the solebars. After this date, the lettering style would have been:

Early (grey livery) and later (bauxite livery) lettering styles are shown below:



## MODEL INFORMATION

This kit will enable you to build an accurate replica of a Midland Railway 10 Ton Covered Van, fitted with Ellis Patent grease lubricated axleboxes, and hand-brakes on either one side or both. It has been designed to be as simple, and therefore as quick, as possible to assemble. The main body is formed from precision made injection moulded polystyrene components, etched axle guards and brake linkage, injection moulded polystyrene axleboxes and (dummy) leaf springs, turned buffers, and cast coupling hooks. The buffers and couplings are sprung, and the axleboxes can be sprung or solid. The model has steel tyred, glass-filled nylon centred wheels (being impervious to most oils and other chemicals encountered on indoor or outdoor model railways); the wheels are to 'Fine' profile, but are set to 41mm back-to-back to enable them to run smoothly through PECO points.

## Tools Needed

The following tools are needed, most of which will already be in the toolkit of the average modeller.

- |  |   |
|--|---|
| Piercing Saw or Nippers                      | for removing lost wax castings from their sprues                                |
| "Stanley" type knife                         | for removing etched parts or polystyrene mouldings from the frets or mouldings. |
| Assortment of small files                    | for finishing removal of pips, tabs, and general cleaning up                    |
| Cyanoacrylate (Loctite Superglue or similar) | for quick fixing of parts where maximum strength                                |

- is less important
- 2-part Epoxy Glue (Araldite or similar) for fixing polystyrene to brass. The 5 minute setting variety is OK for most of this work, but the 24 hour setting version is better if you have the patience to wait for each bit to set!
- Slater's MekPak (or similar) For assembly of polystyrene components Also needs a fine brush for application.
- Glass Fibre Pencil **OR** Abrasive Rubber Block for cleaning all materials (but particularly etched brass parts) prior to glueing and prior to painting.

## Removing plastic parts from the Sprues

Cut through the joining tabs with a sharp knife or nippers, away from item required, removing the remains of the tab afterwards with the knife and finishing with a file. Do not try to break or snap the tabs, as this usually results in breaking away part of the item you need!

## Cleaning up Lost Wax Castings

Remove pieces from the sprue with a piercing saw or nippers and finish off with a fine file. Remove any blemishes with a file and finish with a quick polish with a glass fibre brush.

## Etched Components

Remove components from the sheets only when you need them. This is done by cutting through the small tabs (but see next paragraph) with a Stanley-type knife, or a small chisel blade, whilst resting on a fairly hard surface like a piece of MDF. In many places it is possible to cut the tabs with scissors or nippers, but however you do it, do it carefully to avoid distorting the part you are removing and any adjoining parts. Usually it is best to cut the tab at the end away from the part and then remove the remains with fine nippers, finishing off with a fine file.

Many of the etched components require folding, and some of the folding joints look very much like the location tabs. Make sure, by studying the instructions, that you cut out parts by removing only the tabs and not the fold joints! As a general rule, where components form a right angle, the fold line is on the inside, but where it folds back on itself (i.e. to 180°), the line is on the outside.

Before you do any folding or assembly work, clean any edges or surfaces with the glass fibre brush or abrasive rubber prior to glueing. This is done by running some superglue into the joints after assembly or smear some epoxy (Araldite) on the faces and joints during assembly.

## Painting and Finishing

The secret of good painting is preparation. Make sure that all parts are thoroughly clean, dry and free of any grease. Metal parts should be cleaned with the glass fibre brush as the slight scratching helps the paint to key. Everything should be washed with a mildly abrasive kitchen cream cleaner, such as Cif (ex Jif), or even better, if you can get it, a product called Shiny Sinks, which is intended for stainless steel sinks, but cleans brass beautifully. Use an old toothbrush to work into the corners and crevices. You may need to repeat if the foam goes grey the first time. When it is clean, rinse in clean water. Once thoroughly clean and dry do not handle the model except with surgical gloves or tissue paper/kitchen roll. Leave to dry, at least overnight, before applying the primer. Cover with a clean cardboard box or similar to prevent dust settling.

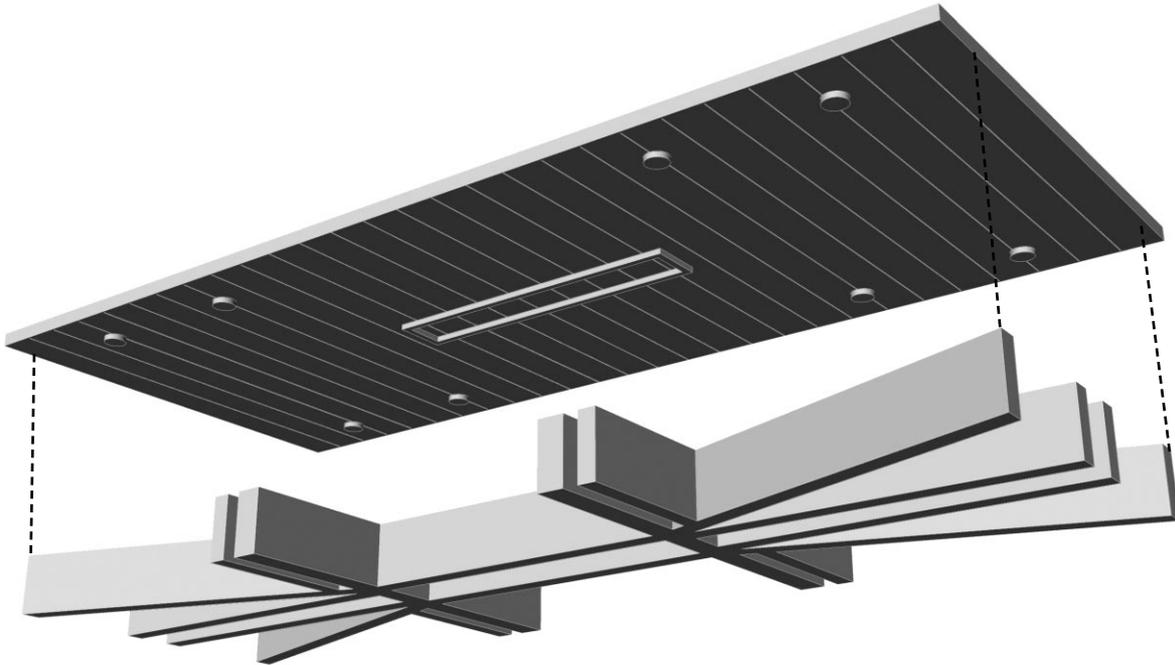
To prime the body, it only needs a light mist coat from a car aerosol spray, but brass should be primed more thoroughly. In fact, an etching primer is best; this is available from good model suppliers. Read the manufacturer's recommendations on the minimum drying time. If you are going to follow a car aerosol spray primer with the same maker's top coat, ten minutes may be sufficient. However, with many paints you will find that at least 24 hours should elapse before the top coat is finally applied.

The final job (optional) after applying the transfers is to give everything a coat of rust, dust, dirt and grime! There are now several very good books available on the subject should you wish to go further.

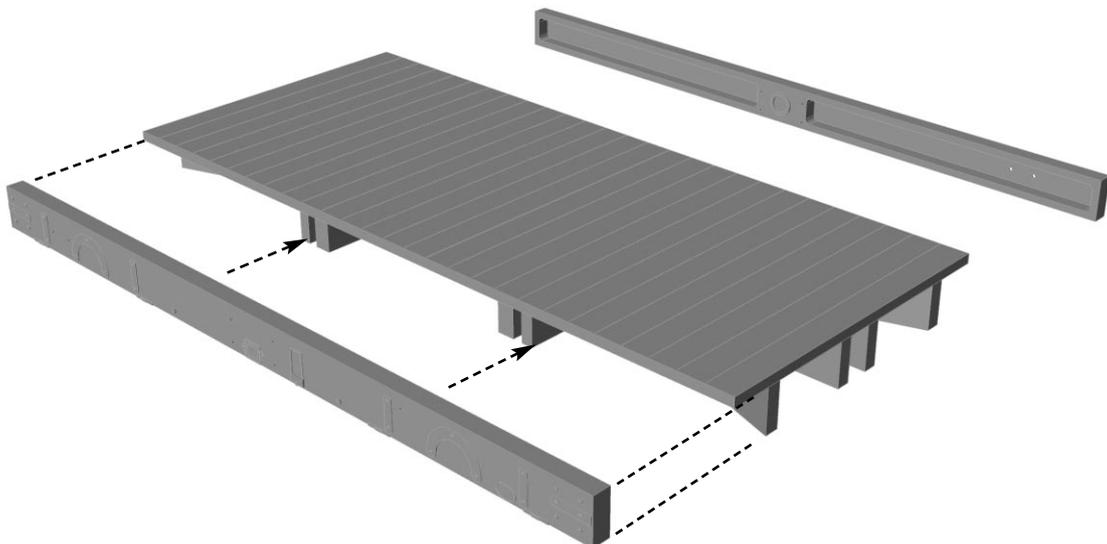
## ASSEMBLY INSTRUCTIONS

To avoid tedious repetition, it will be assumed in each sub-section that the parts have been removed from the etched fret, moulding or casting sprue, etc., that tabs, moulding pips, etc., have been removed, rivets formed, and preliminary cleaning done ready for glueing.

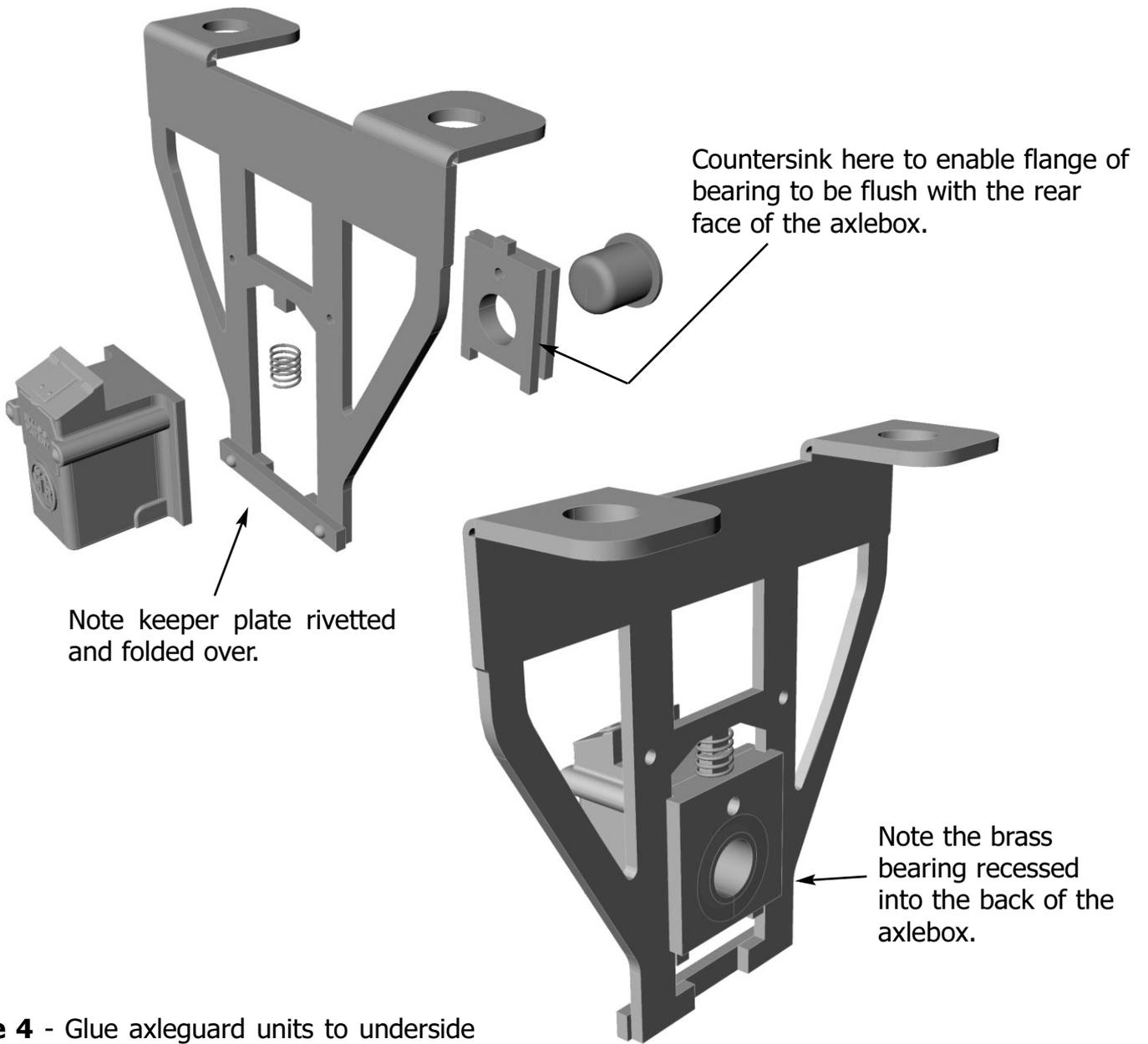
### Stage 1 - Glue floor to underframe



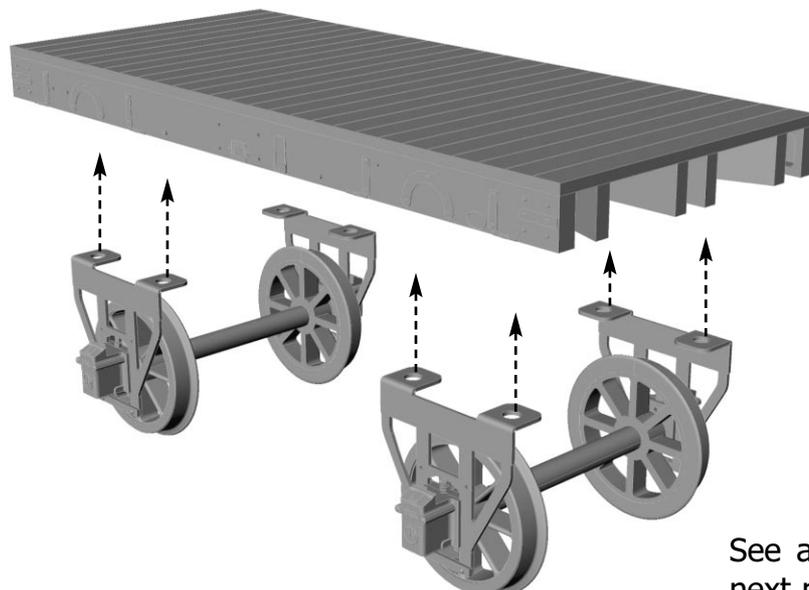
**Stage 2** - Glue solebars to floor/underframe unit. Note which way up the solebar goes: the U shaped flitch plates have the open end downwards



**Stage 3** - Assemble axleguard, axlebox, and suspension units

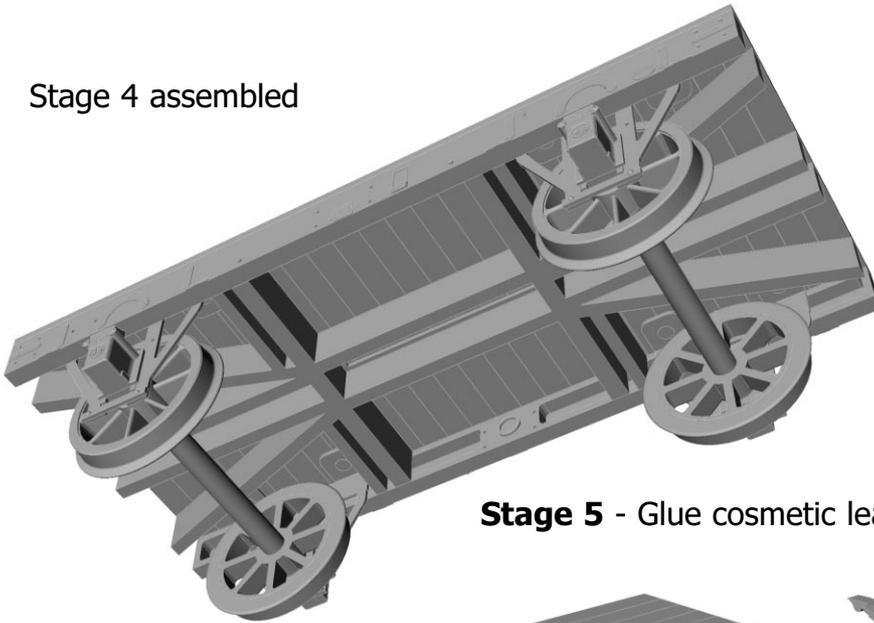


**Stage 4** - Glue axleguard units to underside of floor.

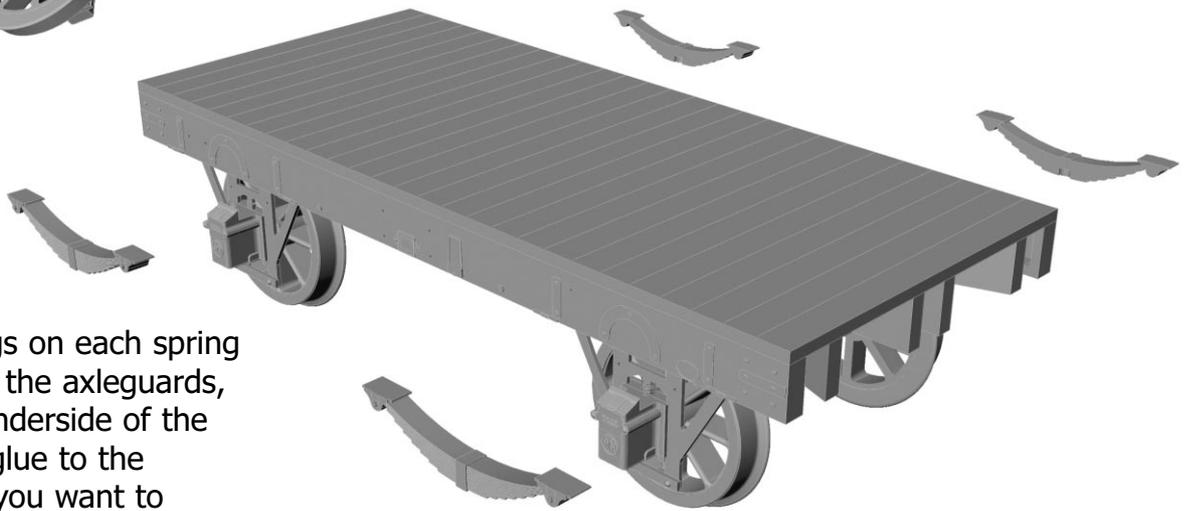


See also illustration on next page

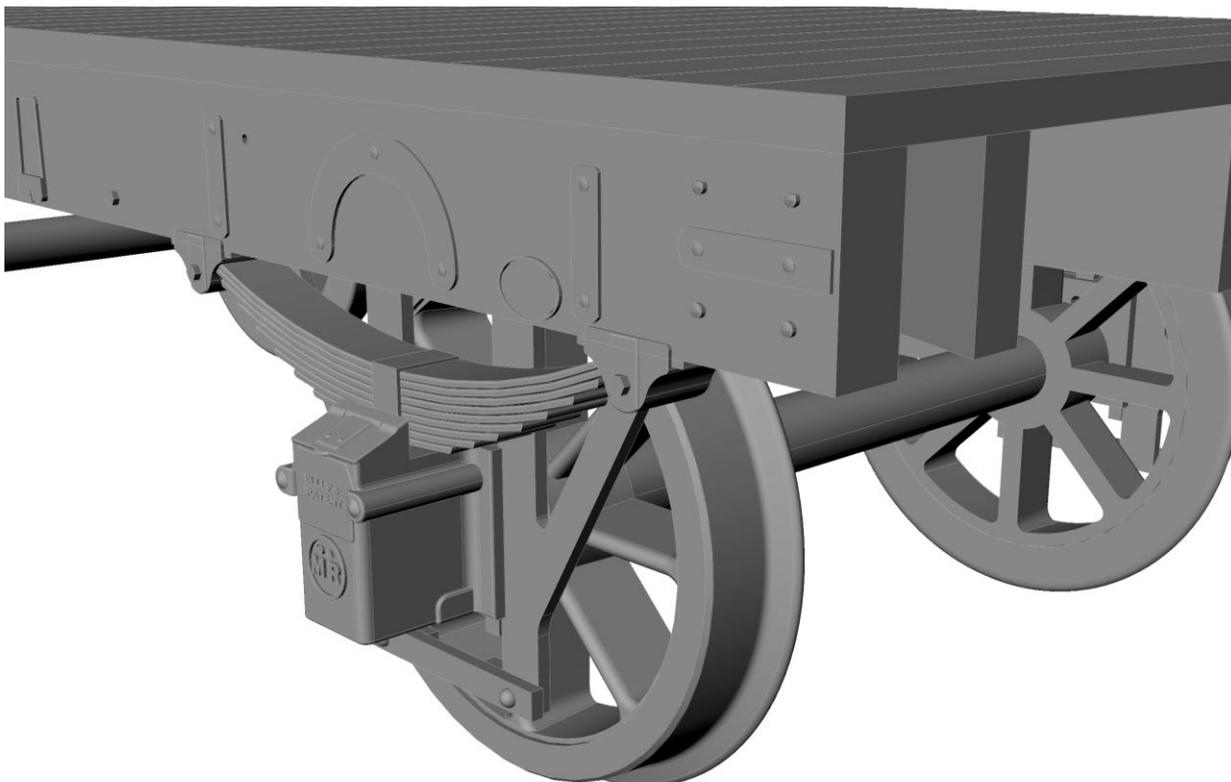
Stage 4 assembled



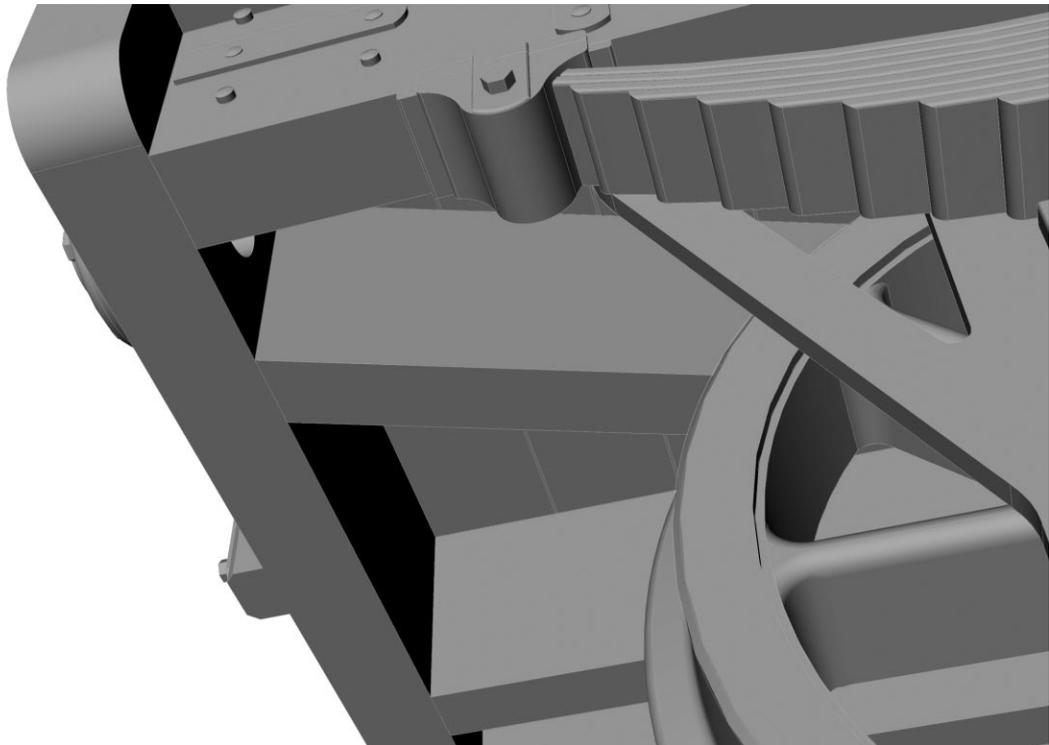
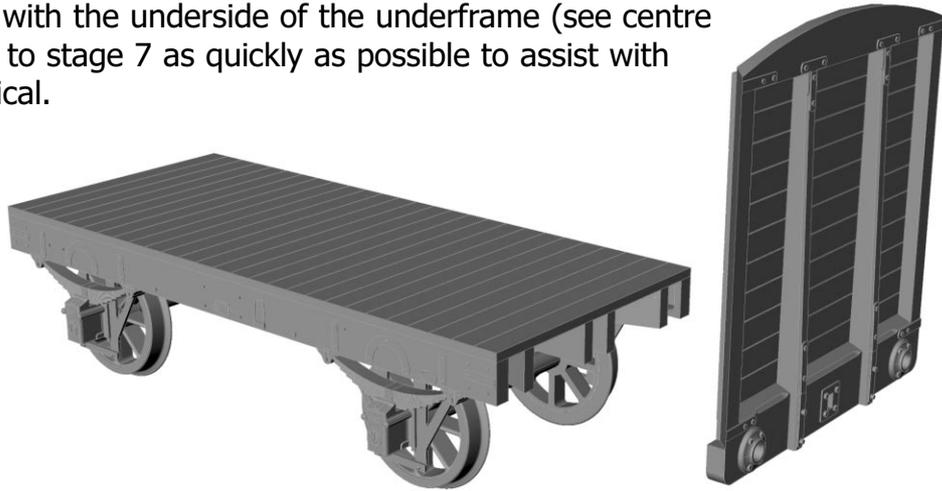
**Stage 5** - Glue cosmetic leaf springs to solebars and axleguards.



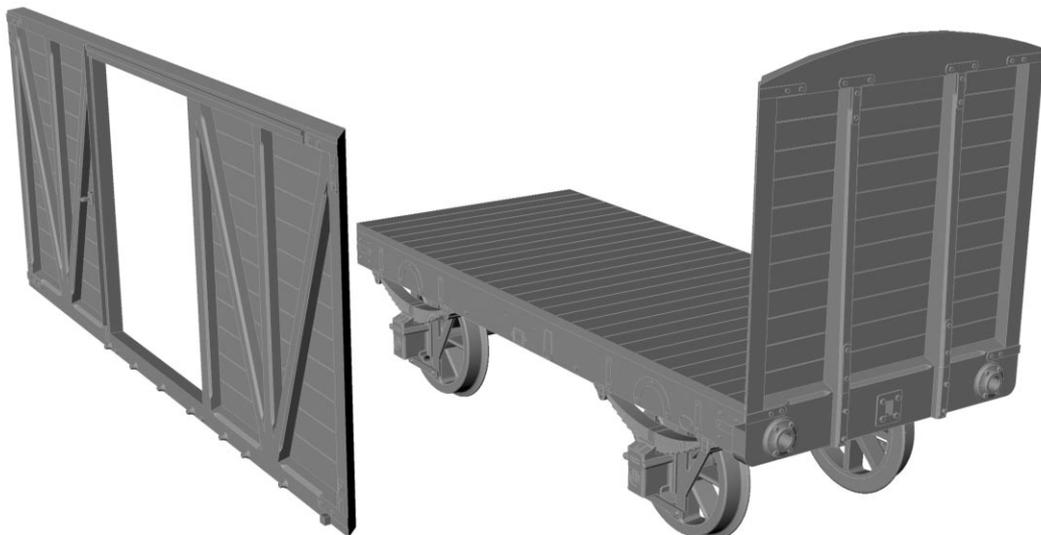
Note that two pegs on each spring locate in holes on the axleguards, and glue to the underside of the solebars. Do not glue to the axleboxes unless you want to dispense with the suspension!



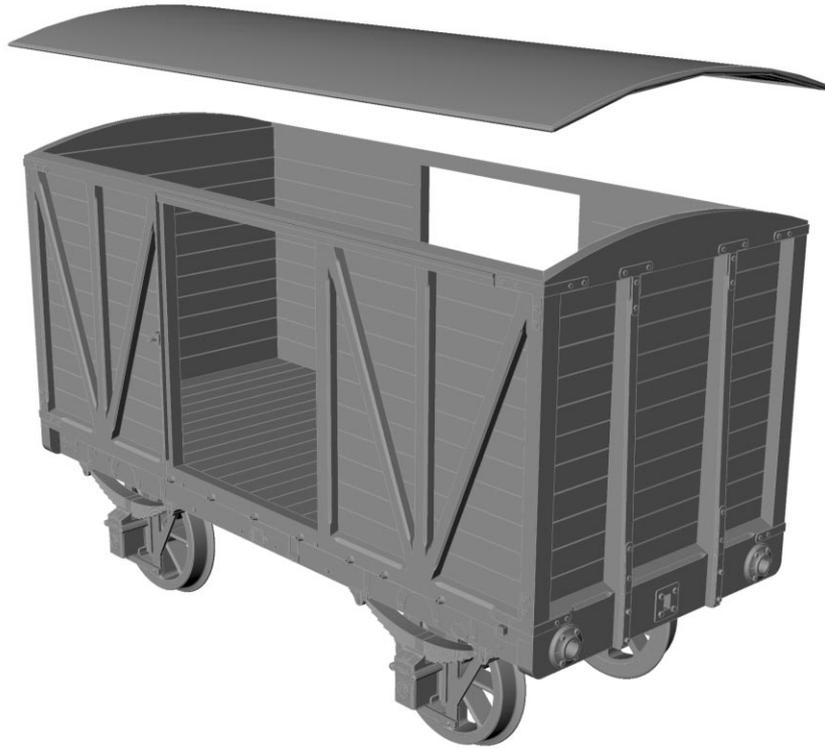
**Stage 6** - Glue body ends to the floor unit. Note that the underside of the headstock is level with the underside of the underframe (see centre picture). Also proceed to stage 7 as quickly as possible to assist with keeping the ends vertical.



**Stage 7** - Glue body sides in place.



**Stage 8** - Glue on the roof.

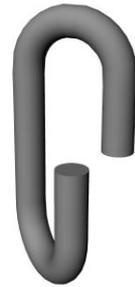
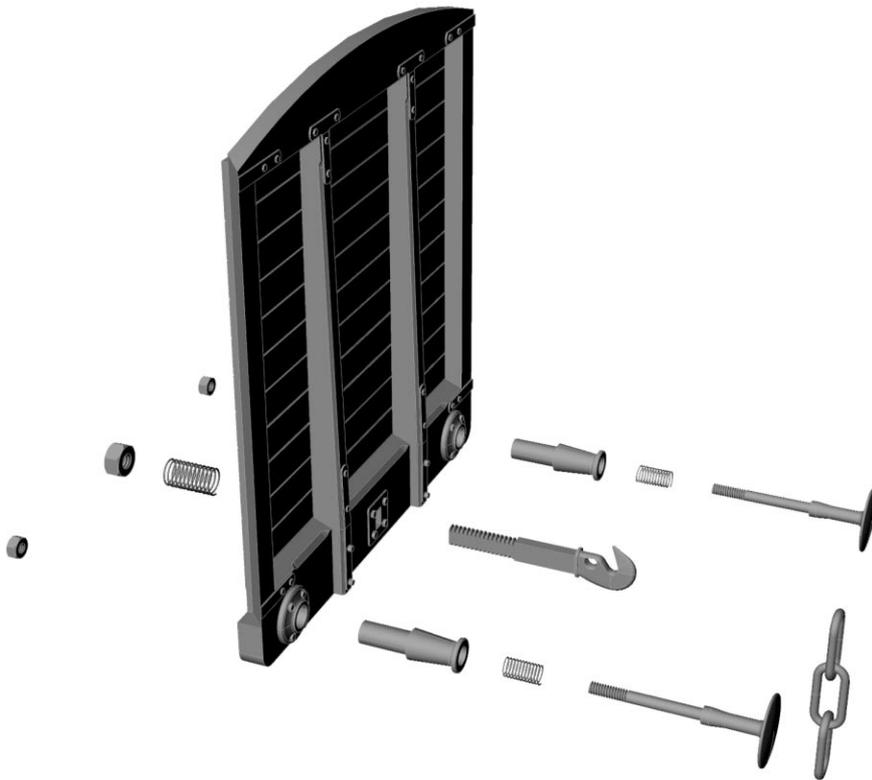


**Stage 9** - Glue on the doors. (Having both sides, the ends, the roof and the doors in place results in a "solid" structure to hold on to when putting on the remaining "fiddly" bits.

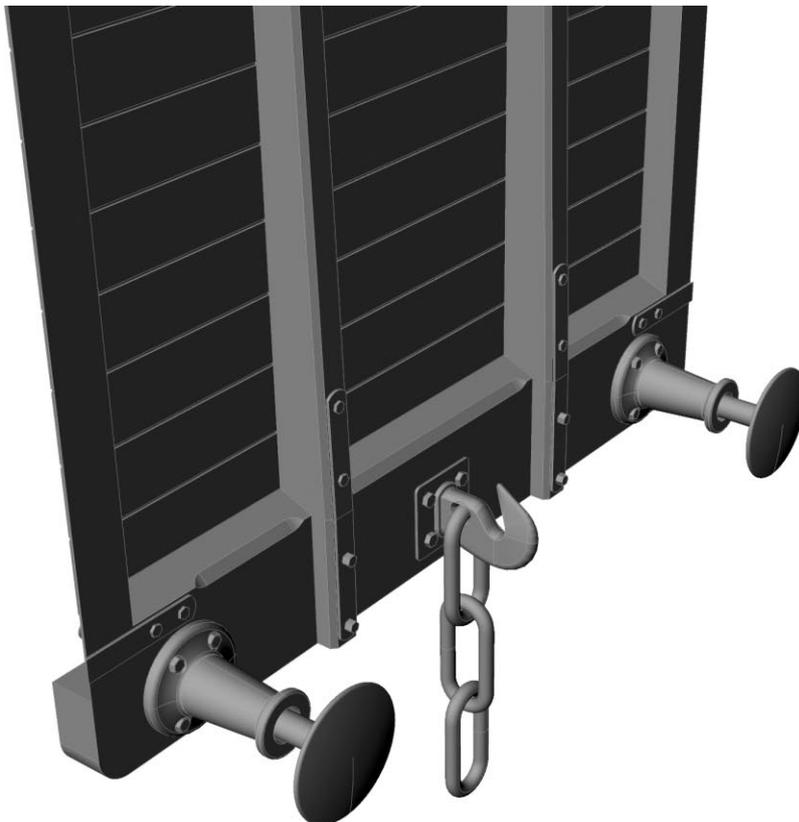


**Important Note:** The doors glue at the top and the bottom. There should be a small gap (less than 0.5mm) between the side of each door and the adjoining pillars. This is not only prototypical, but is important to ensure that the body does not become fully enclosed. If your model is likely to become subject to large variations in temperature or humidity, it might be wise to make a large hole in the floor in addition to this gap, to ensure that air trapped in the body does not expand and contract.

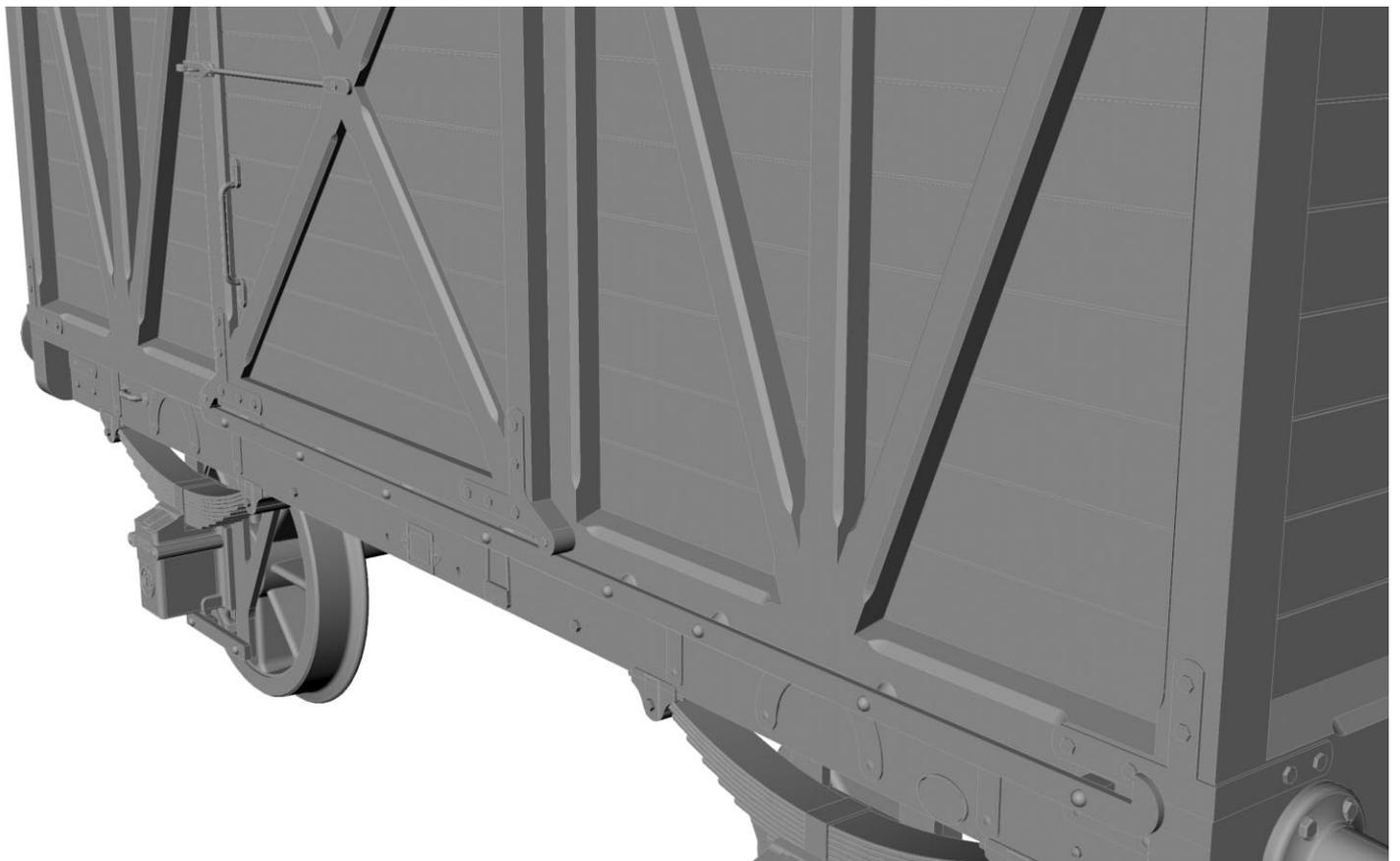
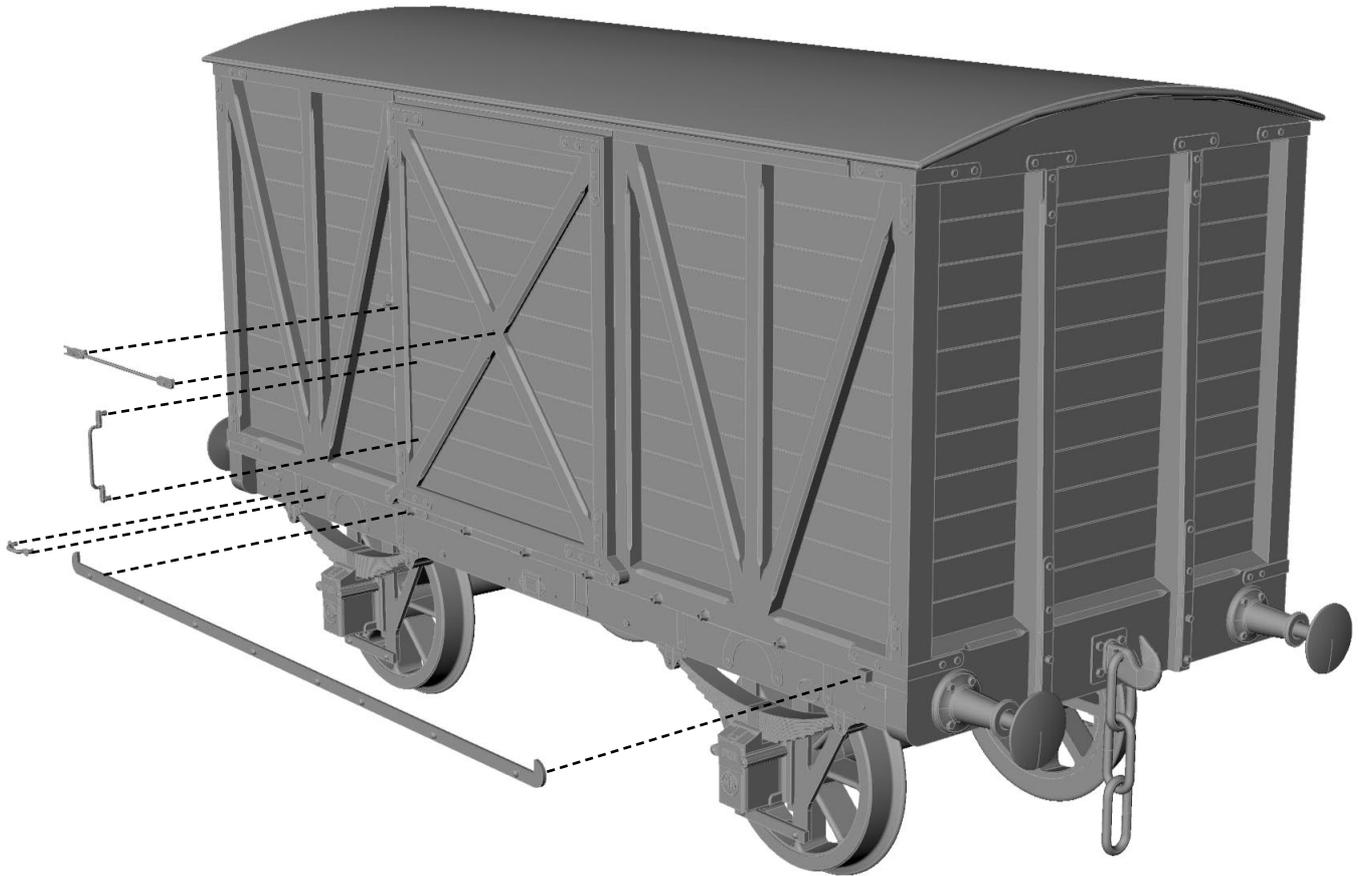
**Stage 10** - Assemble the buffers and couplings as shown in the first drawing. The finished result is shown in the lower drawing



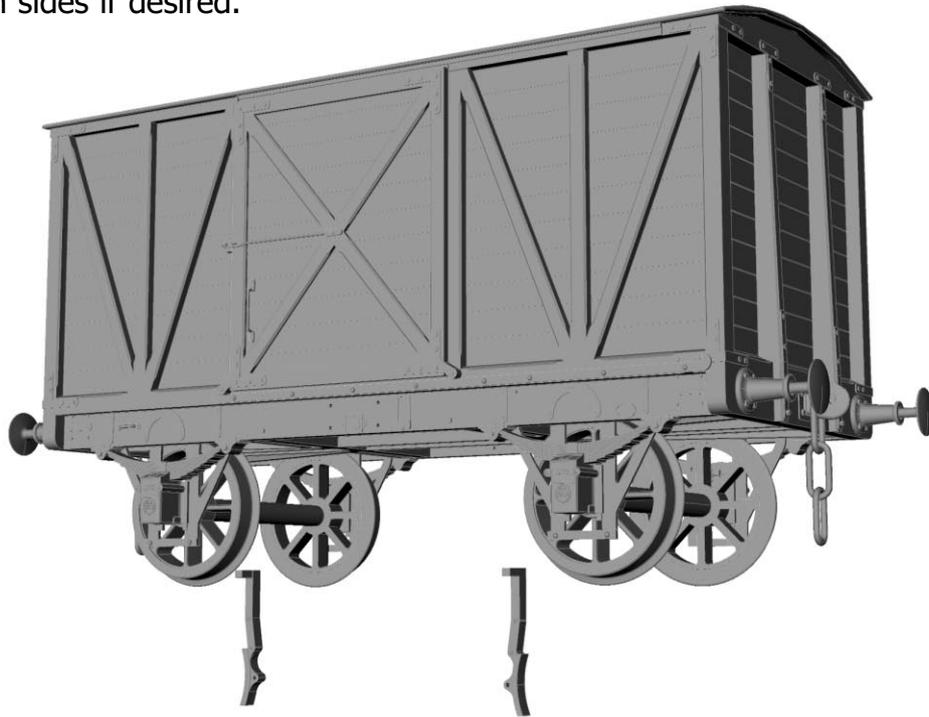
**Coupling Links** - To assemble the links into a chain, and to pass through the coupling hook, twist open as shown (using two pairs of pliers), then twist back after assembly



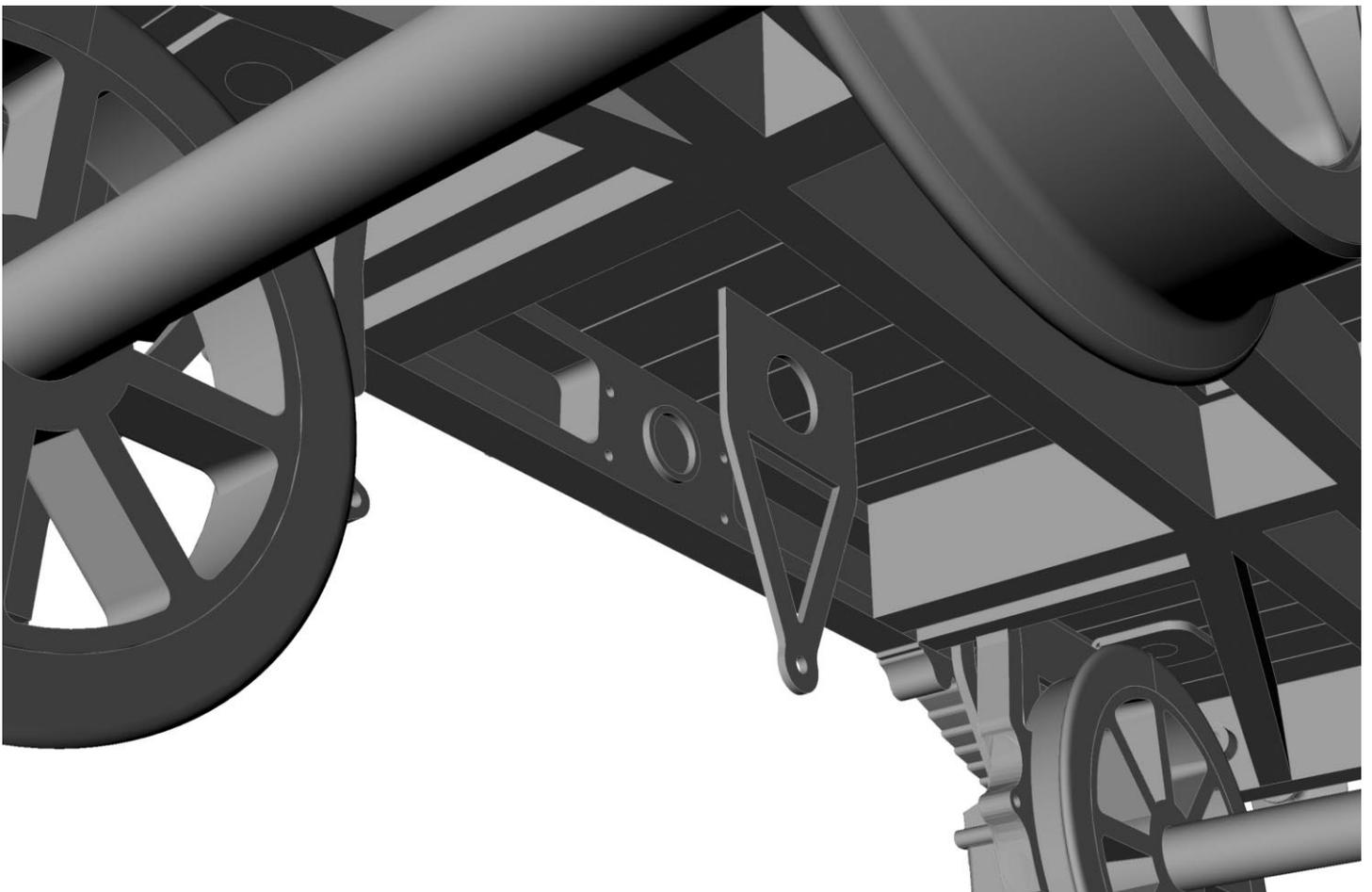
**Stage 11** - Assemble the cast door handles (into the holes in the doors), the cast horse hooks (into the holes in the solebars) and the etched door runner (after forming the rivet heads). The runner glues onto the projections on the sides, each projection lining up with a rivet. Use the bottom of the door to help with the alignment. Don't forget to do both sides!



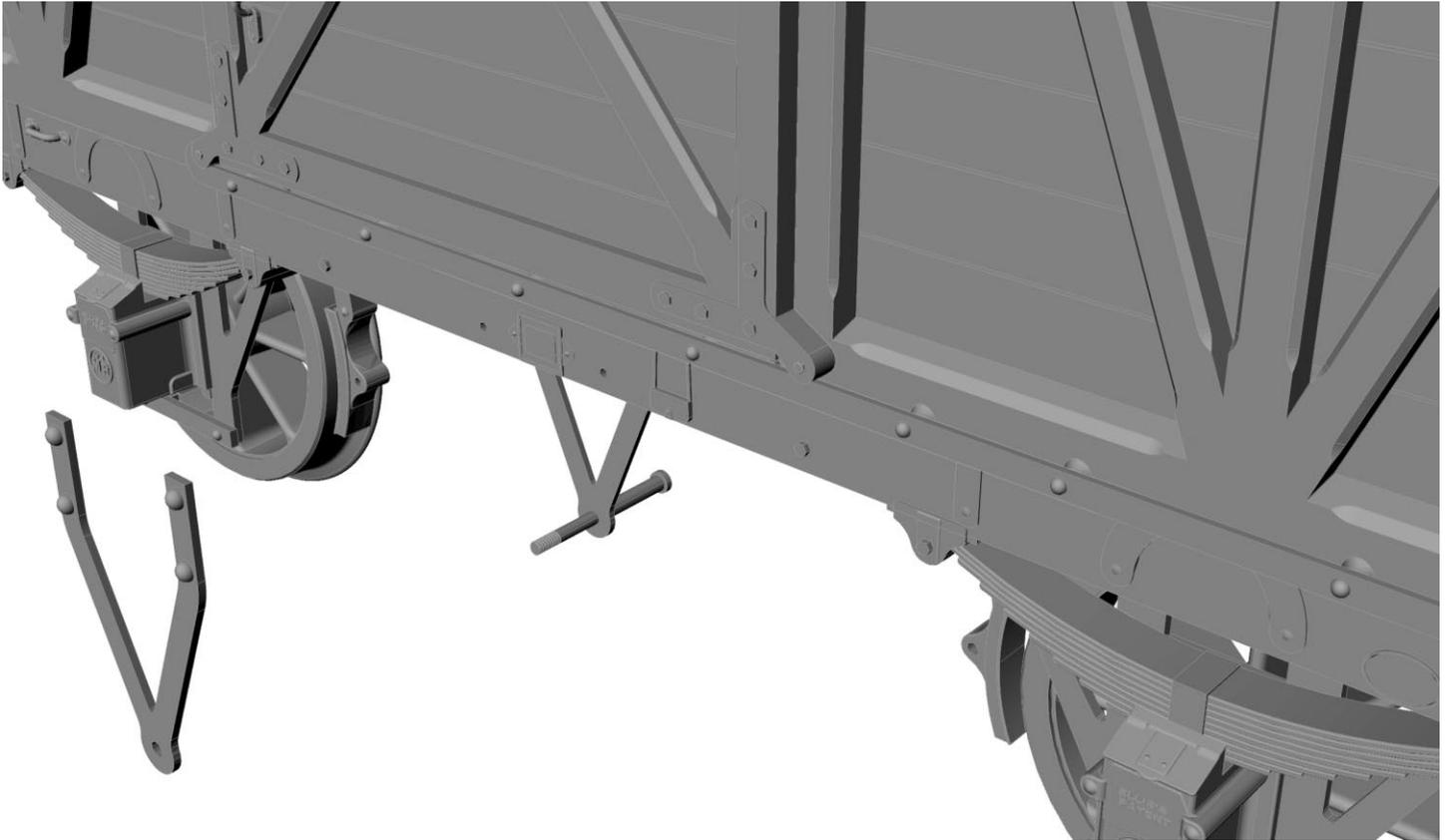
**Stage 12** - Glue brake blocks and hanger assembly into the underframe. The illustrations on the next few pages, and the use of the etched pull-rods, will help to ensure the correct location. Note that the various illustrations show brakes on one side only; this was common practice until the first few years of the twentieth century, after which brakes were fitted to both sides. Parts are included for brakes on both sides if desired.



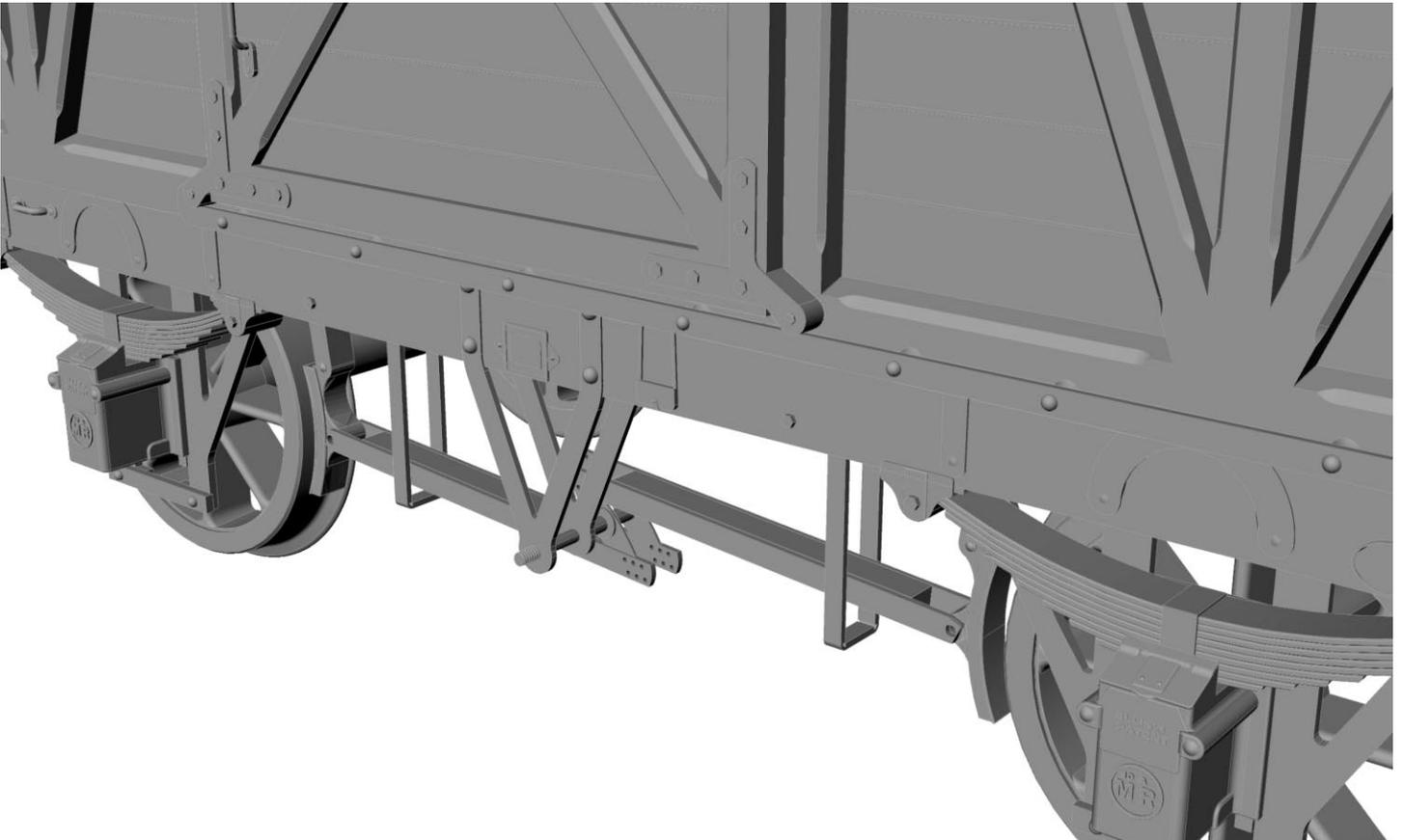
**Stage 13** - Glue the inner "V" hanger in place using the moulded projection.



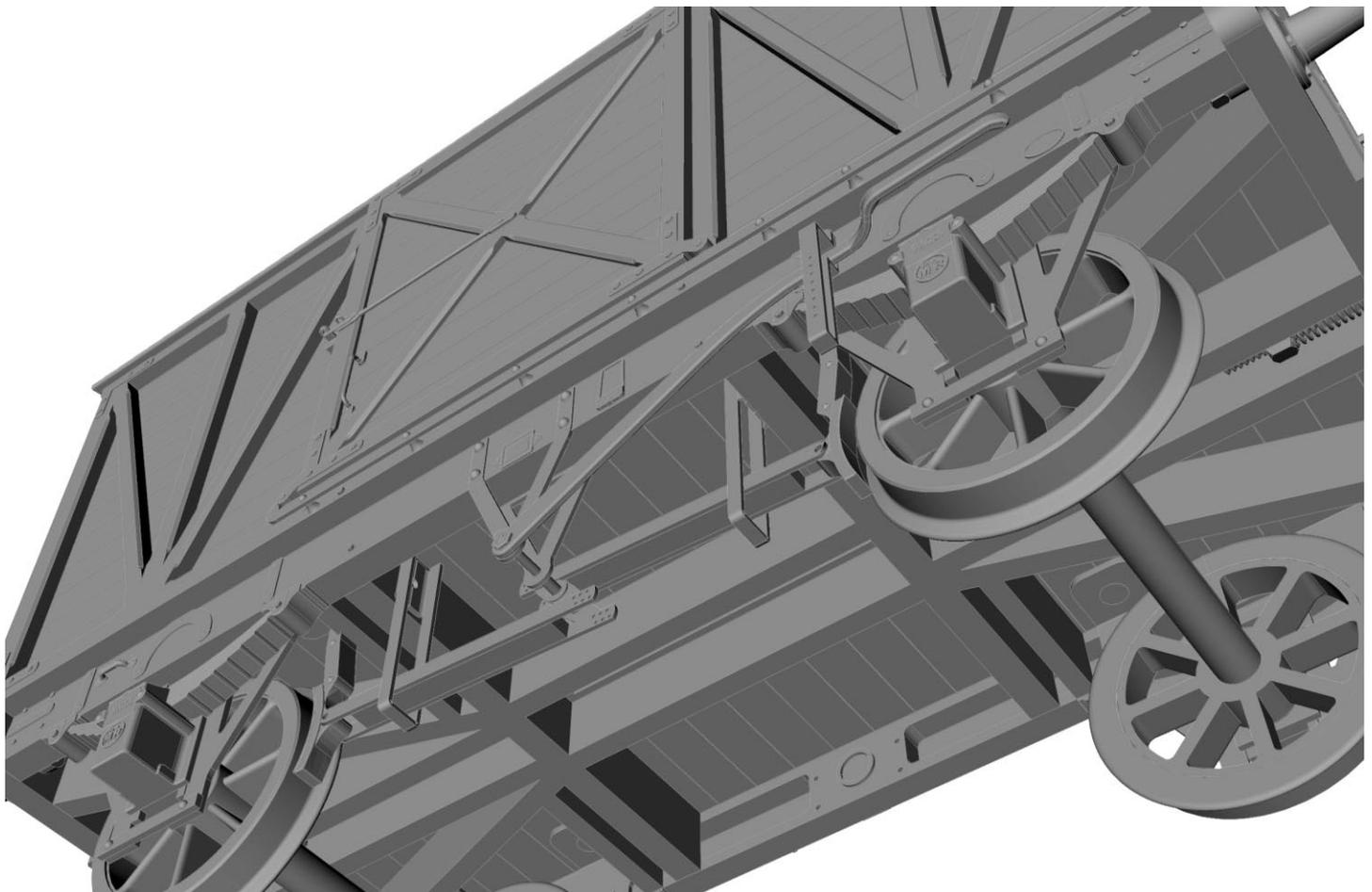
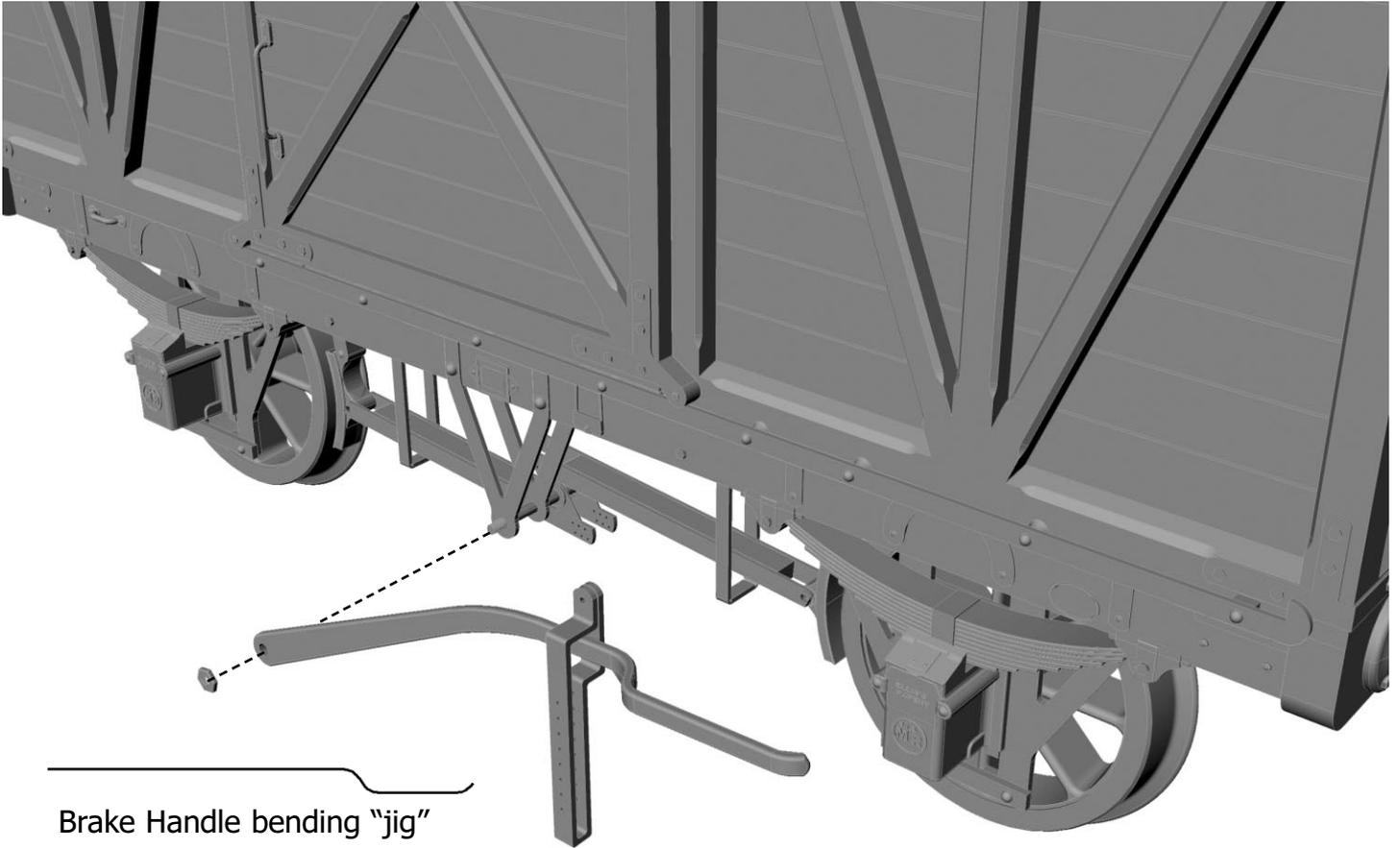
**Stage 14** - Glue the outer "V" hanger in place (after forming the rivets) using the inner hanger and the 14BA screw "pin" to assist in its correct location.



**Stage 15** - Assemble the etched push-rod assembly by folding and glueing in the moulded plastic spacers. This locates to the V hangers using the aforementioned 14BA screw, and to the brake blocks using short pieces of 40 thou (1mm) brass wire. Also fit the etched brass safety straps.



**Stage 16** - Form the etched brake handle using the line drawing below and the illustration as a guide. Form the brake handle ratchet as shown and attach the former using a 14BA nut and glueing the latter to the solebar.



# Parts List

## Ref. 8024: Midland Railway 10 Ton Covered Goods Van

Item	Part No.	Description .....	No Per Kit
Plastic Mouldings	X802401	Floor .....	1
	X802402	Underframe .....	1
	X802403	Solebars (2 items on sprue) .....	1
	X802404	Body Side .....	2
	X802405	Door .....	2
	X802406	Body End .....	2
	X802407	Roof .....	1
	X802408	Axleboxes and Springs (12 items on sprue) .....	1
	X802409	Brake Blocks and Pull-Rod Spacers (8 items on sprue) .....	1
Brass Etchings	X802420	Numberplates (pairs of 6 different numbers) .....	1
	X802421	Brake Gear (16 items on sheet).....	1
	X804101	"W" Irons (4 items on sheet) (25thou) .....	1
Brass Castings	X802424	Door Handles and Horse Hooks (6 items on sprue).....	1
Coupling Pack	8155	Coupling Hooks (2 on sprue)	
		6BA Brass Nut (2)	
		G1 Coupling Links (6)	
		G1 Coupling Spring (2) .....	1
Buffer Pack	(8041)	Turned Brass Buffer Housing (4)	
		Turned Steel Buffer Heads (4)	
		10BA Brass Nut (4)	
		G1 Buffer Spring (4) .....	2
Wheels	F8110	3ft-1½in straight spoke .....	(wheelsets) 2
		G1 Brass Axle Bearings .....	4
Transfers	80146	2 sheets in pack .....	1
Other Parts		G1 Suspension Spring .....	4
		14BA Brass Screw.....	2
		14BA Brass Nut .....	2
Instructions			