Thank you for purchasing this kit.
We are a small designer / manufacturer and we really appreciate your support.

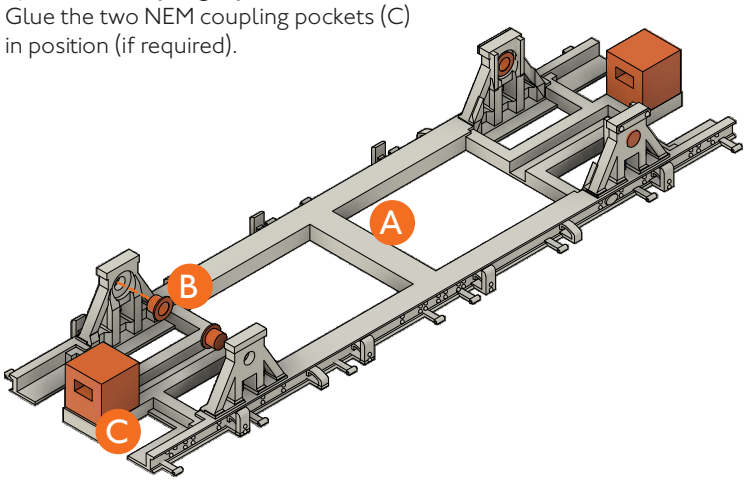
To complete this kit you will need:

Sharp knife or scalpel
Files and sandpaper
Cutters and pliers
Super glue
Filler, paints and transfers

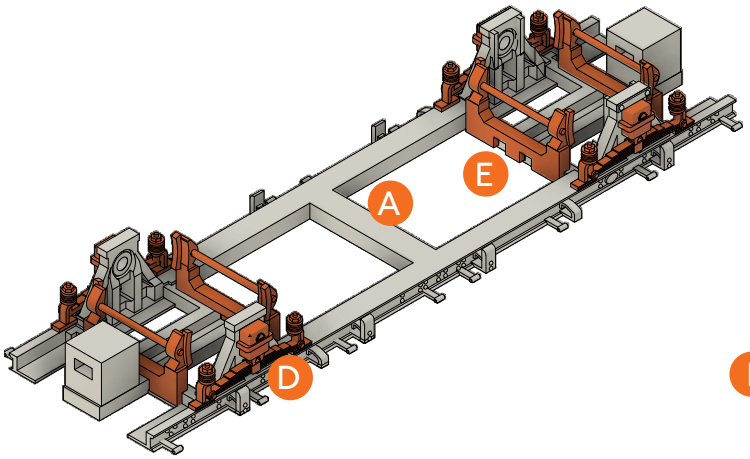
Before you start, there are a few things you need to know with regard to handling and working with resin 3D printed items:

- 3D printed resin is very brittle. It should not be roughly handled or dropped.
- Resin prints can be glued with cyano adhesives such as super glue. Solvent adhesives such as MekPak, Plastic-weld and Liquid Poly are **not** suitable.
- Resin prints cannot be trimmed with knives, scalpels, or trimmers. Attempting this will result in a shattered piece.
- Resin prints can be shaped and trimmed using files (we recommend diamond files) and sandpapers.
- Resin prints can be painted with acrylic and enamel paints.
- We strongly recommend the use of a filler primer to correct any surface support blemishes or layer lines which are an inevitable inherent side-effect of the process.
- As resin printing is a wet process, some minor shrinkage of components is inevitable. Whilst we engineer this in at the CAD stage, some manufacturing shrinkage is inevitable and can be corrected with fillers. We highly recommend Vallejo Liquid Putty or Revell Plasto.

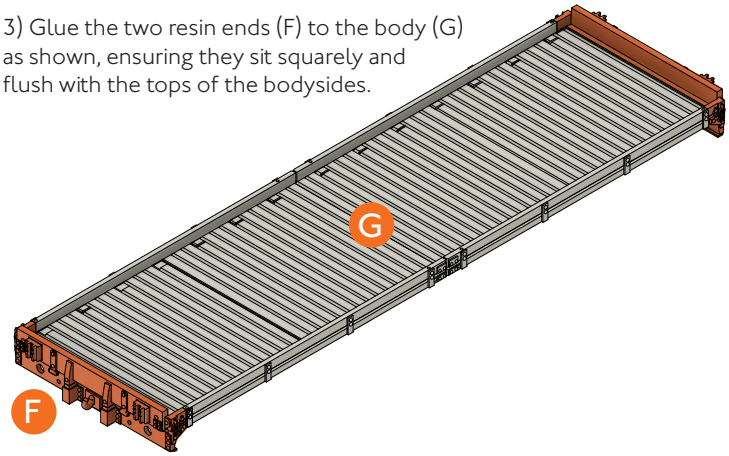
1) Glue the four brass pinpoint axle bearings (B) in to the inside of the W-irons on the chassis (A). These need to be inserted as far as they can go, so the shoulder face is almost flush with the back of the W-iron. Do not force the bearings in to the apertures. If they are a tight fit, open up the hole very slightly with a round file.
Glue the two NEM coupling pockets (C) in position (if required).



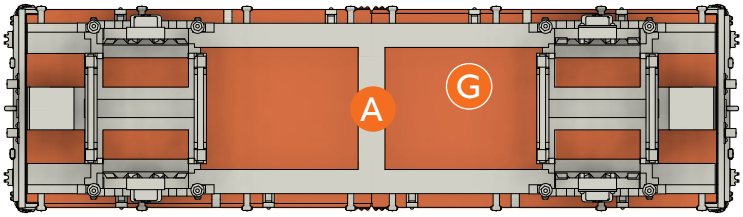
2) Glue the four Axlebox/Springs (D) to the W-irons on the chassis (A) in the positions shown, covering the brass bearings. Apply a small amount of superglue on the spring hanger plates to secure them to the underside of the solebar. Glue the Brake hangers in position centrally and flush up to the chassis cross-members.



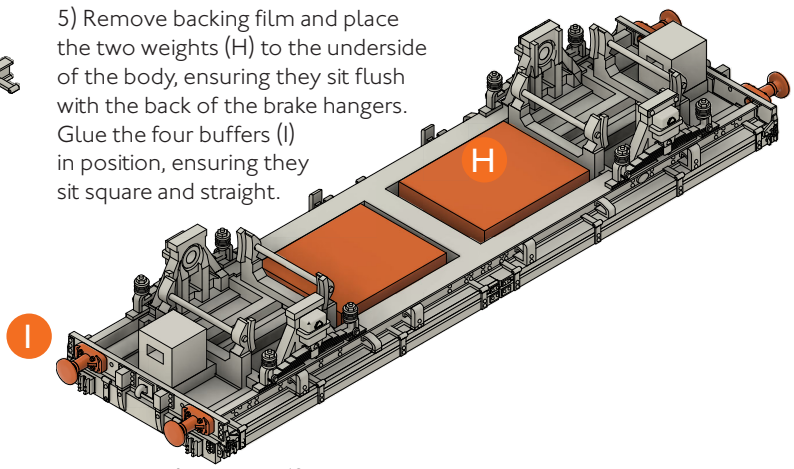
3) Glue the two resin ends (F) to the body (G) as shown, ensuring they sit squarely and flush with the tops of the bodysides.



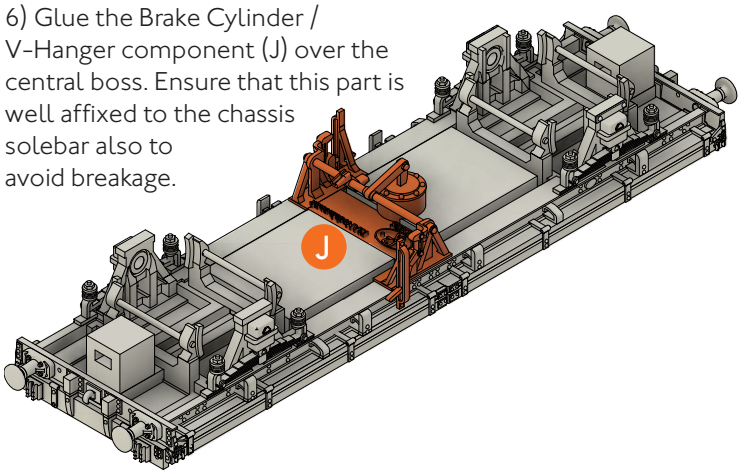
4) Glue the chassis (A) to the underside of the body (G) ensuring it is square and central, and that the barrels of the door hinges align with the straps on the body.



5) Remove backing film and place the two weights (H) to the underside of the body, ensuring they sit flush with the back of the brake hangers. Glue the four buffers (I) in position, ensuring they sit square and straight.



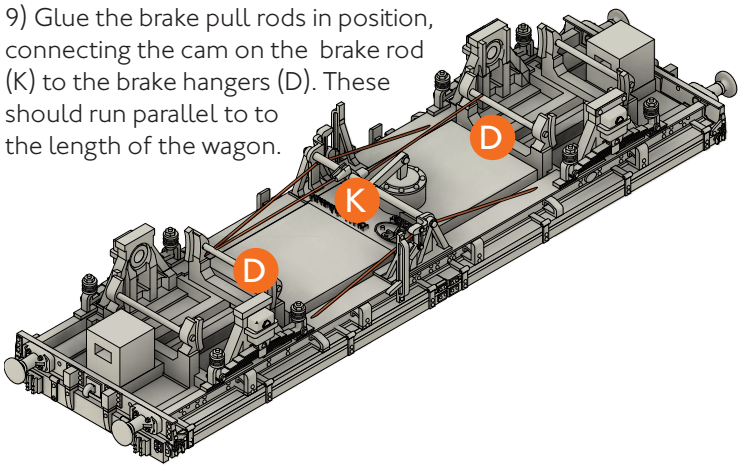
6) Glue the Brake Cylinder / V-Hanger component (J) over the central boss. Ensure that this part is well affixed to the chassis solebar also to avoid breakage.



7) Cut two pieces of brass/ nickel silver rod 27mm in length. We have included a template below. These will form the brake pull rods.

8) Cut and bend two pieces of brass/ nickel silver rod as per the template below. These will form the bracing bars.

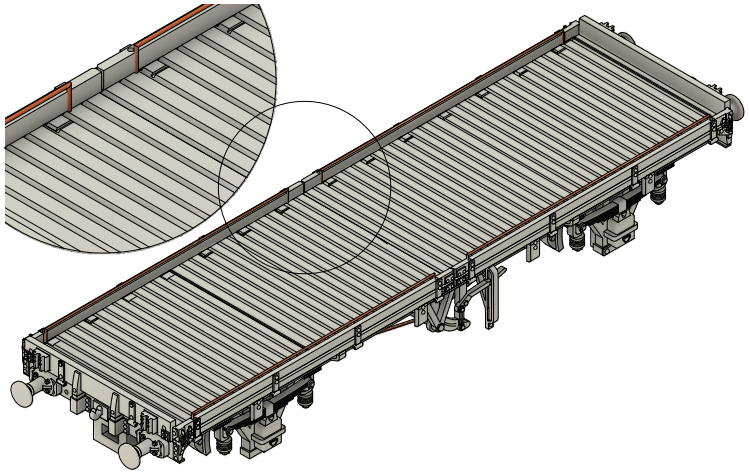
9) Glue the brake pull rods in position, connecting the cam on the brake rod (K) to the brake hangers (D). These should run parallel to to the length of the wagon.



10) Glue the bracing bars in to position.

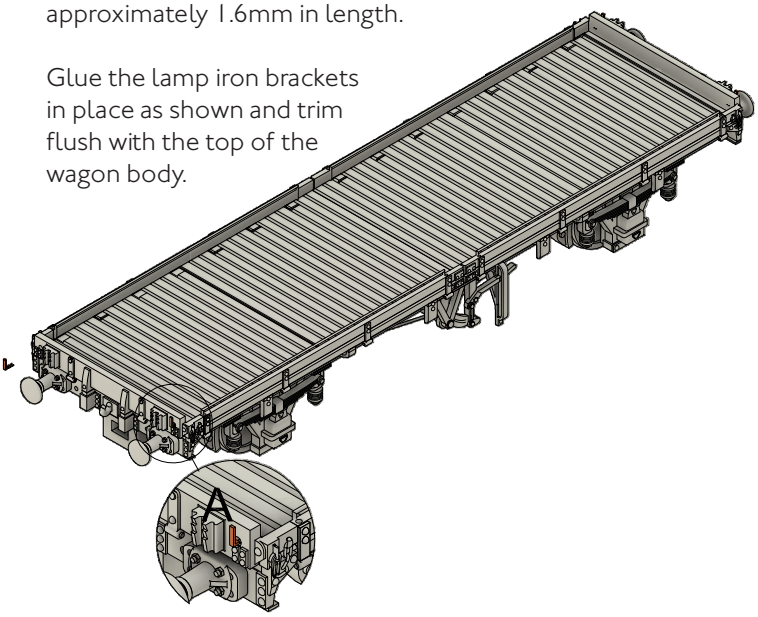
11) Bend four pieces of brass / nickel silver rod to the profile shown below. These will form the tie-bars on top of the bodysides.

12) Glue the four tie-bars in to the recesses inside the bodysides.



13) Using the staples provided, make four lamp iron brackets:
a) Cut two staples in half.
b) Trim one end of each "L" shaped piece so that it measures approximately 1.6mm in length.

Glue the lamp iron brackets in place as shown and trim flush with the top of the wagon body.



NOTE:
Take great care when inserting wheels in to the bearings as not to break the W-hangers. The best method is thus:

Locate one pinpoint axle fully in to the brass bearing cup. Lower the other side towards the bearing and GENTLY and SLOWLY ease the opposing W-iron out VERY SLIGHTLY, supporting it with your finger until the remaining axle point eases in to the bearing.

Painting Guide:
Southern Railway / BR Freight service
Chassis, solebars, bufferbeams - Matt Black
Body - Freight Bauxite
Lamp Iron Brackets - White
Handbrake Pin Handles - White
Lettering - White

BR Departmental / Internal service
Chassis, solebars, bufferbeams - Matt Black
Body - Matt Olive Drab
Lamp Iron Brackets - White
Handbrake Pin Handles - White
Lettering - White

Excellent colour photographs of the prototypes can be found on Paul Bartlett's website at https://paulbartlett.zenfolio.com/srconflat and in the book "Southern Wagons in Colour" by Mike King, ISBN978-1-909328-19-8

Packing List

x1 Brass/NS Rod 270mm
x1 Brass/NS Rod 135mm
x2 Staples, Steel
x4 Axleboxes, Resin
x4 Buffers, Resin
x2 Ends, Resin
x1 Brake Cylinder / Handbrake assembly, Resin
x1 Body, PLA
x1 Chassis, PLA
x2 NEM Pockets, PLA
x2 10g Weights, Steel
x2 Wheelsets 12mm 3-hole
x4 Romford/ Markits PP Bearings, Brass
x2 Brake Hangers, Resin