ACME ENGINEERING in association with Houstoun Gate Locomotive Works
Ffestiniog Slate Wagon in 7/8” scale

Assembly instructions

A minimum of tools are needed to assemble this kit. Sandpaper and sanding block plus some clamps, strong rubber bands or weights to hold parts in place while the glue dries. Lego bricks make an excellent square for ensuring that things line up correctly. This kit requires glue and paint to complete. It can be built entirely with PVA (exterior type) or aliphatic resin. We recommend Titebond III. Excess glue can be wiped away with a damp rag. MDF is not moisture proof and the model should therefore be painted or varnished before use. First apply a sealer/primer. MDF sealer, we recommend Rustins quick drying MDF sealer or automotive spray primer to do the job. The cut edges may need more than one application of primer to seal them. Automotive spray paint in cans works well and gives a good finish. If brush painting use acrylic or enamel paint

Fit two shorter ends on to one long side. Use something square to ensure the joints are at 90 degrees.
Top tip – Lego blocks make an ideal temporary square.

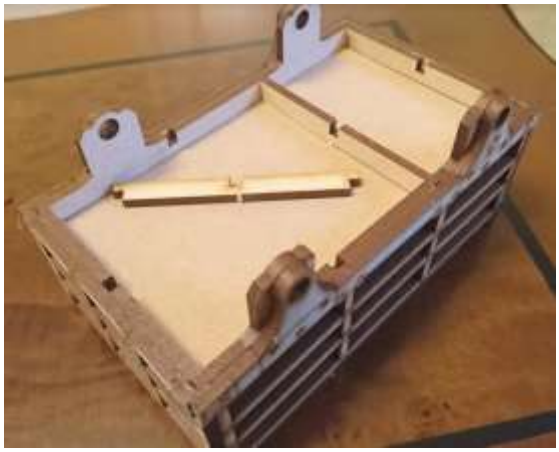
As soon as the glue is tack dry turn the model over and glue in the remaining side

Glue in the inner sole bars ensuring the top of the bar is level with the top of the wagon frame

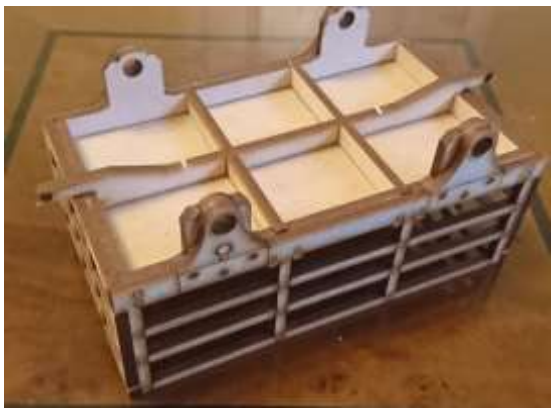
Fit the floor into the wagon

Glue the drag beam strengtheners in place ensuring the central slot is facing away from the wagon floor (see image)

Insert the centre cross beams into the slots in the sole bars, again with the central slot faving away from the wagon floor

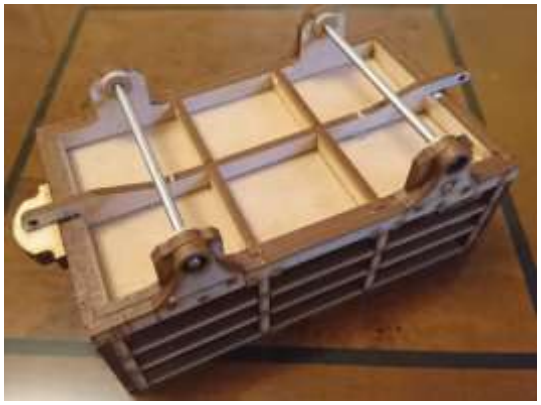


Locate the central coupling beam into the four slots in the cross members as shown



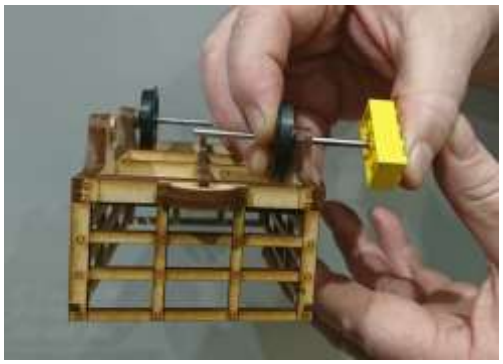
Glue the bearings into the axleboxes from the inside ensuring that the flange is completely flat to the inner sole bars. Be very careful not to allow glue to enter the bearing
Then, before the glue is dry, insert the Axle rod through the axleboxes as shown

At this point test the axles for free running in the bearings. If the axle bearings are even slightly misaligned the axle could be very stiff to turn. DON'T PANIC!



Remove the axle rods again and using some medium to fine sandpaper/glasspaper/emery cloth twirl the axle between your finger and thumb. Wipe off any debris and try inserting again. If it is now free 'well done', pat yourself on the back. If not repeat this until they do rotate freely.

Once the axles rotate freely in the bearings slide the axle part way out and again and fit the wheels. They will be quite stiff so another top tip is to use a Lego brick or similar to give you a better purchase when pushing the end of the axle



Glue together either two or three of the dumb butters to match your desired coupling height, form the brass pin into a hook shape and insert into the hole through the coupling and final mount the assembled buffer on the wagon above the coupling beam

The final task is to glue the top flange onto the wagon