

ACME ENGINEERING

Bringing life to model engineering

ACME slate wagon in 7/8" scale assembly instructions

1) The components

In the kit you have all the wooden parts plus four brass axle bushes and sufficient hardwood strip to make the top flange on the wagon sides.

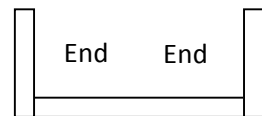
Also included are Accucraft wheel sets in either Gauge 0 or 1 and couplings.

2) Preparation and materials.

You will need good quality wood glue, epoxy adhesive, fine sandpaper, craft knife, pliers, two squares, (Or anything which is exactly square) and a flat surface such as a piece of glass to work upon. The wooden parts are supplied in a very clean cut condition, but will need the small pips found on each edge removing with either a smooth fil or fine sandpaper.

3) Assemble the sides

Take one side and two ends. Make sure that the narrower rail is at the top. Lay the side on the flat surface, apply glue to the ends and **butt them up against the side**. Use two squares to support the ends and keep them at right angles to the side.



Side

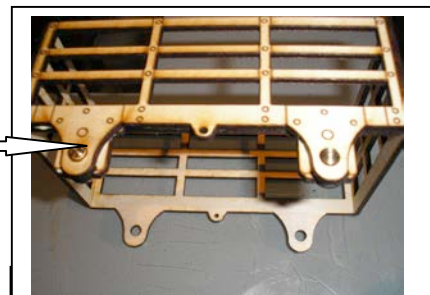
When the assembly is firm enough, turn it over and glue in the other side. When able to handle it stand the assembly on your flat surface and make sure that it sits flat and doesn't rock. This means that it's perfectly square.



4) Fit the inner sole bars

The inner sole bars are aligned with the outer/sides using the brass bearing cups. You may need to gently tap the bearing through with a small hammer; if you do make sure that you support the body on a piece of wood.

(This is because the laser does not cut a truly cylindrical hole.)

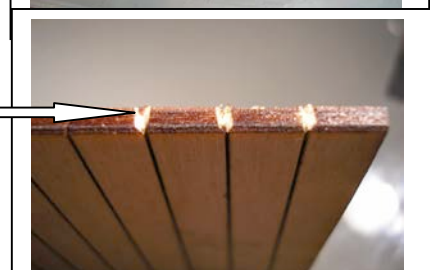


Once done remove the bearings and inner sole bars. Put a small amount of wood glue on the inner sole bars, (Make sure that you have them the right way round; the detail goes to the outside.) Re-align them with the sides by again temporarily inserting the bearings and allow to tack dry.



5) Fit the floor

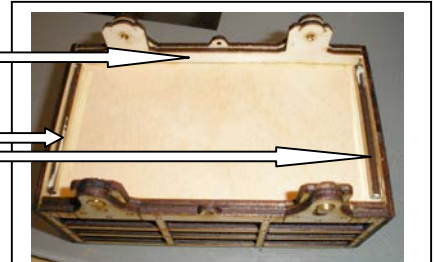
The floor is etched to represent planking. You may wish to cut nicks in the sides to represent the plank ends.



Run a bead of glue down the underside of each long edge of the floor and insert into the body.

The floor sits upon the tops of the inner sole bars.

Once in situ the two floor end supports can be glued into place

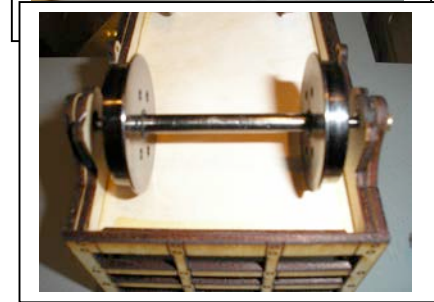


6) Fitting the wheels

Turn the wagon on its back. Fit the wheels into the axle boxes, (Without the bearings at this stage.) Lightly smear the outside diameter of the bearings with epoxy resin adhesive, (Make sure that none enters the axle bore or adheres to the inner face.)

I use a wooden coffee stirrer to apply the adhesive and a pair of small pliers to grip them when inserting them into the axle boxes. As a rough guide the inside face of the bearing should be flush with the inside face of the inner sole bar. Adjust as required to ensure that some end play is felt in the axle.

Leave everything to dry.



7) Fitting the top lip and buffers.

Use the strip wood supplied and cut two lengths. Glue to the top of each side. To ensure that they remain flat, turn the wagon over and sit it upside down on the glass.

When dry cut the end pieces to fit. You can trim and sand square off when all the joints are dry.

Glue together three buffer segments for each side, using the wire hooks to align everything. Lightly sand the buffers all over to smooth and glue on to each end, centrally.



Now congratulate yourself.

It wasn't that hard was it? Stand back and admire your work. After you have assembled your first rake of six wagons, you'll be able to build the next six with your eyes shut!

8) Finishing

We recommend that once assembled and the glue is dry that you spray or brush your desired paint finish over the wagon. We have found Halfords red primer aerosol to be very effective.



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