

NONNEMINSTRE MODELS

INSTRUCTIONS FOR RYE & CAMBER TRAMWAY ROTHER IRONWORKS BOGIE COACH



*The Rother Ironworks coach (nearest the Kent Construction petrol tractor) as modelled in this kit.
Coll. Nonneminstre Models.*

BACKGROUND: For good historical references with many useful photographs and drawings there is nothing better than 'The Rye & Camber Tramway – A Centenary History' by Laurie Cooksey (published by Plateway Press, ISBN 1871980267). Also worthwhile references are to be found in 'The Rye & Camber Tramway' by Colin Judge (published by Oakwood Press, ISBN 0853614733) and 'The Rye & Camber Tramway' by Peter Harding (published by Peter Harding, ISBN 0950941417). The coach as modelled is in late condition but before low-level windows were cut in the ends to allow the driver of the petrol loco to see the Conductor (if there was one) without having to leave the cab.

PARTS LIST:

Etch fret containing:

- | | |
|---------|--------------------------|
| 1. & 2. | Body sides and ends |
| 3. & 4. | Cantrails |
| 5. | Window frame overlays 6x |
| 6. | Sliding door |
| 7. | Door support |
| 8. | Door top strip |
| 9. | Coupling plates 2x |
| 10. | Coupler boxes 2x |
| 11. | Coupler faces 2x |

- | | |
|-----|-------------------|
| 12. | Coupling links 2x |
| 13. | Step |
| 14. | Bogie frames 2x |
| 15. | Axleboxes 8x |

Packed separately:

- | |
|------------------------------|
| 4x Brass channel bogie sides |
| 8x Curly spoke wheels |
| 4x Pinpoint axles |

Other materials required are 0.45mmØ brass wire, plasticard or similar material for floor and roof, glazing material, fine chain for safety chains and small nuts and bolts for bogie fixings.

GENERAL ASSEMBLY: Before commencing construction, please read through the instructions and check through the parts. Some work is easier done whilst parts are still attached to the fret; some is finger-singeing stuff too. Solder assembly is easiest although twin-pack epoxy resin adhesive and/or high quality cyanoacrylate (Superglue) could be used. In fact some of the detail parts may be fitted to a soldered assembly with cyanoacrylate to prevent excess heat causing other parts to separate. The kit does not include glazing, or roof and floor material. Working scale link and pin couplings are included but if these items are not compatible with your standard system then decide how to adapt or replace. Wheels and pinpoint axles are supplied loose so you can set for any gauge up to 12mm max. Unless otherwise stated all ½ etch fold lines are to the inside of a bend. Remember with fold lines you only realistically get one go – fold it back flat and the parts are likely to snap off. If during assembly you damage any parts, then please contact us with an SAE or by email and we can sort things out.

TOOLS REQUIRED: Normal modellers hand tools, such as a square, pliers, small files, small drills and a pin chuck in which to hold them. Sizes of drills required are 0.45mmØ, 0.75mmØ and 1.50mmØ. A sheet of finely squared graph paper can be helpful on which to check squareness as construction proceeds.

POST-BUILD CRISIS: If at any stage you suddenly decide something is askew, don't despair! If you have used epoxy resin adhesive or cyanoacrylate then dunk the whole thing in paint stripper for a few hours and it will then fall apart. Wash well in clean water, clean up and start again. With care you can put paint stripper over a single glue seam, wait until it softens then pull apart. Wash and clean up, all without having to dismantle the whole kit. If you've used solder try using solder stripper along seams.

CONSTRUCTION

COACH BODY:

NOTE: Depending on your own preference it may be easier to solder the window frame overlays onto the body sides before removing these from the fret, see section 5.

1. Detach side/end units (1. & 2.) and carefully remove any items in window openings and keep safe. On the reverse score the fold line with a triangular file until a witness line appears on the front. Fold ends 90° and solder the seam to reinforce. Chamfer the exposed ends 45° and solder both side/end assemblies together to form a box, checking for squareness.

2. Fold up door support (7.) with the ½ etch line to the outside, this will form three tags which engage in the slots on the door side. Solder in position with the end in line with the end of the coach. Remove door (6.), drill out two holes 0.45mmØ and make handle to fit with 0.50mm stand-off and clean up rear of door (otherwise glazing will not fit easily).

3. Remove cantrail strips (3. & 4.) and solder to top of sides with equal overhang. The curved upward end is at the door end of the coach and the ½ etch strip goes on the non-door side with the ½ etch to the outside (prototype reason for this recess is unclear).

4. Drill two holes on the end by the door 0.45mmØ and make a wire handrail to fit with 0.50mm stand-off. Now fit the door – when looking from the inside of the coach try and get the door window centred on the cut-out in the coach side. Trim top of door if necessary to get a good fit – don't worry about a gap at the top. Fit door top strip (8.) to outside of cantrail overlapping top of door in line with end of coach.

5. Now carefully remove the six window frame overlays (5.) from the fret and clean up the tags. Its very easy to bend the frames so proceed with caution. Tin the backs of the frames and also the etched frames on the body sides – these are there in case you don't want to fit the fiddly individual frames. Stick a piece of thick self-adhesive paper or similar along the base line of the frames. Lay a frame in position using the strip as a stop and tack in the middle of the bottom of the frame. Check all is square, gently pushing side-to-side if necessary, and tack in the middle of each side. If all looks ok, run soldering iron all over to secure. Repeat with other window frames.

6. Fit coupler plates (9.) centrally to the inside of each body end with ½ etch line lining up with bottom edge of the end. Fold up coupling boxes (10.) and solder to ½ etches on back of coupling faces (11.). If you are really fussy gently curve the coupling face prior to soldering or alternatively file a curve after assembling. Drill end hole 0.45mmØ and solder in a length of wire approx. 25mm/1". Pins for couplers can be made from wire with a small piece of tube soldered over the top, and if steel wire is used then a magnetic uncoupling pole can be used. Coupling links are supplied on the fret (12.).

7. Fold up the step (13.), ½ etches to the outside (see sketch) and solder to inside of body with the two legs centred underneath the door to leave an overhang to the left end - it may be necessary to clean up where the door support tags have come through and also adjust the step angles to allow the bogie to swing clear. This completes the basic bodyshell.

BOGIES:

These can be compensated to the body if necessary but with such a short wheelbase this should not be too much of a problem.

1. Remove bogie frames (13.) from fret and remove axleboxes (14.). On reverse of frames drill ½ etch axle holes 0.75mmØ until a witness pimple appears on other side then push a blunt-ish fine point into the indent – this forms a nice bearing. Fold up and solder seams. Remove machining pip from the end of each brass channel and solder onto the bogie frame with the base of the channel in line with the bottom of the main frame member. Fold up axlebox sides (easy using a four-jaw pin chuck to hold) but not the angled top at this stage. Tin the vertical slots on the outside of the bogie and solder the axleboxes in line with the horizontal ½ etch. Now push the top flats over to form the top lid.

2. Put a 'tight' 1.50mmØ drill gently through each wheel centre, otherwise they will be a very tight fit on the axle and may go badly off-centre. Fit wheels to axles and set to desired gauge. Gently spring bogie frames open and drop wheelsets in. Check bogie sits on all four wheels on a flat surface, if not gently twist to suit. Check that wheels do not touch the cross members.

FLOOR & ROOF:

1. Cut floor from suitable material, we use 60 thou plasticard (not supplied), and drill holes as per sketch. Note that clearance must be provided for step supports. Attach using adhesive.

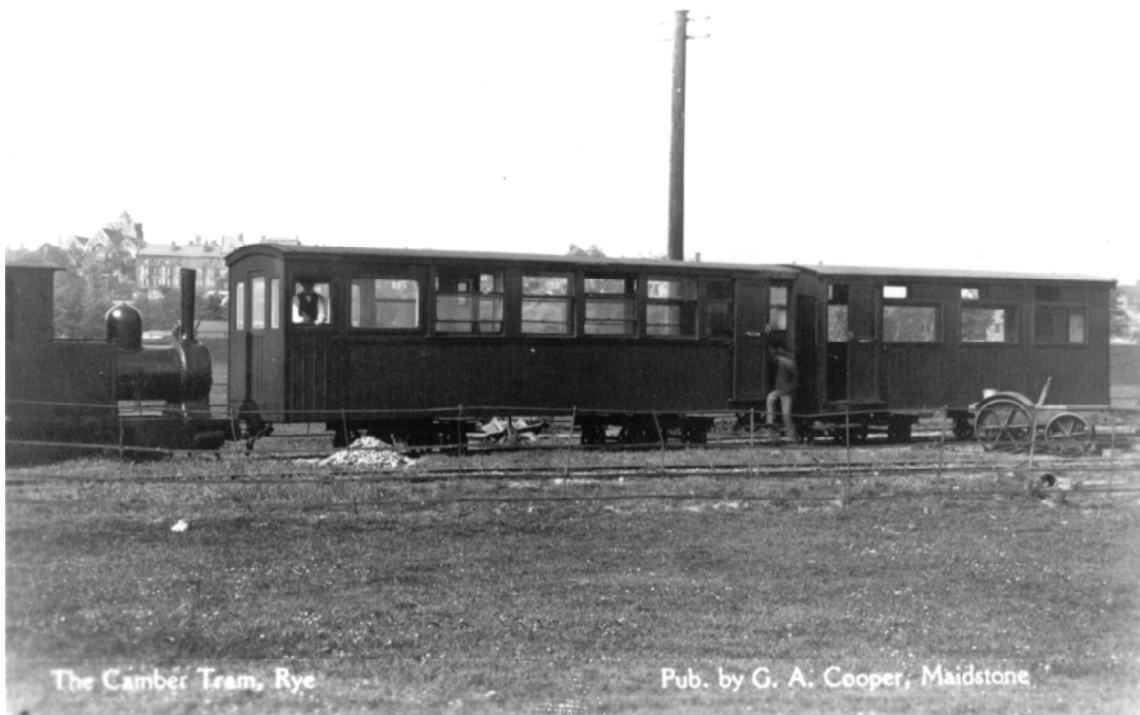
2. Fold wire on couplers as per sketch and spring into hole in floor. Coupler can waggle to help on tight curves.

3. Make roof from desired material – length same as cantrail strips plus ½ etch end, width approx 2mm more than body. It may help to make a flat false ceiling to help keep sides from bowing inwards. Glaze as desired. Interior had a partition at the position of the thicker vertical window bar – make from plasticard using an end as a pattern. Seating was lengthwise bench type save for openings. Some modellers prefer removable roofs, other floors, so its up to the builder to choose.

4. Attach bogies to floor using small nuts and bolts (not supplied), pack or compensate to give approx. 1mm clearance between bogie and bottom of sides. Safety chains should be added using fine chain and the hooks provided in the fret. See sketch for positions – remember safety chain hooks point under the coach.

LIVERY:

Give a good clean up in warm water with a scourer cleaning product (we use 'Shiny Sinks' and 'Vim/Cif') before painting. Rye & Camber livery was described as brown, this could have been either painted or varnished. Roof was white but would become dirty very quickly. Interior was also brown/varnished. Underframe and running gear was most likely black and would soon get dusty, sandy and rusty.



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RYE & CAMBER TRAMWAY

ROTHER / ROWWORKS BOGIE COACH

Join sides to ends
with mitred joint.
- not overlapped.

