



RT Models

4mm scale 009 gauge Lodge Hill & Upnor railway “Chattenden” Drewry loco body kit.

HISTORY

The loco was supplied by the Drewry car co. to the Lodge Hill & Upnor Railway in 1949, works number 2263. The loco at some point during its life at either the RNAD Ernesettleor or RNAD Broughton Moor Railway systems had the running plate slightly modified by curving the ends in along with the buffer beams trimmed and angled.

The loco later went into preservation to the Welshpool and Llanfair railway of which “Chattenden” Nameplates and No;7 plates were added.

Later on in preservation, Chattenden received its final modification; it got heavily rebuilt with a new cab which entry is now gained from the rear rather the sides.

The loco was originally painted in a mid-green with red coupling rods and bufferbeams

Many of similar locos were built for abroad such as Fiji and South Africa so you could represent one of these.

KIT CONTENTS

Whitemetal castings

- C1. Running plate x1
- C2. Chassis Sides x2
- C3. Cab Floor x1
- C4. Cab Roof x1
- C5. Bonnet Sides x2
- C6. Bonnet Top x 1
- C7. Couplings x2
- C8. Large Weights x4
- C9. Small weights x 2
- C10. Sandboxes x2
- C11. Cab Steps x2
- C12. Lights x2
- C13. Horn x1
- C14. Exhaust

Etched Parts

- E1. Cab
- E2. Cab Doors
- E3. Window Frames
- E4. Cab Step plates
- E5. Front Cab Strap
- E6. Back cab Strap
- E7. Buffer Beams
- E8. Bonnet Front
- E9. Coupling rods
- E10. Outside Cranks
- E11. Nickel Silver washers

Resin

- R1. Replacement Keeper plate x1

Brass

- B1. 1.5mm diameter Brass rod x1
- B2. 0.45mm Diameter brass wire x1
- B3. Handrail knobs x 9
- B5. Silver plated pins x3

BODY INSTRUCTIONS

(If you wish to model "Chattenden" as preserved prior to rebuild, follow the additional notes as highlighted like this).

Body

First you will need to clean up the castings of flash and mould feeds with a needle file and fine wet 'n' dry paper. Next it is recommended to do a dry run to make sure the parts go together properly and square, not just before but during construction also.

Now you can start putting your loco body together.

Take part C1. The running plate and check that it is square and straight.

(If you are modelling "Chattenden" as preserved prior to rebuild, then you will at this stage need to modify the running plate by carefully filing the ends of the running plate so they bow in as in the drawing.)

Now take both the C2. outside frames and drill the top holes at the front only with a 1mm drill.

Now drill the bottom rear holes with a 1.6mm drill, then you will need to slot this downwards.

Check each side on the chassis to make sure it slots over the axles easily, if not then some more material or further cleaning up may be required in the required location/s.

Carefully file the insides of the C2. The outside frames to remove some material to give as much clearance for the wheels as possible. Now fit one of the outside frames as centrally as possible with glue or low melt solder.

Take the other outside frame and place it on the other side but don't attach just yet, temporarily place the 08 shunters chassis to check the clearance of both outside frames with the wheels making sure they don't touch them and that they don't conflict with the outside fly cranks.

Once you are happy with the outside frames position, glue in place. There may be some play in the chassis between the outside frames, if so it is recommended some scrap plastic card is glued to the sides. Put the 08 chassis to one side for later.

Remove E7. Buffer beams from the fret and clean the tabs off with a needle file.

Now push the half etched holes on the rears with a needle point of a compass or a nail *EXCEPT* for where a line joins 2 of them.

If you are using the normal mounting height for 009 gauge couplings of 6mm, drill the bottom hole where the line is with a 1mm or bigger drill.

(If you are modelling "Chattenden" as preserved prior to rebuild, then you will at this stage need to modify the buffer beams by cutting them with a pair of tin snips or if strong enough for the job, scissors as in the drawing.)

Now glue the E7. buffer beams to each end and leave to set.

Take the large cab etch containing parts E1 to E6, remove the E1 the cab from the fret with a Stanley knife.

At this point whilst it is still flat it would be worth drilling the holes for the air horn at the front which has the large cut out and the lamp at the back, both to be drilled with a 1.2mm drill bit or bigger if necessary following the drawings.

Clean up the tabs and de-burr the holes with a needle file.

Now carefully fold it up making sure its square throughout and the ends meet properly.

Glue or solder the inside corners.

On the outside of the cab, you will need to carefully file the corners in the groves to fit the straps on later.

Now glue or solder E2 the cab doors inside, the bottoms of the doors should be flush with the bottom of the cab and the windows central in the doorway.

Next attach E3. The window frames to the apertures.

Now fold up E5. Front cab strap and attach it to the front of the cab in the groove.

Next Fold up E6. Back cab strap and attach it to the front of the cab in the groove.

Lastly attach parts E4. Cab step plates to the bottom of the doorways with the lip at the top.

Now take part C3. Cab floor and check this fits easily inside the cab, if it doesn't then some of the sides will need to be filed down. Once you are happy with it, it can be attached to the footplate.

Now attach the completed cab over the Cab floor making sure its straight.

Next take parts C5. Bonnet sides and C6. Bonnet top and drill the dimples to attach the grab handles and handrail knobs on later with a 0.5mm drill.

Now do a dry run with both sides on the running plate with the sides butted up to the cab with part C6. Bonnet top, If the Bonnet top doesn't fit under the cab's strap then some metal may need filing from either the bottom of the C6. bonnet top or the C5. bonnet sides.

Now remove E8. bonnet grill from the fret and clean up the tabs.

The half etched area of the grill needs to be facing outwards on the model.

If you are fitting a lamp to the front, you will need to drill a hole as marked on the drawing with a 1.2mm drill or bigger if needed.

Now offer these to the bonnet pieces to check that they all look right, if you are happy with it all then these can be glued together.

Now is the time to add the final detailing parts.

Now take a length of B2. 0.45 brass wire and carefully form a U shape following the course of the holes for the handrail knobs

Carefully thread 4 B3. handrail knobs onto each side of the U shaped brass wire.

Now push a handrail knob into each hole on top of the bonnet, once you are happy with their position, you can glue these from inside making sure they don't pop out.

You can now also fabricate the grab handrails from the brass wire to go into the sides of the bonnet.

Once again if you can glue these from inside.

Take parts C7. Couplings and check with the chassis that these line up correctly with your existing couplings/height gauge. If they do then attach these to the fronts of E7. Buffer beams, if they don't then the holes may need to be made larger.

Attach parts C10. Sandboxes to the sides of the chassis sides at the front, the tops need to be butted up to underneath the running plate.

Take parts C8. Large weights and file the tops and bottoms slightly so to help give as much clearance for the coupling rods as possible.

Attach these underneath the running plate butted up to the chassis sides, they must start from the front for the first 2 axles only on each side and be positioned centrally over each one. Note the dimples are off centre, they must be at the top.

Take parts C9. Small weights and file the tops and bottoms slightly. Attach these centrally over the rear axles centrally.

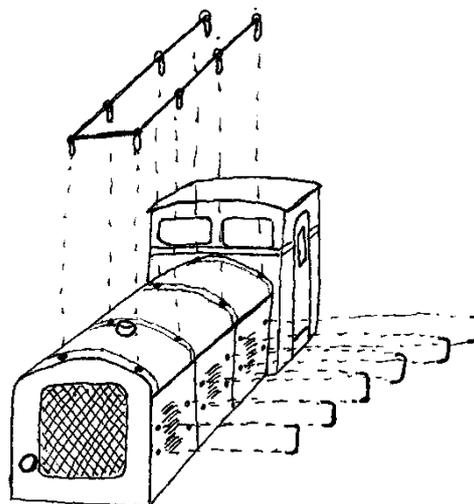
Attach parts C11. Cab steps and glue these centrally under each cab step.

Now attach the C13. air horn into the hole on the front of the cab which needed drilling out earlier.

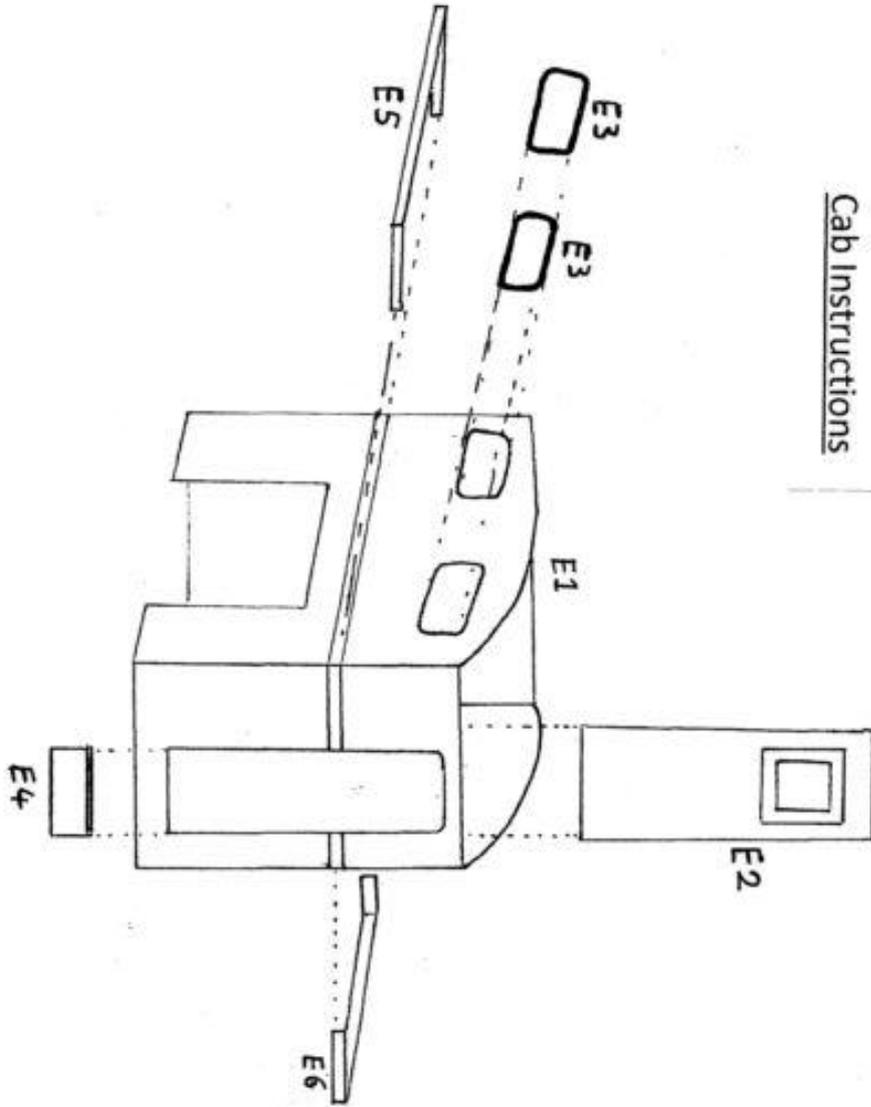
Attach the C14. Exhaust into the front of the bonnet top.

Lastly, attach parts C12. Lights onto the front of the bonnet grille and rear of the cab which the holes for these should have been drilled earlier.

Hand Rail Knobs and wire grab handles locations



Cab Instructions



CHASSIS INSTRUCTIONS

This Kit requires the Bachmann / Graham Farish new style outside framed 08 chassis

Chassis

First turn to the Bachmann/ Graham Farish 08 shunter, you will need to first remove brake gear on both sides with a pair of pliers, there is a strong chance of damaging these as they tend to be glued in well but are not required for this loco kit.

Next the 4 tiny screws around the corners of the chassis need un-screwing to release the body, don't forget to remove small wire at the front of the loco as well.

Finally you need to remove the 08's outside frames, to achieve this carefully pull this upwards whilst resting your finger on the motor, the frame may be glued in place just like the brake gear may have been.

Now you can turn your attention to adding the jackshaft drive to the chassis.

Take E9. Coupling rods and drill all the holes with a 1.4mm drill or preferably broach *EXCEPT* for where it is marked at the end "JACK SHAFT DRIVE".

Once done remove these from the fret with a Stanley knife or Xuron etch shears, note which end is the Jackshaft drive. Clean the tops of the coupling rods of the tabs and also the oil fillers as this could later on in the construction foul the weights on the body should you wish to fit them.

Remove the Coupling rod pins on the Graham Farish chassis, these are a push fit so will pull out easily. Do this in something like a shoebox should you drop one then at least it hasn't gone anywhere.

Put the replacement etched coupling rods on to test the chassis runs well, if it doesn't then the holes may need opening up. Check also that the Pickups are all in contact with the backs of the wheels as sometimes they cannot be and will affect the running of the chassis.

Once you are happy you can turn to the E10. Outside cranks. Remove the cranks and B4 washers from the crank etch. Carefully solder or glue the 3 cranks together for each side.

Now drill the smaller hole with a 0.55mm drill to accept the pin if it already doesn't.

Take B1. 1.5mm brass rod and file the ends clean, the overall length is recommended at 19mm.

Now file the ends with a flat to accept the cranks, make sure they are at 90 degrees to each other and facing the correct way according to the cranks on the 08 chassis's wheels.

Check that the Cranks are a tight fit onto the axle. If they don't go on then some cleaning of the cranks holes may be required.

Once done fix them onto the axle with Loctite 603 or superglue.

Remove the replacement coupling rods from the chassis and fit one of them onto the Crank with the jackshaft ends making sure it is the correct Jackshaft drive end.

Place a E11. Nickel Silver washer into B5. the pin so when pushed through the coupling rod, it's on the outside. Then place a B4. Brass washer between the Crank and the coupling rod with the pins secured with a small amount of Loctite 603 from behind.

Repeat for the other side.

Once satisfied, fix the coupling rods back onto the chassis with its pins.

The final job to do is to clean up R1, the replacement keeper plate with a small needle file.

Snap off the small rectangle at the jackshaft end, clean both parts up and glue onto the top of the jack shaft drive of the keeperplate to form the axle casing for the jackshaft drive

The Jackshaft's axle needs to be flush the 08's chassis block.

Check the Jackshaft axle fits in place, once done you can fit the keeperplate, note that it is wider than the actual chassis to stop side play in the locos wheels which can end up squashing the pickups causing a short or erratic running, if the keeperplate doesn't fit between the wheels or a very tight fit, file down the sides a bit until it does fit.

Remove the first 3 screws from the front of the chassis and remove the old keeper plate.

Now screw the replacement one into place.

A good indication of testing how well the chassis runs is to remove the motor and push the chassis up and down, if it runs smoothly then it should run without any problems in service, if it binds in a certain spot then it could be one of the jackshaft cranks is not 90 degree's to each other.

Once you are happy with the running of the chassis without the motor, then fix the motor back into place and test the motorized chassis, do check the pickups are making contact with the backs of the wheels, if not they will need tweaking.

Chassis conversion assembly diagram

