BOOT LANE WORKS
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WINIFRED

Thank you for buying this locomotive kit from Boot Lane Works, please read all the instructions carefully before assembly.

Tools & Adhesives

I recommend a few tools to help you assemble your kit –

- Modelling Knife *(I use a scalpel)*
- Tweezers, Pliers, etc…
- Needle Files, various shapes
- Wet & Dry abrasive paper *(the mixed selection from Halfords is very good)*
- Selection of small twist drills, including 1.5mm & 2mm diameter
- A 90-degree angle *(I use a set block, but a small set square will work well)*
- I personally, can't manage without my small, tapered reamer, look for them on eBay!
  TAKE CARE WITH THE REAMER - MAKE A SMALL CUT, TRY, AND CUT AGAIN

I also recommend the following adhesives –

- Super Glue
  I use Gorilla Super Glue
- Dichloromethane, A liquid solvent for the acrylic
  I use E.M.A. Model Supplies "Plastic Weld"

The kit consists of 3D printed parts in both filament and resin.
And laser cut 1mm & 2 mm - clear cast acrylic.

THE ACRYLIC PIECES HAVE BEEN CUT AS FINE AS I DARE – THEY ARE EXTREMELY BRITTLE IN PLACES AND I RECOMMEND THEY ARE GLUED TOGETHER BEFORE CAREFULLY RUBBING DOWN – TO BE HONEST, I DID NOT RUB DOWN THE ACRYLIC PRIOR TO PAINTING THE PRE-PRODUCTION MODEL

THE RESIN PARTS ARE ALSO BRITTLE AND MUST BE HANDLED WITH CARE

For best results the filament parts should be primed and "rubbed down" to remove the print lines. Good results can be obtained from rattle spray paints – I find Halfords a very good source.

THE KIT

The kit is built up from five main parts, one of which we have supplied ready built and tested! The other four parts are the skirt, the body, the boiler/saddle tank and the roof.
Construct each of these parts separately and bring them together for the final assembly.

PAINTING – The pre-production kit (in the main header image) was constructed and painted in separate layers. The main body was painted in a light tan colour, and the overlays painted separately in a darker colour. These were then brought together using double sided tape, cut with a scalpel blade before removing the twin-stick backing. This method also allowed the windows to be simply offered up from the inside to the twin-stick.

CHASSIS

This model is supplied with a chassis kit that contains separate instruction.
Please refer to those instructions when building the chassis.

THE SKIRT

Place the acrylic skirt top onto a flat surface (glass or marble is good).
The skirt is the smaller of the two baseplates
The skirt sides fit into corresponding slots on the top, as do the skirt ends.
The buffer beams are affixed onto the skirt ends.
Note – I created a hole in the skirt ends and buffer beams should you wish to make alternative buffer arrangements. Notice the hole in the skirt ends are offset but central in the buffer beams, ensure these are aligned prior to assembly.
Note – I have created 1mm holes in the skirt sides as a detail feature. These can just be left as holes, or as guide to handle fixtures.

1mm acrylic Inlays are provided for the skirt sides and overlays for the buffer beam.

THE BODY

THIS IS WHERE THE BUILDER MUST BE SUPER CAREFUL – I REDESIGNED THE KIT FOLLOWING THE PRE-PRODUCTION MODEL TO HAVE A LITTLE MORE STRENGTH. BUT EVEN SO…
I AM PUSHING AT THE BOUNDERIES OF LASER CUT ACRYLIC HERE!

The five main parts of the body fit together in the slots provided. Again, please be super careful, the acrylic is cut very fine in places.
However, I found that one it was together, it retained greater rigidity.

I spray painted the body at this point in the build, and once dried, masked the lighter colour, and sprayed again with a darker colour for the interior.

The four 1mm acrylic overlays can be offered to the main body, the side overlays are the same length as the body, and the ends overlays overlap the side overlays. So, start with the sides first!

There are 16 windows in total, all the same size, and all offered from behind. I found the twin-stick method of affixing the windows to work very well.

THE INTERIOR

The interior detail consists of four 3D filament printed parts.

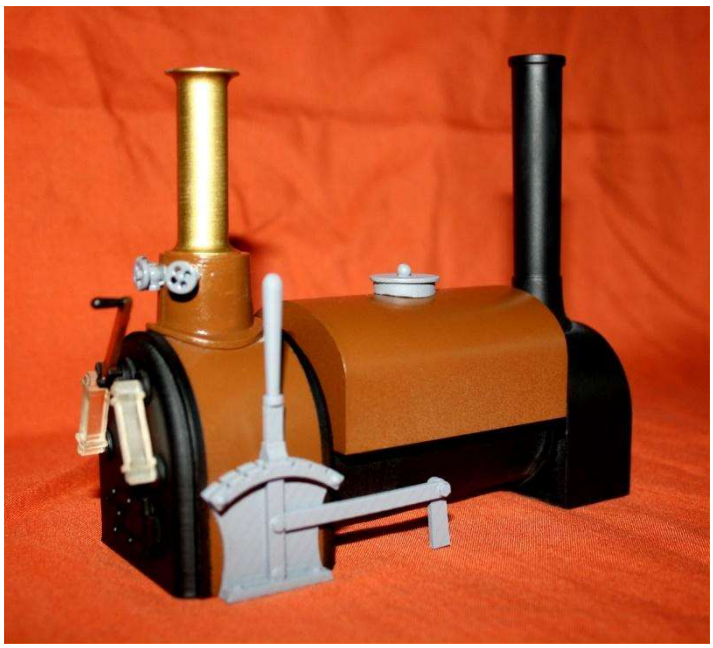
- Firebox
- Smokebox
- Saddle Tank
- Boiler Barrel

You may wish to prime and sand these to a smother finish; my own preference is to wrap the thinnest of styrene sheet around the curved surfaces to achieve a smoother finish. Other I know use paper.
The four parts fit together and leave plenty of space for batteries, Loco Remote, etc. The choice of electrics is left to in individual modeller.

Other 3D resin printed detail are –

- Chimney
- Dome – Safety Valve Chute
- Regulator & Stuffing Box
- Reversing Lever & Quadrant
- Firehole Door
- (Clear Resin) Gauge Frames x2
- Smokebox Door
- Tank Filler
- Handbrake Standard
- Name & Works Plates

After much experimentation, I have designed the chimney & safety valve fittings hollow. Although they will need a little more care to ensure good alignment, they are much easier to clean if you have access to a small lathe and can be easily mounted at either end!
The images below show suggested placement of the detail fittings.
I have not designed any form of coal bunker; my own view is the coal would have been stored on the floor of such a locomotive. Or even possibly, in wicker baskets?
Pipework could possibly be added from the three globe-valves on the dome?



THE ROOF

The roof structure is built from two parts, a printed frame and a 0.5mm styrene sheet.

I glued the two together with superglue, and resting the whole, upside down on two lengths of timber, added a house brick as weight to curve the styrene sheet to the frame and allowed it to dry.

The roof should give some rigidity to the body once fitted, but still be easily removed to give access to the interior.

FINAL ASSEMBLY

I have altered the original model to accept a different chassis, the skirt base now requires countersunk holes from both sides. If two M3 screws placed from the top down, the chassis can be attached form these screws.
Then go ahead and bring the skirt, body, and interior detail together as below.
Prior to finally assembly, use the screws to create threads in the holes in the base of the firebox & smokebox. There are two larger dimeter holes to allow the passage of electrical wires.

A PDF copy of this document can be downloaded from – www.bootlane.org.uk/instructions

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