"A BR Pattern railway lamp"

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PART 2 ASSEMBLY AND COMPLETION

On the full-size lamp, the lamp iron mounting assembly is made from folded sheet metal attached to the sides of the lamp by rivets. This was particularly challenging as again no dimensions are available. To get the correct size to fit my smaller version I cut various card templates finally arriving at a reasonable shape and fit. These dimensions were transferred to .5mm sheet brass, cut and carefully folded. I used suitable sized steel blocks to fold the brass sheet around.

I used a machine vice on the mill to ensure squareness when setting up the assembly on the body and this enabled me to drill the 1mm holes for the brass headed pins. This assembly will be soft soldered to the body along with the lid catch.

Next was soft soldering the two parts of the chimney together. On the full-size lamp there is a space between the top cover and the chimney body to allow ventilation of the burner. I produced a "spider" from 1.5mm brass and soldered this between the two that would approximate the slot.

The lid catch assembly was a length of brass channel shaped and soldered over a length of .5mm brass strip screwed into the body with an 8BA countersunk screw. The strip then bent into the clip as per the photo.

The lens change knob was made from a slotted 6BA screw with a piece of 1/16th brass silver soldered in the slot then filed to shape. A suitably thick washer completed the part.

These smaller details were again made generally using the photos as a guide.

The most difficult part to construct was the lid hinge. I somehow had to attach one part to the lid and the other to the body. By butchering a small brass hinge with the aid of a piercing saw and file I was able to approximate the general shape.

When soft soldering the parts in one go, I had to make sure they were attached somehow and generally used 8BA brass countersunk screws to hold everything together.

The handle assembly on the full-size lamp looks rather awkward with the bar being bent at the front and back ends to miss the chimney rim when closed. The fixings of my handle were brazed together after the $^{3}/_{32}$" steel rod was bent to shape around a simple wooden former. I thought attaching the handle to the body would be difficult as there were a number of parts to soft solder at the same time. I therefore decided to silver solder the handle brackets directly to the body with dummy rivets inserted into the blocks.

After a clean up the final brass assembly was attached to the rear of the lamp. This is the part that slides over the lamp iron and I had to make sure it was vertical to the lamp when mounted.

A single 1mm pin was inserted in a corner then soldered, if adjustment was needed I could unsolder and move the part until correct then drill the rest of the pin holes and solder up.

The final part to make was the lens. This was turned from acrylic rod in the lathe to a good fit, rounded off at the front and polished clear with Brasso. The rear was filed so that a LED would be diffused when lit.

The lens was secured in place with superglue after the lamp was given a coat of etch primer followed by white primer and finished in gloss white using a rattle can.

The completed lamp now gives a nice detail to the loco.