## J. Final Assembly and Testing

The final assembly can be broken down into six stages :-

1. Fixing the lead weight to the cover plate and then slipping the cover plate under the front boiler support unit and the securing the long screw at the rear of the weight into the captive nut on the Piko chassis taking care not to trap the motor wires at the rear end

It's a good idea to fit the rear electrical socket in place and have a simple test run at this stage to make sure all is well.

- 2. Move the four sand feed pipes up slightly so they will not scratch the cover board. Gently ease the assembled boiler unit onto the front of the lead weight and push it slowly back along the weight easing it over the cross head motion units. Take care to ensure the headlight wires are free at the cab end of the boiler. Once the boiler is in place carefully feed the sand pipes into their locating holes in the running boards.
- 3. Fit the air pump to the running board with the screw from underneath the running board, taking care to ease the air pump pipes into the boiler and insert the long feed pipe into the upper hole in the pump and at the lower point on the smoke box side.
- 4. Fit the six wheel bogie to the extension plate by pushing up against the captive nut and gently rotating the bogie, count the number of turns given to secure the bogie to the frame. (I found three turns gave the correct height to enable the bogie to run freely and enable main drive wheels to make good contact with the track).

Slide the extension plate into position below the original cab floor and slide the electrical plug up through the hole and engage the socket. Test run.

- 5. Fit the cab and the slide in the cab boiler unit to cover the wires. Secure both with the 12BA set screws using a socket spanner. Fit the engineer in place using double sided tape under the base of his seat to permit easy removal.
- 6. Fit tender using the four long 12BA set screws. Then fit cab roof using the four estucheon pins. Test run the loco.

Did the conversion work ? Yes, the loco runs round the tight 30" radius curves on the garden layout but looks better on the 48" ones. Anyone with larger radius curves should be able to make a loco with a long cab and tender units using exactly the procedures detailed in the article.

Finally could the original Piko loco be resurrected from the conversion? Yes, though it may be necessary to purchase a replacement rear tender beam, using the excellent parts list supplied with the loco, which should not prove a problem as I lost the original air pump and having ordered a replacement I had it fitted in a couple of weeks – excellent service indeed.



Component parts waiting final assembly



Lead weight secured to cover plate & chassis



Boiler slipped over lead weight

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Using a box spanner to tighten nuts



Cab secured to chassis



Tender unit and crew in place





Completed loco



Rear view of completed loco

Final test run on the garden railroad' 2'6" curve - note the rear overhang



No overhang problems when operating on the indoor layout with 4' curves