

GWR SMALL HORNBLOCKS

These hornblocks, based on a GWR design for smaller engines, are designed for use with a locomotive chassis constructed using three point beam compensation. Solder should be kept to a minimum using a solder which melts at around 180°C. Final soldering to the frames can then be accomplished with a lower temperature solder such as 145°C.

ASSEMBLING THE HORNBLOCKS

Cut the components from the fret and clean up all edges. Fold up the horn guides, with the half etched line on the inside of the bend, squeezing them over a bearing in a vice to get a good fit. Solder the hornguide in place in the slots applying the solder from the back face of the hornblock so that the solder runs through the slots. Check that the bearing is a nice sliding fit between the horn guides. Clean off the back face flush by rubbing the assembly on a sheet of emery paper.

FITTING THE HORNBLOCKS TO THE CHASSIS

Before the chassis is assembled solder the rear hornblocks to the inside of the frames aligning them centrally in the frame slots and with the bottom of the frames. When the chassis is assembled put an axle (or better a longer piece of 3/16" rod) through the rear bearings and place the chassis on a piece of graph paper to check that the axle is square to the frames.

Turn two hornblock alignment jigs from 3/16" steel to the dimensions below. The coupling rods should now be made up so that we can use them as a jig for fitting the remaining hornblocks accurately into place. Open out the crankpin holes until they just fit, with no free play, the ends of the hornblock alignment jigs.

Slide a pair of hornblocks and bearings on the hornblock alignment jig with the spring between the bearings. Carefully compress the spring and clip the hornblocks between the frames - the spring automatically pushes the hornblocks hard up against the inside of the frame. Fit a second jig through the rear bearings, and place the prepared coupling rods over the ends of the jig as shown below.

Make sure the hornblocks are square to the chassis and that their bottom aligns with the lower edge of the chassis frames. When everything is aligned correctly carefully solder the hornblocks to the chassis. Now remove the jigs. Repeat this process for the remaining axles. The axle centres are now perfectly matched to your coupling rod centres - the basis of perfect running.

MODIFYING THE HORNBLOCKS FOR USE WITH DOUBLE BEAMS

Several of my kits use double beams between the two rear axles. This means the beams must rest on the top of the bearings close to the frames, see below. This means that the top section of the hornguide between the hornblock and the half etched line must be cut away. So, after the hornblock has been assembled, saw along the half etched line with a piercing saw.

