

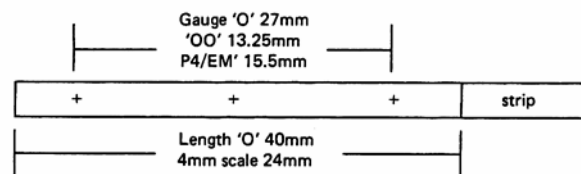
Making Tie Bars

NORMAN SOLOMON demonstrates a tried and tested method.

The best thing to come out of a question-and-answer follow-up to an article (see MRJ No. 146) is that it shows up the bits you missed. Tie bars was one of those.

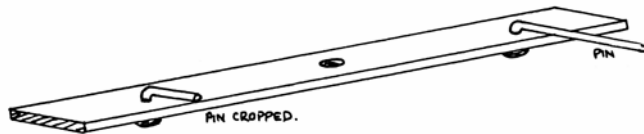
I have used various methods over the years but this is the standard system that I currently use. This is always subject to the customer's approval as there are more discreet ways of making tie bars but this I have found to be the most robust and reliable in normal use.

I have strips of fibreglass reinforced paxolin cut for me 2.5mm wide. These I mark out as per the drawing below using a scriber for the ends and centres and a pair of dividers for the gauge.



The gauge and centres are drilled with a No. 73 (0.6mm). The centres are then opened out to No. 64 (0.92mm). Before chopping individuals off the strip, I draw file the sides to dress them as they have been guillotined leaving a rough edge.

After chopping off individuals, 14 x 0.55mm Lill pins are pushed through the gauge holes, bent over using pliers and clipped to length. The length depends upon which gauge they are intended for; 4mm scale only requires a 1.5-2mm tail, whereas 7mm scale can have a 3-4mm tail left.



The prepared ties are placed in position between the blades with the tails pointing towards the crossing. A spot of liquid flux and a touch of the iron with minimum solder will solder the tails of the pins into the bottom web of the rail.

The pins act as a pivot, relieving stress on the blades and soldered joint, making this a very reliable tie bar. To make them visually less obvious for P4, etc, I have narrowed them down considerably but this must not compromise the strength of the holes.

I always drive from the centre from below the baseboard (my method of using Fulgurex motors for this purpose will be the subject of a further article). For those who operate by other means, the centre hole can be moved anywhere along the strip.

For those who have difficulty finding suitable material, Norman is prepared to supply lengths of the material he uses, plus pins. The strips are 305mm long, enough for seven tie bars in 'O' and twelve in 4mm scale. Please state which scale is required. The cost is £2.50 per strip plus SAE from 35 Golden Hill, Wiveliscombe, Taunton, Somerset, TA4 2NT.

