

# Plain Line - 18 x 9ft sleepers per 45 ft panel

## Instructions for assembling track using NewTrack mouldings

The NewTrack mouldings for 18 sleepers/45ft panel reflect pre-grouping (pre-1923) practice when many railway companies used bullhead rail in 45ft lengths on 9ft timber sleepers. Few companies used exactly the same combination of sleeper numbers and spacings and the NewTrack moulding has had to be based on one - the Great Northern Railway (GNR) being chosen. The GNR actually used 8' 11" sleepers, but we are closer to the more common 9', or 36mm in 4mm scale, for this moulding.

The GNR also normally used 12" wide sleepers adjacent to rail joints with 10" wide ones elsewhere. Other companies (e.g. the LSWR) used 45ft panels with the same sleeper spacing but with 10" sleepers throughout. To provide for this alternative, there are two extra 10" wide (3.33mm in 4mm scale) sleepers tacked on one end of the moulding. Snap these off where the web is grooved, leaving a 45ft panel with 12" joint sleepers.

To produce a 45ft panel with 10" end sleepers, cut away the 12" sleeper at each end of the 18 sleeper panel, making the cut in the web halfway between the sleepers. Take the two 10" sleepers that have been removed and separate them. They can then be used at each end in place of the 12" sleepers - the remaining sections of web should give the correct sleeper spacing for a 45ft panel.

The pips on each sleeper are designed to locate any of the range of Exactoscale plastic functional chairs. The pips are designed to give about 0.2mm adjustment in gauge. For straight track applying light pressure towards the track centre-line as the chairs are solvent welded in place will be the best approach and give a gauge of, or very close to, 18.83mm. For curves (if gauge widening is required) applying pressure away from the centre-line will give a gauge of up to about 19.05mm. Accurate control of gauge is made easier by the use of a NewTrack set of track gauges.

The recommended solvent for bonding chairs to sleepers is butanone. Use a fine pointed brush (000) to apply the butanone. It is important not to flood the chairs with solvent but it is also important to get good penetration of solvent under the chair. The chairs are designed to be pressed flat under pressure as they are bonded and should have no gap under them when stuck down.

Cut rails accurately to the appropriate lengths and ensure the ends are free of burrs before assembly. For straight track, cut both rails to 180mm long. For curved track, cut the outer rail to 180mm and the inner to a reduced length - normally reduced by 1.5mm or multiples of 1.5mm. Curved rails should be curved to the required radius before assembly, taking care to achieve a smooth curve right to the rail end.

The best sequence for assembling track is probably as follows:

- 1 Remove the sleeper moulding from the sprues by folding each sprue back against the underside of the sleeper moulding and back again. Arrange the sleeper mouldings to provide the required 45' length (see above). If building curved track, remove sufficient of the web under where the inner rail will go to enable the sleeper base to curve smoothly to the required radius. Attach the sleeper base (including any loose end sleepers) to a piece of MDF with blutack, to the correct radius if curved.

- 2 Feed the prepared rail through the chairs while they are still on their sprues, breaking each one off once it is on the rail (the chairs may need scoring first where they join the sprue). The keys on the chairs nearest each rail joint should point away from the joint.

- 3 The chairs should then be spaced at about the right positions on the rail, the rail placed over the pips and, one by one, each chair eased fully on to its pip. Make sure at this stage that the rail end is 4mm from the centre line of the end (joint) sleeper.

- 4 Solvent weld the first rail's chairs in position, working along the chairs from one end of the panel and applying appropriate pressure to achieve the desired gauge. Repeat steps 2, 3 and 4 for the second rail. Allow the bonds to harden fully before adjusting alignment and laying the track.