

## SERVICE TRIALS AND PERFORMANCE OF CONCRETE SLEEPERS, IN PARTICULAR WITH TYPES D912 AND F27A

The D912 (Dow-Mac manufacture) and the F27A (Costain manufacture) concrete sleepers were evolved last year as developments of the standard F27 design. Both are similar, and incorporate a deeper centre section and considerably increased prestress at the top of the rail seat section where cracking has occurred in F27 sleepers under certain arduous service conditions.

The R&D Division has been observing the structural performance of the first 1200 (approx.) D912 sleepers on the LM Region and the first 4400 (approx.) F27A sleepers on the Scottish Region together with other well established designs at comparable adjacent locations where possible, and subjected to similar conditions. Details of the sites and observations are given in this report.

Although the service periods for the new sleepers involved are only in the order of 1 year and in spite of very few structural defects having been observed, the performance of the D912/F27A design promises to be an improvement over the F27.