

## CONCRETE SLEEPER DEVELOPMENT LOADING TESTS ON F23B F26 SLEEPERS

This report reviews the principle static and dynamic tests carried out for the development working party, which was set up to reconsider proposals put forward during the 1960s regarding concrete sleeper development loading tests.

The proposals reviewed are:

- Reduce the number of prestressing wires to 22 in the majority of class F concrete sleepers taking advantage of a theoretical reduction in bending moments due to a reduction in length from 8'6" to 8'3". Also designing for a theoretical tensile stress in the concrete of 400 lbs./sq. in. in place of the earlier figure of 300. (1960)
- Amendments to the external shape and prestressing arrangements, but with the basic design theory and production methods remaining constant. (1961)
- Further reduce the number of prestressing wires to 20 by use of a slightly higher tensile wire of 105 tons/sq. in. strength. (1964)
- A radical change in design philosophy and production methods – the 'Muggington' sleeper. (1965)