

USE OF THE DYNAMIC TRACK STABILISER AFTER MAINTENANCE TAMPING

The report describes work carried out to ascertain the effects upon sleeper lateral resistance and track vertical geometry when using the dynamic track stabiliser (DTS) after maintenance tamping. The work was requested with a view toward the relaxation of the embargo on tamping the ECML between May and September, and the '3-day rule' following work that has disturbed the ballast.

Two sites were selected; one for the lateral resistance measurements and one for vertical geometry. Measurements were taken after the maintenance work, and also after tamping and DTS of the sites.

The main conclusions were:

The lateral resistance measured following tamping and use of the DTS was on average 12% less than the typical consolidated values for concrete sleepers. This compares to a reduction caused by maintenance tamping alone of typically 20%. A critical rail temperature (CRT) for track maintained with a tamper and DTS would therefore be typically 50°C which would be perfectly satisfactory for most summer situations.

The high degree of consolidation apparently achieved by the use of the DTS following maintenance tamping also seems to result in the destruction of the improvement in track quality that is normally achieved.

Due to the detrimental effect on track quality, use of the DTS is not recommended for normal smooth maintenance tamping. Where there is a requirement for the correction of gross faults, especially in the alignment, use of the DTS may be justified.