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Infrastructure Group Safety Bulletin

Track Buckles

This bulletin is for the attention of:

Principal Maintenance Support Engineers (Track)
Track Maintenance Engineers
Section Managers (Track)
Track Renewal Engineers (II)



Readers are reminded that a number of factors may contribute to track buckles on the network. The following features in particular are brought to your attention:

Use of Panlocks

Due to their design, Panlocks are less able to resist rail creep. For this reason the relevant standard states "Panlock keys must not be used in tunnels or if there is a tendency to rail creep." Those working on track shall therefore check that a relevant section of rail does not have a tendency to rail creep before using Panlocks. Where Panlocks are fitted rail joint gaps must be monitored throughout the summer period and appropriate action taken if the rails are seen to be 'bunching' as a result of creep. If necessary, rail anchors shall be fitted to resist the creep. NR/BS/LI/142 gives guidance where less than designed rail expansion joints exist.

Rail Regulation/Pulling Back is not a once a year job.

It is vital to remember that rail joint gaps need to be monitored regularly and appropriate action taken. Early measuring and if required, rail adjusting is essential in preparation for hot weather. However, there still needs to be ongoing monitoring of the gaps throughout the summer period. If necessary, fit rail anchors to resist creep and reset them after pulling back.

Over tightening of fishbolts

Use of power wrenches to tighten fishbolts following plate oiling can result in over torqued bolts, which prevents the joints closing up as the temperature rises. The power wrenches currently in use cannot be accurately calibrated and should not therefore be used to tighten fishbolts. Final torquing must be carried out using a calibrated torque spanner.

Recent worksites

Buckles may occur on lightly trafficked routes several months after work is complete. The recently issued Letter of Instruction NR/BS/LI/142 gives guidance on the rates at which ballast reconsolidates under differing levels of traffic.

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