

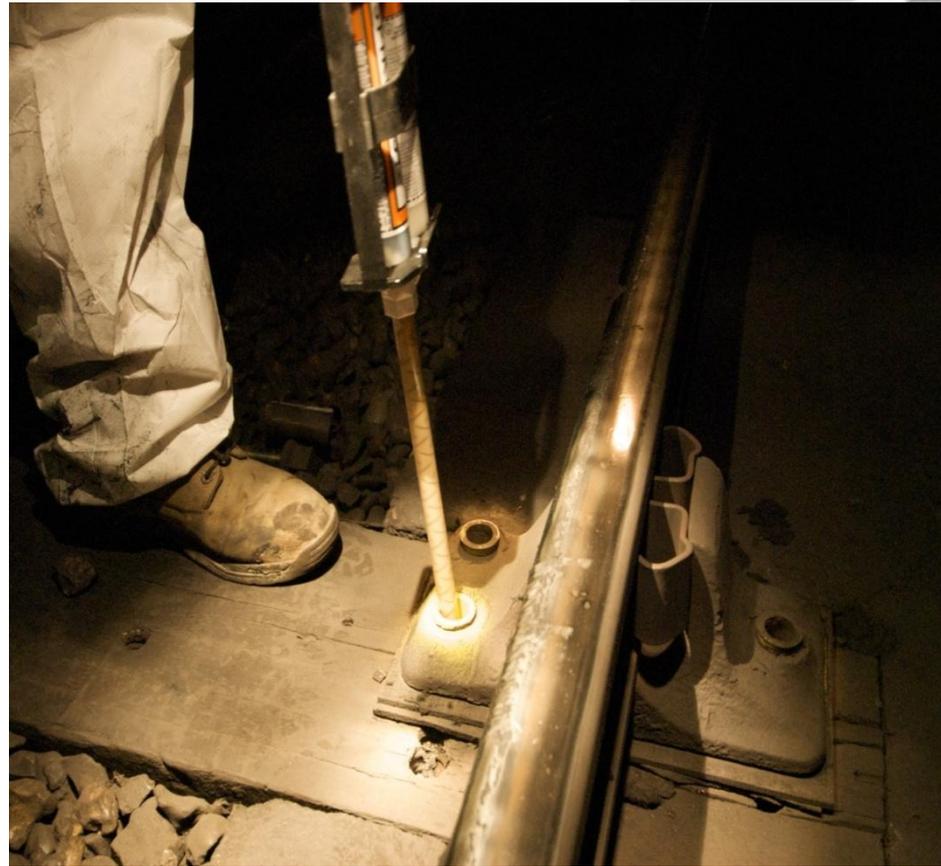


Change Challenge Cup Entry Gavin Silvey and Michael Hayes

**Track Lowering and use of
“SpikeFast” polymer filler**



Tube Lines



- SpikeFast® is a polymer compound injected into existing drilled holes in sleepers.
- SpikeFast enables the existing sleeper to hold coach screws to keep the chair/ baseplate in place, thereby extending the sleeper's life.
- SpikeFast hardens in 20 minutes and 1 x 450 ml tube can fill approx 8 to 10 holes.
- Existing holes filled with SpikeFast can be re-filled, with no deterioration in strength.

Benefits of entry

Gold : hard savings, additional to budget

- RP1 £417,500 (£50,505 savings to date + current site £60,000 plus another 553 sleepers to end of RP1 at £555 saving £306,995)
- RP2 based on 30% of remaining sleepers $5000 \times 30\% = 1500 \times £555 = £832,500$
JL patrolmen using Spike Fast instead of Hilti to instantly repair faults also used by NL Track teams

Blue : cost avoidance, productivity and risk mitigation

- Work sites completed quicker than re-sleeping, enabling additional sites to be tackled in the same time period.
- The ability of the sleepers where SpikeFast has been used to hold the bolts in place and retain the correct track gauge.
Site survey process drives correct scope with varying mixtures of re-sleeping and Spikefast at different sites.

Silver : hard savings, delivering to budget

- Where a viable alternative to re-sleeping, has a 50% reduction in staff reqs and 400% productivity increase for 12.5% of cost.
- Anticipated saving on TLS project by adopting a 70% re-sleeper/30% SpikeFast split is **£1.25m**. To date, the total hard savings have been **£50,505**. The current site will realise **£60k** of savings.
- SpikeFast delivers a cost saving of £555 per sleeper when compared with the cost of re-sleeping.

Yellow : business imperatives and enhancements

- Manages risk of imposing TSRs
- Lower material usage as sleepers which would otherwise be replaced are now life-extended through the use of Spike Fast
- Saving on landfill caused by old sleepers and the surrounding concrete