

Vortok International - seeing the point

Points failure, due to dry slide chairs seizing, can cause havoc to busy routes. Greasing regimes can ease problems, but are messy, laborious and often ineffective with repeat visits required within a few days.

Alternatives to greasing are available in the form of adjustable roller baseplates or embedded plastic slides. These have their own share of problems with ongoing adjustments required by specially trained personnel. High material costs, long possessions for fitting and complete changing of baseplates are often reasons why these systems are not popular.

Vortok International has introduced Rotorrail into the UK. Derived from an Italian system that has successfully been in service for six years by FS Railways, it has been adapted by Vortok to be suitable for UK baseplates.

Retro-fitted to the existing baseplates, Rotorrail can be installed on a complete point end, under traffic, in less than 10 minutes. Once installed, the system requires no lubrication, nor any ongoing adjustment. No specialist training is needed to install.

Simple installation

The method of installation is to remove the screws, place the protective rings over the ferrules, slide the unit until the rollers touch the switchblade, place the locking plate on top and replace the screws. This can be carried out under the control of the switch operator. Once installed, no grease is ever required for lubrication, even on the slidechairs without the units installed.

Rotorrail works by lifting the moving switchblade by 3mm onto rollers with specially sealed bearings, eliminating the drag on the slidechairs. A set of four roller units are required (two either side) for switches of length A-E with an additional two roller units required, positioned at the plane point on switch lengths F-H.

Since its introduction over 12 months ago, Carillion Rail, First Engineering, Railtrack and Amey Rail have all purchased the system and started to see benefits. One maintenance company has estimated a saving of 26 days saved per year in one local area alone by not having to send gangs out to lubricate.

Huge time savings have also been made by not sending lubricating gangs out to remote areas. Sets have been installed on critical points around coal and gypsum plants making



in excess of 100 movements a day. Failures previously occurred weekly due to the grease and dust making a paste that clogged mechanisms. With Rotorrail installed, no failures have been reported.

Environmental

Rotorrail is not only environmentally friendly, with the elimination of greases and solvents into the ground, it is also energy efficient. It has been found that Rotorrail reduces drag on a switch to such an extent that the power in the motor can be turned down, thereby reducing wear and tear, improving reliability and thus prolonging its life. Savings may be modest at signal box level, but multiplied across a Zone, Region or network, can become very significant. Nationally, over 50,000 litres of grease and valuable energy can be saved annually.

This fact has been recognised nationally with Rotorrail being one of the shortlisted entries in this year's Network Rail Environmental Awards.

Range of models

Rotorrail is available for vertical and inclined flat-bottomed switches and PSV slidechairs (simply retro-fitting over the top of the existing insert). It

is suitable for both motorised and manual switches. Once installed on a manual switch, the effort required to operate is reduced significantly. In some cases, where the points have become very stiff, Rotorrail can reduce the effort well below the health and safety limit for manually operated switches.

Further units are on trial on bullhead and shallow depth type switches. These should be available very shortly.

Rotorrail can be purchased directly from Vortok International or is in stock at NRS in Crewe. Stock numbers are:

■ 57/009820 - Rotorrail set for flat-bottomed vertical, inclined or PSV slidechair switches sizes A-E.

■ 57/009821 - Rotorrail extension set for the above for switch sizes F-H.

Prices are around £1,500 per point end and £450 for an extension set.

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