In it for the long haul

A railway company is Argentina has requested a quote from South Africa-based Vesconite Bearings for the supply of locomotive axle box pedestal liners, following the successful testing of the liners on a working locomotive over a period of six years.

The pedestal liners were moulded from the engineered polymer Hilube 20 and bolted on to the bogie frame.

The Hilube 20 liners allow the axle to move freely in an axial direction, thus reducing flange and tyre wear and, most significantly, rail wear.

"Physical tests are carried out by many of the railways so it is not uncommon for a test to run for the maintenance cycle of between four and six years," says Vesconite Bearings technical representative Paul Potgieter, who notes that, while the product will last a railway maintenance cycle, an extended wear life of more than ten years is expected.

The test liners were shown to protect the axle box effectively, since the axle box was able to slide up and down between the pair of pedestal liners and showed limited wear.

An axle box is a costly item. There is thus a considerable need for greatly reduced wear on expensive axle boxes; a smoother gliding movement between truck frame and axle boxes; and savings on maintenance and operational costs on the axle boxes.

Pedestal liners, also known as axle box guides, horn cheek liners or journal box liners, are typically made of steel. As such, they can cause metal-on-metal wear to the axle or journal box, and are prone to fatigue cracking after continued use.

The polymer pedestal liners, in contrast, are self lubricating, and offer the advantage of reduced noise and no fatigue cracking. In addition, they offer maintenance savings since the wear on the axle box is reduced and only one maintenance staff member is required to replace the liners (unlike the two required to replace the previous metal pedestal liners).

The Americas are regarded as an important market for Hilube 20 pedestal liners, which have already been successfully introduced into Chile and Bolivia.

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