

## CLASS 150 CURVE SQUEAL: INVESTIGATION OF POTENTIAL SOLUTIONS

Part of the investigations aimed at eliminating, or at least drastically reducing, the noise levels as Class 150 units traversed check rail curves involved the use of constrained layer damping treatments applied to the wheel web, and lead bearing rails for the check rail.

Both of these treatments were tested, fitting a Class 150 test vehicle with constrained layer damping on all wheels, and a leaded check rail on a curve where high levels of squeal have previously been reported. This report details the results obtained.

It can be concluded that:

- Application of a constrained layer damping treatment to the web of a Class 150 wheel prevents curve squeal.
- Use of the particular leaded check rail at this location did not eliminate squeal or reduce squeal noise levels.
- Check rail lubrication can be used to eliminate Class 150 curve squeal.