

## WHEEL DAMAGE CAUSED BY WSP FAILURE ON MK III HST TRAILER VEHICLES

Previous studies into the causes of wheel damage to Mk III High Speed Train (HST) trailer vehicles reported that there was no evidence to indicate that a correctly functioning wheel slide protection (WSP) system would allow serious wheel damage to occur. However, they showed that approximately 10% of HST axles were unprotected due to faulty WSP equipment on any one day. This was thought to be the primary cause of wheel damage.

This report summarises the findings of a monitoring exercise on HST Set 38 to identify the cause of wheel damage. The study covers more than a year of continuous monitoring of two vehicles of Eastern Region HST Set 38. No evidence was found to indicate that serious wheel damage will occur when the vehicles are fitted with a correctly functioning WSP system. However, failure of the WSP has been shown to permit severe wheel damage when adhesion is low such that the demanded level of retardation cannot be supported.