

RAIL DAMAGE DUE TO WHEELSPIN

The Traction and Braking Control Project seeks to use the available adhesion to the maximum in traction and braking. In traction it is examining operation at controlled slip since it is hypothesised that this will raise the adhesion value behind the slipping wheel, therefore benefiting subsequent axles.

Locomotive 97403 was used to measure adhesion/slip characteristics on one axle and protection against wheelslip damage was provided. The protection was disabled so that deliberate damage could be caused. Two modes of operation were distinguished:

- Zero or very low train speed
- Running

The results from the tests are used to establish criteria for wheelspin control systems which will ensure that damage is limited to what appear to be safe levels.