

COMPARISON OF GROUND VIBRATION FROM FREIGHT VEHICLES: CROSS-BRACED BOGIE TESTS AT REARSBY

Because of the concern that heavy freight vehicles with certain types of suspension cause higher ground vibrations and possibly greater track damage, this report assesses the performance of the newly designed cross-braced bogie suspension. A test train which comprised freight vehicle with axle-motion, three piece bogie and cross-braced bogie suspensions was run over a selected section of track at various speeds.

Vehicles fitted with the cross-braced bogie suspension gave the lowest level of vibration of the three vehicles in the test train. The level was at least 1.5dB less than that from the axle-motion bogie vehicle, which, with one exception, always gave the highest vibration levels.