

TESTING OF LABORATORY COACH 1 FITTED WITH INDEPENDENTLY ROTATING WHEELS, OLD DALBY TEST TRACK AND BUXTON

Track tests with a laboratory coach equipped with one bogie fitted with independently rotating wheels (IRWs) and one bogie fitted with conventional wheelsets have been carried out on the Old Dalby test track and on running lines containing a number of sharp curves at Buxton.

The results of the tests at Old Dalby confirm that a bogie fitted with IRWs remains stable at speeds well in excess of a bogie fitted with conventional wheelsets.

During curve negotiation the magnitudes of the maximum lateral forces are not significantly greater than those from vehicles fitted with conventional wheelsets and stiff plan view suspensions.

Two unusual features were noted in the behaviour of the IRWs. They ran with a strong bias towards one side of the vehicle and with a very soft suspension the wheelsets exhibited an unexpected oscillation. These features are being investigated theoretically, and will be discussed in a sperate report.