

# FUNDAMENTAL INVESTIGATIONS OF WHEEL/RAIL ROLLING NOISE FROM TRAILING VEHICLES ON TANGENT TRACK

Fundamental investigations have been carried out to identify the major sources of train rolling noise, and in particular the relative importance of wheel and rail structural vibration to the noise. The wheel and rail surface condition has been investigated as a possible source of this vibration. Wheel/rail rolling noise studies have involved development of specialist instrumentation, theoretical modelling and analysis techniques, culminating in a large-scale field experiment. This report summarises wheel/rail noise research at BR up to 1985, and forms the final report of the joint DTp/BRB funded research project on wheel/rail noise.

**BR Research Report Ref: TR-SAV-004AEAT** Abstract Date: 20/06/2002  
**Report Author(s): DJ Thompson, B Hemsworth  
& DJ Williams**  
**Date of Publication: November 1986**