

THE MODELLING OF GROUND VIBRATION FROM TRAINS - PROGRESS TO MARCH 1993

A number of theoretical models for the propagation of vibration through the track and ground have been developed. The results of a study, carried out using the most advanced of these models, indicate some promising ideas for the attenuation of low frequency vibration. A new model which allows for ground of arbitrary cross-section has been implemented to allow a more detailed investigation of these ideas. Work is in progress to produce a predictive model for low frequency vibration which incorporates the mechanisms of vibration generation. Measurements have been made on the track and ground at a site near Burton Joyce to provide both the input data and data for the validation of this prediction scheme.