

## TWO-PANTOGRAPH COLLECTION – A COMPARISON OF THEORETICAL PREDICTIONS AND MEASURED DYNAMIC BEHAVIOUR

Theoretical methods of modelling the dynamic behaviour of moving pantographs on an overhead line are used to predict the behaviour of a pair of pantographs running at a variety of spacings and speeds on the Mk IIIa scaled overhead equipment at Old Dalby.

The results are compared with experimental data. Fairly good agreement is found between predicted and measured contact force and contact loss, suggesting that the theory provides an adequate means of predicting the speed at which contact loss will become unacceptable.

Prediction of pantograph trajectory is not as good, showing agreement in terms of the broad trends, but with considerable errors in actual numerical values. Further work is proposed in order to try and improve this situation.