

## CURVING WITH TWO-POINT WHEEL-RAIL CONTACT - COMPARISON OF THEORETICAL RESULTS

This paper presents a comparison of the curving predictions obtained with the general curving theory of Elkins and Gostling and the theory of Piotrowski for the case of two point high wheel contact. The comparison has been done for the example of a two axle bogie Class 87 locomotive.

It is shown that both theories give practically the same results as far as the resultant wheel forces and bogie position on a curve are concerned. This means that the theory of Elkins and Gostling almost exactly predicts the total wheel/rail forces for two point contact interaction despite the assumption in the theory that only one point contact occurs.

However this conclusion only relates to the example chosen, which is a vehicle with a rather stiff primary yaw characteristic. Further comparisons for vehicles with soft primary yaw should reveal whether this conclusion is general.