

## CURVING TESTS WITH LABORATORY COACH 1 ON THE BLANEAU FFESTINIOG BRANCH

As part of the validation of non-linear, quasi-static, curving theory for railway vehicles a programme of tests was carried out on the Blaneau Ffestiniog branch in June 1977. During the tests, which covered curves of 187m to 580m radius, the primary suspension parameters of the test vehicle, Laboratory Coach 1, were altered to provide all combinations of stiff and soft lateral and yaw suspensions. It has been shown that, where the vehicle mathematical model is properly defined, agreement between theory and experiment is excellent. The application of the theory to vehicle design is considered, together with planned extensions to cover calculations of wheel and rail wear and dynamic behaviour of railway vehicles on curved track.