

## TEMPERATURE MEASUREMENTS TO ASSESS THE PERFORMANCE OF BRAKE PADS

This paper reproduces a report submitted in two parts to the 'Test Bench' Working Group of the ORE Committee on brake pad materials, B126. Both parts describe temperature measurements obtained on a disc brake, using the full-scale brake dynamometer at Derby. Part I is an analysis of the measurements obtained from six thermocouples embedded in the disc and three rubbing against its surface. Part II describes results obtained using three optical pyrometers to detect hot spots.

Although the paper does not provide a conclusion, it does provide several discussion points. It is evident that only one hot spot was detected by a thermocouple. None of the other three hot spots were positioned close enough to have an effect. It may be inferred that if embedded thermocouples were to be used to compare the hot spot behaviour of different pad materials, many more thermocouples would be needed. Furthermore, if the statistical scatter of the temperature measurements was to be used as a criterion, the severity of the braking should be chosen to ensure that the number of hot spots was substantial.