

## A DYNAMIC STUDY OF THE WHEELSET/MOTOR ENVIRONMENT FOR THE CLASS 87 LOCOMOTIVE

With the imminent introduction of the class 87 locomotive into service, this study was authorised so as to appraise the dynamic characteristic within the bogie system. Forming a natural extension to an earlier class 86 study, the force levels between wheel and rail and between gearwheel and pinion are examined, in response to a standard symmetrical dipped rail joint at 100mile/h. Also investigated are three 'acceleration' co-ordinates for the motor and armature. The results show that the current parameter levels lie close to their optimum values and that the bogie mounted motor notably reduces the previously high wheel to rail force of the class 86.