

SAFETY ALERT



PARK BRAKE FAILURE

INCIDENT

In recent months in mines in south-western New South Wales, there have been a number of unplanned movements of Eimco 913s. They have resulted from a broken brake shaft as well as the brake-actuating lever moving on the splined brake shafts. All these failures have led to unplanned movements of the vehicle. No one has been injured.

CIRCUMSTANCES

In all of the above instances, at the start of their shifts the operators tested the 913s park brakes and all were operating correctly. The faults were only detected when the drivers applied the park brake and tried to alight from the driver's compartment, the result being the vehicle moved. In one coal mine there were two people in a man basket, raised off the floor installing roof bolts, when the vehicle moved backwards about three metres. This incident could have led to serious injury.

INVESTIGATION

In all incidents the machines were removed from service to investigate. The detection of the failed spline shafts and the broken shaft took quite some time to diagnose because of the difficulty accessing the park brake components. Further inspections have identified two other machines with potential brake component failures. Officers of the NSW Department of Mineral Resources carried out crack testing on three shafts provided by mines. One shaft showed signs of fatigue cracking. It would have resulted in a failure if it had not been replaced.

RECOMMENDATIONS

1. Contact the Original Equipment Manufacturer and obtain copies of the technical bulletin numbers 12/98, TB0107 and TBO109, which relate to park brake failures.
2. As a matter of urgency a visual inspection should be carried out on all components associated with the park brake assembly. This inspection should also include the crack testing of both ends of the actuating shaft associated with the Clark transmission park brake (item 30).
3. Provide a written report of your findings to the Original Equipment Manufacturer and your local District Mechanical Inspector.
4. Register your findings in your defect management system.
5. Provide operator awareness of possible brake failures and the defensive action needed if a failure occurs.
6. Review operator procedures for using the park brake on/off valve in preference to using the door interlock mechanism to apply the park brakes.
7. Review prestart operator procedures for the testing on the park brake.

A handwritten signature in black ink, appearing to read "R Regan".

R Regan
ASSISTANT DIRECTOR SAFETY OPERATIONS