

TECHNICAL BULLETIN

Ref Document No.	TB15006	Issue No.	1
Subject	Parke Brake Valve Scheduled Replacement		
Release Date	11 th November 2015		

Purpose – Advise COALTRAM® owners/operators of the recommended lifecycle for the park brake valve assembly installed in all COALTRAM®.

Applicability – All in service COALTRAM® models CT08, CT10, CT10LP and CT13.

Background

The park brake valve assembly, located in the cabin and used to apply the park brake, does not currently have a recommended life cycle. There has been a history of unplanned movements caused by park brake failures with technical bulletins released on the cause and remedy (refer DMS/PPK TB13001 and Sandvik TB1217). A recent failure of a park brake valve to return to the closed/applied position when the air pilot was removed highlighted the absence of lifecycle management. The valve had been installed since new with the vehicle having completed over 6,000 hours.

Investigations/Findings

An investigation was completed into the park brake valves failure to return to the applied position when the air pilot was removed. Score marks were found on the valve spool that would allow the spring retaining cup to become stuck on the spool preventing the spool from returning to the closed position. The spring cup is a loose fit over the spool, it was determined that contamination in the return spring housing had initiated the scoring. The images below show the contamination around the spring and the resulting score marks.



Figure 1: Contamination surrounding return spring



Recommendations

PPK recommends:

1. Reiterating to operators the importance of manually applying the park brake valve before alighting the vehicle.
2. All PPK service sheets, including the daily, recommend checking the cab door interlock is operational. This is done by checking the park brake valve returns to the closed/applied position and the park brakes apply when the cab door is opened. This specific operation removes the pilot pressure from the park brake valve, relying on the spring to return the valve to the applied position. If the park brake valve does not return to the applied position when the pilot pressure is removed the vehicle should be tagged out and not used until repaired.
3. PPK recommend replacing the park brake valve assembly after 4,000 hours of service. As a critical valve that is not easily overhauled, replacement is recommended. Upon installation any new park brake valves should be stamped with the engine hours for reference. The park brake valve assembly part number is 5520000166.
4. The 4,000 and 8,000 hour service sheets should be updated to check the hours stamped on the park brake valve.

Ashley Ryan
Mechanical Engineer

PPK Mining Equipment Pty Ltd

T: +612 4964 5400

E: a.ryan@ppkgroup.com.au

www.ppkgroup.com.au