TECHNICAL BULLETIN

Ref Document No.	TB13003	Issue No.	1
Subject	Isolation Air Reservoir and Check Valve		
Release Date	19th November 2013		

Purpose

To advise machine owners of possible hazardous condition if a COALTRAM® is shut down using the main air isolation valve.

Applicability

Applies to all COALTRAM® CT08, CT10 and CT13 vehicles.

Background

During routine maintenance at Donaldson Coal a COALTRAM® was shut down using the main air isolation valve. The shutdown of the machine in this method has highlighted a design flaw where if the pneumatic circuit is allowed to be depleted of air pressure below 40 psi (280 kPa) the functionality of the de-clutch/isolation circuit is neutralized allowing for a potentially hazardous condition where if the engine is left in running mode and the park brake is applied you could drive through the park brake in first gear due to high power of the engine.

Investigations/ Findings

The solution to this design flaw is the addition of a check valve and air reservoir to the de-clutch/isolation circuit. This will allow pneumatic pressure to be maintained if the main pneumatic system is depleted of pressure below 40 psi (280 kPa). NOTE: standard working pressure is about 110 psi (770 kPa).

A risk assessment and FMEA have been undertaken by DMS for the additions to the circuit and deemed them to remove the hazard and improve safety.

13	5520000233	TRANSMISSION DECLUTCH VALVE
12	5520000201	3/2 SPRING RETURN PNEUMATIC VALVE
38A	5520000489	PRESSURE GAUGE
86	5520000200	AIR RESERVOIR
87	5520000195	CHECK VALVE
9	5520000166	VALVE ASSEMBLY - PARK BRAKE CONTROL
33	5520000033	SAFETY SYSTEM MANIFOLD - 100 PSI

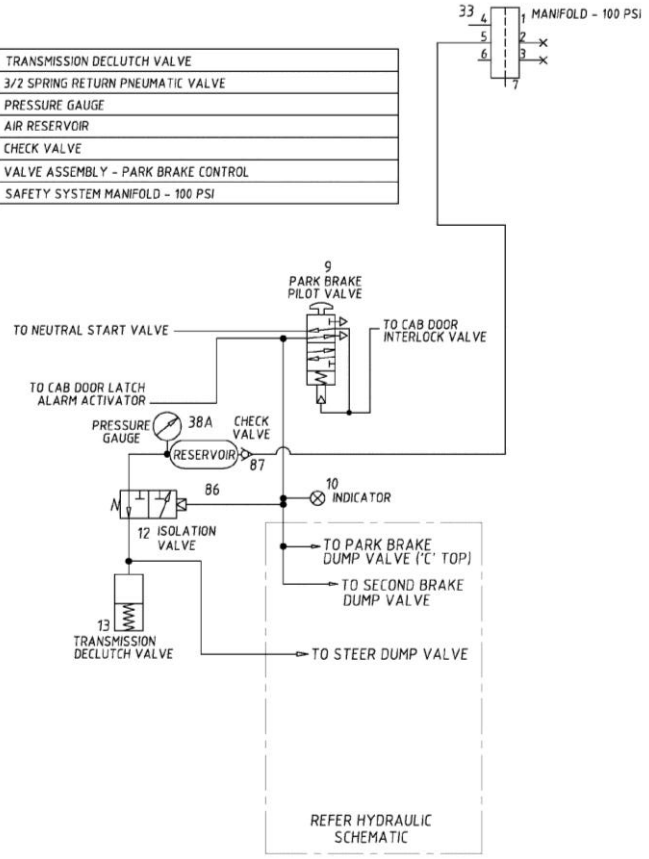

Figure 1: Updated Schematic Portion

Recommendations

1. Referring to figure 1 above it is recommended to install items 38A, 86 and 87.
2. The components will be available from January 2014.
3. The machine should be shut down via the MONEx control panel Start/Stop toggle switch.
4. The machine should not be shut down via the main air isolation valve.

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