

## TECHNICAL BULLETIN

Ref Document No.	TB15004	Issue No.	1
Subject	Throttle Cover		
Release Date	6 <sup>th</sup> May 2015		

**Purpose** – Advise COALTRAM® owners/operators of the impact holding a magnet against the throttle pedal sensor housing.

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

### Background

The throttle pedal in the Coaltram utilises a sensor and the rotation of a magnet to produce an electrical signal. The signal is sent to the engine management system as a throttle position. PPK recently replaced the throttle pedal in all Coaltrams. One of the changes made to the latest revision of the pedal assembly was to have the sensor housing made from stainless steel. A maintenance person at a mine site wanted to determine if the housing was made from aluminium so held a magnet next to the sensor housing. The engine in the Coaltram was running at the time and the magnetic field caused the engine to increase in revs.

PPK have not had any past reports of a magnet causing interference with the Coaltram throttle during normal operation.

### Investigations/Findings

PPK have tested both old throttle pedals with a mild steel sensor housing and new throttle pedals with a stainless steel sensor housing. The same effect of increased engine revs can be observed when a magnet is held in certain positions against the sensor housing and the engine is at idle.

Upon request PPK have designed a cover that can be attached to the pedal assembly. The cover, made from mild steel, creates a gap around the throttle pedal sensor housing sufficient that the magnetic field, from a relatively strong magnet, is dissipated to a point that it does not affect the throttle sensor. Below is a model image showing the throttle pedal cover in yellow.

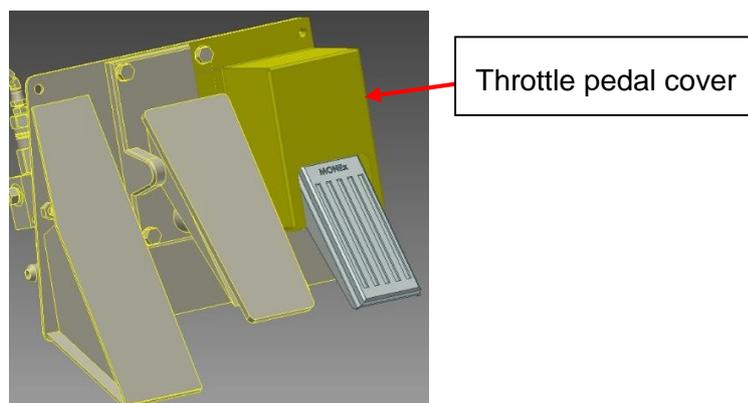


Figure 1: throttle pedal cover installed

PPK conducted an in house risk assessment for the risk of the throttle pedal being affected by a magnet. The result of the risk assessment was:

- Throttle pedal in standard orientation – magnetic source in close proximity to pedal sensor causing unintended engine revs – risk score of 17, therefore, classed as an acceptable risk
- The throttle pedal with cover installed – magnetic source in close proximity to pedal sensor causing unintended engine revs – risk score of 20, therefore classed as an acceptable risk

The risk assessment is attached to this bulletin.

An outcome of the risk assessment is to install a label on new Coaltrams warning of magnetic interference around the pedal. This label will be available to purchase for existing Coaltrams (5520009578).

### Recommendations

1. PPK recommends Coaltram owners/operators conduct a site based risk assessment to determine if the cover is required throttle sensor is required.
2. Install label 5520009578 if deemed necessary.
3. If cover is deemed necessary and installed - add removal of cover and clean to monthly/250 hour service schedule. Parts required for cover:
  - 1 off throttle pedal shroud (Part # 5520009569)
  - 1 off throttle pedal shroud under plate (Part # 5520009570)
  - 4 off M4 nyloc nut (Part # 3015)
4. The components will be available 18<sup>th</sup> May 2014.

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