

# TECHNICAL BULLETIN

Ref Document No.	TB17003	Issue No.	1
Subject	COALTRAM® Critical Component		
Release Date	29 <sup>th</sup> August 2017		

**Purpose** – To advise COALTRAM® owners and operators of updates to the lifecycle management of safety critical valves, filters and sensors.

**Applicability** – All COALTRAM® CT08, CT10, CT10LP & CT13.

### Background

The safety critical components have always been included in the COALTRAM® service sheets and code D overhauls. With the COALTRAM® fleet continually increasing in operating hours, more information is available through the PPK service departments.

The lifecycle of the safety critical valves, filters and sensors have been reviewed for the adequacy of the current recommendations. The new recommendations aim to increase reliability and have taken past failures into account to increase or decrease the service/replacement intervals.

### Recommendations

The attached tables define the safety critical valves, filters and sensors for the shutdown system, general pneumatic circuit, brakes, steering and engine control.

The maintenance and replacement intervals nominated have been based on industry standard in conjunction with the experience and history from PPK maintenance departments.

All lifecycle requirements for the items nominated herein will be completed if following PPK service sheets and Code D maintenance. The recommendations are the same across all COALTRAM® models.

The recommendations provided by PPK should be reviewed and assessed for each operation and specific end user requirements.

Updated Mechanical Service Sheets are included with this bulletin as well as a document detailing the exact modifications to the service sheets.

### Technical Department

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## Pneumatic Shutdown Circuit

Valve No (on schematic)	Part No	Description	Services						
			500hr / 3 Monthly	1,000hr / 6 Monthly	2,000hr / Yearly	4,000hr / 2 Yearly	8,000hr / 4 Yearly	12,000hr / 6 Yearly	
24	5520000179	Choker Valve	Test operation	Test operation	Test operation	Test operation	Test operation	Replace complete assembly	-
22	5520000163	Flow control valve			Inspect actuator assembly shaft spring for corrosion	Replace actuator assembly Part # 5520003333	Remove, clean, check operation	Remove, clean, check operation	Replace
21	5520000178	Choker application/test valve				Remove, clean, replace breather, check operation	Remove, clean, replace breather, check operation	Replace	
12A	5520000201	Safety Circuit Pilot Valve				Remove, clean, replace breather, check operation	Remove, clean, replace breather, check operation	Replace	
51	5520000592	Solenoid valve - pneumatic isolation				Replace	Replace	Replace	
52	5520001208	Solenoid valve - Engine start				Replace	Replace	Replace	
89	904160119	Additional start valve				Remove, clean, replace breather, check operation	Remove, clean, replace breather, check operation	Replace	
39	5520001857	Sensor manifold air filter	Clean	Replace Filter element	Replace Filter element	Replace Filter element	Replace Filter element	Replace Filter element	
37	5520000154	Pressure regulator	Check pressure setting	Check pressure setting	Check pressure setting	Check pressure setting	Check pressure setting	Replace	
88	5520009177	Relief valve				remove, clean, check operation	remove, clean, check operation	Replace	
63	-	Methane system				Complete at manufacturers recommendation			

## Pneumatic schematic - TBS/MDG1 related

Valve No (on schematic)	Part No	Description	Services					
			500hr / 3 Monthly	1,000hr / 6 Monthly	2,000hr / Yearly	4,000hr / 2 Yearly	8,000hr / 4 Yearly	12,000hr / 6 Yearly
8A	5520000198	Cab door interlock valve	Check operation	Check operation	Check operation	Remove, clean, replace breather, check operation	Remove, clean, replace breather, check operation	Replace
9	5520000166	Park brake valve	Check operation	Check operation	Check operation	Replace	Replace	
11	5520000165	Neutral start valve	Check operation	Check operation	Check operation	Remove, clean, replace breather, check operation	Remove, clean, replace breather, check operation	Replace
13	5541857100	Transmission declutch valve	Check operation	Check operation	Check operation	Remove, clean, check piston seal, lubricate piston	Remove, clean, check piston seal, lubricate piston	Replace
12	5520000201	Isolation - transmission declutch				Remove, clean, replace breather, check operation	Remove, clean, replace breather, check operation	Replace
87	5520000195	Check valve				Check operation	Check operation	
N/A	5520001103	o ring - neutral start adaptor				Replace	Replace	

## Pneumatic Circuit General

Valve No (on schematic)	Part No	Description	Services					
			500hr / 3 Monthly	1,000hr / 6 Monthly	2,000hr / Yearly	4,000hr / 2 Yearly	8,000hr / 4 Yearly	12,000hr / 6 Yearly
18	5520000174	Check valve			Replace	Replace	Replace	
3	5520000150	Relief valve	Check operation	Check operation	Replace	Replace	Replace	
6	5520000152	Filter Separator	Drain	Drain & clean	Replace	Replace	Replace	
70	5520000071	Y strainer	Clean	Clean	Clean	Clean	Clean	Clean
5	5520000151	Isolation valve				Check for leaks when in isolated position	Check for leaks when in isolated position	Replace
53	5520001209	solenoid valve - Bolter Polit Actuator				Replace	Replace	

## MONEx components

The below recommendations are as an addition to the requirements of PPK Electrical periodic inspection sheets, AS3800 and PPK bulletin EB16004

Part No	Description	Mech Code D	Services	
			4,000hr / 2 Yearly	8,000hr / 4 Yearly
5520000161	Engine coolant pressure sensors	Calibration verification		
5520000589	Engine oil pressure sensor	Calibration verification		
5520001207	Engine coolant temperature sensors	Calibration verification		
552000158	Exhaust temperature sensors	Calibration verification		
5520000058	Floats	Clean, inspect bush and rotation of lever arm		
5520002073	Control cable pwr mgr<>sensor/valves			Replace
5520001218	Main Harness		Replace	Replace

## Hydraulic Circuit - TBS related

Valve No (on schematic)	Part No	Description	Services					
			500hr / 3 Monthly	1,000hr / 6 Month	2,000hr / Yearly	4,000hr / 2 Yearly	8,000hr / 4 Yearly	12,000hr / 6 Yearly
35	5580003985	Foot brake valve	test operation	test operation	test operation	test operation	Replace	
37a	5520000229	Brake dump check valve					Replace	
34	5520000167	Park brake dump valve		test operation	test operation	test operation	Replace	
53	5520002159	Secondary brake dump valve		test operation	Replace	Replace	Replace	
4	5520000278	Brake filter	Replace	Replace	Replace	Replace	Replace	

## Hydraulic Circuit - Steering

Valve No			Services					
(on	Part No	Description	500hr / 3 Monthly	1,000hr / 6 Monthly	2,000hr / Yearly	4,000hr / 2 Yearly	8,000hr / 4 Yearly	12,000hr / 6 Yearly
3	5520000276	Steer filter	Replace	Replace	Replace	Replace	Replace	
			check condition & security of rubber boot. Check steering operation	check condition & security of rubber boot. Check steering operation	check condition & security of rubber boot. Check steering operation	remove rubber boot on stick steering lever check integrity, lubricate linkage	remove rubber boot on stick steering lever check integrity, lubricate linkage	Replace
5.4	5520002026	Stick steer valve						
	5520000318 &							
40.a,b	5520002152	Steer dump valve	test operation	test operation	test operation	test operation	Replace	
4.1	5520000280	Orbital valve	test operation	test operation	test operation	test operation	test operation	Replace
5	5520004498	Steer amplifier valve				Replace/overhaul	Replace/overhaul	
6	5520002016	Steering cylinder			bypass test	Replace	Replace	

## Hydraulic General

Valve No			Services					
(on	Part No	Description	500hr / 3 Monthly	1,000hr / 6 Monthly	2,000hr / Yearly	4,000hr / 2 Yearly	8,000hr / 4 Yearly	12,000hr / 6 Yearly
	5520000299	Hydraulic joystick	inspect, test operation	inspect, clean, test operation	inspect, clean, test operation	Replace	Replace	

### Notes:

- 1) 12,000 hour services should be carried out as a 4,000 hour service with the additional requirements noted in the above tables.
- 2) Replacement components should be engraved or have a completed label (5520010495) attached nominating date and engine hours at time of replacement.
- 3) Lifecycle recommendations for hydraulic steering related components are based on use with relocated larger steer filter nominated in TB17002.