TECHNICAL BULLETIN

Ref Document No.	TB25001	Issue No.	1
Subject	JUG-A-0 Park Brake Valve Change		
Release Date	16.05.2025		

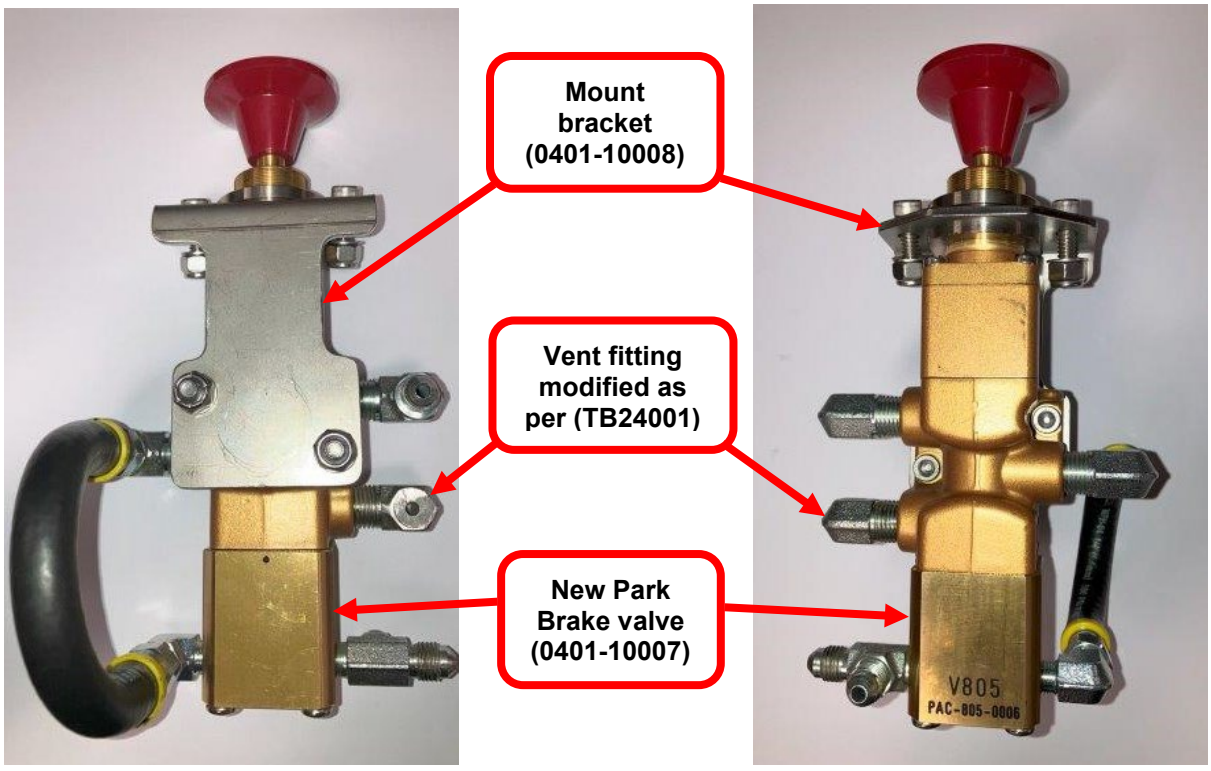
Purpose – To advise owners of PPKME JUG-A-0 vehicles of a change to the park brake actuation valve design.

Applicability – PPKME JUG-A-0 vehicles fitted with **0401-10007** park brake actuation valve. As installed in MDR 089245 TBS and MDR 108880 TBS pneumatic circuits.

Background

The current 0401-10007 park brake valve design is no longer available. A new valve design has been sourced and validated for use in the JUG-A-0 Transport Braking System.

The new design valve is from the same valve range as installed in the registered Transport Braking System (TBS) of the COALTRAM and Driftrunner/Brumby vehicles.



Recommendations

1. Owners and operators should be aware that the 0401-10007 Park brake valve will now be of the new design.

2. Installation kit P/N 0401-10007KIT is available for initial retrofit, and contains required fittings, hosing and mount bracket.

3. No new control measures are required for use of the new valve design.

4. The new design valve is installed in the original location, although requires a different mounting arrangement using mount bracket (0401-10008). Installers should refer to the Work Procedure provided for installation.
    a. N.B. The instruction document *SWP Diesel 172* supplied is applicable to a generic installation.
    Vehicle-specific circuit hose routing may vary, this must be taken into consideration during valve installation.
    b. On completion of the park brake valve installation the operation of the valve is required to be validated with all safety functions.

5. Existing Park brake valve design is still fit for purpose. Existing units in service should be maintained as per OEM maintenance recommendations.

6. Owners/ operators are encouraged to contact PPK Mining Equipment if any further information is required.

Engineering Department
PPK Mining Equipment Pty Ltd
E: bulletins@ppkme.com.au
T: +612 4964 5400
www.ppkme.com.au

PPK MINING EQUIPMENT

SWP Diesel 172
JUG-A-0 Alternate Park Brake Valve Installation.

Scope:

The objective of this SWP is to provide recommended method for **INSTALLING AN ALTERNATE PARK BRAKE VALVE INTO JUG-A-0 VEHICLES**

PPE requirements:

Protective Clothing	Protective Footwear	Hard Hat (if required)
Safety Glasses	Hearing protection	

Plant / equipment / materials:

Hand tools: - as listed	9/16” AF Open End Spanner	Vehicle wheel chocks
7/16” AF Open End Spanner	8” Adjustable (shifting) Spanner	Phillips Head Screwdriver
1/2” AF Open End Spanner	3/16” Allen (Hex) Key	5/32” Allen (Hex) Key
		3mm Allen (Hex) Key

Safety and Legislative requirements:

Lock out lock	Personal Danger LOCK	Out of Service Tag
SAFETY INFORMATION PAGE 2 OF THIS DOCUMENT		

JUG-A-0 MAINTENANCE SAFETY INFORMATION

- Ensure that all safety information is read and understood before maintenance or repair task is performed
- The person who is undertaking the repair or maintenance task must be qualified and competent to complete the task being undertaken

1. PPE. Appropriate PPE must be worn including Hi Visibility Clothing, Safety glasses, Protective Footwear, Hand Protection (as required) Hearing Protection (as required), hard hat (as required), Dust Masks (as required).
2. Isolation locks, Danger Tags and Out of Service tags MUST be used in accordance with site requirements and machine specific isolation procedure. Install chocks at the wheels.
3. All lifting gear must have current inspection tag, be suitably rated for item being lifted, and be in good condition.
4. Lifts requiring mechanical aids must only be conducted by trained and competent personnel.
5. When lifting objects with mechanical aid, keep clear of all potential crush or pinch points.
6. Keep clear of suspended loads. Use Safety line to control load when required.
7. Manual Handling. Do not lift or move objects by hand that are too heavy to do so. When manual handling objects use correct manual handling techniques.
8. Pinch Points. Keep all body parts clear of pinch points. Ensure hands and feet are clear when lifting and lowering objects
9. Machine support stands. Ensure machine support stands are of suitable capacity and in serviceable condition.
10. Slips, trips, falls. Ensure work area is clear of objects that could cause a slip, trip, Fall hazard.
11. Warning labels on machine must be observed.

12. Prohibition labels on machine must be observed.

13. Information labels on machine must be observed.

14. Service points on machine must be observed

15. Climbing on top of machine. Always maintain 3-point contact when climbing on top of machine.
16. Hot surfaces. Be aware of hot surfaces when machine has been running.
17. Hot fluids. Be aware hot pressurised fluids. This includes engine coolant, hydraulic oil, transmission oil, diesel fuel.
18. Chemical injuries: ensure that Material Safety Data Sheets are available and understood for all fluids used on machine.
19. Stored energy. Ensure all stored energy has been depleted and raised cylinders supported before conducting repairs or maintenance.
20. Accumulator pre-charge pressure. When all stored energy has been depleted the Nitrogen Pressure in the Brake Accumulator is still present. DO NOT attempt to release pressure without correct equipment. DO NOT disassemble accumulator without releasing Nitrogen pressure to zero.
21. Falling objects. Do not work under unsupported roof or in area where there is risk of falling objects.
22. Live Testing: Live testing must only be done after a task specific risk assessment (take 5 or similar) and in accordance with site requirements. The person operating the machine during live testing must be competent to operate the machine.
23. Crush points: Ensure that Articulation lock is fitted when conducting maintenance or repairs in crush zones.
24. Working under boom: Do not enter under boom unless boom rated, designed for purpose supports have been fitted, boom has been lowered onto supports and machine is isolated.
25. Hydraulic injection: Ensure that all stored hydraulic energy has been depleted before disconnecting hydraulic hose or fitting. Do not use your hand to find a hydraulic leak. Use a piece of Cardboard or similar to check for leaks. In the event of a suspected hydraulic injection refer to site specific procedure for fluid injection
26. Compressed air: Ensure air receiver has been isolated before conducting repairs on air system. If working on air receiver the air receiver must be depressurised before commencing work..
27. Current information: Ensure current information is available prior to commencing maintenance or repair task.
28. Guards: Ensure all guards and covers removed during maintenance or repairs are replaced prior to starting machine.
29. Ventilation Ensure adequate ventilation when testing machine.
30. Do not conduct electric welding on machine unless the Alternator has been disconnected by competent and authorised person.
31. Stay clear of rotating parts.
32. Always use tools that are in good serviceable condition.
33. Take care to not damage wiring, hydraulic or air lines during repairs and maintenance.
34. Ensure all electrical cables are placed in positions away from any possible mechanical damage and away from fuel lines.
35. Gas Struts.(used on covers) contain compressed gas even when fully extended. Before removing, check for damage. Damage may cause an uncontrolled release of energy or exploding parts when removing strut.

	Steps	Hazards	Controls
1.	Lower the boom until it rests on the load frame stops and crowd forward the MIS plate until the bucket attachment is resting level on the ground.	Pinch/crush	Keep clear of pinch points/ Crush zones. Barricade work area off
2.	Isolate vehicle, as per previous detailed, on page 2 of this document. Refer to Item 2.	Unplanned movement	Wheel chocks

Removal of Existing Park Brake Valve			
3.	Unlatch and raise the transmission covers up on the gas strut, then install the mechanical support struts and pin lock in position.	Manual handling	Use correct manual handling techniques.
4.	Remove mount bolts from rear cover over dash to allow access to park brake valve plumbing.	Manual handling	Use correct manual handling techniques.
5.	Disconnect hose from park brake valve to brake pressure indicator (Rotowink) and remove hose. *Figure 2: Showing original hosing arrangement.*	Manual handling	Use correct manual handling techniques.
6.	Identify mark delivery hose to brake circuit and fitting at park brake valve, then disconnect delivery hose from valve. *Figure 2 & 3: Showing original hosing arrangement.*	Manual handling	Use correct manual handling techniques.
7.	Identify mark park brake valve air supply hose to the park brake on/off pilot valve (0601-10061), then disconnect supply hose from this valve. *Figure 2: Showing original hosing arrangement.*	Manual handling	Use correct manual handling techniques.
8.	Identify mark engine oil supply hose and fitting at the park brake on/off pilot valve (0601-10061), then disconnect supply hose from valve, plug and cap disconnected ends. *Figure 2 & 3: Showing original hosing arrangement.*	Manual handling	Use correct manual handling techniques.
9.	Remove the Phillips head screw from the centre of external actuation knob and remove the knob off the valve shaft. *Figure 1: Showing valve knob and screw assembly.*	Manual handling	Use correct manual handling techniques.

Removal of Existing Park Brake Valve			
10.	Remove the 2 x button head screws thru the dash facia into the valve body whilst supporting the park brake valve. *Figure 1: Showing button head mount screws.*	Manual handling	Use correct manual handling techniques.
11.	Remove Park brake valve from dash and set aside on work bench.	Manual handling	Use correct manual handling techniques.
12.	Remove Park brake on/off pilot valve (0601-10061) arrangement from park brake valve and remove the fitting that connects both valves together.	Manual handling	Use correct manual handling techniques.

Installation of New Style Park Brake Valve			
13.	Install the new fitting into supply port of the park brake on/off pilot valve (0601-10061). Fitting reqd. 1 x CB27-0207 (1/8" BSP x 7/16" JIC Union M/F)	Manual handling	Use correct manual handling techniques.
14.	Install elbow fittings in the park brake valve with all the JIC ends pointing vertically down towards mount base. Fittings Reqd. 2 x CB56-0407F (1/4" BSP x 7/16" JIC 90° Elbow M/M) 1 x CB56-0407F MOD Vent Fitting (1/4" BSP Elbow) 1 x CB56-0207F (1/8" BSP x 7/16" JIC 90° Elbow M/M) *Figures 4 & 5: Showing fittings installation and orientation.*	Manual handling	Use correct manual handling techniques.
15.	Install the Tee fitting in the pilot exit port of the park brake valve with the JIC branch pointing vertically up away from mount base. Fitting Reqd. 1 x CB67-070207 (7/16" JIC x 1/8" BSP x 7/16"JIC Tee). *Figures 4 & 7: Showing fitting installation and orientation.*	Manual handling	Use correct manual handling techniques.
16.	Remove knob and panel mount nut from the front of the park brake valve. The other panel mount nut needs to be screwed on the mount spigot until rests against thread land.	Manual handling	Use correct manual handling techniques.

Installation of New Style Park Brake Valve			
17.	Install Valve Mount Bracket onto park brake valve spigot and install 2 x valve mount bolts thru valve body and mount bracket. Tighten the mount bolts and screw the inner panel mount nut until rests against bracket inner surface. Bracket Reqd. 0401-10008 Valve Mount Bracket Bolts Reqd. 2 x SS 3/4" x 1/4" UNC Soc. HD cap screws. 2 x SS 1/4" UNC Nyloc nuts + flat washers.	Manual handling	Use correct manual handling techniques.
18.	Install the park brake valve and bracket assembly thru dash panel mount hole and fit the outer panel mount nut up to the dash panel; hand tighten only at this stage.	Manual handling	Use correct manual handling techniques.
19.	Align the mount holes thru the dash with the bracket and install the 2 x panel mount bolts thru the dash panel. Centralise the valve spigot to the dash mount then tighten panel mount nut and the 2 x mount bolts. Bolts Reqd. 2 x SS 3/4" x 1/4" UNC Soc. HD cap screws. 2 x SS 1/4" UNC Nyloc nuts + flat washers. *Figure 6: Showing panel mount nut and mount bolts.*	Manual handling	Use correct manual handling techniques.
20.	Reconnect hosing to park brake as detailed in previous steps 5 to 8. Reconnection step points in brief: - 5. Park brake valve rear port to Rotowink. 6. Brake circuit delivery hose to brake valve rear port. 7. Air supply hose to the park brake on/off pilot valve. 8. Engine oil supply hose and fitting at the park brake on/off pilot valve.	Manual handling	Use correct manual handling techniques.
21.	Ensure brake function is validated following valve installation. If vehicle passes all the criteria place back into service and remove barricaded area signs and equipment. If it fails, vehicle is to be tagged “Out of Service” until the vehicle has satisfied the requirements.	Death or crush injury Collision with other vehicles or buildings	Test area to be clear of all personnel other than the trained authorised operator. Respect barriers!

Reference Images

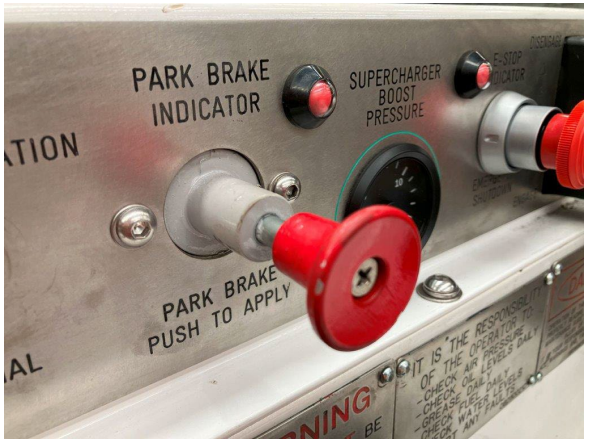


Figure 1. Original Park Brake Valve Installed shown from the operator's compartment.
Note the 2 x mount bolts installed.

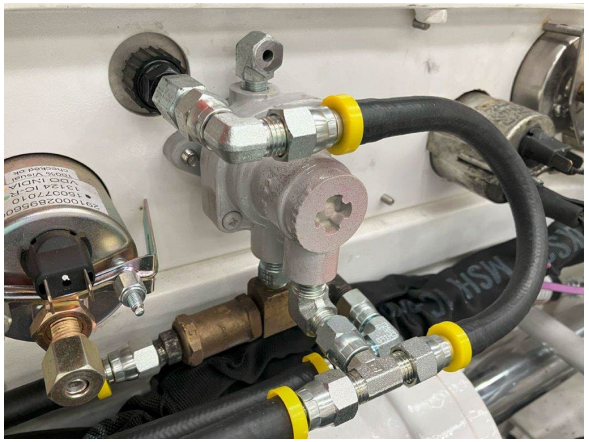


Figure 2. Original Park Brake valve viewed from the rear showing the hosing and fitting arrangement,

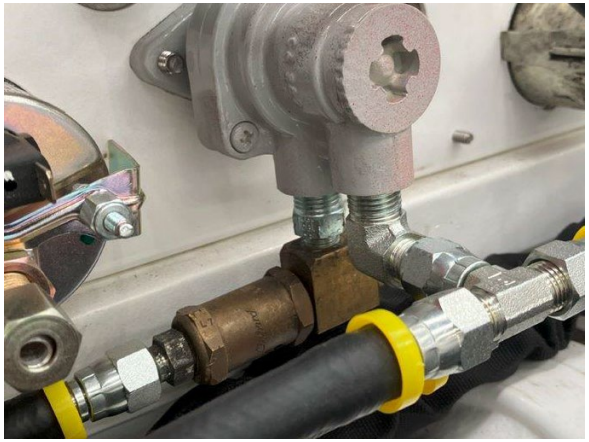


Figure 3. The Park Brake On/Off Pilot valve as installed in the supply port of the park brake valve.

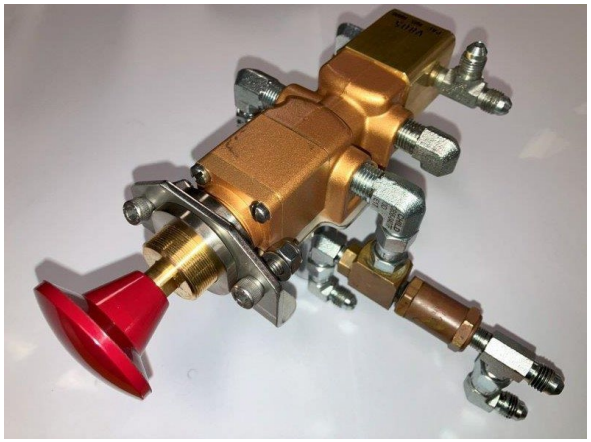


Figure 4. New Park Brake Valve assembly front/top view, showing mount bracket installed.

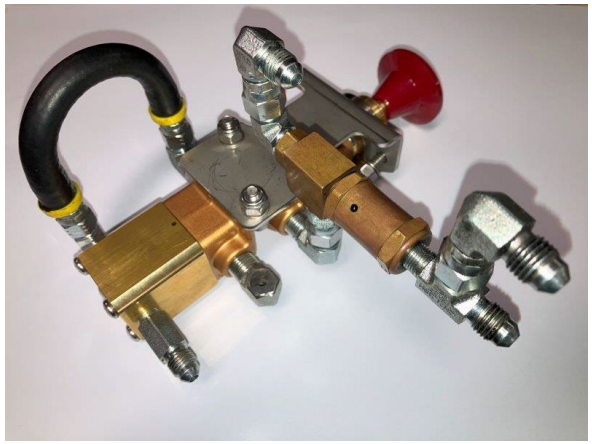


Figure 5. New Park Brake Valve assembly underneath view showing park brake on/off pilot valve installation.

Figure 6. New Park Brake Valve Installed shown from the operator's compartment.
Note the panel mount nut and 2 x mount bolts installed.

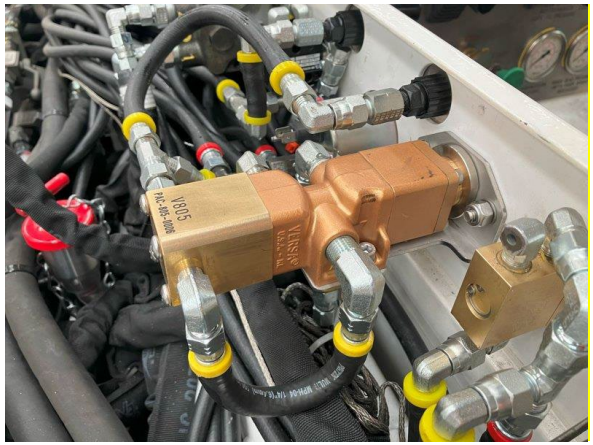


Figure 7. Park Brake Valve installation viewed from the pilot entry side, also showing mount bracket.

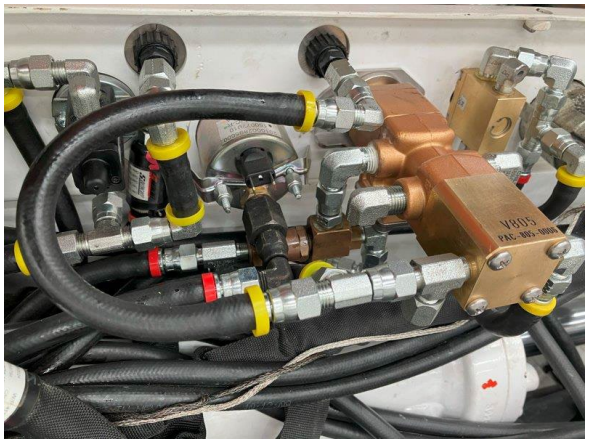


Figure 8. Park Brake valve viewed from the rear showing the hosing and fitting arrangement.

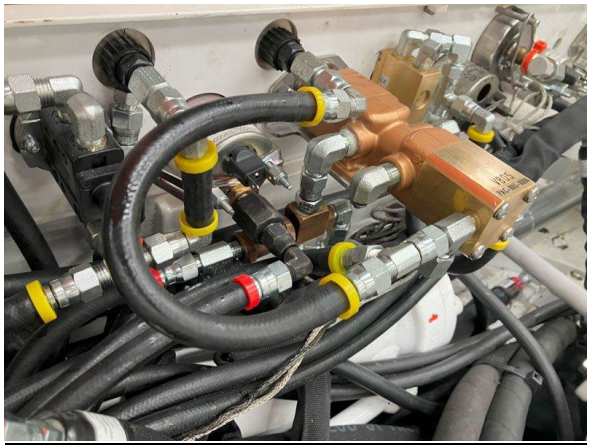


Figure 9. Park Brake valve viewed from the system delivery side showing the hosing arrangement.

NOTE: All personnel must read and understand this procedure before signing the document and commencing any task or associated task.

Non-Consensus Items

Participant	Item/Concern	Comments

Recommendations to change any instructions are to be listed and communicated to your supervisor.

SWG Sign Off Signoff should not take place unless this procedure has been read, understood, and all personnel associated with this task must follow this standard work procedure.

Employee Name	Signature	Date Undertaken