

The Mechanical Engineer in Charge

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PRODUCT SAFETY BULLETIN

Park/Emergency Brakes

ITEM 1

APPLICABILITY

PJB Minecruiser, Mk 4.5 & PJB Nipper only.

BACKGROUND

Consequent to investigations into several unplanned movements and discussions held with the Department of Mineral Resources over the past 10 months or so, PJB have conducted a risk review of the park/emergency pilot valve and its actuating valve as fitted to the PJB Minecruiser Mk4.5 and the PJB Nipper. As a result, PJB now make the following recommendations.

RECOMMENDATIONS

The park/emergency pilot valve part number HY00331 and the park/emergency control valve part number AR00722 should be replaced with new or overhauled units at intervals of no more than 2000 hours or bi-yearly. To minimise vehicle downtime it is appropriate that the changeout be timed to coincide with the diesel engine system code D inspection.

An optional park/emergency brake indicator (retrofit kit part number HY00372) is available for fitment by PJB or the mine. The park/emergency brake indicator indicates the application to or removal of hydraulic pressure from the park/emergency brake. Incorrect display indicates possible failure in either or both of the pilot and control valves described above.

Training/instructions on in-service brake testing and the function of the above indicator is available from PJB.

Colliery training of operators should include an instruction that “vehicles are to be turned towards the rib when parked”.

The operation of the pneumatic system self-purging filter on each vehicle should be regularly inspected to maximise system reliability. Those vehicles from which the self-purging filter assembly has been removed should be re-fitted with same.

Some vehicles have been found with AR00722 control valves that function unreliably due to excessive contamination and wear. It is possible for valves in that condition to automatically release the park brake some 30 to 40 seconds after being applied.

PJB have developed an in-service test that can be used to identify such valves.

- 1) Driver to stop the vehicle using the service brakes.
- 2) Apply the park brake using the pushbutton.
- 3) Keep the left hand resting on the pushbutton. Open the driver's door with the right hand.
- 4) Close the driver's door. If the pushbutton moves more than 0.5mm when the door is closed, the valve is faulty and must be replaced.

PJB will maintain stocks of service/exchange valves to support the changeout and overhaul of existing AR00722 and HY00331 units.

ITEM 2

APPLICABILITY

PJB Nipper only.

BACKGROUND

Some users of the PJB Nipper have reported that it is possible to press the rear compartment park/emergency brake valve button and move the valve spool into a position where the brake does not apply and that also prohibits the brake from being applied by either the valve in the operator's compartment or by opening the driver's door.

PJB have located a replacement valve that has a more secure latching mechanism and requires the button to be rotated to release the valve and consequently the brake.

RECOMMENDATIONS

The existing valve should be replaced by the new valve that has to be rotated to release the latch.

Note that the new valve has the same part number (AR00079) and will be the only valve supplied on new machines and as a spare part. When fitting the new valve to an existing enclosure, the mounting hole is to be enlarged to 32mm diameter.