



Technical Bulletin / Safety Alert

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(This document supersedes Juganaut Industries TBSA 0001)

Subject: Pilot Control Valve Failure

Date: 20/07/06

Applicable to: All JUG-A-0 UL/UV machines

Note: Minimum PPE required to carry out any inspections contained in this TBSA shall be protective clothing & footwear, safety glasses, hearing protection & any site specific requirements. A JSA or equivalent should be carried out prior to performing these tasks.

Occurance:

A customer was operating a JUG-A-0 UL/UV (6200hrs) on a mine site that was fitted with a manbasket to the M.I.S Plate. The operator moved the joy stick forward to pilot the DCV to lower the boom, but when he moved the joystick pilot valve back to the centre/hold position the boom and manbasket did not stop and continued to lower to the ground.

The rubber dust boot was then lifted up from around the joystick for inspection and the spool that pilots the DCV to lower the boom was stuck in the depressed position against spring return pressure.

Investigation & Cause:

The valve has not been disassembled at this time but it appears that the build up of contamination around the sections of the 4 x pilot spools that protrude past the valve body has caused contaminates to be pulled down between the spool and barrel each time a pilot function is operated. As there is no mechanical connection between the spools and the handle, the build up of contaminates, or the scoring of the spool and barrel, has caused the spool to become stuck in against spring return pressure.

It should be noted that the handle on the valve has a rubber cap on the top of it, which if missing will allow the ingress of contaminants to the top of the spools via a drilling that runs through the centre of the handle.

The valve will be returned to our supplier ASAP and we will be requesting a full report once the valve has been stripped and inspected.

Recommendations:

A Risk Assessment was carried out on Monday 18/07/06 to address this issue and a copy has been provided with this updated letter.

This is an isolated incident, as only one other such valve has been replaced since the JUG-A-0 UL/UV were released in July 2002, and that valve was replaced because of oil bypassing internally due to wear and tear in a machine that had in excess of 8500hrs on the meter, not because the valve was sticking at all.

VLI Diesel has made contact with the supplier of the valve and raised the issue with them and at this stage is waiting for them to strip down the valve in question and supply a full report on their findings.

Every customer who operates a JUG-A-0 UL/UV in NSW or Qld has been contacted and informed of what has happened, and a plan is in place that every JUG-A-0 UL/UV, in NSW and Qld, will have had the valve in question inspected, checked and cleaned by a VLI Diesel representative by the end of business Monday 18/07/06.

Every JUG-A-0 UL/UV joystick handle in the market has to have the top rubber cap removed and filled with silicon sealant. Every new joystick valve handle sold in the future will have been filled with silicon sealant as standard practice.

It is our recommendation that any parts that are missing from the valve are replaced immediately, and any valve that is leaking oil from around the spools, is automatically replaced. Every valve that currently had over 6000hrs was replaced by the end of business Monday 18/07/06. The cycle life of the valve will continue to be monitored very closely in sight of what has happened.

We also recommend that the following maintenance and operational controls are implemented immediately;

All JUG-A-0 UL/UV daily 103 inspections need to be amended so that the pilot valves are checked for oil leaks and damaged or missing rubber dust boots and handle top rubber caps, and function tested. Any faults are to be reported and be repaired immediately.

All JUG-A-0 UL/UV Weekly, 250, 500 and 1000hr service sheets needs to be amended to have the condition of the dust boot and handle top rubber cap checked. The dust boot needs to be removed from the pilot valves, the area around the spools are to be cleaned and lubricated before the dust boot is correctly refitted in position, and the valve is fully function tested. Any faults are to be reported and repaired immediately.

All JUG-A-0 UL/UV Weekly, 250, 500 and 1000hr service sheets needs to be amended to have the integrity of the Manbasket Isolation system tested and any faults reported and repaired immediately.

Full function testing of the valve takes place prior to operating the machine with a manbasket fitted to the M.I.S Plate.

Full function testing of the Manbasket Isolation system tested prior to operating the machine with a manbasket fitted to the M.I.S Plate.

The mechanical connection between the JUG-A-0 UL/UV and the JUG-A-0 manbasket is inspected by the operator to be sure the M.I.S Lock tongue is fully engaged through the locating slot of the JUG-A-0 manbasket.

Supporting Documentation:

None.

Conclusion:

Please ensure this document is circulated to all relevant personnel within your organisation.

Should you have any further queries please contact your VLI Diesel Representative.

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