Rubber Tyred Vehicles

Technical Bulletin

Bulletin Number: TB1003 Date: 27/05/2010

Subject: Fire Suppression Interlock Valve

Purpose

To inform the industry of differences in the way the fire suppression interlock valve may be hosed into the vehicle air circuit.

Applicable to

Sandvik 130, 130HD, 913, 913LH, 913LH MKII, 913-6, LS170 (former name ED7), LS190 (former name 220, ED10) Loaders, TS490 (former name ED40) Haulers fitted with fire suppression systems.

Description

In order to shut the DES down during a fire suppression discharge event as recommended in AS5062, an interlock valve is positioned within the vehicle air circuit. This Fire Suppression Interlock Valve is piloted from the fire suppression system and vents air from the shutdown system when the fire suppression system is activated.

This interlock valve has been installed on Sandvik loaders in 2 different configurations and they are piloted differently.

Typically on Chubb fire suppression systems the interlock is piloted from the fire suppression discharge line (as per Figure 1 below), and the pressure in the discharge line during the discharge detents the valve to exhaust the On/Off Pilot air supply. When the discharge event has finished, the valve detents back to the run position allowing the vehicle to be manually restarted in the normal manner (the vehicle will not automatically restart when the valve detents back, as the start button must also be depressed to crank the engine). This interlock should be replaced (and the fire suppression system recharged) after each discharge event (test or in-service) due to the potential for corrosion from the fire suppression foam mix. Refer to TB0726 and TB0802.

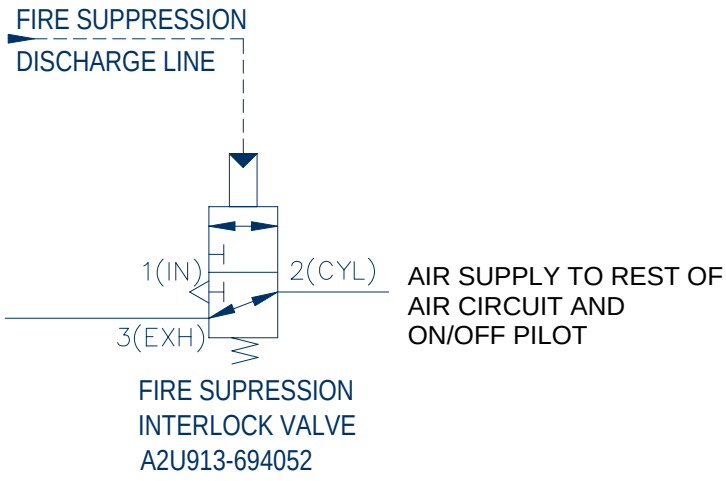

Figure 1 – Discharge line piloted Fire Suppression Interlock Valve

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Typically on Sandvik fire suppression systems, the interlock is piloted from the fire suppression system pressurised sensing line (as per Figure 2 below). When a fire occurs, it melts the sensing line releasing the stored pressure and activates the fire suppression system. The loss of pilot pressure to the interlock allows the interlock to move to the spring detent position which vents air from the On/Off Pilot thereby stopping the DES. To re-start the DES, the sensing line must be replaced and re-pressurised. **NOTE: Disconnecting the sensing line from the interlock will result in a fire suppression system discharge** if the fire suppression system has not been isolated as noted in the fire suppression system manual.

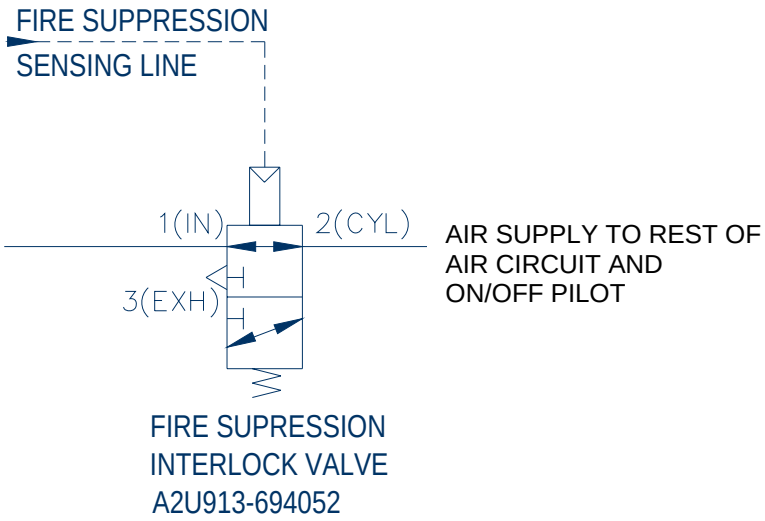

Figure 2 – Sensing line piloted Fire Suppression Interlock Valve

The air schematic provided with recently supplied new vehicles fitted with fire suppression systems will show the interlock, however the port numbering and note on the pilot line may not be correct.

Recommendations

Place this technical bulletin in the Service Manuals for Sandvik Loaders and Haulers fitted with fire suppression systems and notify service personnel of the 2 different configurations in which the interlock may be piloted and hosed into the air system.

Contact

Contact your Sandvik representative for further information or any questions you may have.

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