

# Save Service Time and Money! Upgrade Your OEM Switch with DDA Hydraulic Pump Contamination Switches

DDA Hydraulic Pump Contamination Switches requires **ONLY ONE FITTER** saving you labor cost.

No oil leaks, no mess, as there is no need to block the flow of 80deg oil whilst another fitter is inspecting and cleaning ready for installation.

## Why DDA two piece switch?

Like similar connectors the two piece DDA switch consists of a valve body/adaptor assembly with the same 22mm process connection, however, it is sealed into the pump housing using a dowty washer rather than incorporating its own seal.

The switch can be easily pushed against the nylon spring loaded valve which is lifted off its seat.

No oil leaks as o'rings sealed on the shaft connects with exterior adapter.

A half turn will now lock it into place.

Once the switch is installed into the valve, the sensing elements rest in the vertical position.

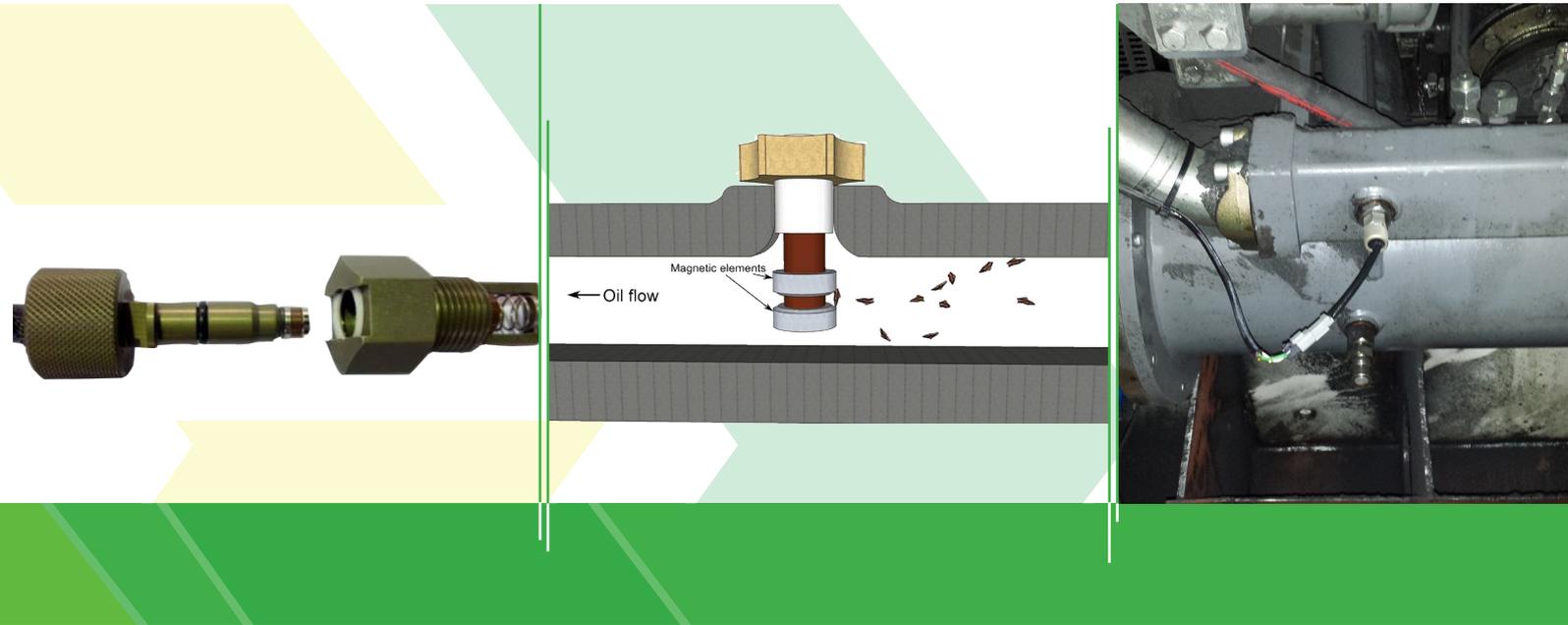
## DDA Innovation

The DDA switch is designed not to report back to a third party, but to be integrated into its own standalone contamination detection programme. Inside a safe conduit, wiring is lengthened and sealed to optimise lifetime and reduce the likelihood of possible downtime failures. The current flow design for the sensing components is also adjusted to minimise possible unintended damage to the circuit if the switching body is improperly removed or added.

**CALL DDA TODAY 02 6571 3690 Available 24/7!**

**Email:** [sales@drilldoctors.com.au](mailto:sales@drilldoctors.com.au) or **Visit** [drilldoctors.com.au](http://drilldoctors.com.au)

**Warehouse** 60 Enterprise Crescent Singleton Sydney, NSW 2330



### Continuous Improvements

Because of the complexity of the electrical system of the R9800, coupled with the use of a non-OEM switch, the need to re-engineer the existing circuit arose.

Originally, a +24V signal is sent to the switch. This signal is allowed to flow through to diagnostic machines and an alarm is triggered if the distance between the sensing elements is bridged by ferrous metal contaminants.

If fitted without modification, the DDA switch should send out this signal even without any contaminants.

The switch was originally designed to operate in a stand-alone system – it's equipped with an internal resistance to allow the controller to 'see' it. The voltage supplied to the switch had been altered to avoid this. The minimum switching voltage required to cause an event was determined, and a new optimum device voltage was obtained after several tests. This now made the voltage going through the switch at rest inadequate enough to log a fault.

This modification does not interfere with the machines ability to monitor the power supply for the contamination circuit.

### Our Testing Results

Switches undergone thorough testing with periods of 2000hrs on 14 pumps with no problems. Switches were tested for sensitivity and accuracy under varying conditions.

DDA switches successfully have been tested of various machines such as Liebherr R994B/R9350, R9400, R995, and R996, requiring no modifications of their electrical circuits.

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