Sales Case Study

Application: Oil Condition Monitoring

Product Group: Hydac / Sun / Manifolds

Summary: The customer was in the process of evaluating the expenditure associated to hydraulic oil costs as some manufacturers of their elevating work platforms were dictating short term periodic oil changes to maintain their warranty of the machine at obviously great expense to the customer through cost of oil, trucks off the road and labour time.

The customer did not see the sense of such frequent unwarranted dumping of oil if the oil did not require it, as they are strictly routine with their filter changes and maintenance.
Initially the customer were going to send samples away for testing but they wanted an immediate result to indicate the issue at hand, upon discussions there was also an issue with conductivity tests that are performed through the boom of the machine and given the levels of moisture in the oil can elevate the conductivity resulting in failure of testing and would need to remove the wax core of the boom and refill to try and overcome.

Solution: Hydac had only just taken receipt of a sample unit of their CS1000 Condition Monitoring units at that time and were not immediately available and only rated to 100 Bar, additionally Hydac were also able to offer the AS1000 AquaSensor cartridge, (typically both these units are fixed in loop of a circuit).

With these two units available Custom Fluidpower wanted to consolidate into one manifold to be able to offer one mobile tool to offer immediate results for both contamination and moisture, so working with manifolds we developed a unit that included a relief for protection in the event a fitter overloaded the unit (currently the new units offered by Hydac are rated to 300 bar). We also included a check valve to ensure the unit was not connected in reverse, a digital display was also incorporated in the manifold block to display the results for the Aquasensor and transfer tubes to allow neat coupling of contamination unit and accessories. Additionally a wiring harness was made to run the unit off a 24 VDC supply to allow a fitter to gain results on site.

Advantages of Solution: The ability to be able to gain an immediate, accurate level of contamination and level of moisture in a hydraulic system with the benefit of being able to run off the vehicles 24 Volt system. The unit also presented well in a neat arrangement and gained a lot of interest during its development.