Customer case study Diagnostic Test Equipment

POCLAIN Hydraulics

Hydraulics is а Poclain French manufacturer of hydrostatic transmissions, selling worldwide through more than 20 subsidiaries and remote offices and 150 distributors. Founded in 1985, its world-leading expertise in hydrostatic transmission enables it to operate in highly diversified markets, such as agriculture, building and construction, material handling, the industrial and highwaysrelated sectors, the environment and many others. POCLAIN HYDRAULICS offers also innovative on-road solutions through hydraulic hybridation for sustainable mobility. These hydraulic solutions enhance performance, fuel savings and emissions reduction.

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Rather uniquely, Poclain Hydraulics designs and builds their own test benches, to enable their distributors to rebuild and test the components that Poclain manufacture, providing a high level of client service.

After the repair centre was certified, Poclain's French After Sales Manager visited Talleres Lucas who are a Webtec Customer in Chile and distributor of Poclain Hydraulics. There he saw a test bench instrumentation system designed by Webtec. Returning to France, he developed an interest about the system he had seen, and expressed a need for test benches for distributors that were dedicated to hydraulic motor testing. Poclain contacted Webtec for a customised solution.

The system in place is that distributors conduct a first statement of the performance of a motor on receipt, and then proceed with rebuilding it by first dismantling it, repairing and rebuilding it and then they are ready to test the motor again. They then carry out a second test, and this way they can demonstrate the "before and after effect" showing the difference in performance of that motor after they have carried out the work on it.



Webtec discussed Poclain's requirements in detail at the end of January 2014. They specifically wanted contamination monitoring, water in oil, dirt in oil and low flow monitoring – needs that were unusual, as these factors were over and above the normal requirements.







Webtec visited the customer several times, looking at the installation and limitations, and Webtec designed a solution. Webtec made sure that a technical solution was supplied to Poclain encompassing connectivity, performance and programming, and this was designed with the interface of two non-standard products. Quotes were in fact generated only two weeks after the original distributor saw the Webtec test bench.

Interfacing two non-standard products was not without complications, but Poclain and Webtec interacted to ensure all went well. Customisation requires a great deal of communication to ensure success - in this instance. Webtec even needed to design custom cabling and software reconfiguration. They also interfaced a particle counter that measured relative humidity and contamination in the oil. This then fed a signal into the data logger, which displayed as two readings. Webtec also supplied a gear flow meter designed specifically to monitor low flows to cover the range 0.2 to 20 litres. Typically, with a turbine flow meter, measurements would not go below 1 or 2 litres. This all required custom cabling, and new software configuration. The test bench had a large power rating so it could deliver a maximum flow of up to 200 litres per minute, and pressures up to 450 bar.

Thoroughness and attention to detail is paramount, and the testing procedure now available to Poclain after Webtec's bespoke instrumentation solution results in a Certificate of Performance Test. This, taken together with the before and after service data, gives Poclain an important database of motor performance. Previously, Poclain had been using a visual indication of motor performance and a written report, so the reporting was greatly enhanced with the solution Webtec offered.

Having provided Poclain with a solution, this was shipped only 4 months after the customer saw the original test bench in Chile. Webtec enabled Poclain to supply the solution to their worldwide distributor network. The global potential is for 20 test benches.



Webtec includes after-sales training to ensure the correct usage of the test equipment and thereby confirm the motor is functioning correctly after repair. This gives Poclain confidence that their clients' needs will be met in the most professional and expedient way possible globally. Webtec provide service and support via their offices in France, Germany, Hong Kong and the USA as well as via distributors located worldwide.

Webtec is proud to provide hydraulic test equipment for Poclain's distributors, giving them the potential to repair and test large motors and provide traceable certification to their customers.

> Poclain www.poclain.com

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