

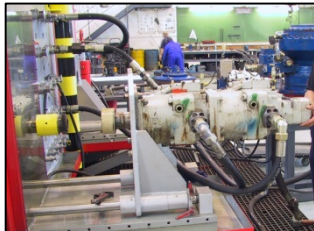
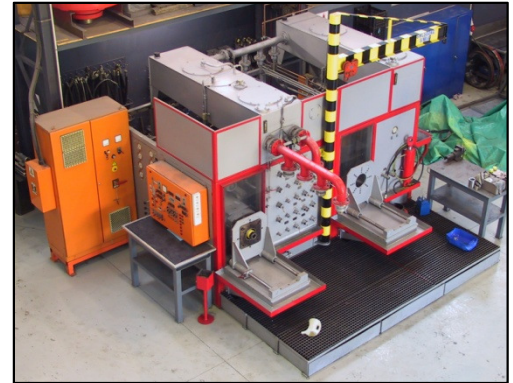
NEWS FLASH 2 - MARCH 2014

In this issue we focus on Optima's Test and Repair Division:

At Optima we repair a full range of hydraulic components. Our knowledge to repair is based on comprehensive training from the original component manufacturers, repair experience and repair instruction manuals supplied by the original manufacturers of the hydraulic components. With this approach we have successfully served our customers for more than 30 years.

We are fully committed to only source replacement parts from the original manufacturers of any hydraulic component repaired by us, this finally enables us to record comparable test results and in doing so qualify the repaired component accordingly.

All tests on repaired hydraulic components are carried out on our in-house test bench capable of providing 350 kW of testing power. The main drive is infinitely variable providing full torque throughout the entire speed range.

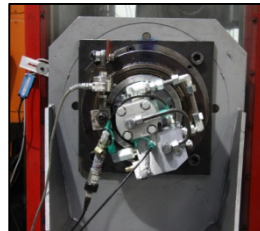


The design layout of the test bench provides for:

- Hydraulic Pump testing (Closed loop or Open Loop pumps)
- Hydraulic Motor testing
- Cylinder testing
- Valve testing
- Testing and setting of safety valves

The performed tests conclude test results with respect to:

- Volumetric efficiency [%]
- Hydro-Mechanical efficiency [%]
- Starting Torque [Nm]
- Running torque [Nm]
- Test pressure [bar]
- Speed [rpm]
- Oil temperature [°C]
- Cleanliness level of test fluid [ISO4406:1999]



Typical repair work includes the following: Report on failure analysis, repair requirements, and repair vs replacement cost where applicable. After repair and testing we supply a test report which sets out test results of that component together with test parameters applied during the test. Additional services also include maintenance contracts, spare parts supply, instruction and maintenance manuals and after market support and service.

Measuring Equipment:

We employ the most up to date recording equipment to record flow, pressure, torque, temperature and oil cleanliness. Measuring equipment are annually calibrated by recognised third party companies.

Process Control/Recording/Reporting:

The process is controlled from the start by our ISO9001:2008 system which dictates traceability throughout. In conjunction with the customer, the necessary quality control procedure is established and followed.