Press Release

Hydraulic fluids on the test bench
Fluid test bench from Bosch Rexroth makes a practical test for hydraulic fluids possible

Additive and lubricant manufacturers will be able to use Bosch Rexroth’s new fluid test bench for their own development work.

**Hydraulic fluids have a decisive influence on the wear properties of hydraulic components.** With the PFE-019-Rxxx fluid test bench from Bosch Rexroth, additive and lubricant manufacturers can now test the behavior of fluids and their interaction with the key components, the pump and the motor, under realistic operating conditions. Thanks to its compact dimensions, the plug-and-play solution can be easily integrated into industrial environments and can be used as soon as all media are connected.

The relevant standards, DIN 51524, ISO 15380 and ISO 12922, only outline the minimum requirements for hydraulic fluids. They do not reflect the improved performance of hydraulics and the associated higher requirements for hydraulic fluids. With Bosch Rexroth’s new PFE-019-Rxxx fluid test bench, additive and lubricant manufacturers can now benefit from a solution that takes these increased requirements into account and tests the hydraulic fluids under realistic operating conditions.

The test bench replicates all the latest requirements of a hydrostatic drive. For this, the test uses a combination of a swashplate hydraulic pump (A4VG) and a bent axis hydraulic motor (A6VM) and contains rotational speed change and load simulations. Fluids are tested at high pressures in different cycles over several hundred operating hours, both at high temperatures and at low viscosities.
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The plug-and-play solution can be easily integrated and used immediately after all media are connected. Users can easily operate the fully automated test bench using a modern user interface with HMI from Bosch Rexroth. Measured value recording and prepared sequence programs for fluid testing in accordance with RDE 90235 from Bosch are already included. On request, the test bench can be equipped with remote access that provides the customer with professional support when performing test and service tasks.

Fluid testing in accordance with RDE 90235

If a hydraulic fluid complies with all requirements of the RDE 90235, it will be added to the Bosch Rexroth Fluid Rating List. The rating procedure goes far beyond the minimum requirements of the corresponding fluid standards and is suited to all mineral-oil-based hydraulic media, environmentally acceptable media, and fire-resistant hydraulic fluids.

The rating procedure allows lubricant and additive manufacturers to have the performance of their hydraulic fluids rated impartially and independently of the application case. A practically rated hydraulic fluid helps machine manufacturers and operators to reduce the maintenance and downtime costs of their machines and systems and improve operating reliability.

Economical, precise, safe, and energy efficient: drive and control technology from Bosch Rexroth moves machines and systems of any size. The company bundles global application experience in the market segments of Mobile Applications, Machinery Applications and Engineering, and Factory Automation to develop innovative components as well as tailored system solutions and services. Bosch Rexroth offers its customers hydraulics, electric drives and controls, gear technology, and linear motion and assembly technology all from one source. With locations in over 80 countries, more than 31,100 associates generated sales revenue of approximately 5.4 billion euros in 2015.

To learn more, please visit www.boschrexroth.com

The Bosch Group is a leading global supplier of technology and services. It employs roughly 390,000 associates worldwide (as of December 31, 2016). According to preliminary figures, the company generated sales of 73.1 billion euros in 2016. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT company, Bosch offers innovative solutions for smart homes, smart cities, connected mobility, and connected industry. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source. The Bosch Group’s strategic objective is to create solutions for a connected life, and to improve quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that...
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