

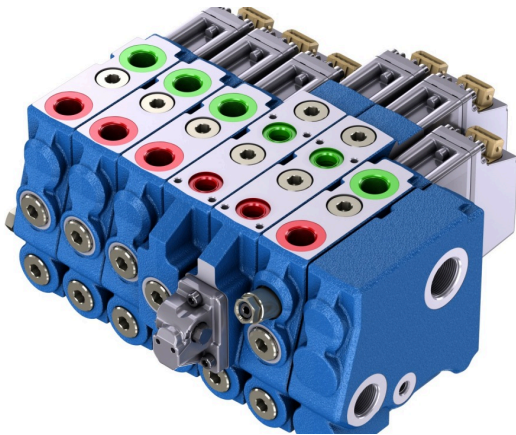
PRESS INFORMATION

Valve sections with enhanced functionality

Manuela Kessler | 26.09.2023 | Lohr am Main / Germany | PI 033/23

High-precision valve spool control allows additional functions in the modular SB24/SB34 sandwich valves

- Modern actuators and sensors allow an additional fifth position of the valve spool
- Additional functions such as HLS: Quicker lowering of attachments (Hitch Lowering Support)
- Space and cost savings: Additional valves are no longer required



Higher functional density with the same dimensions: With the new 5-positions valve spool from Bosch Rexroth, more functions per valve section can be integrated. This saves space and money. (Image source: Bosch Rexroth AG)

Bosch Rexroth has responded to market demands for an enhanced range of functions with the new 5-positions valve spool for SB24 and SB34 sandwich valves. In addition to the familiar lifting, lowering, neutral and float positions, the fifth position allows tractor manufacturers to implement additional functions such as simple and fast lowering of attachments (Hitch Lowering Support HLS) in a space-saving, cost-effective manner. Even with the new valve spool, the external dimensions and connections of the SB24/SB34 valves remain the same, which makes it much easier to integrate them into the machine.

Hydraulic valves are essential for tractors: They control the flow of oil to the attachment, thus enabling the targeted movement of a wide range of functions by means of cylinders and motors. The market demands compact solutions with as high a functional density as possible. The fewer individual valves are needed for the planned functions, the smaller the space required and the lower the costs for implementation. With the new 5-position spool for SB24/SB34 valves, Bosch Rexroth offers a fifth position for additional functions which are controlled with great precision with the help of a position sensor. This position monitoring also ensures that the valve spool is in exactly the desired position at all times and thus optimum results can be achieved.

More functions – less space required

The additional valve position allows the integration of new functions such as Hitch Lowering Support (HLS). This allows the tractor hitch to be lowered with hydraulically limited pressure. This is helpful in winter, for example, when temperatures are low and the oil is viscous, or with

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very light attachments or unloaded hitch. Lowering with HLS is thus quicker or, in extreme cases, would not be possible at all without it. HLS is also very practical for easily releasing jammed coupling hooks and as a support for the EHR rapid retraction function. Accidental lifting of the tractor is prevented by hydraulically limiting the lowering pressure.

The valves with five-positions spools complement the wide range of valve platforms already available from Bosch Rexroth. With the SB11, SB24 and SB34 hydraulic valve platforms, the company meets current and future requirements as regards mobile hydraulics in tractors across the entire power range from 40 kW to 400 kW.

Bosch Rexroth at Agritechnica: Hall 16, Booth A08.

Basic Information Bosch Rexroth

As one of the world's leading suppliers of drive and control technologies, Bosch Rexroth ensures efficient, powerful and safe movement in machines and systems of any size. The company bundles global application experience in the market segments of Mobile and Industrial Applications as well as Factory Automation. With its intelligent components, customized system solutions, engineering and services, Bosch Rexroth is creating the necessary environment for fully connected applications. Bosch Rexroth offers its customers hydraulics, electric drive and control technology, gear technology and linear motion and assembly technology, including software and interfaces to the Internet of Things. With locations in over 80 countries more than 32,000 associates generated sales revenue of around 7.0 billion euros in 2022.

Basic Information Bosch

The Bosch Group is a leading global supplier of technology and services. It employs roughly 421,000 associates worldwide (as of December 31, 2022). The company generated sales of 88.2 billion euros in 2022. Its operations are divided into four business sectors: Mobility, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT provider, Bosch offers innovative solutions for smart homes, Industry 4.0, and connected mobility. Bosch is pursuing a vision of mobility that is sustainable, safe, and exciting. 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 facilitate connected living with products and solutions that either contain artificial intelligence (AI) or have been developed or manufactured with its help. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life." The Bosch Group comprises Robert Bosch GmbH and its roughly 470 subsidiary and regional companies in over 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. The basis for the company's future growth is its innovative strength. At 136 locations across the globe, Bosch employs some 85,500 associates in research and development, of which nearly 44,000 are software engineers.

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