

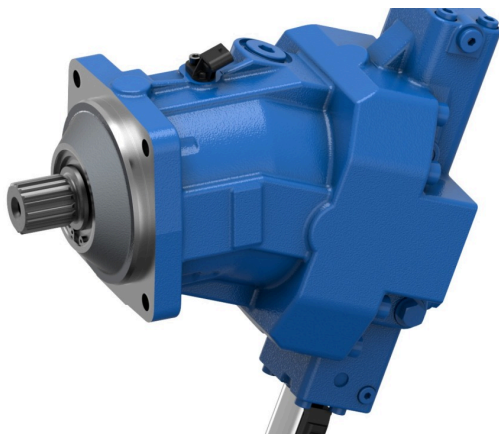
PRESS INFORMATION

Up to 40 km/h without changing gear

Olaf Marshall | 21.06.2022 | Elchingen / Germany | PI 017/22

The A36VM axial piston variable motor from Bosch Rexroth was specially developed for drivetrains. It allows greater tractive force and speed for mobile machines

- Solution for electronically controlled hydrostatic drivetrains
- Swiveling range up to 38°, maximum pressure increased to 530 bar
- Proven basis, optimized for existing vehicle architectures



More power and speed for the off-highway market – the A36VM axial piston variable motor from Bosch Rexroth. (Image source: Bosch Rexroth AG)

With the A36VM, Bosch Rexroth presents an axial piston variable motor which is optimized for drivetrains. An increased swiveling range and a maximum pressure of 530 bar make mobile machines more efficient and quicker. Travel speeds of up to 40 km/h are possible with no additional shift gearbox. The swiveling range at a nominal size of 125 cm³ is 5-38°, while 5°-36° is possible in the 255 cm³ version.

Ever quicker, more flexible mobile machines are needed nowadays. Whether they are on a road or at their place of use – construction machinery, agricultural machines and municipal vehicles can be used more economically if they have greater tractive force and speed. What in the past was only possible with downstream shift gearboxes is now easily possible with the new axial piston variable motor from Bosch Rexroth. The A36VM is based on the proven A6VM motor, but was optimized specially for the challenges posed by drivetrains.

From 0 to 40 in one gear

Two new features make the A36VM the ideal solution for electronically controlled hydrostatic drivetrains: Firstly, Bosch Rexroth has managed to increase the swiveling range to up to 38°. Secondly, the maximum pressure has been raised to 530 bar. As a result, machines can reach a speed of up to 40 km/h without having to increase the speed of the diesel engine or integrate a complex shift gearbox.

Proven basis

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The A6VM from Bosch Rexroth which has proven itself for over 30 years serves as a basis for the new A36VM axial piston variable motor. This was specially adapted and improved to meet the needs of drivetrains. The swiveling range was increased – with a nominal size of 125 cm³ it is 5-38°, while 5°-36° is possible with a nominal size of 255 cm³. The shifting of valves makes the A36VM more efficient, which now also features fewer sealing points. Furthermore, the geometry was optimized in close consultation with axis and vehicle manufacturers. The outer dimensions as well as the position of the valves and sensors enable the system to fit seamlessly into tight spaces and existing vehicle architectures.

Additional functions thanks to drivetrain software

The BODAS eDA software allows the mobile machine to be optimally tailored in terms of power and fuel consumption. In addition, diesel overspeed protection, overheating protection and diesel load limiting control are integrated into the drivetrain software. This help to ensure a long machine operating life. Driving modes tailored to specific applications allow load-sensing or proportional travel, aggressive acceleration or sensitive positioning. There are also comprehensive diagnostic options and defined emergency operation strategies as well as convenient functions such as crawling or speed limiting.

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 Applications, Machinery Applications and Engineering, and Factory Automation. With its intelligent components, customized system solutions 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 31,000 associates generated sales revenue of around 6.2 billion euros in 2021.

Basic Information Bosch

The Bosch Group is a leading global supplier of technology and services. It employs roughly 402,600 associates worldwide (as of December 31, 2021). The company generated sales of 78.7 billion euros in 2021. Its operations are divided into four business sectors: Mobility Solutions, 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 440 subsidiary and regional companies in some 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. With its more than 400 locations worldwide, the Bosch Group has been carbon neutral since the first quarter of 2020. The basis for the company's future growth is its innovative strength. At 128 locations across the globe, Bosch employs some 76,100 associates in research and development, of which more than 38,000 are software engineers.

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