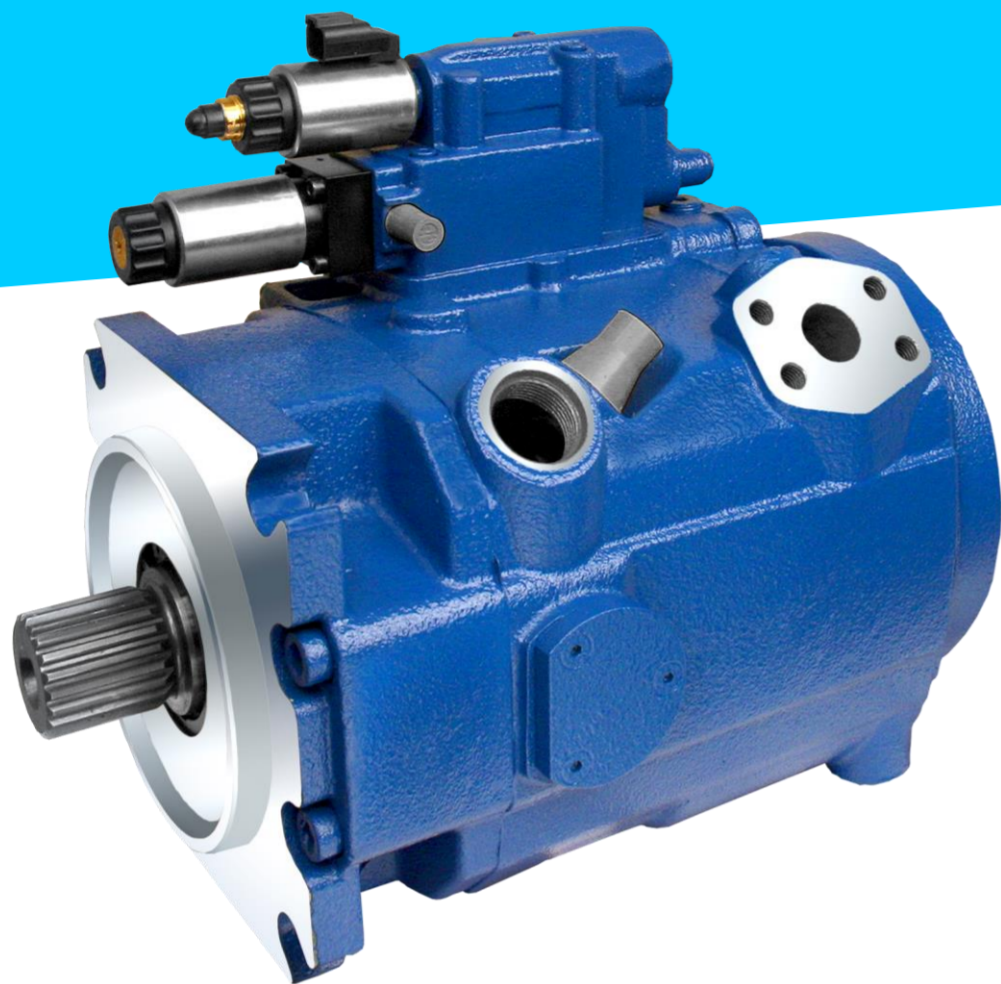


Axial piston variable pump A15V(L)O series 11

Overcenter operation and electronic compatibility

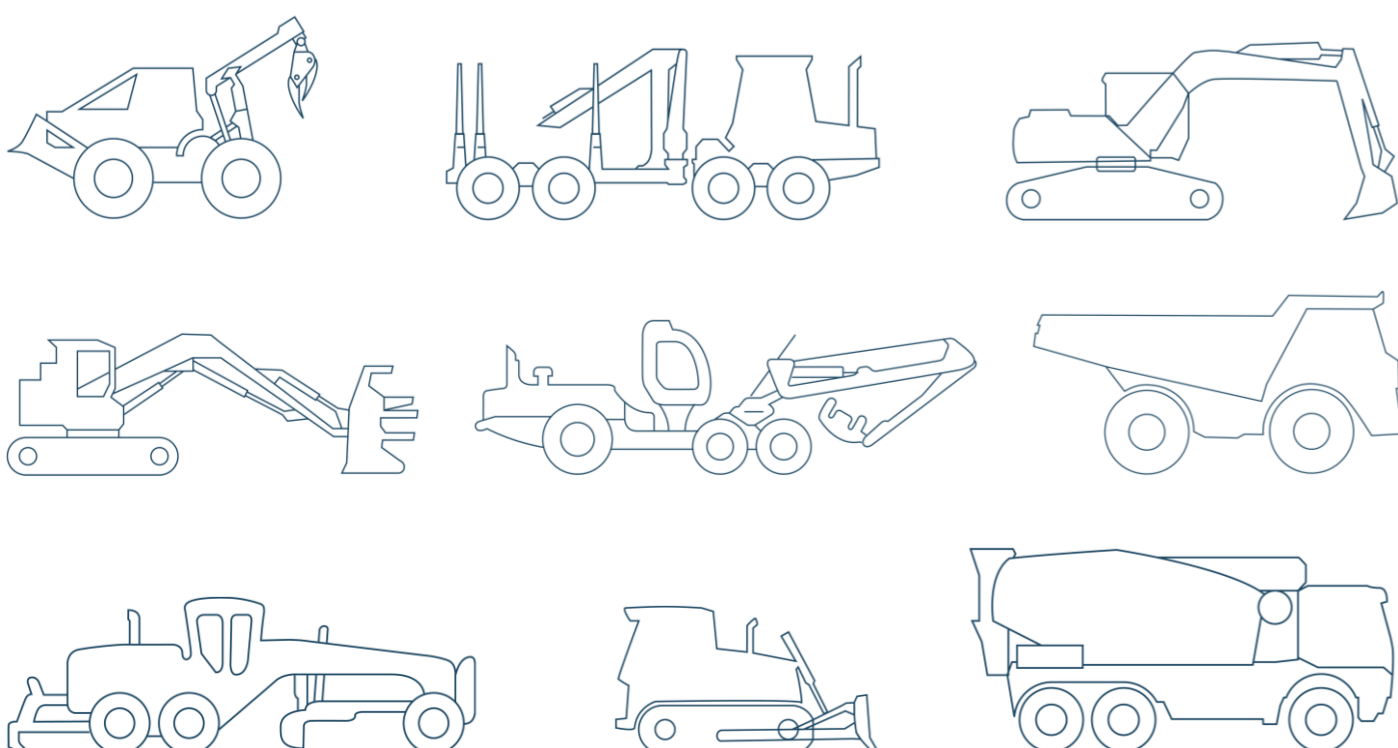


More and more manufacturers of mobile working machines are trying to comply with the increasingly strict specifications worldwide for the exhaust emissions from Off-Highway machines by means of hybridization. This trend also promotes advancements in electronification. The Rexroth axial piston variable pump A15V(L)O series 11 takes account of this trend. Due to the broad range of hydraulic and electrohydraulic control devices and the robust design, the Rexroth A15V(L)O can be used in a wide variety of high-performance applications (e.g. forestry machinery, excavators, dumpers).

CUSTOMER BENEFITS

- Suitable for use in electronified and hybridized applications
- Robust and proven hydrostatic swashplate slide bearing
- Improved total efficiency
- High pressure level with increased speed
- Noise-optimized design
- Space-optimized hydraulic ports

APPLICATIONS



FUNCTION AND BENEFITS

Suitable for use in electronified and hybrid applications

When developing the A15V(L)O series 11, particular emphasis was put on designing the axial piston variable pump for future application cases, such as hybridization and electronification. The variable pump for open hydraulic circuits offers a 100% overcenter operation for 2-quadrant operation and is compatible with electronic pump controllers. With these controllers in electrical closed loop circuit the controller intelligence can be found as a software module in the control unit. This means that the controller variance is represented by the software in the electronics as opposed to the mechanical variants. This enables significantly higher flexibility during commissioning, machine configuration and “end-of-line” tests.

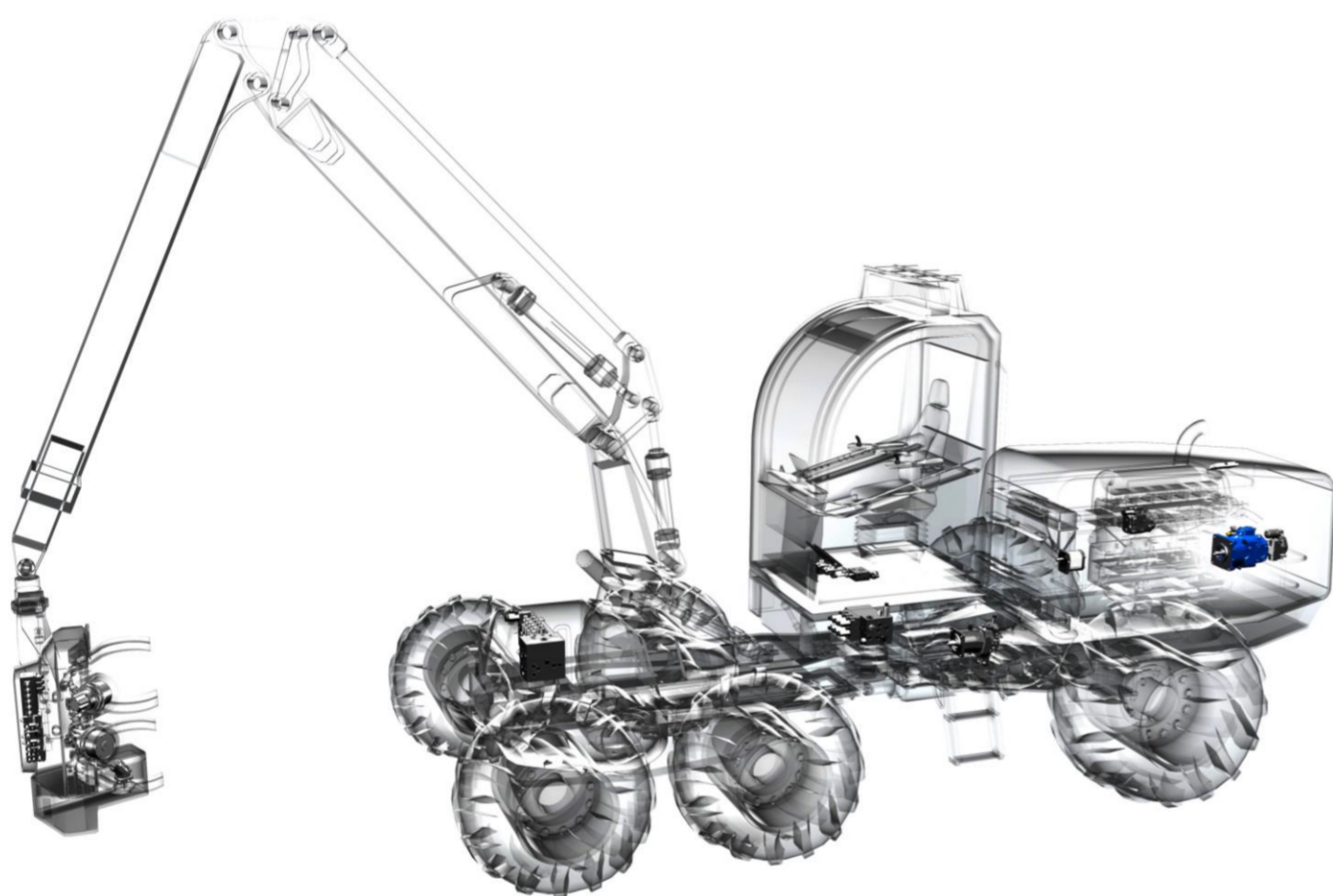
Robust and proven hydrostatic swashplate slide bearing

Bosch Rexroth has many years of experience in developing and producing high-quality, reliable axial piston units in swashplate design. This expertise has been incorporated into the development of the Rexroth axial piston variable pump A15V(L)O series 11. The hydrostatic swashplate slide bearing is characterized by low wear and high robustness.

TECHNICAL DATA

Axial piston variable pump A15V(L)O Series 11

Sizes:	110 to 280 cm ³
Speed:	1800 to 2600 min ⁻¹
Nominal pressure:	350 bar
Höchstdruck	420 bar
Maximum pressure:	<ul style="list-style-type: none">SAE high-pressure ports arranged at 45° laterally topSAE suction pressure port bottom
Control devices:	Wide range of hydraulic, electrohydraulic and full-electronic pump controllers
Data sheet:	92511



The Rexroth axial piston variable pump A15V(L)O series 11 has been developed for high-performance applications.

Improved total efficiency

The Rexroth A15V(L)O series 11 stands out from the crowd thanks to its optimized rotary group. This results in an improvement in overall efficiency from 3% to 5% compared with similar hydraulic pumps. This increases the total efficiency of the mobile working machine, thereby also reducing fuel consumption and operating costs for the operator.

High pressure level with increased speed

The hydraulic efficiency is fundamentally determined by the working pressure. The higher the pressure, the lower the flows need to be to transmit the same power. Therefore, the flow rate losses in the hydraulic system are reduced. The Rexroth A15V(L)O series 11 speed capacity has been increased over previous series design while still maintaining a 350 bar nominal working pressure and a 420 bar maximum pressure.

Noise-optimized design

In order to meet the increasing ergonomic demand for lower noise of hydraulic components in mobile working machines, the design of the Rexroth A15V(L)O series 11 has been noise-optimized. A new housing design, incorporating reinforcing support ribs, together with an optimized distribution plate design have lowered the noise emission of the pump by up to 8 dB(A) compared to similar products in the market.

Space-optimized hydraulic ports

To allow for a more compact installation into the mobile working machine, thus freeing up valuable space, a new 45 degree angle pressure port in the housing of the Rexroth A15V(L)O series 11 provides greater installation flexibility.