

## Press Release

### Uniform travel behavior despite different drive sources

Torque control from Bosch Rexroth decouples the fork lift truck driving strategy of

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diesel, electric or hybrid drives

Torque control makes it easier to standardize driving strategies for different drive concepts.  
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**The torque control interface system from Bosch Rexroth offers the opportunity to decouple the drive technology from the fork lift truck driving strategy. This allows manufacturers to standardize the handling characteristics of their forklifts with minimal effort. The Power Manager electronically translates the driver's request into the appropriate power request, which is then converted in the hydrostatic drive. In addition, the electrification of hydrostatic travel drives creates new opportunities for increasing energy efficiency and improving occupational safety with assistance systems such as the HLB high-level brake.**

Most end users rely on a mix of different drive concepts in their forklift fleets to meet different logistics requirements. An essential requirement for the manufacturers is the uniformity of the driving characteristics, which reduces the need for training and avoids dangerous situations in daily operation. With the newly developed torque control and an electronically controlled hydrostatic travel drive, Bosch Rexroth has decoupled the engine characteristics from the driving strategy and improved energy efficiency.

The new torque control is an encapsulated software function for hydrostatic travel drives that the fork lift truck manufacturer only needs to parameterize. It decouples

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the drive physics from the travel behavior via the Power Manager. Conventional systems increase the engine power when the accelerator pedal is pressed, often providing more power than is actually needed. The Rexroth torque control, on the other hand, interprets the pressing of the accelerator pedal as the specification for the tractive force of the drive wheels. Then, it requests the required power from the motor. This approach, a demand-oriented power request, significantly increases energy efficiency.

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The torque control fits well with the modularization of electronics and software that is currently being developed. The different vehicle functions are assigned to specific levels. With the Bosch Rexroth solution, manufacturers no longer have to deal with optimizing the individual components. Instead they can concentrate entirely on the parameterization of the vehicle's behavior in order to implement the defined driving strategy.

In addition, the electronification of the drive train makes it possible to integrate additional functions such as high-level braking with HLB from Bosch Rexroth. With special control software, HLB can completely replace the wear-prone mechanical service brake or the hydraulic retarder that was previously required. This solution greatly reduces the hydraulic complexity since it clearly separates working from driving without the need for additional components. HLB brakes in both directions with the maximum possible deceleration, it improves safety with the optional traction control system and it significantly reduces wear on the tires.

*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 29,500 associates generated sales revenue of approximately 5 billion euros in 2016.*

*To learn more, please visit [www.boschrexroth.com](http://www.boschrexroth.com)*

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