Electrohydraulic hitch control EHC

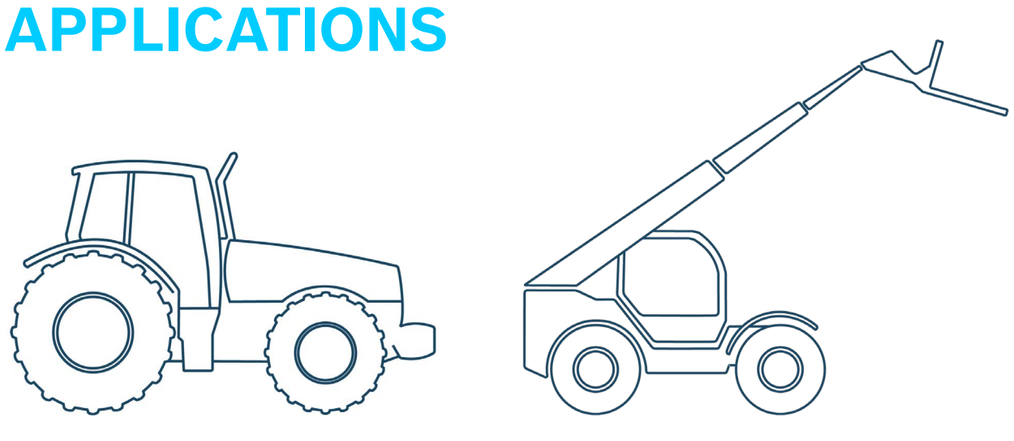
Application software for tractors

A core function of agricultural machineries is the efficient and soil-preserving transmission of machine forces during field use. This also includes simple adaptability to customer specific requirements and the integration of new functions. With the application software Electrohydraulic hitch control EHC, Bosch Rexroth offers a ready-to-use and scalable solution to control hitch valves and to increase their performance and efficiency. EHC is the right solution to a achieve sustainable yield increases with tractors and agricultural telehandler.

CUSTOMER BENEFITS

- Easy integration on machine-level
- Ready-to-use and scalable control solution
- Modular software concept for efficient, customer-specific adaptions
- ENTRY features for simplicity and automated soil cultivation
- PREMIUM features for even more tillage performances
- Integrated safety functions according to EN ISO 25119
- Try It First: Develop your perfect machine solution in 3 steps

APPLICATIONS



FUNCTION AND BENEFITS

Easy integration on machine-level
Electrohydraulic hitch control EHC is a software embedded in Rexroth controllers series 40. In combination with BODAS-service, the graphical interface enables easy integration into the vehicle and provides valuable application hints for guided commissioning. A clearly structured step-by-step optimization is guaranteed. Algorithms automatically define most of the parameters. This reduces complexity during commissioning.

Modular software concept for efficient, customer-specific adaptions
The software structure is open and simplifies efficient, customer-specific adaptations. In combination with the wide Rexroth portfolio of hitch valves, sensors and BODAS RC controllers, EHC is fully scalable. Each system component can either use the Rexroth Control unit hardwired or connected via CAN. The CAN protocol is based on the SAE J1939 standard.
Thanks to the standard functions of EHC, unnecessary programming is a thing of the past.

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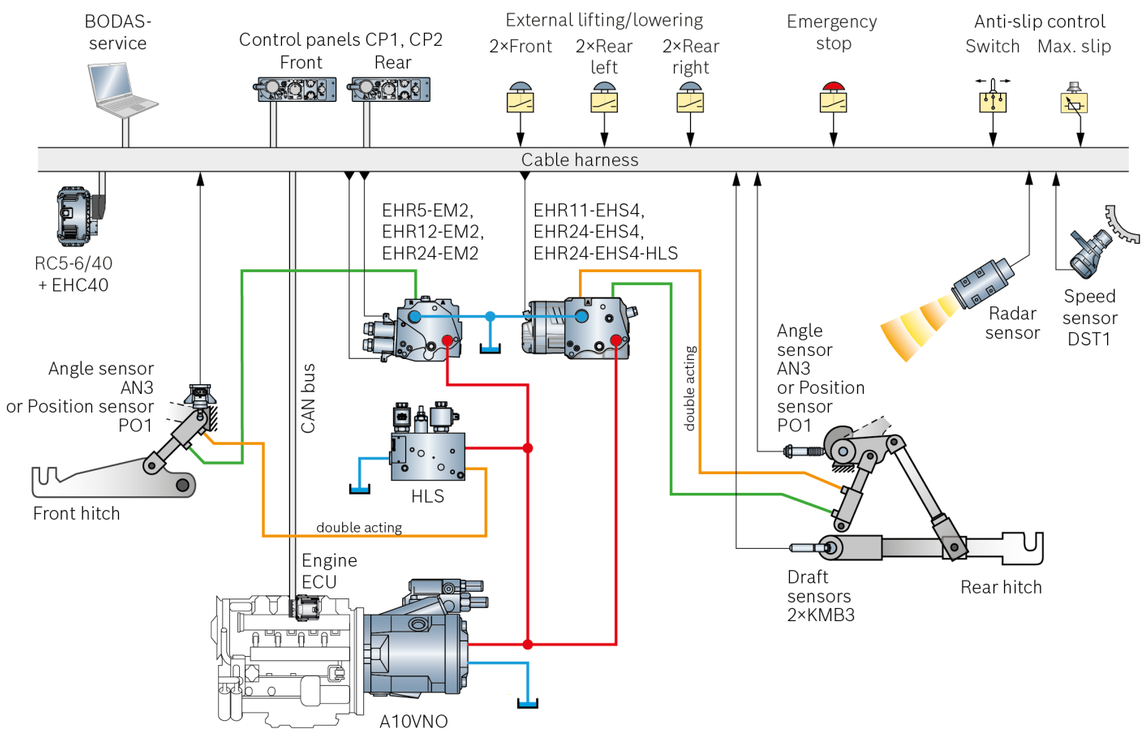
TECHNICAL DATA

Electrohydraulic hitch control EHC	
Controllable valves:	Up to two hitch control valves
Rexroth hitch control valves:	EHR5-EM2, EHR24-EM2, EHR24-EHS4
Rexroth sensors:	Position: PO1, AN3; Draft: KMB3, DP1; Wheel speed: DST1 or CAN
Rexroth control panels:	CP1, CP2
Safety Standards:	EN ISO 25119
Operator interface:	Discrete or CAN SAE J1939
Rexroth controller:	RC5-6/40, RC18-12/40, RC27-18/40
Diagnostics and Parametrization:	BODAS-service
Data sheet:	95337



Example system overview for Electrohydraulic hitch control EHC

ENTRY features for simplicity and automated soil cultivation
By controlling the exact amount of force, the exact positioning or a mixture of both, the ENTRY features performs precise lifting and lowering of the hitch and thus makes precise plowing possible. An integrated assistance feature ensures more even soil cultivation in different soil conditions by automatically and dynamically regulating the ratio between position and tractive force. Only the required working depth has to be set. A manual override is still available. Furthermore, when it comes to transporting items with the plow raised or with other attachments, the system implements a damping function when driving on poorly constructed roads, thus avoiding unsafe driving conditions.

PREMIUM features for even more tillage performances
The PREMIUM features deploy their full potential in combination with additional components. The Anti Slip Control (ASC) feature also reduces slippage and significantly prevents the drive wheels from losing traction. This lowers fuel consumption, tire wear and at the same time protects the soil. Simple to integrate, simple to use: an external or an integrated lowering support feature (HLS) provides pressure to the hitch to lower it actively and thereby significantly faster. The advantages are realized especially when the hitch has no load and when ambient temperatures are low.

Integrated safety functions according to EN ISO 25119
The combination of EHC and a Rexroth controller offers a generic approach and ready-to-use safety functions according to the EN ISO 25119 standard. The machine manufacturer can use the BODAS RC + EHC subsystem within the machines safety design to realize the additional safety functions for the hydraulics system. Bosch Rexroth therefore provides the best possible safety of a mobile machine to protect the driver and the entire operation site.

Try It First: Develop your perfect machine solution in 3 steps
1. Get easy access: Download Try It First software packages free of charge.
2. Customize Software: Test and adapt functions according to your needs.
3. Pay only what you decide to use – via credits.

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