



# BPW

## Unique Selling Points

The brands of the BPW Group:



ERMAX®



HESTAL®

idem®  
telematics

we think transport



## Bearing system



Same tried-and-true technology used in the heavy-duty product line. Taper roller bearings developed specifically in compliance with BPW's internal factory standard and tested in BPW endurance road tests and endurance test series. Bearing system combines low rolling resistance with durability.

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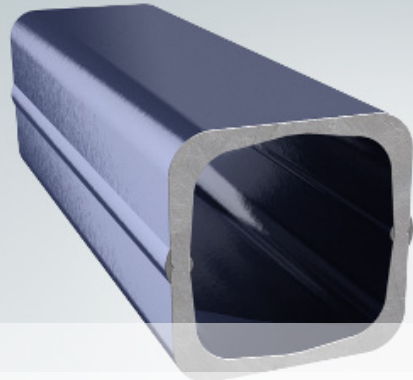
**Safe ride.**

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**Long service life and  
low rolling resistance.**

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**Square**  
axle beam  
with reinforced  
axle cross sections



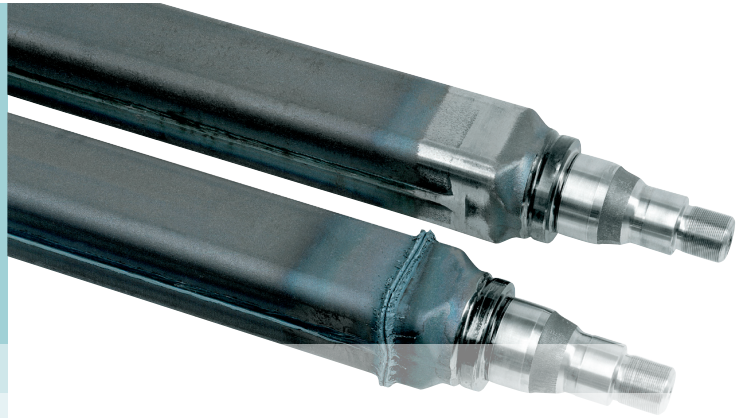
Maximum stability to withstand all bending stresses and torsional strains, as proven in countless load tests, endurance test series, and endurance road tests. Substantial safety margins in the event of short-term and extreme overloading.

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**Delivers extreme stability and  
maximum reliability.**

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## **Steering knuckle / axle tube—like a single piece**



BPW's butt-welded axle beam provides a safe connection unlike any other. The steering knuckle and square axle tube are purpose-designed to withstand stress. This, combined with the choice of material, ensures maximum service life. The BPW steering knuckle is made from a quenched and tempered material unique to BPW.

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**Low dead weight.**

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**Higher payload—  
maximum service life.**

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## **KTL:** long-lasting corrosion protection



Complete corrosion protection, even in inaccessible areas such as cavities. Maximum corrosion resistance protects against things like surface damage from stone impact and gravel.

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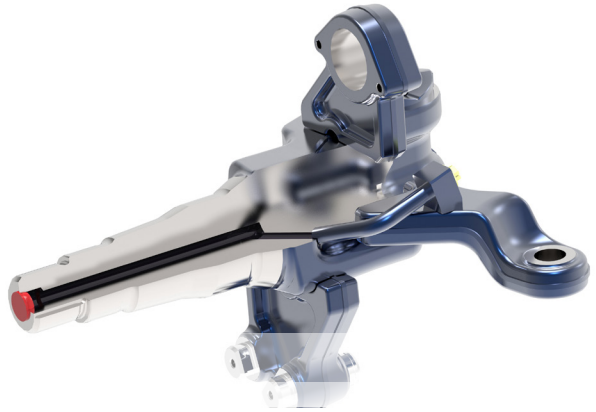
**5 times more corrosion protection than conventional painting methods.**

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**Protection against stone impact (chippings) and gravel.**

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## **KTL corrosion-protected bore for tire inflation system**



BPW offers TIS-ready axles, with a unique cataphoretic dip-coating (KTL) that protects bores on rigid axles and all AGRO Turn axles against corrosion. Developed in partnership with PTG and featuring precision-matched interfaces, the new TIS rotary union provides the perfect combination of PTG tire inflation systems and BPW agricultural axles for every customer. The innovative rotary union and anti-corrosion coating in the axle bore ensure extreme operational reliability and maximum service life for the entire system.

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**Eliminates dirt ingress between the rotary union and the grease cap.**

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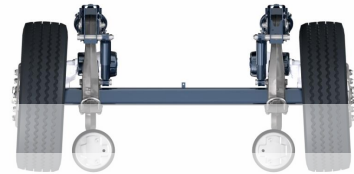
**Optimizes the bearing life.**

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**KTL coating in the axle bore provides unparalleled corrosion protection.**

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Standardized  
**toe-in and  
camber settings**  
on BPW axles



Camber and toe-in are factory-set on every BPW axle beam. Toe-in and positive camber ensure a safe ride, while also lowering operating costs and providing a uniform reduction in tire wear.

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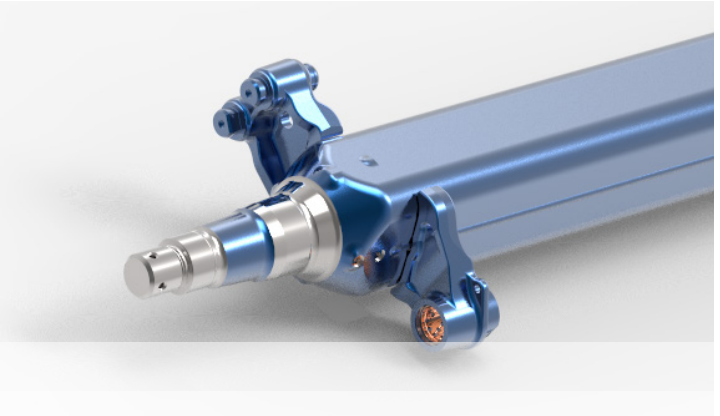
**Directional stability and enhanced ride  
safety.**

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**Reduced tire wear.**

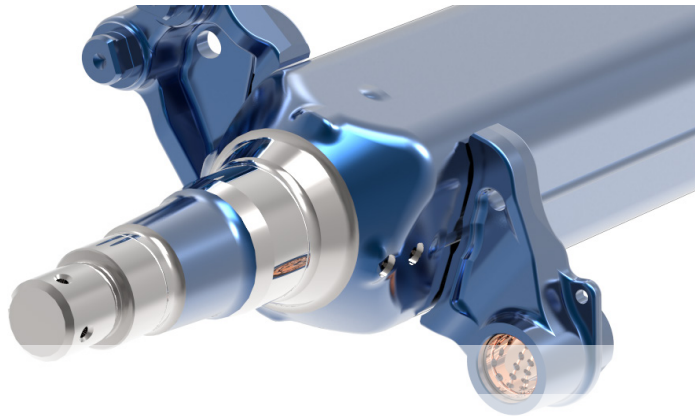
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## Brake anchor plate



Weight-optimized, two-piece brake anchor plates with integrated brake bolt. Robotic welding yields **ultra-high positioning accuracy**.

## Bearing bush in brake anchor plate



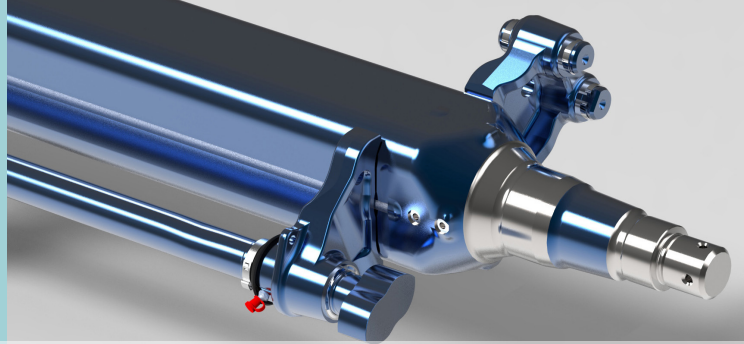
Permanently greased bearing bush with ample grease reserve for **safe braking** and a long service life. The bush is made of a **special bronze alloy**.

## Rigid baseplates



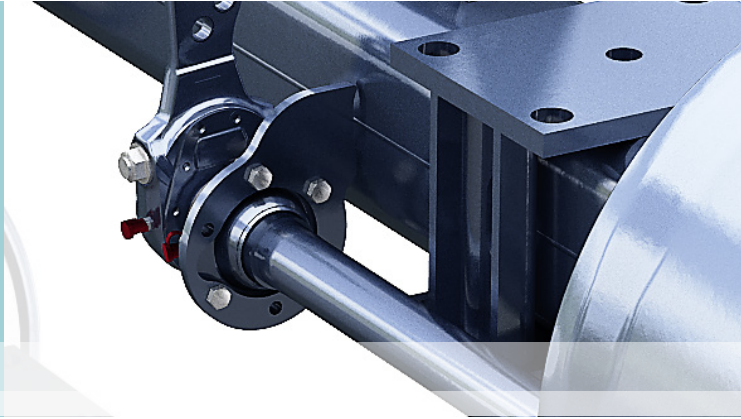
For diaphragm and spring-loaded cylinders. **Defined clearance** between the baseplate and axle beam, so dirt and water can escape.

## Wing camshafts



The pick-up points on the shaft and the wing camshaft profile are **case-hardened**, making them **low-wearing**.

Sealed  
support bearing  
**linear bushing**



The support bearing perfectly compensates driving forces exerted on the camshaft by phenomena such as dynamic axle flexing.  
This solution protects the lubrication points against dirt penetration.

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**Long service life of the brake camshaft.**

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**Smooth-running.**

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## BPW wing cam brake



Continuous braking action and short response times. Robotically welded sheet-steel brake shoes with reinforced brake-pad backplate are calibrated for dimensional and geometric accuracy. Precision machining and induction hardening ensure a long service life for the half-shell shoe support.

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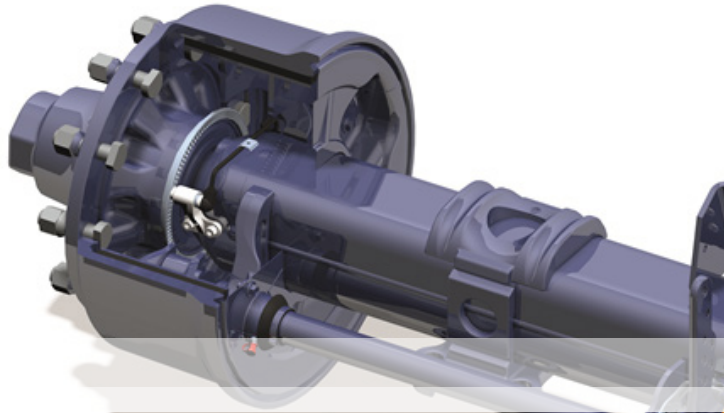
**Continuous braking action provides greater security.**

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**Extreme operational reliability for all brake system components.**

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## **ABS** sensor



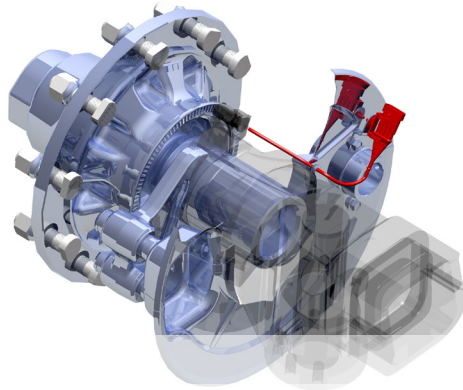
True-running pole wheel press-fitted onto the hub. Enhanced ABS operational reliability thanks to sensor positioning in rigid axle center; no clearance changes as a result of fluctuating axle loads.

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**No wheel lockup means less wear on tires.**

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## **Speed / rotational direction sensor**



BPW has reengineered its speed sensor with direction of rotation detection. The sensor is a key element in electronic positive steering systems, and the sensor signal can be used to optimize application rates. A custom-designed sensor bracket keeps the sensor from rotating, providing enhanced operational reliability.

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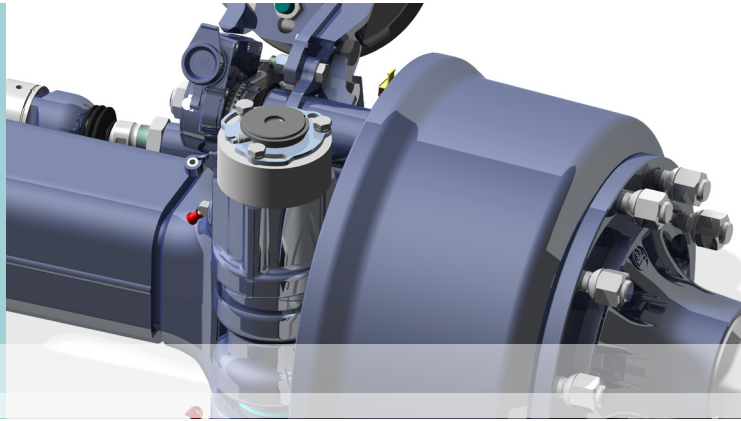
**Speed detection starting at 1 km/h.**

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**Compatible with commercially available  
electronic positive steering systems.**

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## **Integrated steering angle sensor**



An additional adapter allows the BPW AGRO Turn steering axle to be fitted with an integrated steering angle sensor. The integrated design guarantees stable, reliable sensor operation. The adapter provides partial or complete protection for the sensor, depending on the type.

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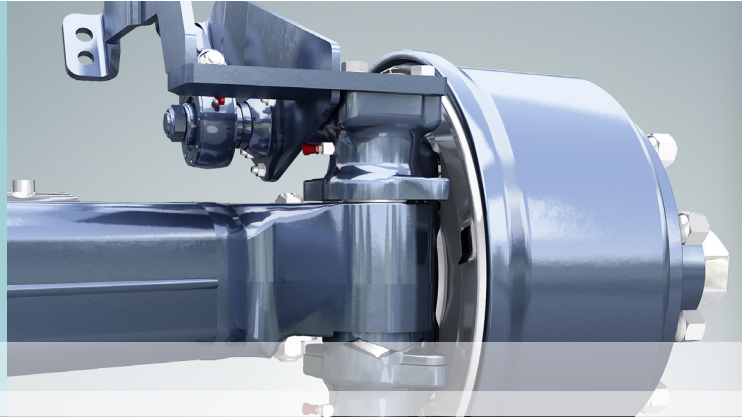
**High-end solution.**

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**Preparation for  
electronic positive steering.**

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## Fluted thrust plate



No boosted steering stabilization elements.  
Automatic resets to zero after steering. After cornering, the wheels are returned to a stable straight-ahead position by the vehicle's weight acting on the fluted thrust plate (patented system).

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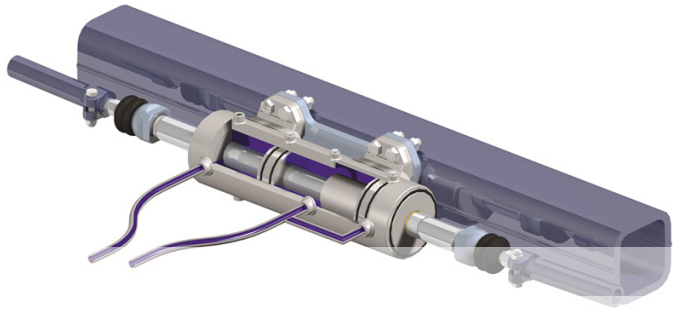
**Superb stability.**

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**Enhanced ride comfort.**

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## BPW combined cylinder



The reengineered, patented BPW combined steering cylinder makes it possible to use the axle as either a trailing steering axle (locking cylinder) or a positive steering axle (steering cylinder). Such multifunctional use of the steering axle reduces warehousing for the vehicle manufacturer.

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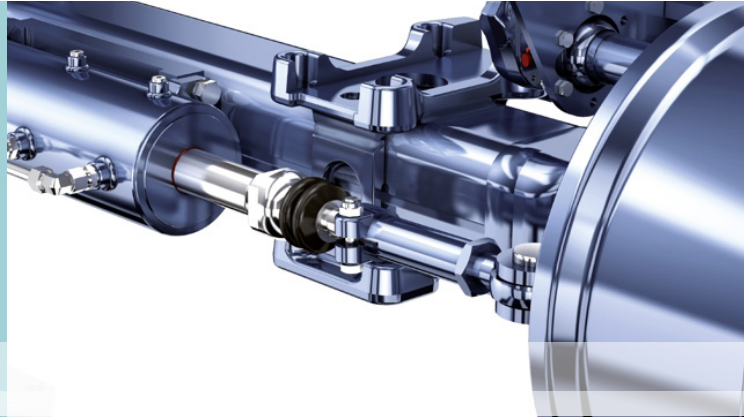
**Positive steering or trailing steering—a  
quick and easy decision.**

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**Saves time and therefore saves money.**

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## Axle connection for HP and pneumatic suspension



The BPW axle connection was developed specifically for forestry and agricultural applications. The welding work has been optimized to ensure a long service life.

The spring guide is form-fitting, thanks to precisely toleranced and milled spring plates. Precise, permanent connection between the trailing arm and the axle, lowering service costs.

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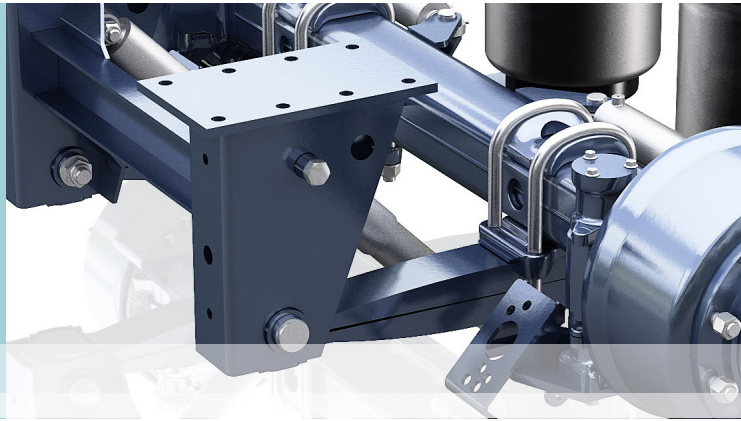
**Optimal transmission of forces.**

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**Lower service costs.**

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## Trailing arm for HP and pneumatic suspension



### Special spring design

BPW trailing arms are hot-rolled from a single piece and surface-treated. Less wear on tires, less snaking. The steel-rubber-steel-bushing arrangement guides the axle with precision during operation, even when subjected to lateral force loads.

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**A wide range of trailing arm designs.**

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**Less wear on tires.**

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## **Special HD parabolic spring for bogie applications**



Extremely rigid spring characteristic for outstanding vehicle stability. Use of parabolic springs from reputable manufacturers ensure a low center of gravity position and low weight. Slot bore in the second spring bearing increases driving safety. BPW-specific, asymmetrical spring design.

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**Optimal weight displacement during  
braking.**

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**Increased driving safety.**

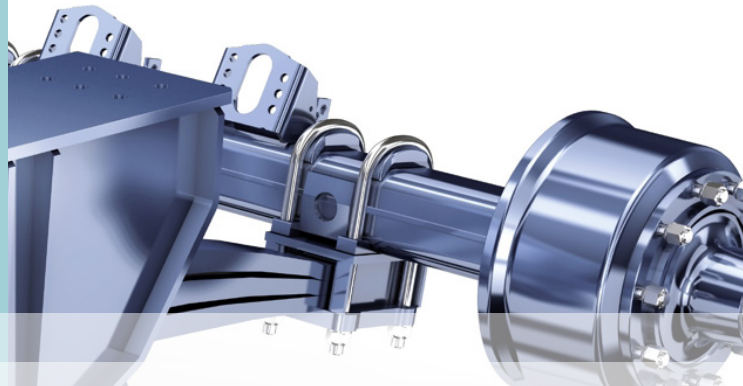
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## HD bearing bracket



HD bearing bracket ensures **extreme stability** and driving safety. Due to the offset (asymmetrical) bearing brackets, the **maximum steering angle** can be attained (depending on the tires).

## Form-fitting axle connection



Thanks to the **form-fitting axle wrap attachment** on the bogie assembly, the connecting elements rest on the reinforced radii of the axle beam. Reinforced, weldable connections option for agricultural-specific applications.

# Our services... ...WE WORK FOR YOU

SALES

ORDER LOGISTICS

APPLICATION CONSULTING

COMPONENT ASSEMBLY

PRODUCTION

CUSTOMER SERVICE

SPARE-PARTS SUPPLY





## Sales and order logistics

### All-inclusive contact

#### Your advantages:

- › Optimized turnaround times
- › Personal, individualized contact
- › Ordering flexibility

#### Our expertise:

- › Comprehensive support
- › Quick response to customer specifications
- › Professional handling of the unexpected



## Application consulting Agricultural vehicle specialists

### Your advantages:

- › The right components, axles, and suspension systems for your vehicles
- › Component and systems compatibility assured

### Our expertise:

- › Experienced engineers provide expert advice for your vehicle engineering
- › We guide you through the broad-ranging product line on the market
- › Showcasing of our product innovations
- › Commissioning support



## Component assembly

### Your one-stop source

#### Your advantages:

- › Ongoing improvements in component design
- › Development of a new complete assembly
- › Time and cost savings
- › Your assembly is backed by us, eliminating the need for claims

#### Our expertise:

- › FEM-designed components and systems
- › Our test bench simulates the vertical, lateral, and longitudinal forces acting on the chassis, as well as braking and steering torque.
- › Brake and bearing calculations
- › Test vehicle
- › Brake test bench



## Production Quality and economy

### Your advantages:

- › Focus on in-house core competencies
- › Improved turnaround times
- › Optimized stocking and warehousing
- › Avoid in-house production risks

### Our expertise:

- › Years of experience, particularly in machining
- › Surface-treatment and assembly
- › Various quality assurance certificates
- › Product-specific assembly trestles
- › Flexible prioritization



## Customer service Mobility

### Your advantages:

- › Quick response times
- › No red tape
- › Expert contact

### Our expertise:

- › Seamless maintenance documentation
- › Comprehensive customer support
- › Our assembly technicians can be assigned to your location as part of a technical agreement



## Spare-parts supply

### Drive better, drive genuine

#### Your advantages:

- › More cost-effective over the long term
- › Lasting durability
- › Long service life thanks to perfect matching of individual components

#### Our expertise:

- › Over 3,200 service stations with genuine BPW parts worldwide
- › Customized spare-parts lists and drawings
- › Spare-parts groups for standard products
- › Every axle and every chassis is documented, making each component easily identifiable

The brands of the BPW Group:



Unique Selling Points Sales folder 2017-004-DE

