# BPW TRAHER SOLUTIONS



# **BPW ECO HUB -THE HEART OF OUR RUNNING GEAR SYSTEMS**

THE ECO PLUS 3 HUB SYSTEM **IS DESIGNED SPECIFICALLY** FOR THE HIGH DUTY CYCLES **OF MODERN TRANSPORT OPERATION. IT'S A ROBUST, RELIABLE SYSTEM DESIGNED** FOR A LONG SERVICE LIFE.



# **BPW IS RENOWNED FOR QUALITY AND** RELIABILITY

THANKS TO AN INTEGRATED TORQUE LIMITING NUT. THERE IS NO NEED FOR A TORQUE WRENCH DURING ASSEMBLY, AND THE BEARING PLAY IS EASILY **ADJUSTED.** 

The new circumferential hub design, with open spokes, provides improved thermal management for the bearings and lubricant, whilst the new grease seal offers optimum protection and performance. The ECO hub comes with a five-year, unlimited mileage warranty for on-road applications.

### **PROVEN BPW BEARING TECHNOLOGY**

With millions of units sold, the success of BPW axles is due in no small part to the proven bearing technology of the ECO hub system unit. Its encapsulated design guarantees high mileage and availability of components.

Through constant innovation and development, BPW running gears are even easier to maintain and repair, as well as being light and robust. More payload, less unscheduled downtime and an optimally utilised fleet.

# EASY-TO-MAINTAIN ECO TECHNOLOGY

BPW's patented ECO technology, with its ingenious torgue limiting axle nut, stands out for being easy to service and repair, less time spent in the workshop, lower maintenance costs.

**DESIGN FEATURES:** 

#### **DIN ISO TAPERED ROLLER BEARINGS**

These can be readily inspected, regreased and repacked. They are also globally available and can, if required, be replaced easily and inexpensively without having to fit a complete new hub.

#### **TORQUE LIMITING NUT**

To ensure correct fitment, the hub is designed with an integrated torque limiting hub nut. This single threaded nut follows the Formula 1 principle with the nut acting as a puller.

It allows simple removal of the entire wheel and hub, including the brake drum and bearings, without having to remove the wheel. Brake servicing/maintenance times are therefore considerably reduced.

#### **FEATURES**

- Maintenance free, closed bearing system. •
- High mileage due to encapsulated design of bearing system.
- Quick to remove and install (Formula 1 style) via the • hub nut.
- Automatic bearing clearance setting thanks to the • innovative hub nut with integrated torgue limitation.

### **BENEFITS**

- Easy lubrication of bearings with grease cartridge. •
- Five-year warranty with unlimited mileage for on-road use.
- DIN ISO tapered roller bearings readily available.





The hexagon ring is tightened until the rated torque is reached

01 Belville spring 02 Hexagon ring 03 Body of the nut

- Hermetic sealing on the hub and spindle. Inward-facing and 2 spring-preloaded main sealing lip with ventilation function.
- 3 Labyrinth sealing, including upstream sealing lips.
- Built-in race for low 4 circumferential speed.
- ABS exciter ring/dirt seal 5 for disc brakes.

Purple marking: components fixed to the spindle.

Blue marking: components rotating with the hub.









2 The cams on the hexagon then ride upwards..



3 ...against the force of the Relville spring washer



4 The cams produce a clicking noise which indicates the nut is correctly torgued.

The sealing system of the BPW patented ECO hub protects against dirt and water ingress.

# **ECO DRUM** BRAKE

# SUITABLE FOR ALL APPLICATIONS. THE BPW ECO DRUM BRAKE IS THE PRODUCT OF OVER **110 YEARS OF BPW'S BRAKING EXPERIENCE.**

The design of BPW's ECO hub system allows easy removal of the entire wheel/hub unit, including the brake drum and bearings. Brake linings can be easily changed and no special tools are required.

# **IMPROVED SAFETY**

BPW's S-Cam drum brake offers a greater degree of safety for both long and short distance operations.

### **CENTRAL PULL-OFF SPRING**

The BPW S-Cam drum brake has only one pull-off spring. The high tensile force of this specially designed, high performance component, means the brake is rapidly reset to its original position.

# **LOW OPERATING & SPARE PARTS COSTS**

Simpler and faster brake servicing due to the patented ECO principle.



'C' clips

# **'C' CLIPS – PRECISE LOCATION**

Special 'C' clips give precise brake shoe location. The brake shoe pivot is off-set by 30° thus ensuring the shoes are held precisely in place. The spring 'C' clips clamp the brake shoes onto the anchor plates without any play.

# **BEARING-MOUNTED BRAKE ROLLER FOR LONG LIFE**

Brake rollers, which include long life lubrication, guarantee smooth running properties and consistent brake efficiency.

# **PREPARATION OF BRAKE SHOES FOR ASSEMBLY**



Sten One The brake roller is cleaned and regreased.



Step Two The pin is driven in and secured with two retaining rings.



The brake roller is secured to its pin by locking rings and operates with almost no resistance. The supply of grease for the inner brass bush is sufficient to last the life of the brake lining.

When the lining is changed, the inner bushes should be cleaned and regreased in accordance with BPW maintenance recommendations. The BPW drum brake guarantees a consistently high level of performance throughout the entire service life of the vehicle.



Step Three The pull-off spring is fitted.



Step Four Join the two brake shoes.

2-piece brake roller assembly





Locking ring

- Brake roller
- Brass bush with grease supply
- ٩٨ Pin

# ECO DISC BRAKE - TS2

THE NEW GENERATION OF EUROPE'S MOST SUCCESSFUL TRAILER DISC BRAKE.

### COMPACT DESIGN

Up to 4 kg weight saving per axle: across a tri-axle, 12 kg lighter than its predecessor.

# EASY DISC Removal



# DURABLE

The interior bellows and the cataphoretic dip-coating of the brake caliper ensure ideal conditions for long brake life.

# **EASIER TO SERVICE**

Thanks to the innovative compact design in combination with the BPW ECO principle, it is no longer necessary to remove the brake caliper during a disc change\*. This saves up to 3 hours per vehicle of workshop time compared to conventional systems.

# \_\_\_\_

LIGHTER

Due to the compact design, the brake is directly connected to the axle beam and fully integrated into the system, making it one of the lightest brakes on the market. The TS2 retains the robust features of the original ECO Disc brake caliper, but it is lighter. Operating with a modern single offset tappet technology, which, along with an enhanced pad backplate reinforcement, gives an even distribution of braking force within the brake pad and disc, ensuring a long service life.

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Throughout the design of the TS2 caliper, BPW engineers kept the component count low and this, together with the single tappet solution, ensures an even brake force and even distribution of forces within the reduced number of components. In a tri-axle configuration, this is a weight saving of up to 12 kilograms.

Due to the compact design, the brake is directly connected to the axle beam and fully integrated into the system, making it one of the lightest brakes on the market.

\* except TS2 3709 ET=Ø



370 mm disc for 9 t axle load to suit 19.5" and 22.5" wheels.

# TS2 4309

430 mm disc for 9 t axle load to suit 22.5" wheels.



The innovative compact design and stiffer caliper body, combined with BPW's ECO patented hub technology, ensures the running gear system performs reliably, and for longer.

Two disc brake sizes available: TS2 3709 (370 mm disc for 9 t axle load to suit 19" and 22.5" wheels) and the TS2 4309 (430 mm disc for 9 t axle load to suit 22.5" wheels).

When it's time to replace the disc, this can be done without the need to remove the caliper<sup>\*</sup>, dependent on disc size.

When compared to conventional disc brake systems, the BPW solution can save up to three hours of workshop time per vehicle.

\* except TS2 3709 ET=Ø





BPW self-steering axles operate without the need for power assisted stabilisers. They are automatically controlled according to the load being carried.

Because the design of the self-steering axle is so simple, the number of individual components required is low. This saves weight and reduces installation and maintenance costs.



The principle of the BPW self-steering axle is described by the abbreviation LL which stands for load dependent steering. The axle stub is connected to the axle beam via a specially designed pressure bearing.

When travelling in a straight line, the weight of the load acting on the pressure bearing keeps the wheels in the straight-ahead position.



When the trailer enters a bend, the side forces acting on the tyres cause the wheels to turn slightly and the flanks of the pressure bearing to slide over each other, allowing the wheels to move from the straight-ahead position and create a steering effect.

The degree of steering is dependent on the axle load and the 'tightness' of the bends. Both wheels are connected via a tie-bar to ensure the same degree of steer on each wheel.

### FUEL SAVINGS

Our long-term studies have proved that with the LL self-steering axle you can make dramatic savings in terms of diesel costs.

Example: distribution application.

#### 10.000 8,000 6,000 4,000 2,000 Km 200,000 400,000 600,000 800,000 1,000,000



Litres

The BPW self-steering axle guarantees compliance with turning circle regulations, even when the first axle is lifted.

The unique and simple steering components enable automatic control, dependent on the load being carried. Furthermore, the added driver-friendly feature permits greater vehicle manoeuvrability both in and out of confined spaces.

BPW's LL steering axle has been designed with a self-locking facility when reversing. Unlike other systems, as soon as the trailer begins to move backwards, the steering mechanism is locked in the straight-ahead position.

With a BPW steering axle, the trailer corners better and follows the same path as the tractor unit. Forces acting on the tyres when cornering are distributed more evenly. As a result, it has been shown that the life of the tyre on the front axle increases by up to 50%, while that of the rear axle can increase by as much as 70%.

To simplify installation, BPW has developed a double-cranked trailing arm. This allows the trailer builder to fit a BPW self-steering axle to a standard chassis without the need to reduce the chassis width in the area of the steer axle.



Tyre mileage (km) in distribution haulage.

# **SUSPENSION**

# AIRLIGHT II-R. MODULAR CONCEPT.

Airlight II, launched in 2001, has remained Europe's top seller in suspension technology and a favourite in the UK. And it's not hard to see why. The characteristics of all BPW running gear remain constant - high levels of quality, reliability and profitability throughout the entire service life of the vehicle. Inevitably, over the years, the Airlight II suspension has evolved.

The latest update, the Airlight II-R, which features a round beam, offers even more versatility and variations to meet the specific demands of the operator. High performance, low maintenance and reduced whole life costs are key to the development of all BPW equipment.



# **GREATER EFFICIENCY AND CO2 SAVING**

Every excess kilogram causes unnecessary costs and emissions, so the key to greater efficiency and CO<sub>2</sub> saving lies in reducing the unladen weight of the vehicle to increase payload.

# **MODULAR SYSTEM - COST EFFECTIVE**

The bolted design enables low-cost replacement of individual components. Components are repairable and damaged parts can be replaced.

# LOW MAINTENANCE

For on-road operation, the bolted connections do not have to be retightened within the stated warranty period. This is due to the clamping concept between the axle beam, spring seat and trailing arms.

# MAXIMUM VIBRATION ABSORPTION

The trailing arm absorbs the strongest vibrations from the running gear and uneven road surfaces, reducing stress on the tyres, frame, vehicle body and the load itself. This is the result of the unique design of the flexible trailing arm.

# FEATURES AND BENEFITS AT A GLANCE

- Gain valuable competitive advantages with increased load capacity and lower fuel consumption.
- Modular design makes installation and maintenance easy.
- Low maintenance.
- A better drive due to lower sprung mass.
- Benefit from the 5 year ECO Plus warranty with unlimited mileage in on-road operation throughout Europe.
- Benefit from more flexibility in production.
- Lightweight construction solutions can be implemented individually for each customer.



# OPTIONAL COMPONENTS SPECIFICALLY DESIGNED TO COMPLEMENT THE AIRLIGHT II-R

Most weight-saving measures can come with drawbacks somewhere else along the line. Not so with BPW's lightweight components for the Airlight II-R.

# **BPW'S NEW FORGED ALLOY HUB**

- Weight savings of 18 kg per axle for 22.5" wheels with centre nave format.
- Environmentally friendly due to lower CO<sub>2</sub> emissions. By lowering the vehicle's weight, you reduce energy consumption with the same cargo volume.
- Highest stability due to high-strength forged alloy hub.
- Alloy hub cap included as standard.
- Extremely durable thanks to optimal corrosion protection through cataphoretic dip-coating (KTLZn).

# **LIGHTWEIGHT AIR BAG**

- Weight savings of 4 kg per axle.
- Single fixing.
- Composite piston.



Available for drum and disc.





### ECO Air, suitable for on-road operation, is available for drum and disc brakes.

A particular feature of ECO Air is the employment of BPW's patent-pending high-tech laser production process, which combines its typical clamped modular air suspension mounting with round axle beams. This three-dimensional laser profile, etched on the bottom of the casting interface, ensures a positive location with less clamping force.

ECO Air is of modular construction, with standardised components, making it possible to purchase the running gear components separately. This is of particular benefit to operators when it comes to repairs as only the damaged or worn component needs to be changed.

From the moment it is ordered, ECO Air, as with all BPW running gear, carries a unique 'digital DNA' that stays with the running gear throughout its entire life. This not only includes the relevant production data, but also all data relevant to servicing, such as spare parts lists or service manuals which can be called up using the QR code on the axle.

### **INNOVATIVE MANUFACTURING**

The geometry of the contact surfaces and the metallurgical properties of the interface between the axle beam, cast trailing arm and air bag mount are optimised using an innovative laser process, thereby further increasing the robustness of the mounting.

# STEEL-RUBBER-BUSH

The specially designed steel-rubber-bush is asymmetrical, can handle all demands placed on it and is designed without any recesses. Its optimised axial and vertical track guidance helps contribute towards high operating comfort and lower tyre wear. Consistent load absorption, as well as even deformation, ensure smooth operating and long life expectancy.









# SUSPENSION Systems

**AIRLIGHT HEAVY DUTY (AL-HD).** 



# BPW first introduced its Airlight II suspension program in 2001. At the time it was rated for 9 tonne axle loads for European operation.

This suspension had advantages over its predecessor: it weighed less, featured a narrower width trailing arm and a compact and modularised hanger bracket. It also featured the introduction of BPW's low maintenance clamped axle connection.

In Australia, New Zealand and South Africa, where off-road conditions are more prevalent, extensive development work took place to improve many components of the now proven Airlight II suspension to suit local applications. Based on many years' experience in these southern hemisphere countries, BPW made improvements in trailing arm spring manufacturing processes whilst continuing further exhaustive testing on the required additional components to the Airlight II program.

It resulted in the development of the AL-HD, an axle and suspension system designed for arduous duty cycles, and axle loads up to 12 tonne capacity with thicker springs, welded spring seats and M24 U-bolts.

This extension of the Airlight program, AL-HD, is still recognised as having the same advantages as its Airlight II predecessor. Clamped connections are still utilised so that damaged parts can be repaired individually, rather than having to replace a complete axle.

# LANDING GEAR

# LIGHTWEIGHT AND ROBUST.



# **ROBUST**:

- Lightweight, yet robust to meet the rigorous requirements of commercial vehicle operation.
- Designed with a reinforced shaft for the absorption of lateral forces.
- Continuous screw-on plate for optimum strength.
- Built-in safety. BPW landing gear meets AAR (Association of American Railroads) requirements.

# **MAINTENANCE:**

- The landing legs are greased with BPW's ECO Li 91 and maintenance-free for 3 years.
- They are specially coated to protect against corrosion and wear.

Foot options: The legs are available in a range of sizes and foot options: compensating, flat, rocking and wheels.





DESIGN S (standard for air suspension) DESIGN T



# EASY TO FIT & OPERATE:

- The long, continuously perforated screw-on plate for different fixing positions ensures an easy, flexible installation.
- Low gearing forces make day-to-day tasks easier to operate.

# SUPPORT:

 As with all BPW products, landing gear is backed by the company's uncompromising approach to quality, service and support.







# **BPW CARGOMASTER**

LOAD SECURING STRAP LIFT SYSTEM.

# **BENEFITS**

- Designed for safe road haulage and operation.
- Straps fully encase loads and secure safely to vehicle chassis.
- User-friendly system for easy operation.
- Efficient system significantly improves unloading times.

# **FEATURES**

- Space-saving design to maximise haulage capacity.
- Uses readily available industry standard ratchet straps.
- Easy operation via guided roller bearing carriage.
- Ensures a wide variety of load shapes and sizes.
- System can be retrofitted.



# The user-friendly BPW CargoMaster load securing system, which can be retrofitted, meets both pallet network and automotive delivery demands.

The patented CargoMaster system is a specifically designed bungee cord for load securing, that eliminates the need to throw straps, nets, or tarpaulins over a load to secure it. It can be secured by the driver from the ground. In addition, because of sophisticated swivel and clamping technology, unused straps, nets, or tarpaulins can be stored beneath the vehicle roof. They remain out of the way during loading yet are easily accessible when required.

Easy to operate and cost effective to maintain, the system uses readily available industry standard ratchet straps and extremely robust bungee cords. By fully encasing loads and strapping them directly to the vehicle chassis, this versatile system can secure loads of varying shapes and sizes. With a strong focus on safety, the CargoMaster reduces health and safety infringements and load securing incidents. The system also has inbuilt safety features to protect drivers, such as strap retarders, which prevent the straps releasing too quickly and causing harm. Highly rated by both transport operators and drivers for its performance, safety features and versatility out on the road, the CargoMaster reduces unloading times for faster deliveries.

#### **SECURITY, SAFETY & COMPLIANCE**

- Meets DVSA load securing guidelines for vehicle operators.
- Helps to prevent the load from being damaged, reduces the risk of health and safety infringements and load securing incidents.
- Special operational features greatly improve driver safety.

The CargoMaster strap lift system automatically lifts back into the roof space when not in use. Bespoke sheeting systems and straps are available to suit individual customer requirements.

**1. CONVENTIONAL STRAP DESIGN** 

### 2. BESPOKE M40/40 MESH OR PVC SHEET DESIGN

Custom-made wide mesh or PVC sheets are primarily used for unstable or oddly shaped loads.





#### **3. KITE DESIGN**

Unlike the standard strap design, wider kites/sheets spread the tension load over a broader base, reducing the chance of damage to vulnerable loads. The size of the kite/sheet depends on the operation.

#### 4. SIDE NETS

Side nets provide an extra layer of load security. Options include see-through nets for collapsible loads and half-height nets specifically for double decks.

Option: Double ended ratchet straps.

# **IDEM TELEMATICS** A CLEARER VIEW OF YOUR BUSINESS.



# Cargofleet is the gateway to operational efficiency, vehicle control and fleet tracking.

Designed by BPW Group member, idem Telematics, the Cargofleet telematics system gives transport operators access to a far greater level of data to monitor and control their trailers like never before.

It's far more than a simple track and trace system. From just one advanced source covering multiple functions, Cargofleet generates a wealth of data allowing transport operators and drivers to keep an eye on the health of their trailers. The system provides many operational benefits covering these key areas.

#### VISIBILITY

Overview of your transport operation, allowing improved utilisation & efficiency.

Asset usage data and trailer location for ease of service planning.

#### **COST REDUCTION**

Resolution of unscheduled maintenance issues to reduce VOR time.

• EBS fault codes to enable repair and parts availability planning.

#### EFFICIENCY

Comprehensive operational data, such as asset location, status and availability.

• GPS location, EBS load, fridge fuel tank level and TPMS status etc. for ease of job planning.

#### QUALITY

Comprehensive journey, loading and temperature data.

• Operational service quality through route tracking, temperature reporting and loading/unloading.

#### SECURITY

Door sensors and door locks to monitor door opening and unauthorised entry.

• High-value load monitoring/unauthorised entry alert.

#### USABILITY

Comprehensive alarm function to proactively alert relevant personnel.

• Exception reporting of specific data or occurrence.



cargo fleet



The system uses GPS to keep you constantly informed about the current location of your trailer, protecting your trailer against theft and giving you complete route supervision to optimise transport costs and energy consumption.



For refrigerated trailers, the system can be linked in with the fridge unit to provide live temperature data, fridge running hours and fuel level. It also offers a reliable temperature history for your end customer.



Available for smart phones and tablets. Provides visibility of the telematics data in the cab for drivers so they can remedy any issues promptly if necessary.



Wireless tyre control monitoring provides not only tyre pressure alerts, but also tyre temperature information, improving safety, extending tyre lifetime and saving fuel.





The system is linked into the EBS module giving live vehicle data showing speed, bogie weight and EBS faults. The system can also flag up harsh braking applications, roll stability interventions and specific fault codes for the trailer EBS.



FRIDGE FUEL Monitor

Surveillance of the fridge fuel tanks on the trailer offers the security of preventing fridge failure from compromising costly loads, as well as reducing the risk of fuel theft.



# ELECTRONIC BRAKE PERFORMANCE MONITORING (EBPM)

Sharing EBPMS data demonstrates compliance with the current DVSA requirements (set out in the DVSA Guide to Maintaining Roadworthiness) and can reduce brake roller tests from 4 to 1 per year. Automated error alerts enable proactive repair and maintenance scheduling.



A door sensor enables load security and load status monitoring.



# LOCATION

Technical data at a point in time. Follow the trailer's movements and route. Records details of each movement every 15 minutes, or 5 minutes for temperature monitoring.



# **ELECTRONIC BRAKE PERFORMANCE MONITORING (EBPM)**



Brake performance monitoring will allow operators to substitute brake roller testing between MOTs and annual inspections by continually comparing the performance of the tractor/trailer braking events against the brake demand from the driver.

Over a period of time the results will provide a picture of braking characteristics of the tractor/trailer combination and this will help to plan preventative maintenance periods and friction material replacement.



# A PROACTIVE APPROACH CAN BE TAKEN TO MAINTENANCE AND REPAIRS TO MINIMISE DOWNTIME.

### **EVENT-BASED ALARMS**

The ability to set up EBS alarms and email to key members of staff to react to an issue as it occurs. Alarms include:

- EBS error codes.
- EBS red and amber warning lights. •
- Roll stability.
- Overload of trailer.

**OPERATIONAL EFFICIENCY** 

Highlights the best and worst

performing trailers.

Trailer utilisation shown in tonnes vs.





kilometres.

#### Fleet Brake Performance Key: Previous Interval = equal to report interval duration, directly to report period --- Lower Limit (0.45g) Current Interval Previous Interval



The system can be set so that unusual events, e.g. roll stability events, excessive ABS interventions and excessive service brake demands, can be communicated to the Fleet Manager.

# BPW AIRSAVE

# **TYRE INFLATION SYSTEM**

BPW's AirSave tyre inflation system continuously tracks and controls tyre pressure in real-time while driving, helping to prevent unnecessary expenditures caused by worn tyres or under-inflated tyres.

The system permanently monitors tyre pressure and can significantly reduce the risk of accidents by preventing downtime, saving fuel by maintaining optimal pressure at all times, and reducing CO<sub>2</sub> emissions.

# **HOW DOES IT WORK?**

AirSave uses the trailer's existing pneumatics and directs the air through the axle beam to the wheel end and from there to the tyre valve.

- If a violet light is **not visible**, this indicates to the driver that the tyre pressure is at the correct level and no action is needed.
- If a violet light is **visible and flashing**, this indicates to the driver that the system is active and the correct tyre pressure is being maintained.
- If a violet light is visible and constant, this indicates to the driver that a drop in tyre pressure has been detected, and the vehicle MUST be stopped when safe to do so.



# TELEMATICS CONNECTION VIA CARGOFLEET Portal and Driver APP

In order to offer even more comfort and safety for driver, freight and vehicle, it is possible for AirSave and telematics to connect.

In the event of a flat tyre, a signal triggered by AirSave is transmitted in parallel to the external lamp and the telematics system. The driver or fleet management receives the current status of the AirSave system in real time.

AirSave features digital connectivity, with the option to connect to the "Cargofleet 3" telematics portal from idem telematics, as typical for BPW products.

Further information can be found at:

www.idemtelematics.de

# FEATURES AND BENEFITS AT A GLANCE

Reduced operating costs thanks to ideal tyre pressure at all times.

> Information for the driver in the event of pressure deviations in the system.

**Demonstration video** 

of BPW AirSave.

A low-maintenance, robust product for more economic efficiency.

# EFFICIENT

The tyre pressure is constantly monitored and automatically adjusted to the desired level.

# **INCREASED SAFETY**

Continuous monitoring of the tyre pressure significantly reduces the risk of accidents and this means downtimes are avoided.

# LOW-MAINTENANCE

BPW AirSave is mounted directly on the axles at the factory and requires only a few simple steps as part of the annual maintenance.



Increased tyre life.

Increases safety by avoiding tyre blowouts.

Optimally schedules workshop visits with continuous monitoring.

# **BPW EPOWER**

# THE ELECTRIC POWER AXLE

Following the principle of a bicycle dynamo, ePower converts wheel rotation into energy. The energy is temporarily stored in a backup battery before fed into the system when needed.

# FOUR POWER MODES

#### BPW ePower offers unparalleled versatility tailored to various driving situations.

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# ACTIVE:

The generators produce electric energy depending on the power demand and driving situation.



#### **ACTIVE FAST CHARGE:** Continuously produces electric energy

with full power until the battery is charged.



Standard suspension ECO Air 9t.

# THE SMART SOLUTION

BPW ePower is an axle module that recovers energy when the trailer is moving, enabling a carbon-neutral and quiet supply of power to refrigeration units for temperature-controlled transport.

ePower will keep you and your fleet on the road with an all-round sustainable and efficient power supply.

# FEATURES AND BENEFITS:

TS2 3709/4309

- Saves fuel and CO<sub>2</sub>.
- ePower does not engage or carry current until the vehicle reaches 15 Kph.
- Generators disengage when:
- i) fully charged.\*
- ii) going uphill.\*
- A two generator axle = double the power.
- Provides safety, uninterrupted operation. •
- Intelligent energy management and •
- efficient operation.
- Developed according to automotive standards.

# CLIMATE NEUTRAL REFRIGERATED TRANSPORT

This highly innovative energy recovery system for trailer refrigeration units delivers immediate and long-term sustainable benefits while also helping cut day-to-day operating costs.

Intelligent energy management ensures that the cooling system always has access to sufficient battery reserves even on long journeys or in traffic jams.

#### **RECUPERATION ONLY:**

Produces electric energy by recuperation only (i.e., while braking); this avoids additional fuel consumption of the vehicle.

#### PASSIVE:

The generators will not produce electric energy and remain on standby.

### **REDUCING EMISSIONS, LOWERING COSTS**

This technology enables inner-city delivery operations, even in environmentally sensitive areas, due to its quiet operation and lack of CO<sub>2</sub> emissions.

The sustainability balance includes both an ecological and an economic dimension. Emissions and noise are reduced, and ongoing operational costs drop immediately - an important argument, especially in times of high energy prices.

# **BPW ORIGINAL PARTS MAKE A DIFFERENCE**

Where safety is concerned, it's worth taking a closer look: BPW spare parts are an investment in the safety of your vehicles and their loads. That's why you should place your trust in original BPW quality.

- Dependability, built on years of experience.
- International availability of spare parts.
- Consistently high quality of all components – optimum service life.
- Robust and resilient.
- ✓ No difference between BPW OE and BPW genuine replacement parts.
- Quick and simple installation.





# **BPW AFTERMARKET NETWORK**

 $\mathsf{BPW}$  has over 200 spare parts distributors across the UK and Ireland.

Visit the website – **WWW.bpw.co.uk** – to search for your nearest BPW parts distributor.

Alternatively call the Aftermarket team -

**0116 281 6123** - and they will be able to advise.



# **CUSTOMER SUPPORT**

Where a complex technical product such as running gear is concerned, the service literally has to be built-in. BPW engineers offer support on everything from trailer chassis design, brake calculations, and truck-trailer compatibility. If you have questions regarding the products, the BPW technical support team is also on hand to take your calls.

Alongside this, BPW Limited has a network of over 60 (and still growing) BPW approved maintenance providers, service stations and parts distributors across the UK and Ireland.



# BPW-APPROVED TRAINING COURSE

When you're investing in superb products, you'll want to ensure that your investment is being looked after; that way you can expect maximum returns.

The highly rated BPW-approved axle and suspension training course for workshop technicians is designed with one objective – to improve customers' knowledge, quality and reliability in everyday workshop procedures when dealing with BPW products.

The comprehensive course, held at the company's Leicester headquarters, covers the development of axle and suspension systems and deals with maintenance and servicing issues.

# **MODULES:**

- ECO hub systems
- ECO drum brake
- ECO disc brake
- Self-steer axles
- Air suspensions

The day will also encompass replacement techniques and diagnostics, practical experience under the supervision of BPW training personnel, a multiple choice test and a course certificate, valid for three years.

For further details please contact -

0116 281 6100 (choose option 4), or email training@bpw.co.uk.



# **EXTERNAL TRAINING**

When it's not possible to travel long distances, such as from Scotland or Northern Ireland, BPW has appointed training partners in both regions to ensure workshop technicians are given the opportunity to receive essential training skills. You can be confident that all external training is of the same high standard as that held at the company's fully equipped training facility in Leicester. It is also possible, following a special arrangement with BPW, that training can be held on-site at a customer's premises.

# **TRAINING VIDEOS**

To nurture industry skills and further support workshop technicians, BPW has also produced a series of comprehensive training videos.

These videos show the correct workshop procedures when maintaining and servicing BPW running gear. To view, visit our website - www.bpw.co.uk or our YouTube channel - @BPWUK.

# **CONFERENCE FACILITIES**

BPW has two large, fully equipped ground-floor meeting rooms, both of which are available for use by its customers.

The impressive conference room provides a professional setting for meetings and can accommodate any group size up to 40 delegates. The training room can seat 10 delegates and is ideal for workshops or break-out sessions.



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The brands of the BPW Group:









