



This is BPW Fahrzeugtechnik

Spirit meets you
*We know what
you'll need tomorrow*



BPW FAHRZEUGTECHNIK



Running gear is our passion

Life is motion

Being alive means constantly being on the move. We dedicate all our skill and passion to this motion. It is our goal to make products that are useful to people and that take them forward, wherever they are heading. At the same time, the latest development and production technology is used in accordance with our principle of uncompromising quality and safety. We would like to know what else is possible: Can things be made even more stable, comfortable, flexible or safe? Can we offer our customers even greater dynamics, quality and comfort? Then we set about planning, calculating, developing and testing. And each time we find: yes, it is possible to achieve even more.

As a professional in the optimised designing of processes in all areas, BPW Fahrzeugtechnik is a trend setter in running gear technology. We are proud of this.



Innovative running gear technology

Our products and services

Sophisticated details and intelligent systems support you in towing your caravan and make handling easier for you.

Content

How we support you	6
Axles	
SWING rubber suspension axle	8
RONDO torsion bar axle	10
V ^{tec} axle	12
Tandem axles with load equalisation	14
Safety Brake Unit	
Safety Brake Unit	16
Anti-snaking hitch	18
Chassis technology	
intelligent Drive Control – iDC	20
integrated Move Control – iMC	22
Caravan chassis	24
Accessories for caravanning	26
Our services	28



This is where we spark you

How we support you

BPW Fahrzeugtechnik is your expert partner for running gear technology

Movie:
BPW development service



Consulting

With BPW Fahrzeugtechnik, your ideas are in the best hands. We offer you a wide range of sophisticated solutions for technical applications. We are happy to advise you on the development of complete running gear systems, standardisation of vehicle frames and selection of axles and axle units for your products that are appropriate for the market and the requirements.



Development

The development team at the Paderborn site possesses decades of expertise and experience in the development and design of the latest running gear technology.

The specialists at BPW Fahrzeugtechnik develop new products and find specific, tailor-made solutions for our customers. They offer engineering services such as FEM or brake calculations and carry out driving and proving ground trials.



Production

The BPW Fahrzeugtechnik production system makes it possible to provide the necessary quantity in the highest quality and at the lowest possible cost.

The synchronous production system based on the pull principle makes optimum use of all resources, as a result of which the production process can be precisely aligned to the customer's wishes.



Quality

The BPW Fahrzeugtechnik is geared up to operate according to its quality culture. This is based on prevention, fault avoidance and transparency in all processes and procedures. The objective is reliable and consistently flawless quality. All our employees take a consistent and open approach to errors, and regard themselves as duty-bound to comply with agreed quality targets. Our processes and procedures are regularly measured, evaluated and optimised according to the principle of continuous improvement.



www.elddis.co.uk/
bpw-technology.html



Setting records

BPW SWING rubber suspension axles

In harmony with the road



Movie: SWING
world record



Setting records

Quality that you notice

Robust technology, decades of tried-and-tested function

The simple structure of BPW rubber suspension axles makes them very robust, and they have proved their worth in the market for decades now. The sophisticated system means that bumps are cushioned to the greatest possible extent when driving over uneven surfaces. As a result, the running gear contributes to making your caravan simple and safe to tow at all times. The long-lasting rubber suspension provides optimum driving characteristics in any situation.



Maintenance-free components for low servicing costs

With customers in mind, the BPW Fahrzeugtechnik is always striving to reduce maintenance costs and extend inspection intervals. All BPW rubber suspension axles have maintenance-free suspension.

The wheel bearings are compact bearings with a lifetime grease fill, and meet the high standards of the automotive industry. If spare parts are required, you can call on the worldwide BPW Group network of more than 3,200 service partners.

Safety through extensive tests

Every new axle from BPW Fahrzeugtechnik undergoes an extensive test and trial procedure. Whether on the test rig or on the road, our test engineers make sure that only axles meeting the most demanding requirements are fitted under your caravan.

Axles from BPW Fahrzeugtechnik offer particularly good driving stability. The V^{tec} design and use of BPW comfort shock absorbers are crucial factors in this.



www.solifer.com

Well-rounded comfort

BPW RONDO torsion bar axle

Drive safely and arrive feeling fresh



Height adjustable

The involute gearing at the end of the torsion bar allows almost infinitely variable setting of the swing arms, as a result of which a variable height adjustment is achieved when building the vehicle.

Well-rounded comfort

RONDO makes the difference

The difference

Your caravan will be exposed to up to 25 % less load when driving with our torsion bar axle compared to rubber suspension, because of the greater suspension comfort. Another advantage of our technology from the automotive industry concerns the significant weight saving and the associated ability to carry heavier loads.



Perfect suspension

The highest standards of driving pleasure and comfort: Torsion bar suspension is a modern suspension system in vehicle construction. The suspension element is a torsion bar made from spring steel. This is mounted inside the axle tube where it is fully protected.

Particularly durable

The hot-dip galvanised axle beam ensures long-lasting anti-corrosion protection.

Reduced tyre wear due to consistent camber and toe-in values, because there is no "settling" of the suspension elements during operation.





The secret of the "V"

BPW V^{tec} axle

The kink makes the difference!



Greater driving sensation for everyone

Very good directional stability and smooth driving behaviour. The V^{tec} axle is available both as a SWING rubber suspension axle and a RONDO torsion bar axle.

The secret of the "V"

Small kink, great effect

More stability

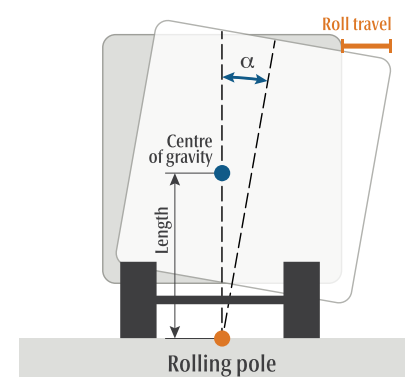
Instability is significantly reduced in critical driving situations involving side winds, lane ruts or overtaking. The greater safety margins really come into play if sudden evasive manoeuvres are required.

Improved safety

The V^{tec} axle specially developed by BPW Fahrzeugtechnik increases the driving and roll stability of your caravan. Toe-in and camber dynamically adapt to the particular driving situation.

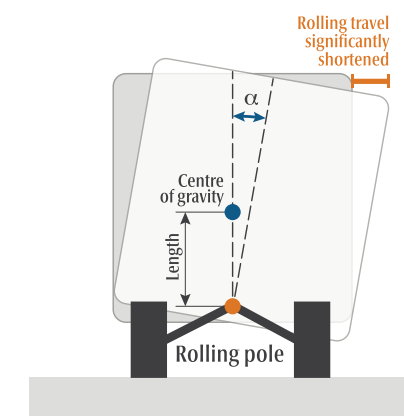


Conventional axle



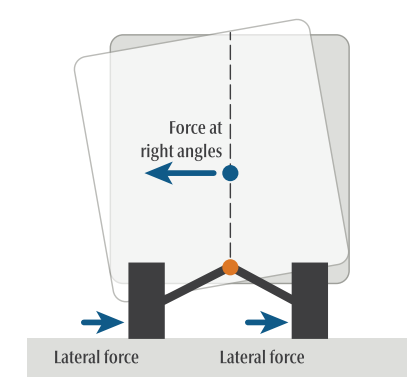
Dangerous rolling motion ... When deflected, every axle responds with a spring deflection leading to rolling movements of the caravan.

V^{tec} axle



... are reduced!
The BPW V^{tec} axle shifts the pivot point upwards, closer to the centre of gravity. This reduces the roll travel and shortens the lever arm. This means rolling motions are significantly reduced.

V^{tec} axle



Directional stability is supported. Better cushioning is provided for oscillating movements caused by lateral forces (side wind, overtaking and avoidance manoeuvres). The wheels set themselves against the lateral forces. This supports tracking stability and improves cornering properties.



www.airstream-europe.co.uk

Arriving

BPW tandem axles with load equalisation

The most beautiful roads in the world are often also the worst



RONDO times two

Tandem axles with load equalisation are based on the underlying design of the RONDO torsion bar axle. Load equalisation ensures that the axle load is distributed evenly between the two axles. This principle is made possible by having attachment points to the frame that are in rotating mountings. The two axles are connected together by coupling rods for mechanical support.

Comfortably sprung, perfectly adapted

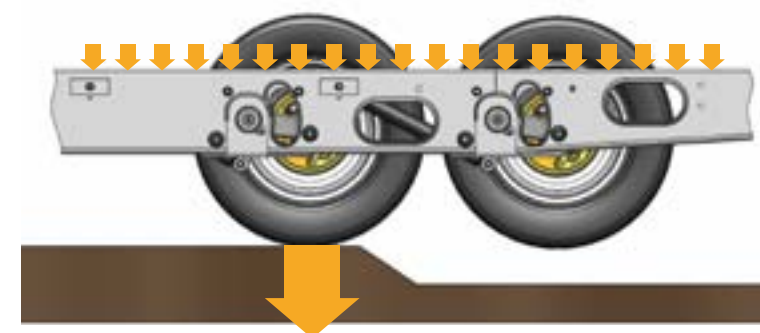
As well as the optimum suspension comfort of the Rondo torsion bar axle, an axle unit with load equalisation offers perfect adaptation to uneven surfaces. This means that the wheels on one axle are prevented from losing contact with the ground when driving over obstacles.

Movie:
BPW tandem running gear
with load equalisation



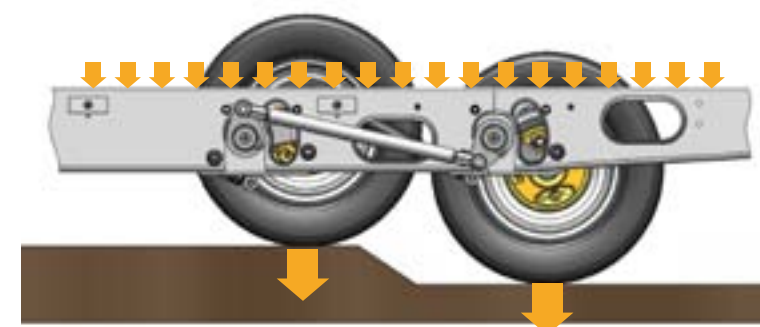
Arriving

Load equalisation ensures road contact



Conventional running gear
without load equalisation

When driving over an obstacle, the axle that is not loaded loses contact with the ground and the entire load is carried by only one axle.



BPW tandem running gear
with load equalisation

Both axles are evenly loaded when driving over an obstacle, and the forces are evenly distributed at the same time.

Reduces wear on running gear, frame and body

Axle load equalisation reduces the loads transmitted into the chassis and body when driving over uneven surfaces, thus increasing the service life of your caravan.

Optimum anti-corrosion protection

Galvanisation of axle tubes, axle plates and connecting rods ensures sustained anti-corrosion protection.



www.kabe.se





It's the combination that makes the difference

Safety Brake Unit

Driving even more safely

Increased safety

The Safety Brake Unit combines the advantages of the BPW anti-snaking hitch, overrun brake and electronic stabilisation system iDC. Each component acts in a different physical way.

This means that each component is important for improving safety, and only offers the best possible protection when combined within the unit.



It's the combination that makes the difference

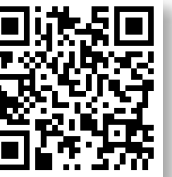
And this is how it works

BPW overrun brake

The BPW overrun brake makes sure that the brakes are activated during driving and when parked. The trailer brakes are automatically applied as well when the towing vehicle is decelerated. The BPW overrun brake offers many advantages for customers, e.g. gentle overrun response due to the integrated damper as well as safe and easy opening because of the cushioned hand brake lever.



Movie:
Safety Brake Unit



iDC intelligent Drive Control

iDC detects a potentially critical driving situation before the driver even notices it. iDC intervenes in the overrun brake and stabilises the combination by gentle braking.

BPW anti-snaking hitch

The BPW anti-snaking hitch and its friction linings ensure that critical situations cannot come about in the first place. The caravan's tendency to snake is significantly reduced. The unique single-lever operation for hitching up and activating is particularly easy to use.



www.weinsberg.com



At 100 km/h

BPW anti-snaking hitch – safety with track stabilisation

Everything under control with one hand

On the safe side

With the BPW anti-snaking hitch, you are guaranteed to have a comfortable and relaxed drive. This becomes apparent above all when faced with lane ruts, cross winds and if avoidance manoeuvres are required. The BPW anti-snaking hitch suppresses dangerous snaking and pitching movements right from the point when they start. As a result, this hitch is also approved for speeds of up to 100 km/h acc. to ISO 11555-1.

See more

An indicator signals correct hitching up. This means you can be sure that the towing vehicle and the caravan are connected together correctly.

The new, optimised wear indicator for the durable friction elements makes it possible to see at a glance whether they need to be changed. This can be done quickly and easily, thanks to the practical snap-in system.



Made easy

The BPW anti-snaking hitch is the only hitch with a one-hand system. This means that all functions such as hitching up and unhitching, stabilising and destablising can be carried out easily.



Even more besides

The BPW anti-snaking hitch fits all common car tow hitches. Hitching up is no problem, even with vehicles that have an outside-mounted spare wheel and only a short distance between the bumper and the ball.

The hitch offers collision protection to prevent injuries or damage to the vehicle.



Guardian angel on board

BPW intelligent Drive Control – iDC

Keeps everything on track

An intelligent emergency system

Comparable to ESP systems for cars, iDC immediately gets the trailer back on track in case of critical lateral accelerations.

The trick is that the braking is not controlled by the car, but directly by the iDC which is a component of the Safety Brake Unit. The vehicle combination is thus stabilised totally automatically. The iDC detects dangerous situations at an early stage and automatically intervenes before things become hazardous. There is no longer any need for the driver to counteract incipient snaking, such as by countersteering. Enjoy carefree caravanning with iDC control.

Totally maintenance-free, only 6 kg in weight.

Safety written large

In the event of a power failure during a controlling process (e.g. due to loss of voltage or cable break) the iDC automatically returns to the starting position. The service brake is enabled and continues to remain fully functioning.

The operating status of the iDC can be checked easily thanks to the status display located directly on the drawbar cover. As soon as an electrical connection is established between the caravan and the towing vehicle, a self-test makes sure that the iDC is functioning correctly.



Movie:
Test Caravanning journal

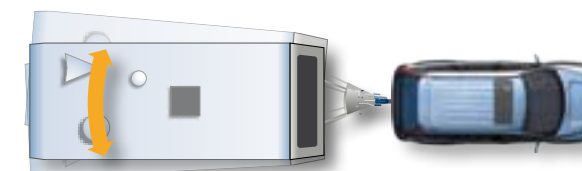


Sensor-controlled safety for men and material

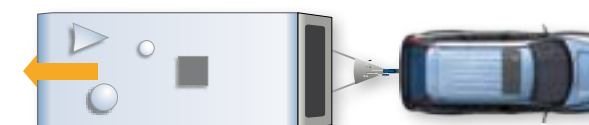
This is how it works

The functional principle of the iDC is as ingenious as it is simple. A sensor attached to the trailer axle continuously registers even the smallest lateral acceleration and sends signals to the central unit of the iDC, which is located in a sturdy housing on the overrun hitch.

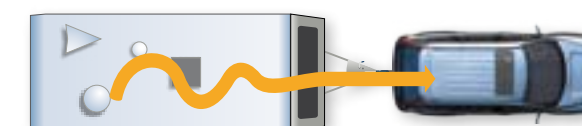
If any oscillations that occur do not abate automatically, the brake system of the trailer is activated by the electric motor in the central unit of the iDC. The trailer gets back on track automatically in a matter of seconds, as if it were running on rails. The driver notices almost nothing of the entire process.



Sensor for greater safety:
The sensors of the iDC system continuously measure the lateral accelerations directly on the trailer axle.



Automatic protection against skidding:
The intelligent iDC system immediately detects any risk of skidding and gently brakes the trailer automatically.



Course correction in a matter of seconds:
Gentle braking means that the trailer automatically gets back on track within seconds.



Let's "move"

BPW integrated Move Control – iMC

Parking at the push of a button

Advantages at a glance:

- Precise manoeuvring for hitching up and unhitching.
- No TÜV registration required; simply carry the general certification document in the vehicle.
- Soft-Start and Soft-Stop permit gentle moving off and stopping; no abrupt movements.
- Easily copes with kerbstones up to 6 cm high.
- Narrow drives with both a gradient and a bend can be tackled with ease.
- Housing with splash protection permits quick and straightforward cleaning.
- The drive unit can be driven back manually if the battery is flat.
- System weight: approx. 33 kg.



www.bpw-fahrzeugtechnik.de/en/produkte/caravan/imc

Let's "move"

The manoeuvring system integrated in the chassis

Manoeuvring safely

With iMC, you can manoeuvre your caravan accurately and safely – even on unconsolidated ground such as gravel, sand or snow. iMC permits effortless pivoting on the spot – without any assistance – and achieves a very small turning circle.



Maximum ground clearance

The BPW iMC system is integrated directly into the chassis. This means that it can be installed without taking up much space. The ground clearance is retained and there is no danger of the iMC being damaged by striking the ground.



Excellent climbing ability

BPW iMC also shows its strength on steep slopes: The drive system can manage gradients up to 30 % (depending on the weight of the caravan). The sturdy design ensures that the caravan remains secure even when parked on slopes.



Intuitive operation

The ergonomically shaped remote control unit permits intuitive operation: from electronic driving back and forth of the drive rollers through to manoeuvring with ease, even in complicated situations. BPW iMC only reacts to your individually coded remote!



Powerful drive units

When BPW iMC is used, the drive rollers are electronically driven in with maximum contact force. The wide rollers have a large diameter and are driven by a powerful motor. That way, you can manoeuvre accurately and safely!



Simple installation

Many BPW chassis are prepared at the factory for installation of the BPW iMC chassis-integrated manoeuvring system. The system can be retrofitted quickly and easily; a conventional clamped connection is employed on chassis without preparation. Ground clearance is not restricted in any way. New caravans can be ordered with BPW iMC built in.





Take a look underneath

BPW caravan chassis

Today and tomorrow



www.adria-mobil.com



Take a look underneath

Our versatile chassis concepts



BPW Vario 4 AV

The Vario 4 AV concept offers maximum variability and flexible floor plan layout in accordance with your requirements, with no extra weight involved. To permit greater individuality for your equipment and a high payload, BPW Fahrzeugtechnik develops chassis using the latest computer simulation programs.

Optimum lightweight construction and strength are achieved by examining every single point on the vehicle frame and determining the dimensions precisely. The rubber-spring semi-trailing-arm axle (V^{tec} axle) means that the Vario 4 chassis guarantees outstanding driving properties with maximum safety. This dynamic turning effect guarantees that the caravan remains stable in dangerous situations and on tight bends.



BPW Classic safety chassis

The Classic safety chassis is designed for single-axle and tandem caravans. These chassis are optimised in terms of weight, ease of assembly and cost, and are used for high production volumes with low variance.

BPW running gear equipped with the BPW safety hitch is fully hot-dip galvanised, thus offering optimum surface protection. Classic running gear from BPW therefore combines many safety and weight-relevant advantages in one chassis, which can be "built on" with confidence.



Lightweight construction of BPW running gear

The BPW Fahrzeugtechnik is continuously working to develop its running gear further. One particularly important aspect is to reduce the overall weight. Less inherent weight means a heavier payload and lower fuel consumption. It goes without saying that our strategy here involves the use of high-strength steels.



Everything included

BPW accessories for caravanning

www.bpw-fahrzeugtechnik.de/en/produkte/caravan/zubehoer



BPW intelligent Drive Control – iDC



BPW integrated Move Control – iMC



Overrun brake cover



Jockey wheel including weight indicator



Wheel shock absorber



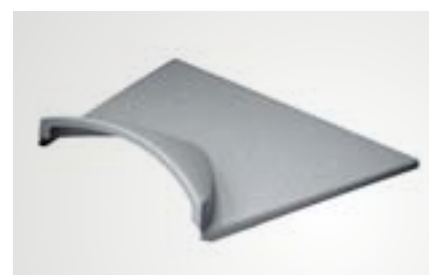
Cranked supports and XL Foot



BPW anti-snaking hitch



Wheel-Lock Diamond



Drawbar cover



Spare wheel carrier



BPW lifting jack



We're there for you

Our services



Service

At the BPW Fahrzeugtechnik, service is not just defined by words but actions.

Our Service Team constantly pursues the approach of offering you the best possible service in the most straightforward and fastest way possible.



Kundendienst

Since the start of 2012, our own customer service has been available to you directly at our Paderborn site. This gives us the opportunity to deal with your issues with even greater speed, flexibility and efficiency.



Application consulting

With BPW Fahrzeugtechnik, your ideas are in the best hands. We have a whole host of sophisticated technical solutions for you.

We look forward to advising you on developing complete running gear systems, standardising vehicle frames and selecting chassis components that meet the requirements.



Product training

Our seminars, designed "from practical experience for practical applications", allow you to improve your specialist knowledge of running gear technology together with other specialists. The experts at BPW Fahrzeugtechnik provide you with the expertise you need to cope with tomorrow's challenges.

Through dialogue with you, we will shape the innovations of the future.

BPW

One of the most prized brands in the world of transport

The BPW Group is the leading manufacturer of axles and running gear systems for trailers and semitrailers. We have the right solution for nearly every application.

We specialise in all kinds of running gear systems from heavy truck trailer axles to industrial machinery and plant to commercial and agricultural trailers as well as caravans.

We use the synergy effects in our development work. A strategy that has paid off in truck trailers and semitrailers, for example, can also yield positive results in all other applications. Every running gear system incorporates over 100 years of experience from the entire BPW Group.

BPW has its own development and research facility as well as cutting-edge test systems. This means that we reduce the development times not only of on-going developments but, of course, also of new and innovative solutions.

All of our products undergo extensive testing on the road and in the laboratory, using an extremely wide variety of test programs such as simulating driving on a rough road.

Especially for caravans, BPW uses a unique modular test rig for single-axle trailers. Different route profiles can be simulated on the modular test rig, thus allowing tests to be performed around the clock, no matter what the weather.

Our products are in use all over the world. It is therefore natural for us to have a global presence too. Over 3200 service partners are thus at your disposal around the world.

You benefit from more than 100 years of experience – our products have been tried and tested under the harshest conditions, and have undergone repeated testing and refinement by specialists in the caravan industry. Successfully!



BPW Fahrzeugtechnik GmbH & Co. KG
Pater-Ewald-Straße 29, 33104 Paderborn

Telefon: +49 5254 803-0
Telefax: + 49 5254 803-101

info@bpw-fahrzeugtechnik.de
www.bpw-fahrzeugtechnik.de/en



Spirit meets you
*We know what
you'll need tomorrow*



BPW FAHRZEUGTECHNIK