



BPW PRODUCT BROCHURE



TRANSPEC
ENGINEERED TO LAST

The information and advice contained in this brochure including prices and specifications are current and correct as at 1 April 2021 but may be subject to change.
BPW Transpec shall not be liable for any changes that occur after that date. It is your responsibility to contact your BPW Transpec branch or representative to ensure that all information and advice is up to date before placing an order.

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BPW GROUP OF COMPANIES

BPW Transpec is a wholly owned subsidiary of BPW Bergische Achsen KG Germany and has sold and serviced the full range of BPW axles and trailer suspensions in Australia for over 60 years.

BPW's commitment to ongoing research and development, a policy of 'vertical integration' that sees the company manufacturing the major components for its products, and the teutonic drive for excellence have produced an outcome that sets BPW apart from the rest.

In order to achieve its 'world best' status, BPW produces all axle components to exacting standards so each component integrates perfectly with the next. Throughout the development of the axle many thousands of different ideas were explored to create entirely new features, unique to BPW – features that have today given BPW the leading edge in axle technology.

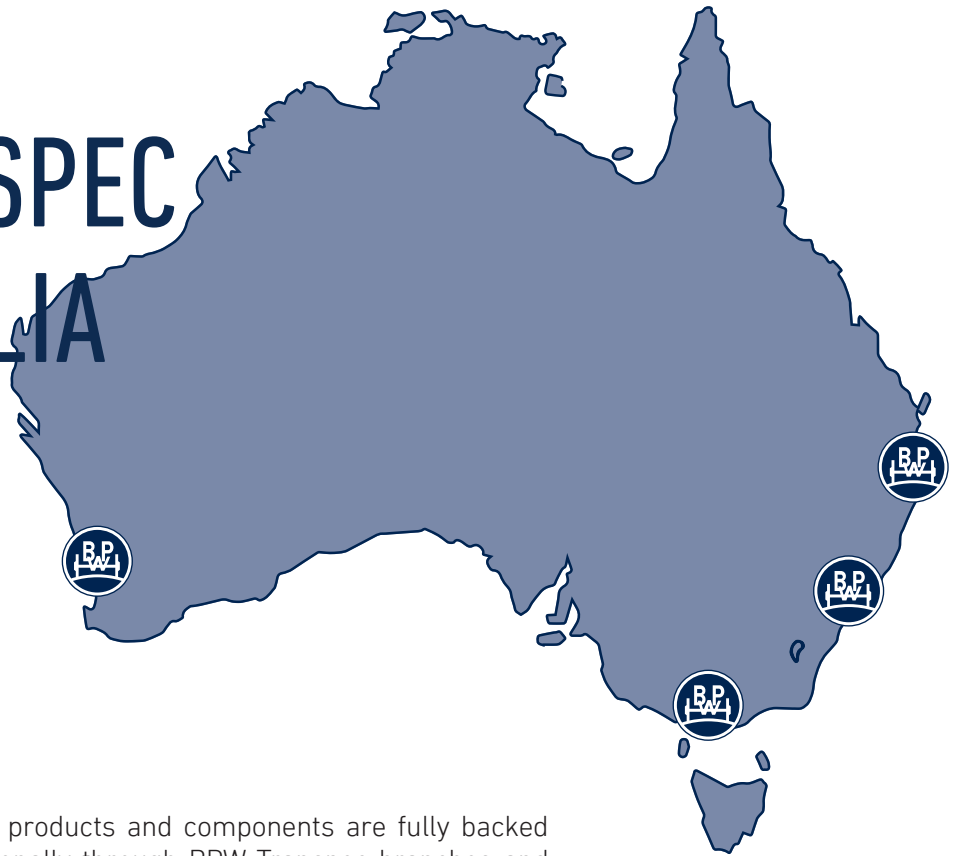
BPW makes sure trailers operate safely and economically anywhere in the world. It does not matter whether you are driving on rough outback terrain, on a multi-lane highway or through the desert or across ice, whether your priority is long distance or if you have to cope with difficult loads – BPW will always be the safest, lowest cost option.



BPW Wiehl



BPW TRANSPEC IN AUSTRALIA



BPW Transpec Melbourne



All supplied BPW products and components are fully backed and serviced nationally through BPW Transpec branches and BPW sales and service outlets.

BPW Transpec's engineers have also customised certain axle and air suspension components for superior performance under Australia's exacting and varied transport conditions, which are assembled at the company's Melbourne production facility.

Its Engineering Department, with the use of state-of-the-art CAD systems, provides expert technical solutions on the selection and fitment of all BPW products to ensure that all customers receive the best possible operational and payload results.

So, when considering your axle and air suspension choice, weigh up the support and real long-term operational savings you'll achieve by using the fully integrated BPW air suspension and axle system.



Suspension testing jig

BPW AXLE RANGE FOR COMMERCIAL TRAILERS

The BPW axle has now shown in Australian operating conditions, operators can expect minimum downtime and be confident of the axle's performance throughout the life of the trailer. In short, BPW offers a more complete axle assembly that delivers unsurpassed performance.

The 1,000,000 kilometre / 3 year ECO Plus 3 Hub Warranty for on-highway vehicles in Australia's tough operating conditions, with a fully serviceable hub, is testament to the design excellence and build quality of the BPW product.

BPW has a comprehensive range of trailer axles, ranging from axles for car trailers, up to 30 tonne capacity axles for off-road heavy haulage conditions.

With the 9 to 12 tonne per axle capacity range, which is popular with Australian transport operators, BPW offers square and round beam axles as well as high efficiency grease lubrication.

Hub options include spider and 10 stud to suit either European or American wheel fixing, or 8 stud for 19.5" tyres. Three standard S-cam mechanical brake configurations, and two disc brake configurations are offered to suit commercially available tyre sizes. Other brake sizes are also available to suit applications requiring axle capacities under 9 tonne and above 12 tonne. BPW also offers self-steering axles to suit a wide range of applications and tyre sizes, with axle capacities ranging up to 14 tonne.

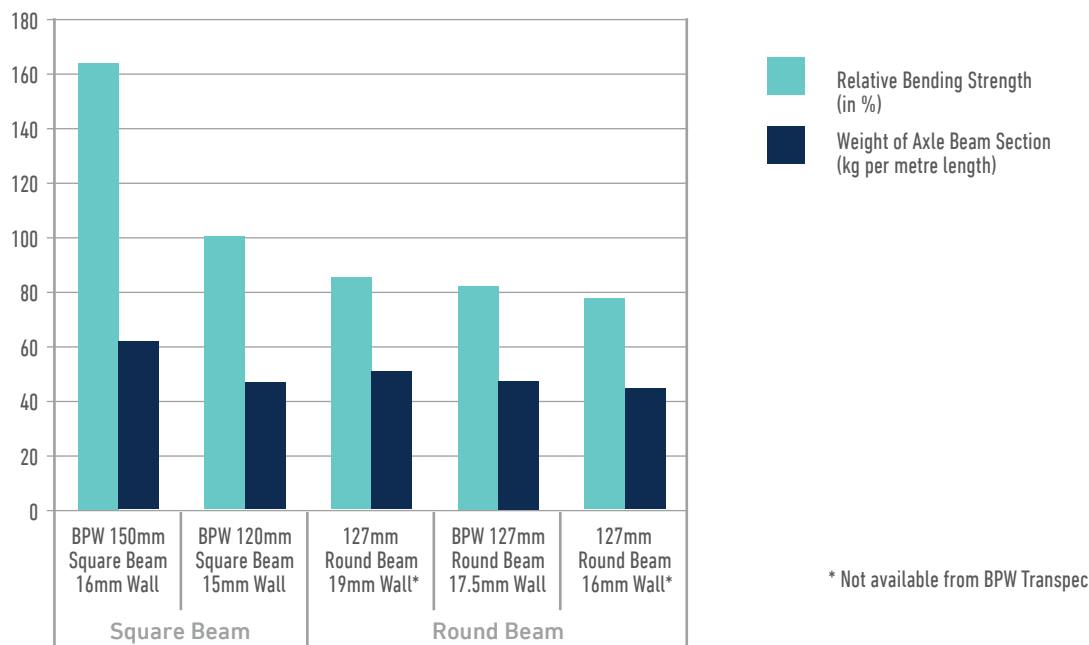
BPW TRAILER AXLES 9 to 12 tonne CAPACITY RANGE							AXLE BEAM OPTIONS			HUB OPTIONS				
							120mm Square	Ø127mm Round	150mm Square	Spider	10 stud 225mm PCD	8 stud 275mm PCD	10 stud 285mm PCD	10 stud 335mm PCD
BPW MODEL RANGE	TO SUIT TYRE SIZE	BRAKE MODEL	BRAKE TYPE	BRAKE SIZE	SARN	CTA NO.								
H/R Series	20", 22.5"	SN4218	Drum	Ø420x180mm	6916	006916	•	•	•	•			•	•
KH Series	19.5"	SN3620	Drum	Ø360x200mm	10155	010155	•					•		
NH Series	15", 17.5"	SN3020	Drum	Ø300x200mm	16593	016593	•				•			
NH Series	15", 17.5"	SN3015	Drum	Ø300x150mm T	41670	041670	•				•			
NH Series	15", 17.5"	SN3015	Drum	Ø300x150mm R	50840	050840	•				•			
NH Series	15", 17.5"	SN3015	Drum	Ø300x150mm F	50841	050841	•				•			
SH Series	20", 22.5"	TS2 4309	Disc	Ø430mm	50230	050230	•						•	•
SH Series	20", 22.5"	TSB 4309	Disc	Ø430mm	31666	-	•						•	•
SKH Series	19.5"	TS2 3709	Disc	Ø370mm	50229	050229	•					•		
SKH Series	19.5"	TSB 3709	Disc	Ø370mm	25677	-	•					•		

BPW SQUARE AXLE BEAM

BPW square axle beams give the strength you need in the face of tough operating conditions. Square, reliable and light, the BPW axle beam is the stable foundation for a long service life. The BPW square axle beam gives the best 'strength to weight ratio' for airbag suspension applications.

FEATURES AND BENEFITS OF THE SQUARE AXLE BEAM INCLUDE:

- Being optimally adapted to the various forces acting on it, such as twisting and bending
- Offering low inherent weight combined with the highest possible stiffness for heavy payloads
- Joining the quenched and tempered axle stubs to the square axle beam using the 'flash butt' welding process ensures a uniquely strong connection, which produces the longest possible service life
- Being prepared for ABS retrofitting as standard
- Even tyre wear because the axle beam has positive camber and a narrow toe tolerance
- Easy installation/removal of the wheel hub, thanks to stepped bearing journals on the axle stub
- Long-lasting corrosion protection by cataphoretic dip-coating with zinc-phosphating, KTL



BPW ECO PLUS 3 HUB SYSTEM

Recently BPW Transpec extensively revised the warranty term periods and conditions covering many of the products that it supplies. While the new BPW ECO Plus 3 hub unit is covered by an extended 3 year or 1 million kilometer warranty* (whichever expires first), the warranty coverage period of other select products supplied by BPW Transpec have also been extended to three years or 1 million kilometers*(whichever expires first). This is an increase from the previous 1 year unlimited kilometer warranty coverage period that was available on these products.

Other select BPW Transpec supplied products are now also covered by a 2 year or 500,000 kilometer warranty period* – which is once again an increase from the previous warranty coverage period for these items of 1 year unlimited kilometers.

Please consult the latest BPW Transpec Operator's Manual for complete information regarding the new BPW warranty coverage periods – displayed on pages 4 – 7 of the Manual. These Operator's Manuals are available for download from www.bpwtranspec.com.au or on request from your nearest BPW Transpec representative.

* Terms, conditions and exclusions apply – please see published details available on request.



BPW ALLOY HUBS

OPTIONAL LIGHTWEIGHT ALLOY HUBS

In November 2018 BPW Transpec re-introduced alloy hubs for both the disc brake and drum brake BPW ECO Plus 3 axles supplied in the 10 stud 285 PCD.

- With a saving 10 kilograms per hub unit these alloy hubs, when used in conjunction with the lightweight brake drums, offer savings of around 35 kilograms per assembled axle - with no loss of the legendary BPW reliability. A saving of around 24 kilograms per assembled axle is available when these hubs are used in conjunction with the new TS2 disc brake system*. These weight savings bring the attendant benefits of better road-holding and longer tyre life.
- The alloy hubs can be identified by the legend LIGHT embossed in the alloy hubcap.
- Complete ECO Plus 3 alloy hubs can also be retrofitted to existing ECO Plus axles with steel hubs without the need for re-certification.

* Specification Dependent



TORQUE PREVAILING AXLE NUT

Bearing adjustment is extremely important. For the seal to work properly, and for bearings and lubrication to give the maximum possible life, the bearing adjustment needs to be as close to perfect as it can be – too loose, the bearings suffer and the seal doesn't work properly; too tight, the bearings run hot, they can spin and wear the axle spindle, and the lubrication life suffers. BPW bearing adjustment procedures have always been simple, which if followed result in close to ideal adjustment. These procedures involve the use of a torque wrench to help establish the correct preload. With the ECO Plus 3 hub unit, BPW has gone further and incorporated the torque limiter in to the axle nut. The bearing adjustment procedure on the ECO Plus 3 hub unit is simple, and the bearings cannot be over-tightened. The unique torque prevailing axle nut results in correct and repeatable bearing adjustment, as it will not allow over tightening of the bearings, and has a very fine adjusting system.

ECO-LI PLUS GREASE

BPW ECO Plus 3 hub units utilise semi-synthetic BPW ECO-Li Plus bearing grease, which has been used on BPW axles worldwide with great success. This is the best grease current technology can provide and is specially designed to give low friction long life lubrication with excellent resistance to water ingress.

BPW BEARINGS

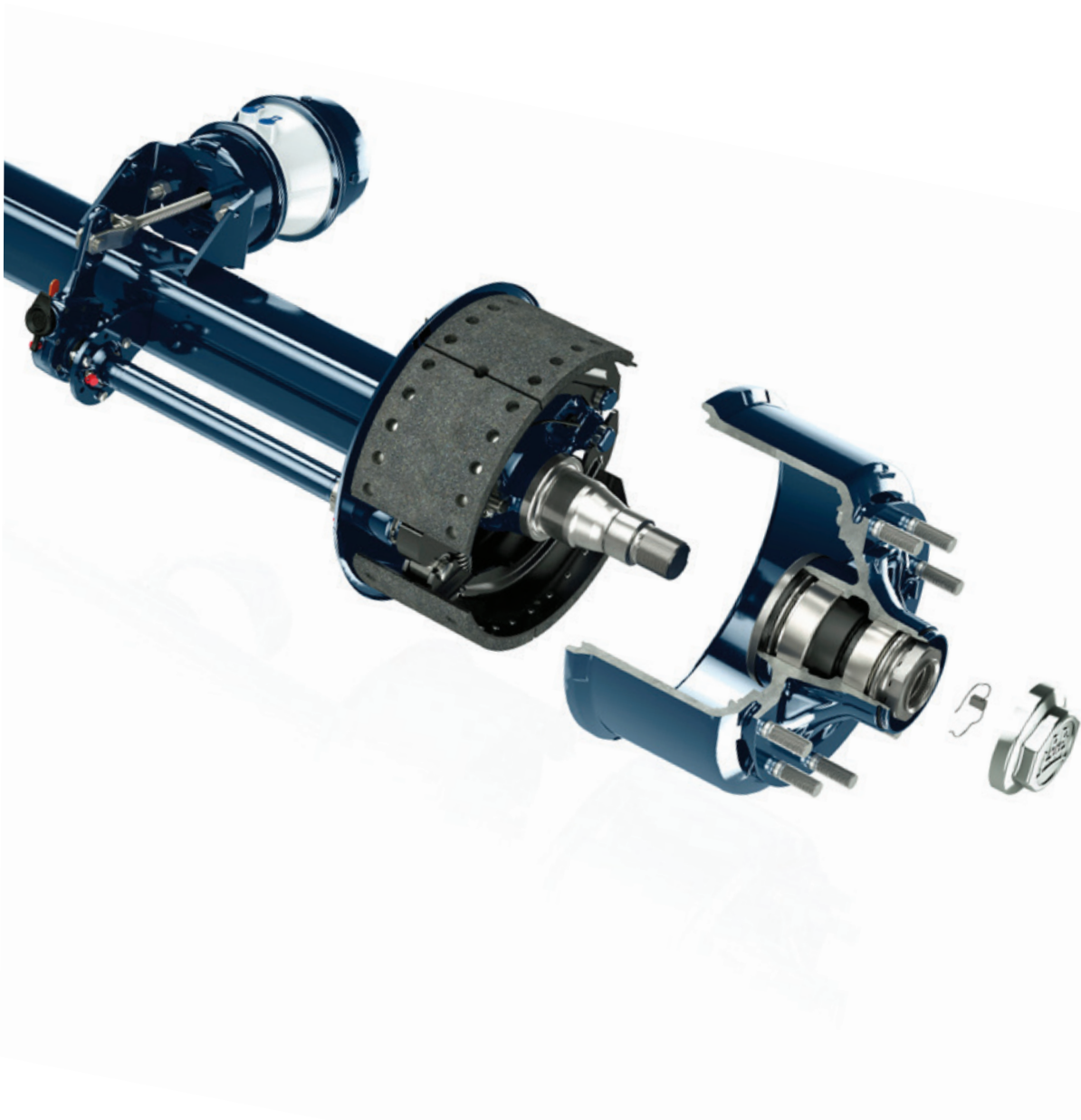
The BPW ECO-Li Plus grease was developed with the help of a wheel end test facility that BPW has established in its testing department. This facility has also been used to help improve the ISO tapered roller bearings used on BPW axles. To achieve longer service intervals on the wheel end system, bearing design and quality must be optimised. BPW has achieved a high level of competence in the tapered roller bearing field, specifying bearings to a high degree of detail, and subjecting production bearings from various suppliers to stringent testing regimes.

SERVICEABILITY

A major advantage with the BPW ECO Plus 3 hub unit is that it carries over the encapsulating circlip design from the ECO system. The axle nut, bearings and seal are held in the hub by circlips. The bearings and seal are not damaged when removing end refitting the hub to the axle, and the servicing of the hub is made easier. The BPW ECO Plus 3 hub unit is fully serviceable, unlike some competitor wheel end systems. With the BPW system the wheel end can be easily inspected and service, so only worn components will need to be replaced, which will save money for the operator in the long run.

BPW DRUM BRAKED AXLES

The proven technology and robust construction of BPW drum brakes makes them suitable for every application. They shrug off dirt and are extremely hard wearing, even under the harshest of operating conditions. And with the BPW ECO Plus Warranty, you know you're always on the safe side.



FEATURES AND BENEFITS OF DRUM BRAKED AXLES INCLUDE:

- Universal applicability
- Lower operating and spare parts costs
- Quick and easy brake service, thanks to the patented ECO Plus principle
- Electronic trailer brake systems (EBS) suitability
- Constantly high braking effort throughout the entire service life of the brake lining
- Large amount of friction material
- Not susceptible to malfunctions thanks to a proven design principle coupled with high-quality components
- Enclosed construction enables use under the harshest conditions
- Compact in design
- Low-maintenance and low-wear camshafts/bearings and
- Low thermal load on surrounding parts.



Quick Change Brake Shoe

The sound basic design of the BPW foundation brake ensures minimal wear of the critical components and keeps both the brake linings and brake drum in constant repeatable contact with each other when the brakes are applied. This produces a significant contribution to the longevity of all brake components. Long lasting and safe braking is the result.

NON-ASBESTOS LININGS

BPW axles are supplied with non-asbestos brake linings.

ANTI-SKID BRAKES

BPW axles are designed for the simple installation of anti-skid brake (ABS) hub hardware. The hubs are machined to accept pole rings and (in the case of square beams) the axle beam has the provision for installation for the sensor without the need for welding. Retro-fit of ABS hub hardware on BPW axles is a simple operation. BPW axles can also be supplied with factory-installed BPW ABS hub hardware.

EFFECTIVE CAMSHAFT BUSHES

BPW camshaft bushes include sintered metal high lubricant capacity spherical self-aligning inner bushes as well as outer brass bushes to ensure smooth brake application and low wear factors, for both the bushes and the camshaft.

CAM TUBES

BPW offers an option for closed camshafts for severe conditions.

BPW AUTOMATIC SLACK ADJUSTERS

BPW ECO Master slack adjusters have been designed by BPW, specifically for BPW axles. This ensures optimum brake adjustment to provide constant braking performance and safety, while reducing maintenance requirements. BPW Automatic slack adjusters are standard on drum braked BPW axles.

DUSTCOVERS THAT WORK

BPW has designed its foundation brake assembly to include a dust protection/dust exclusion feature. The BPW designed backing plates minimise the ingress of dust to the brake linings to further extend brake life. Inspection holes are included in these dust covers for quick and easy rake lining wear checks.



Dust Cover



Automatic Slack Adjuster

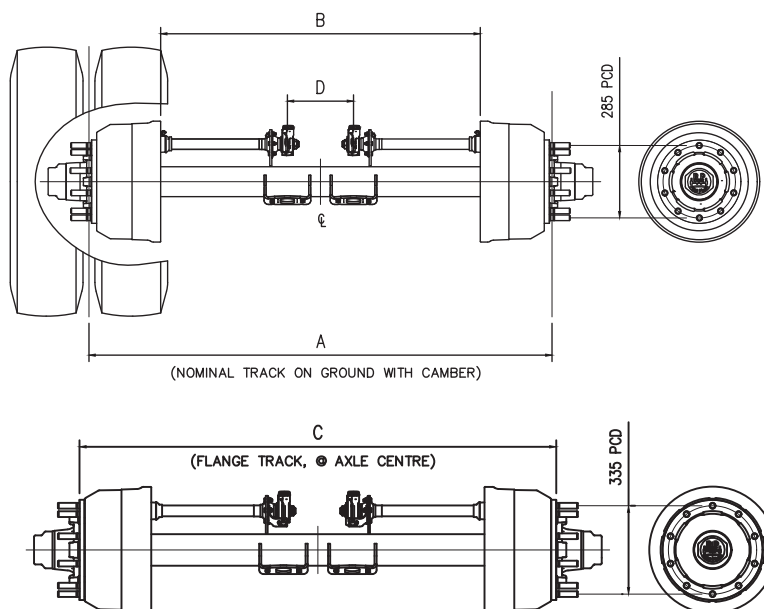


Cam tube



Camshaft

SPECIFICATIONS



	AXLE MODEL	HUB	AXLE BEAM	A Nominal track on ground (mm)	B Nominal b/w drum (mm)	C Flange track (mm)	D slack adjuster centres	Camshaft location (drawing no.)	Axle capacity 1,200mm spring centres (kg)	Tare weight per axle assembly (kg)
TO SUIT 20" SINGLE TYRES	HSM10110-15	Single 10 stud 335 PCD ECO Plus 3 hub	120sq x 15mm	2,010 with steel wheels	1,462	2,007	461	BL-04	12,000	336
	HSM10010-16		150sq x 16mm					BL-06		358
	RSM10010		Ø127 x 17.5mm					BL-08		
	HSA10110-15	Single 10 stud 285 PCD ECO Plus 3 hub*	120sq x 15mm	2,010 with steel wheels	1,462	2,007	461	BL-04	12,000	336
	HSA10010-16		150sq x 16mm					BL-06		358
	RSA10010		Ø127 x 17.5mm					BL-08		340

Axle capacity: Above figures are for vehicles travelling at 105 km/h, with axles mounted at 980mm spring centres on spring suspensions, and 950mm centres on BPW airbag suspensions.

10 Stud Axles: Are supplied with wheel nuts to suit ISO spigot aligned wheels.

Lubrication: ECO Li-Plus semi-synthetic long life bearing grease.

Slack Adjuster: BPW ECO-Master automatic slack adjusters as standard.

Tare Weights and Dimensions: Are subject to normal manufacturing tol-

erances.

Camshaft locations: Note the standard booster locations listed above may not suit all suspension configurations. Other booster location options are available. Refer booster location chart in this brochure.

Spider hubs: not available for single tyres.

***Alloy hubs** available with 10 stud 285 PCD add 20mm to track tare weight reduction 20kg

AXLE MODEL	HUB ECO Plus 10/12 Tonne	AXLE BEAM	A Nominal Track on Ground (mm)	B Nominal b/w Drum (mm)	C Flange Track (mm)	D Slack Adjuster Centres	CRAMSHAFT LOCATION (Drawing No.)	AXLE CAPACITY With spring suspension (kg)	AXLE CAPACITY With airbag suspension (kg)	TARE WEIGHT per Axle (kg)	
HXZ10100-15	Dual Spider	120sq x 15mm	1,840-1,850 depending on rim size	1,262	n/a	261	BL-04	12,000	10,000	380	TO SUIT 20" DUAL TYRES
HXZ10000-16		150sq x 16mm					BL-06		12,000	400	
RXZ10000		Ø127 x 17.5mm		1,265		264	BL-08	11,000	n/a	384	
RXZH10000							BL-09	11,000			
HZM10110-15	Dual 10 Stud 335mm PCD	120sq x 15mm	1,820 with steel wheels	1,262	1,807	261	BL-04	12,000	10,000	326	
HZM10010-16		150sq x 16mm					BL-06		12,000	348	
RZM10010		Ø127 x 17.5mm	1,840 with aluminium wheels	1,265	1,810	264	BL-08	11,000	n/a	330	
RZMH10010							BL-09	11,000			
HZA10110-15	Dual 10 Stud 285mm PCD*	120sq x 15mm	1,820 with steel wheels	1,262	1,807	261	BL-04	12,000	10,000	326	
HZA10010-16		150sq x 16mm					BL-06		12,000	348	
RZA10010		Ø127 x 17.5mm	1,840 with aluminium wheels	1,265	1,810	264	BL-08	11,000	n/a	330	
RZAH10010							BL-09	11,000			
KHZM10108-15	Dual 8 Stud 275mm PCD	120sq x 15mm	1,825 with alloy wheels	1,250	1,807	263	BL-11	11,500	10,000	326	TO SUIT 19.5" DUAL TYRES
			1,845 with alloy wheels								
NHZM10110-15	Dual ECO Plus 10/225mm PCD	120sq x 15mm	1,950 with steel wheels	1,355	1,930	307	BL-36	10,000	10,000	298	TO SUIT 15" DUAL TYRES
			1,837	1,245	1,807	271	BL-36	10,000	10,000	296	

Axle capacity: Above figures are for vehicles travelling at 105 km/h, with axles mounted at 980mm spring centres on spring suspensions, and 950mm centres on BPW airbag suspensions.

10 Stud Axles: Are supplied with wheel nuts to suit ISO spigot aligned wheels.

Dual Spider Hubs: 20" accept 4.25" spacer bands.

Lubrication: ECO Li-Plus semi-synthetic long life bearing grease.

Slack Adjuster: BPW-ECO-Master automatic slack adjusters as standard, manual slack adjusters only on request.

Tare Weights and Dimensions: Are subject to normal manufacturing tolerances.

Camshaft locations: Note the standard booster locations listed above may not suit all suspension configurations. Other booster location options are available. Refer booster location chart in this brochure.

Spider hubs: not available for single tyres and not for 19.5" and 15".

Alloy hub: only available for 10 stud 285 PCD; alloy hub adds 20mm to Flange track and reduces weight 20kgs.

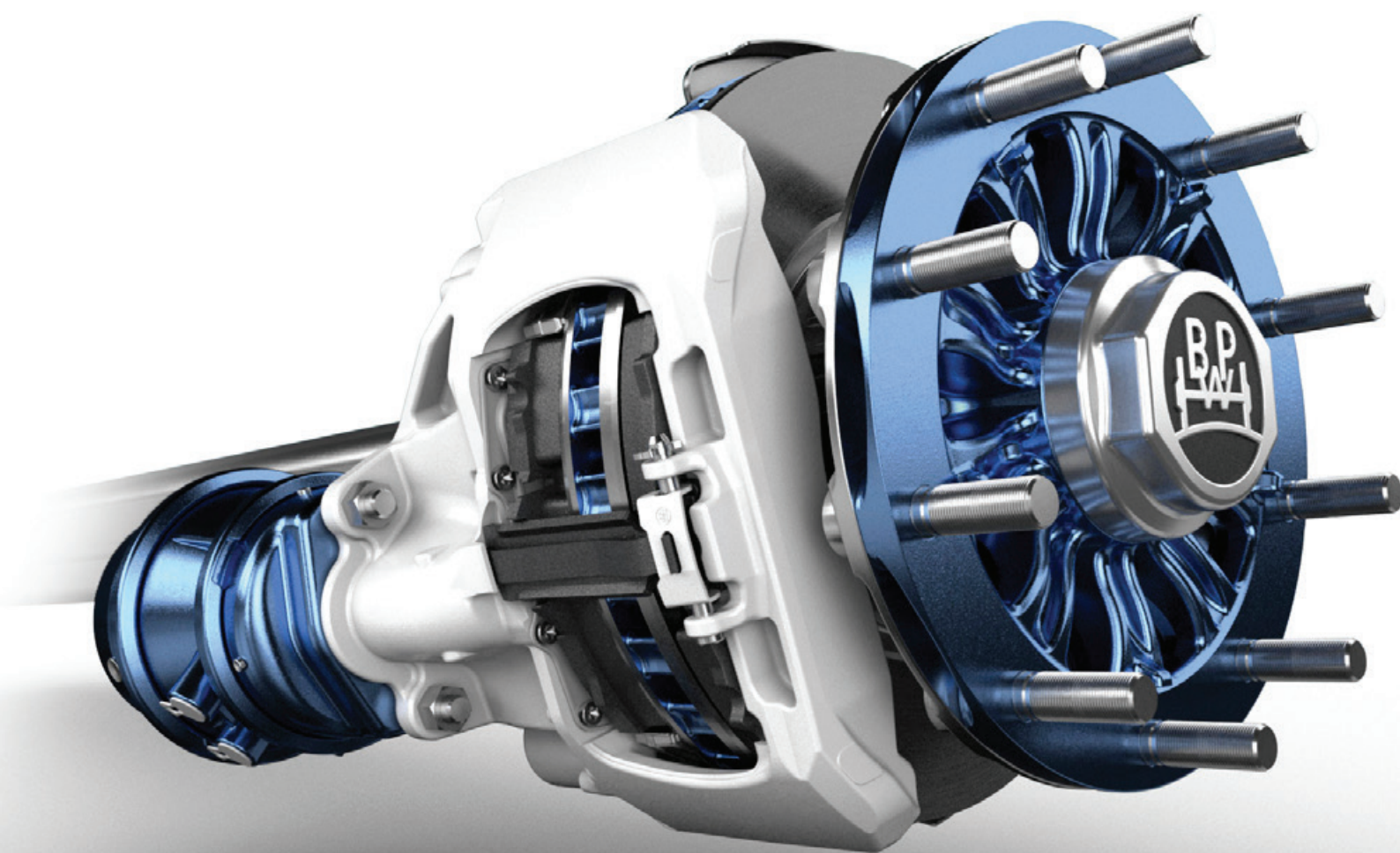
<< Direction of Travel

127MM ROUND AXLE BEAM SN4218 Brakes, for 20/22.5" tyres		150MM SQUARE AXLE BEAM SN4218 Brakes, for 20/22.5" tyres	
STANDARD OVERSLUNG	STANDARD UNDERSLUNG	STANDARD	OPTIONAL
BL-08	BL-09	BL-06	BL-07
<p>Technical drawing of the BL-08 standard overslung brake assembly. It shows a side view of the brake components mounted on a round axle beam. Dimensions include a total width of 107mm, a mounting bracket height of 75mm, a wheel hub diameter of 152mm, and a distance of 102mm from the centerline to the outer edge of the brake shoe.</p>	<p>Technical drawing of the BL-09 standard underslung brake assembly. It shows a side view of the brake components mounted on a round axle beam. Dimensions include a total width of 107mm, a mounting bracket height of 75mm, a wheel hub diameter of 152mm, and a distance of 102mm from the centerline to the outer edge of the brake shoe.</p>	<p>Technical drawing of the BL-06 standard square axle beam brake assembly. It shows a side view of the brake components mounted on a square axle beam. Dimensions include a total width of 107mm, a mounting bracket height of 75mm, a wheel hub diameter of 152mm, and a distance of 102mm from the centerline to the outer edge of the brake shoe.</p>	<p>Technical drawing of the BL-07 optional square axle beam brake assembly. It shows a side view of the brake components mounted on a square axle beam. Dimensions include a total width of 107mm, a mounting bracket height of 75mm, a wheel hub diameter of 152mm, and a distance of 102mm from the centerline to the outer edge of the brake shoe.</p>

NOTE

trailer manufacturer, taking into consideration axle loads, tyre size, vehicle configuration and regulatory requirements. With the above diagrams, the booster size and slack adjuster mounting locations are shown for reference only. Dimensional drawings are available from BPW Transpec.

BPW DISC BRAKED AXLES



INTRODUCTION

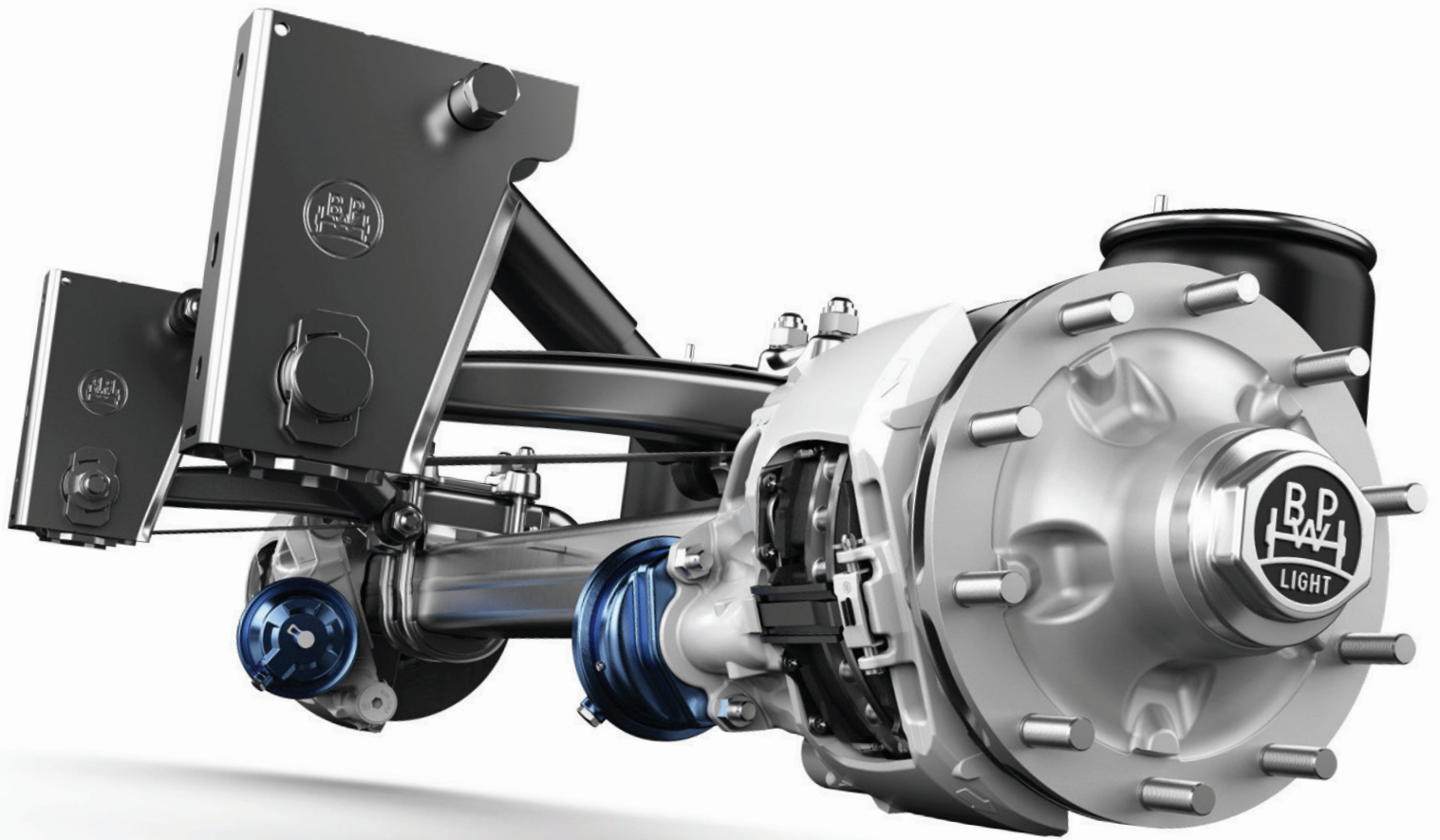
Building on the proven BPW TSB disc brake system the new BPW TS2 disc brake system offers several unique features to take trailer disc brake systems into the future.

- Long service life thanks to the latest single-tappet technology and proven cathaphoretic dip-coating with zinc phosphating (KTL) which reduces damage caused by corrosion.
- Minimum operating costs thanks to Offset Tappet Design (OTD)*
- Maximum reliability ensured by Multifunctional Adjuster (MFA)*
- Easier brake adjustment for the operator. Using only a 13mm spanner
 - tighten up the brake until the wheels do not turn, then turn the rear mounted adjustment screw back a quarter turn (90°), and then apply the brakes ten times. The built-in automatic slack adjuster system will set the correct brake gap for you.
- A useful weight saving of up to 4kg per axle reduces un-sprung weight with the attendant benefits of better road-holding and longer tyre life.**
- Please visit our website - www.bpwtranspec.com.au/products/bpw-axles - to view a video on the operation of the new BPW TS2 disc brake system.
- The previous style TSB parts including axle beams will still be available for VOR (vehicle off road – or breakdown) situations while all new order axles will come as standard with the new TS2 disc brake system.

* Patent Pending

** Weight Savings are Model and Specification Dependent

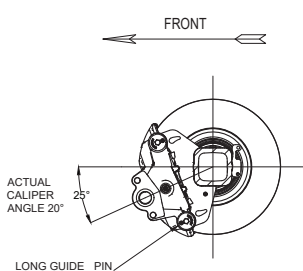
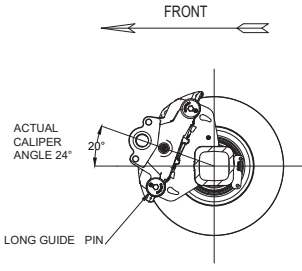




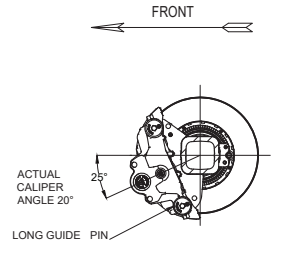
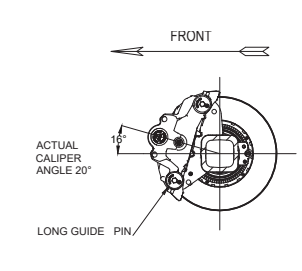
FEATURES AND BENEFITS OF BPW TS2 DISC BRAKED AXLES INCLUDE

- Notable weight savings when compared to drum braked axles.
- Superior brake performance when compared to drum braked axles.
- Automatic brake adjustment via an in-built slack adjuster.
- No requirement for routine lubrication of the caliper or caliper slides.
- Straightforward brake pad replacement and subsequent caliper adjustment.
- Single tappet design for more efficient braking performance and longer brake component life.
- Designed to minimize wear and tear of the critical internal caliper components.
- The outcome of decades of in-field performance experience from around the world.

BOOSTER LOCATIONS

120MM SQUARE AXLE BEAM TS2 4309 BPW Eco Disc Brake	
STANDARD TO SUIT OVERSLUNG SUSPENSIONS	STANDARD TO SUIT UNDERSLUNG SUSPENSIONS
BL-38	BL-39
 <p>FRONT</p> <p>ACTUAL CALIPER ANGLE 20°</p> <p>LONG GUIDE PIN</p> <p>TS2 4309 OVERSLUNG BL-38</p> <p><<</p>	 <p>FRONT</p> <p>ACTUAL CALIPER ANGLE 24°</p> <p>LONG GUIDE PIN</p> <p>TS2 4309 UNDERSLUNG BL-39</p> <p><<</p>

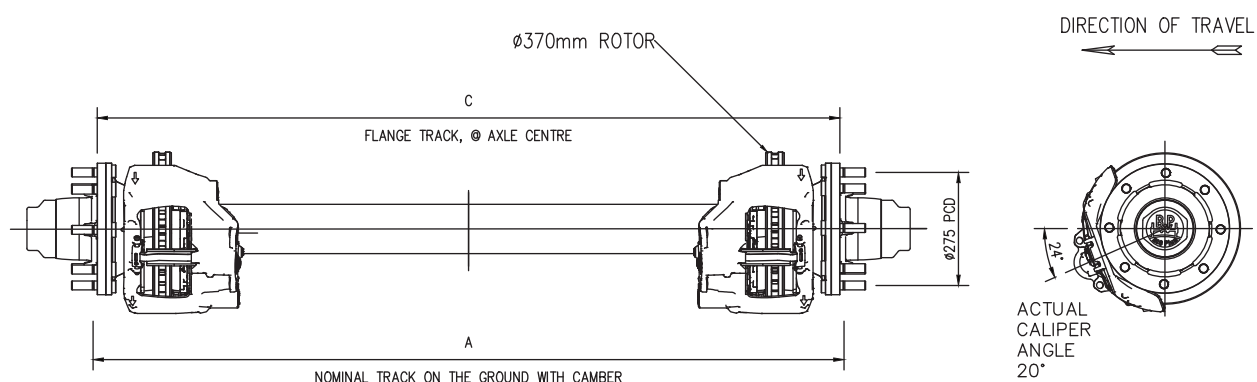
Main Guide Pin
(i.e., Longer Pin) to
be positioned
to bottom

120MM SQUARE AXLE BEAM TS2 3709 BPW Eco Disc Brake	
STANDARD TO SUIT OVERSLUNG SUSPENSIONS	STANDARD TO SUIT UNDERSLUNG SUSPENSIONS
BL-42	BL-43
 <p>FRONT</p> <p>ACTUAL CALIPER ANGLE 20°</p> <p>LONG GUIDE PIN</p> <p>TS2 3709 OVERSLUNG BL-42</p> <p><<</p>	 <p>FRONT</p> <p>ACTUAL CALIPER ANGLE 20°</p> <p>LONG GUIDE PIN</p> <p>TS2 3709 UNDERSLUNG BL-43</p> <p><<</p>

Main Guide Pin
(i.e., Longer Pin) to
be positioned
to bottom

NOTE
Dimensional Drawings are available from BPW Transpec.

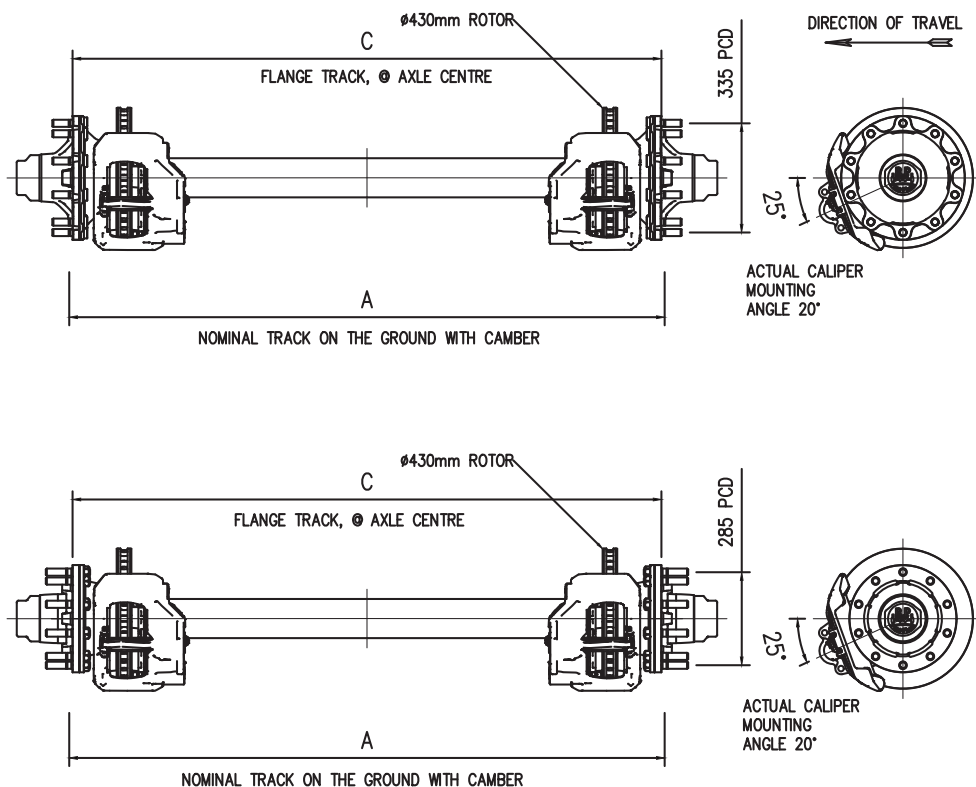
SPECIFICATIONS



AXLE MODEL	HUB	AXLE BEAM	A Nominal Track on Ground (mm)	B Nominal b/w Drum (mm)	C Flange Track (mm)	D Slack Adjuster Centres	CRAMSHAFT LOCATION (Drawing No.)	AXLE CAPACITY With spring sus- pension (kg)	AXLE CAPACITY With airbag sus- pension (kg)	TARE WEIGHT per Axle (kg)	TO SUIT 19.5" DUAL TYRES
SKHZM10108-15	Dual 8 stud 275mm PCD	120sq x 15mm	1,825 with steel wheels 1,845 with alum wheels	1,250	1,807	263	BL-42 BL-43	11,500	10,000	295	

Axle capacity: Above figures are for vehicles travelling at 105 km/h, with axles mounted at 980mm spring centres on spring suspensions, and 950mm centres on BPW airbag suspensions.
10 Stud Axles: Are supplied with wheel nuts to suit ISO spigot aligned wheels.
 For 10 stud 285 dual alloys the standard wheel hole diameter 26mm is required.
 For 10 stud 335 dual alloys the wheel hole diameter of 32mm or 33mm and BPW sleeved axle nuts are required.

Lubrication: ECO Li-Plus semi-synthetic long life bearing grease.
Tare Weights and Dimensions: Are subject to normal manufacturing tolerances.
Booster locations: Note the standard booster locations listed above may not suit all suspension configurations. Other booster location options are available. Refer booster location chart in this brochure.
Spider hubs: not available for disc brakes.



AXLE MODEL	HUB ECO Plus 10/12 Tonne	AXLE BEAM	A Nominal Track on Ground (mm)	C Flange Track (mm)	BOOSTER LOCATION (Drawing No.)	AXLE CAPACITY With spring sus- pension (kg)	AXLE CAPACITY With airbag sus- pension (kg)	TARE WEIGHT per Axle (kg)	TO SUIT 20" DUAL / SINGLE TYRES
SHZM10110-15	Dual 10 stud 335mm PCD	120sq x 15mm	1,820 with steel wheels 1,840 with alum wheels	1,807	BL- 38&39	12,000	10,000	316	
SHZA10110-15	Dual 10 stud 285mm PCD*	120sq x 15mm	1,820 with steel wheels 1,840 with alum wheels	1,807	BL- 38&39	12,000	10,000	304	
SHSM10110 -15	Single 10 stud 335mm PCD	120sq x 15mm	2,053 with steel wheels 2,063 with alum wheels	2,048	BL- 38&39	12,000	10,000	327	
SHSA10110 -15	Single 10 stud 285mm PCD*	120sq x 15mm	2,053 with steel wheels 2,063 with alum wheels	2,048	BL-38 &39	12,000	10,000	315	

Axle capacity: Above figures are for vehicles travelling at 105 km/h, with axles mounted at 980mm spring centres on spring suspensions, and 950mm centres on BPW airbag suspensions.

10 Stud Axles: Are supplied with wheel nuts to suit ISO spigot aligned wheels.

Lubrication: ECO Li-Plus semi-synthetic long life bearing grease.

Tare Weights and Dimensions: Are subject to normal manufacturing tolerances.

Booster locations: Note the standard booster locations listed above may not suit all suspension configurations. Other booster location options are available. Refer booster location chart in this brochure.

Spider hubs: not available for single tyres and not for disc brakes.

***Alloy hubs** available with 10 stud 285 PCD add 20mm to track tare weight reduction 20kg

BPW SELF-STEERING AXLES

CORNER SAFELY AND SMOOTHLY USING THE BPW SELF STEERING AXLE

The enormous advantages of the steering axle include better manoeuvrability, reduced wear on all tyres and less fuel consumption. As a result, the BPW self-steering axle is the right economical solution for delivery and distribution trailers, with operations chiefly consisting of journeys in congested metropolitan and city areas.

Conventional steering axle designs require steering stabilisers powered from an external source – this is not the case with the BPW self-steering axle. The axle beam and axle stub are connected with undulating thrust bearings via steering pivots.

When driving straight ahead the undulations in the thrust washers help keep the wheels pointing straight ahead. The weight of the vehicle presses the undulating contours of the upper and lower thrust washers to keep the wheels on track. The wheels remain stable in the correct straight-ahead position.



Undulating pressure bearing in the 'straight ahead' position (left) and 'steering' position (right)

When the semi-trailer follows the prime mover unit into a curve, the wheel caster action ensures the wheels turn in accordance with the curve radius (the thrust washers slide over one another). The self centering force generated by the thrust washers increases with axle load, which is what is required. As a result, a steering angle (of 8 to 27 deg, depending on the axle type) is achieved according to the load, and is entirely controlled by mechanical means. The link connecting the wheels uses a steering lock to prevent the wheels from steering when the vehicle is reversing.

The BPW steering axle means that the trailer corners better and more closely follows the same track as the truck. The lateral tyre forces arising are optimally distributed between all the axles, especially with a tri-axle trailer. Every axle experiences significantly lower lateral tyre forces; as a result, it has been shown that the life of the tyres on the front axle and the rear axles increases dramatically on a tri-axle trailer when fitted with a steer axle.

The BPW-developed undulating pressure bearing system is both low maintenance and rugged due to its simplicity. The BPW self-steering axle is available with a range of BPW brake systems, and to suit single or dual tyres. Self-steering axles must be fitted in axle groups that have non-steering axles as well, a maximum of one self-steering axle can be fitted on a tandem or triaxle group, and up to two self-steering axles can be fitted on a quad axle group.



BPW SELF STEERING TRAILER AXLES

9 to 12 tonne
AUSTRALIAN RANGE

BPW MODEL RANGE	TO SUIT TYRE SIZE	BRAKE MODEL	BRAKE TYPE	BRAKE SIZE	WEIGHT (STEEL HUB) (KG)	FLANGE TRACK MM * (STEEL HUB)	120mm Square	150mm Square	Spider	10 stud 225mm	8 stud 275mm	10 stud 285mm	10 stud 335mm
HZMLL	20", 22.5"	SN4218	Drum	Ø420x180	521	1807		•	575			•	•
MZMHLL	20", 22.5"	SN4218	Drum	Ø420x180	506	1807	•		560			•	•
KMZMLL	19.5"	SN3620	Drum	Ø360x200	480	1818	•				•		
NMZMLL	15", 17.5"	SN3020	Drum	Ø300x200	500	1930	•			•			
SMZLL	20", 22.5"	TS2 4309	Disc	Ø430	494	1807	•					•	•
SKMZHLL	19.5"	TS2 3709	Disc	Ø370mm	480	1807	•				•		

Alloy hub: only available for 10 stud 285 PCD; alloy hub adds 20mm to Flange track and reduces weight 20kgs.
Steer Damper: Heavy duty add 4kg.

ADDITIONAL INFORMATION

AXLES

AXLE LOAD CAPACITY

The axle load capacities given are for axles installed with conventional spring suspensions at the nominated spring centres and should be regarded as maximum figures at 105km/h.

The following increases are permissible at reduced speeds:

- Maximum speed 40km/h plus 10%
- Maximum speed 25km/h plus 25%
- Maximum speed 10km/h plus 40%

When the axle is installed with other suspension types, axle capacity may change. Axle capacity may also be affected by changing the spring centres.

TRACK

Alternative Axle Tracks are available to special order.

8/10 STUD TYPE WHEEL FIXING

BPW axles with 8 Stud or 10 Stud Wheel fixing are offered as standard with ISO spigot alignment type wheel location.

Stud alignment is available as an option on most BPW axles.

AXLE BEAM CAMBER

BPW axles are supplied with positive camber. Round beam BPW axles have a top mark to ensure correct orientation.

LUBRICATION

BPW axles are lubricated with long life semi-synthetic ECO-Li Plus grease.

CAMSHAFT ROTATION

ALL BPW drum brake axles should be fitted with camshaft rotation to be in the same direction as the wheel rotation in forward motion.

BPW ADR APPROVAL NUMBERS

BPW brakes conform to ADR38/05

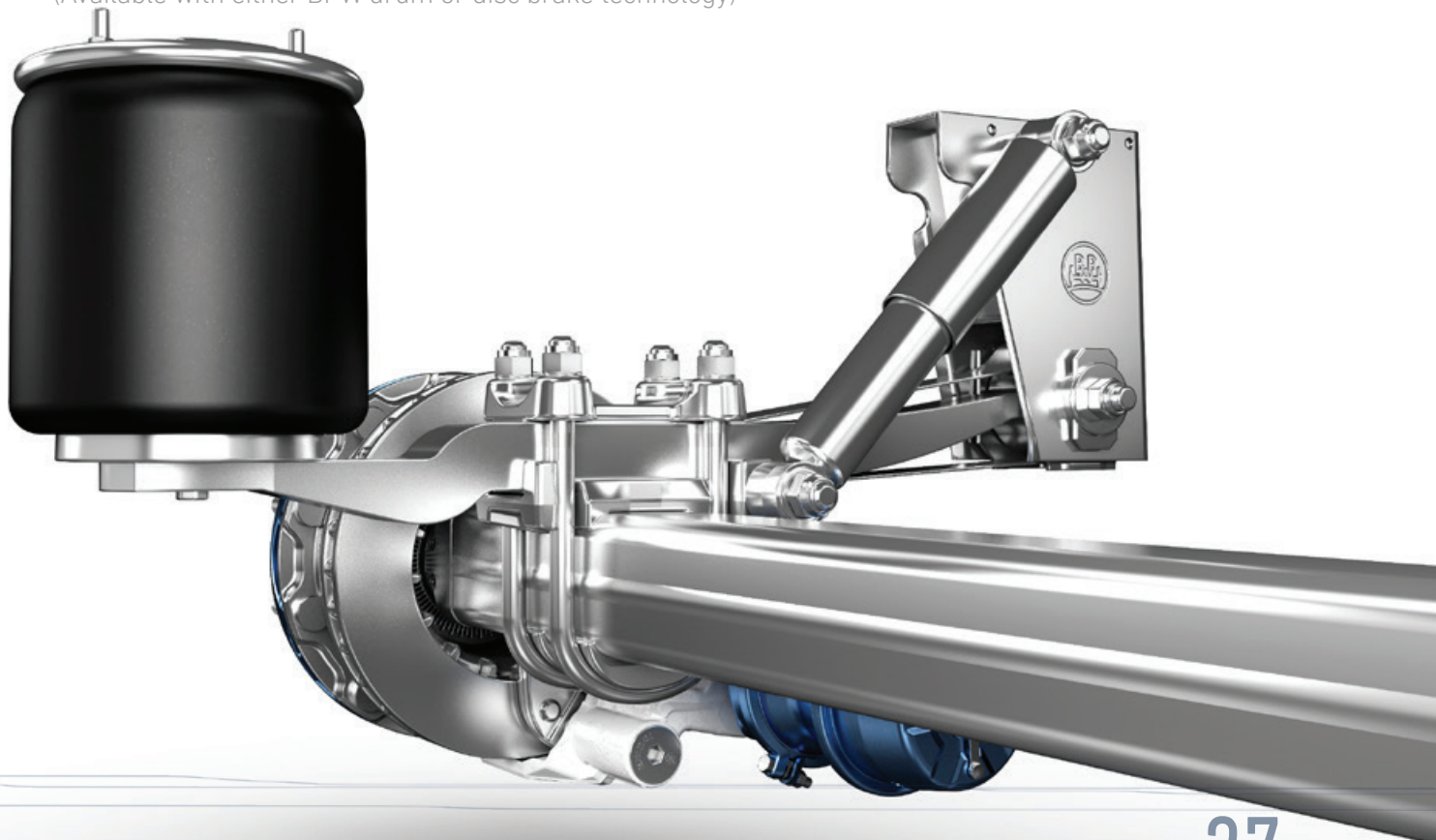
BRAKE SIZE/MODEL	SARN APPROVAL NO.	CTA NO.	APPLICATION	AXLE RATING
Ø430 Disc TS2 4309	50230	050230	Axles for 22.5" tyres	14T
Ø370 Disc TS2 3709	50229	050229	Axles for 19.5" tyres	11T
Ø430 Disc TSB 4309	31666	-	Axles for 20"/22.5" tyres	13T
Ø370 Disc TSB 3709	25677	-	Axles for 19.5" tyres	11.5T
Ø420x200 Drum SN4220	25474	025474	Axles for 20"/22.5"/24" wheels over 12 tonne capacity	13.5T
Ø420x180 Drum SN4218	6916	006916	Axles for 20"/22.5" wheels up to 12 tonne capacity	12T
Ø360x200 Drum SN3620	10155	010155	Axles for 19.5" wheels	11.5T
Ø300x200 Drum SN3020	16593	016593	Axles for 15"/17.5" wheels	10.5T
Ø300x150 Drum SN3015	41670	041670	Axles for 15"/17.5" wheels TEXTAR T090	9T
Ø300x150 Drum SN3015	50840	050840	Axles for 15"/17.5" wheels 300x150R	8.5T
Ø300x150 Drum SN3015	50841	050841	Axles for 15"/17.5" wheels 300x150F	7.5T

BPW AIRLIGHT II AIR SERIES SUSPENSIONS

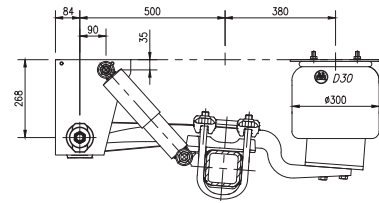
BPW Airlight AL II Highway series suspensions have highly efficient monoleaf 70mm wide trailing arm springs, pressed hangers, webbing sling axle restraints (wrapped around the shock absorbers) and are supplied as standard with BPW Type 30 or 30K airbags. On most Airlight II models, cable catchstraps and Type 36 airbags are available as options.

FEATURES AND BENEFITS OF BPW AIRLIGHT II AIR SUSPENSIONS:

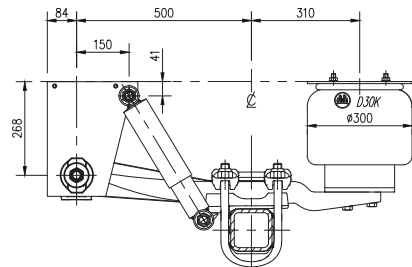
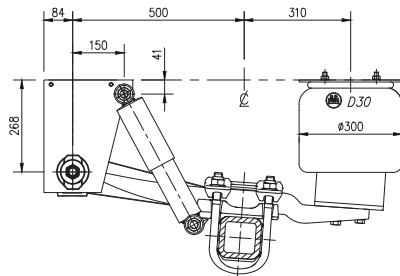
- Less tare weight yet stronger components
 - Greater roll stiffness than previous Highway Series suspensions thanks to the new trailing arm
 - Flexible trailing arm offers best possible wheel control, safer driving characteristics with reduced stress on the trailer chassis
 - Highest driving comfort and sensitive 'soft-ride' handling of the cargo
 - Easy to service - thanks to the modular design
 - Easy to install - due to the narrow, straight hanger brackets
 - Excellent stability characteristics and optimum roll resistance
 - Reduced tyre wear due to the axle control of the steel-rubber-steel bushes
 - Optimum axle load equalisation
 - National off-the-shelf genuine spare parts for minimal downtime
- (Available with either BPW drum or disc brake technology)



AUSTRALIAN RANGE STANDARD OVERSLUNG

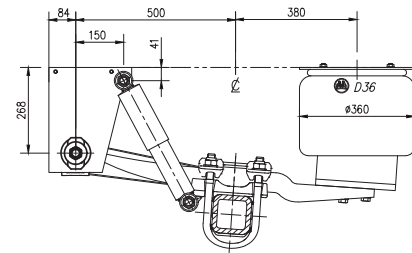
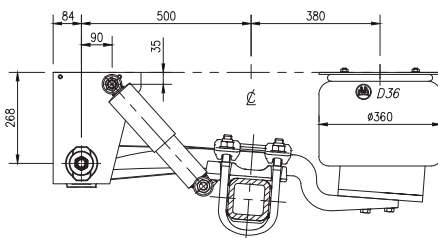


AM/-D30 BPW 120mm Square Axle beam			
RIDE HEIGHT (Range) (mm)	RIDE HEIGHT with Axle lift (mm)	HEIGHT WITHOUT AIR	
		LADEN (mm)	UNLADEN (mm)
375-395	395	290	305
CAPACITY (kg)	TARE WEIGHT/ AXLE MODULE (kg)	DRAWING NUMBER	
9,000	169	AM-0003 AM-0003FA	



AO/-D30 BPW 120mm Square Axle beam			
RIDE HEIGHT (Range) (mm)	RIDE HEIGHT with Axle lift (mm)	HEIGHT WITHOUT AIR	
		LADEN (mm)	UNLADEN (mm)
460-480	480	375	390
CAPACITY (kg)	TARE WEIGHT/ AXLE MODULE (kg)	DRAWING NUMBER	
9,000	155	AO-0004FA AO-0004	

AO/-D30K BPW 120mm Square Axle beam			
RIDE HEIGHT (Range) (mm)	RIDE HEIGHT with Axle lift (mm)	HEIGHT WITHOUT AIR	
		LADEN (mm)	UNLADEN (mm)
425-455	455	345	360
CAPACITY (kg)	TARE WEIGHT/ AXLE MODULE (kg)	DRAWING NUMBER	
9,000	153	AO-0005FC AO-0005FD	

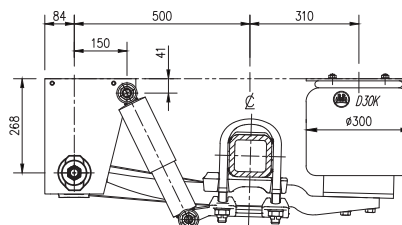


AM/-D36 BPW 120mm Square Axle beam			
RIDE HEIGHT (Range) (mm)	RIDE HEIGHT with Axle lift (mm)	HEIGHT WITHOUT AIR	
		LADEN (mm)	UNLADEN (mm)
375-395	395	290	305
CAPACITY (kg)	TARE WEIGHT/ AXLE MODULE (kg)	DRAWING NUMBER	
10,000	177	AM-0005 AM-0005FA	

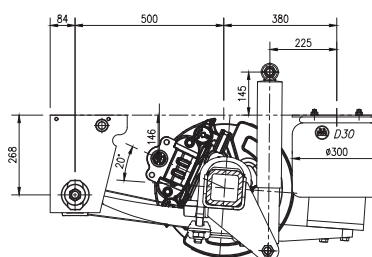
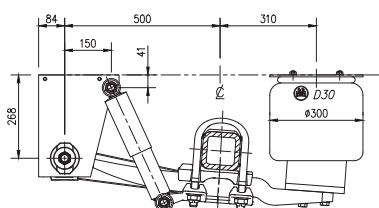
AO/-D36 BPW 120mm Square Axle beam			
RIDE HEIGHT (Range) (mm)	RIDE HEIGHT with Axle lift (mm)	HEIGHT WITHOUT AIR	
		LADEN (mm)	UNLADEN (mm)
460-480	480	375	390
CAPACITY (kg)	TARE WEIGHT/ AXLE MODULE (kg)	DRAWING NUMBER	
10,000	169	AO-0009 AO-0009FA	

AUSTRALIAN RANGE

STANDARD UNDERSLUNG

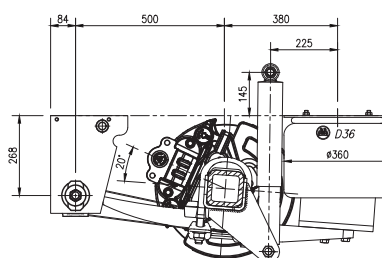
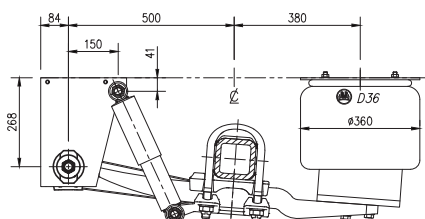


AU/-D30K BPW 120mm Square Axle beam			
RIDE HEIGHT (Range) (mm)	RIDE HEIGHT with Axle lift (mm)	HEIGHT WITHOUT AIR	
		LADEN (mm)	UNLADEN (mm)
210-250	245-250	130	145
CAPACITY (kg)	TARE WEIGHT/ AXLE MODULE (kg)	DRAWING NUMBER	
9,000	153	AU-0004	



AU/-D30 BPW 120mm Square Axle beam			
RIDE HEIGHT (Range) (mm)	RIDE HEIGHT with Axle lift (mm)	HEIGHT WITHOUT AIR	
		LADEN (mm)	UNLADEN (mm)
245-265	265	160	175
CAPACITY (kg)	TARE WEIGHT/ AXLE MODULE (kg)	DRAWING NUMBER	
9,000	155	AU-0011	

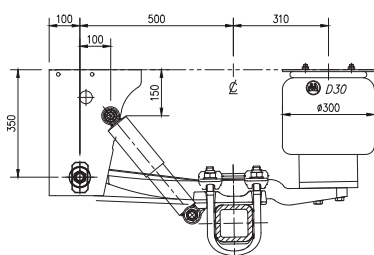
AU/-D30 BPW 120mm Square Axle beam and BPW Disc Brake			
RIDE HEIGHT (Range) (mm)	RIDE HEIGHT with Axle lift (mm)	HEIGHT WITHOUT AIR	
		LADEN (mm)	UNLADEN (mm)
245-265	265	160	175
CAPACITY (kg)	TARE WEIGHT/ AXLE MODULE (kg)	DRAWING NUMBER	
9,000	177	AU-0002FF AU-0002FA	



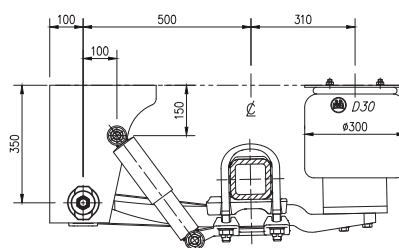
AU/-D36 BPW 120mm Square Axle beam			
RIDE HEIGHT (Range) (mm)	RIDE HEIGHT with Axle lift (mm)	HEIGHT WITHOUT AIR	
		LADEN (mm)	UNLADEN (mm)
245-265	265	160	175
CAPACITY (kg)	TARE WEIGHT/ AXLE MODULE (kg)	DRAWING NUMBER	
10,000	169	AU-0013 NA	

AU/-D36 BPW 120mm Square Axle beam and BPW Disc Brake			
RIDE HEIGHT (Range) (mm)	RIDE HEIGHT with Axle lift (mm)	HEIGHT WITHOUT AIR	
		LADEN (mm)	UNLADEN (mm)
245-265	265	160	175
CAPACITY (kg)	TARE WEIGHT/ AXLE MODULE (kg)	DRAWING NUMBER	
10,000	182	AU-0017 FA AU-0017	

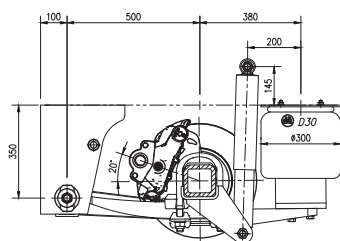
SPECIAL CONFIGURATIONS



AO/-D30 BPW 120mm Square Axle beam			
RIDE HEIGHT (Range) (mm)	RIDE HEIGHT with Axle lift (mm)	HEIGHT WITHOUT AIR	
		LADEN (mm)	UNLADEN (mm)
500-550	520-550	405	420
CAPACITY (kg)	TARE WEIGHT/ AXLE MODULE (kg)	DRAWING NUMBER	
9,000	163	AO-0011 AO-0011FA	

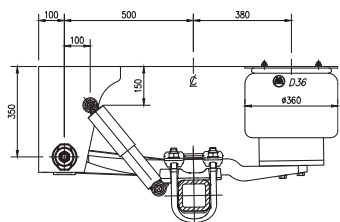


AU/-D30 BPW 120mm Square Axle beam			
RIDE HEIGHT (Range) (mm)	RIDE HEIGHT with Axle lift (mm)	HEIGHT WITHOUT AIR	
		LADEN (mm)	UNLADEN (mm)
280-335	305-335	190	205
CAPACITY (kg)	TARE WEIGHT/ AXLE MODULE (kg)	DRAWING NUMBER	
9,000	164	AU-0014	

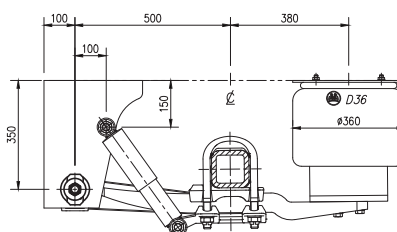


AU/-D30 BPW 120mm Square Axle beam			
RIDE HEIGHT (Range) (mm)	RIDE HEIGHT with Axle lift (mm)	HEIGHT WITHOUT AIR	
		LADEN (mm)	UNLADEN (mm)
285-335	315-335	200	215
CAPACITY (kg)	TARE WEIGHT/ AXLE MODULE (kg)	DRAWING NUMBER	
9,000	186	AU-0016FF AU-0016FA	

AIR SUSPENSION SARN		CTA NO.
Single	7223	007223
Tandem	6213	006213
Tri	9117	009117
Quad	11386	011386
Road friendly If applicable	2019	-



AO/-D36 BPW 120mm Square Axle beam			
RIDE HEIGHT (Range) (mm)	RIDE HEIGHT with Axle lift (mm)	HEIGHT WITHOUT AIR	
		LADEN (mm)	UNLADEN (mm)
500-550	530-550	415	430
CAPACITY (kg)	TARE WEIGHT/ AXLE MODULE (kg)		DRAWING NUMBER
10,000	177		AO-0014 AO-0014FA



AU/-D36 BPW 120mm Square Axle beam			
RIDE HEIGHT (Range) (mm)	RIDE HEIGHT with Axle lift (mm)	HEIGHT WITHOUT AIR	
		LADEN (mm)	UNLADEN (mm)
285-335	315-335	200	215
CAPACITY (kg)	TARE WEIGHT/ AXLE MODULE (kg)		DRAWING NUMBER
10,000	179		AU-0018 AU-0018FA RMS

NOTE

The BPW Air Suspension Technical Specifications included in this brochure are correct at the time of publication. Changes to the BPW Air Suspension Technical Specifications herewith may occur in future in conjunction with ongoing BPW product development.

TECHNICAL SPECIFICATIONS

Tare weight includes axle seats. Add 7kg per axle for catchstraps axle restraints. For piping kit with 60 litre airtank add 25kg per suspension group.

Ride height is measured from centre of the axle vertically up to the top of the hanger.

Drawbar hangers are available for most of the BPW Heavy Duty

suspension range, which includes tapered bushes and pin to attach a hinged drawbar.

Capacity is given as kg per axle module for suspensions fitted at 950mm spring centres on BPW axles fitted with dual tyres.

Axle restraints: Cable catchstraps are supplied as standard on Heavy Duty suspensions.

Axles that are suitable for BPW Heavy Duty air suspensions are: BPW 120mm square beam axles; BPW 150mm square beam axles.

Special configurations of BPW air suspensions are available to suit specialised trailer needs. For more details please contact your nearest BPW Transpec office.

BPW HEAVY DUTY AIR SUSPENSIONS

BPW offers a comprehensive range of trailer air suspensions designed to perform under various operating conditions, from low tare weight configurations for highway applications to heavy duty off-road models up to 14 tonne per axle capacity.

BPW air suspensions are ADR approved and have been customised to suit Australian conditions. BPW axle/air suspension systems are available to suit various tyre sizes, trailer lengths and widths.

BPW was first to introduce a fully integrated axle, air suspension and braking system – all designed and engineered by BPW to work in harmony with unsurpassed component compatibility and performance.

BPW AIR SUSPENSION SYSTEMS – DESIGNED TO STAY ON THE ROAD

Making trailer running gear systems even safer, lighter and more maintenance-friendly continues to be the driving force behind the BPW design and development activities.

TOUGH TESTING UNDER EXTREME CONDITIONS

BPW carries out testing in its test and development centre at company headquarters in Wiehl, where BPW has a 12-channel module test rig. On a real-time basis all possible sources of stress on complete running gear systems in road operation – such as vertical, shear and longitudinal forces or braking, steering and pitching moments – are perfectly simulated and analysed.

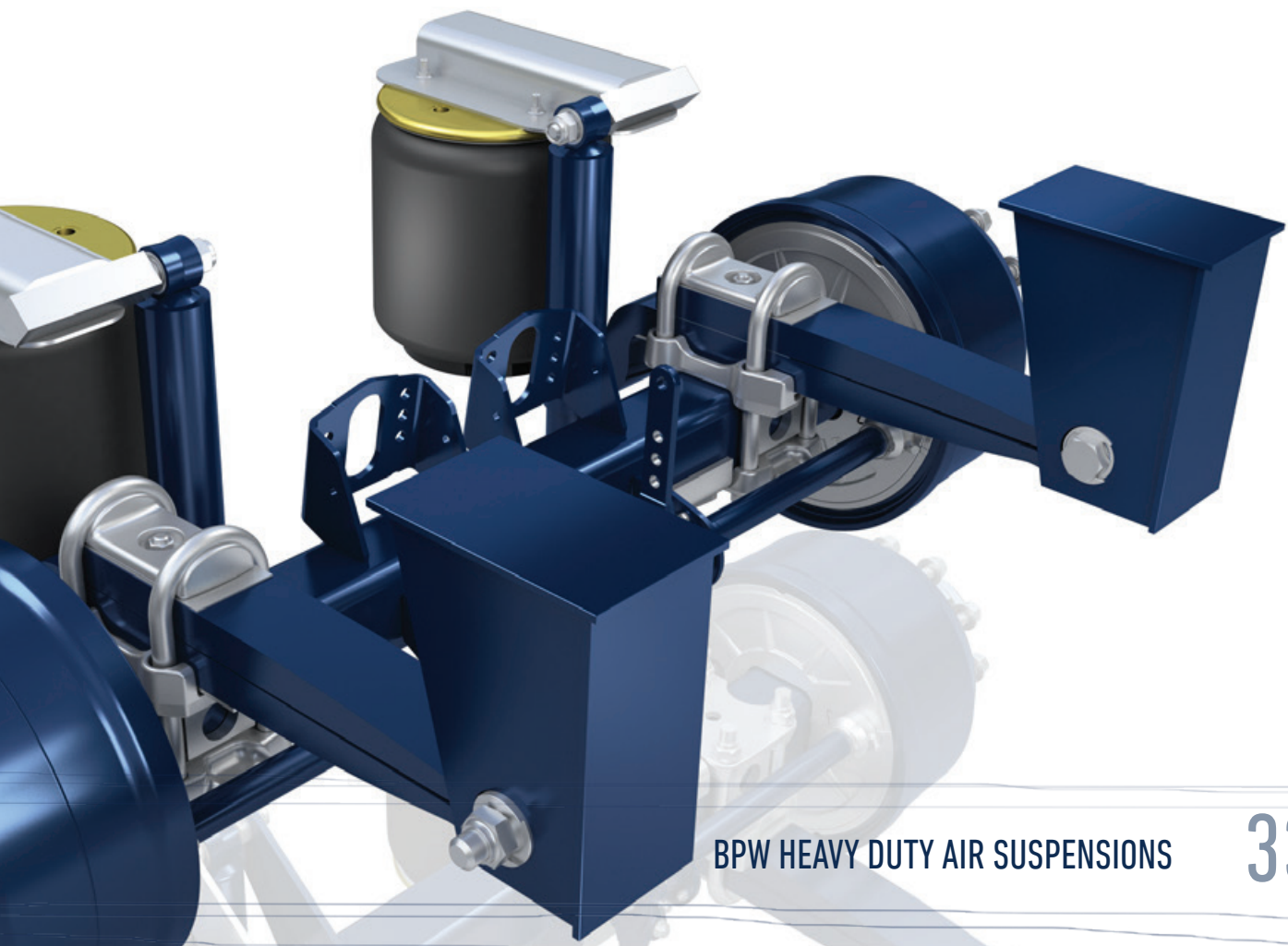
In the testing process, six massive clamping supports, made of welded steel plates, grip the trailer's suspension frame on all sides like colossal pincers. The machine puts the test object through up to 40 movements per second; until now this kind of testing has been applied only to passenger cars.



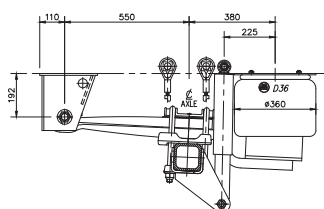
The BPW Heavy Duty airbag suspension range is well proven, and is recommended for on/off road conditions. For decades the BPW O, OM and OT models have been refined to an almost 'bullet-proof' status in extreme operating conditions both here and overseas. BPW Heavy Duty airbag suspensions are characterised by double-leaf 100mm wide trailing arm springs, heavy duty fabricated hangers, cable catch straps and the large BPW Type 36 airbags, all supplied as standard equipment.

FEATURES AND BENEFITS OF BPW HEAVY DUTY AIR SUSPENSIONS:

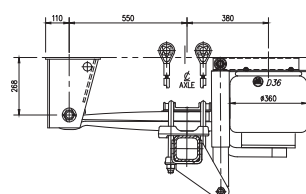
- Robust design
 - Excellent stability characteristics and optimum roll resistance
 - Flexible trailing arm offers best possible wheel control, safer driving characteristics with reduced stress on the trailer chassis
 - Highest driving comfort and sensitive 'soft-ride' handling of the cargo
 - Easy to service - thanks to modular design
 - Easy to install
 - Reduced tyre wear due to the axle control of the steel-rubber-steel bushes
 - Optimum axle load equalisation
 - National off-the-shelf genuine spare parts for minimal downtime
- (Available with either BPW drum or disc brake technology).



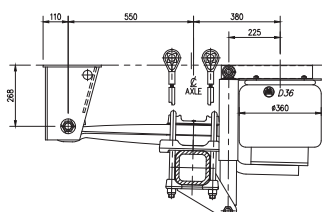
AUSTRALIAN RANGE



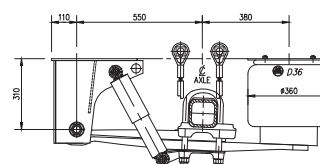
OM/-D36 BPW 120mm Square Axle beam			
RIDE HEIGHT (Range) (mm)	RIDE HEIGHT with Axle lift (mm)	HEIGHT WITHOUT AIR	
		LADEN (mm)	UNLADEN (mm)
370-400	400	285	300
CAPACITY (kg)	TARE WEIGHT/ AXLE MODULE (kg)		DRAWING NUMBER
10,000	271		OM-0004 OM-0004FT



OM/-D36 BPW 120mm Square Axle beam			
RIDE HEIGHT (Range) (mm)	RIDE HEIGHT with Axle lift (mm)	HEIGHT WITHOUT AIR	
		LADEN (mm)	UNLADEN (mm)
425-465	465	350	365
CAPACITY (kg)	TARE WEIGHT/ AXLE MODULE (kg)		DRAWING NUMBER
10,000	288		OM-0001 OM-0001FK



OM/-D36 BPW 150mm Square Axle beam			
RIDE HEIGHT (Range) (mm)	RIDE HEIGHT with Axle lift (mm)	HEIGHT WITHOUT AIR	
		LADEN (mm)	UNLADEN (mm)
450-480	480	365	380
CAPACITY (kg)	TARE WEIGHT/ AXLE MODULE (kg)		DRAWING NUMBER
12,000	279		OM-0001FD NA



OT/-D36 BPW 120mm Square Axle beam			
RIDE HEIGHT (Range) (mm)	RIDE HEIGHT with Axle lift (mm)	HEIGHT WITHOUT AIR	
		LADEN (mm)	UNLADEN (mm)
220-270	270	155	170
CAPACITY (kg)	TARE WEIGHT/ AXLE MODULE (kg)		DRAWING NUMBER
10,000	266	279	OT-0003FO OT-0003FAF RMS

NOTE

The BPW Air Suspension Technical Specifications included in this brochure are correct at the time of publication. Changes to the BPW Air Suspension Technical Specifications herewith may occur in future in conjunction with ongoing BPW product development.

TECHNICAL SPECIFICATIONS

Tare weight includes axle seats. Add 7kg per axle for catchstraps axle restraints. For piping kit with 60 litre airtank add 25kg per suspension group.

Ride height is measured from centre of the axle vertically up to the top of the hanger.

Drawbar hangers are available for most of the BPW Heavy Duty

suspension range, which includes tapered bushes and pin to attach a hinged drawbar.

Capacity is given as kg per axle module for suspensions fitted at 950mm spring centres on BPW axles fitted with dual tyres.

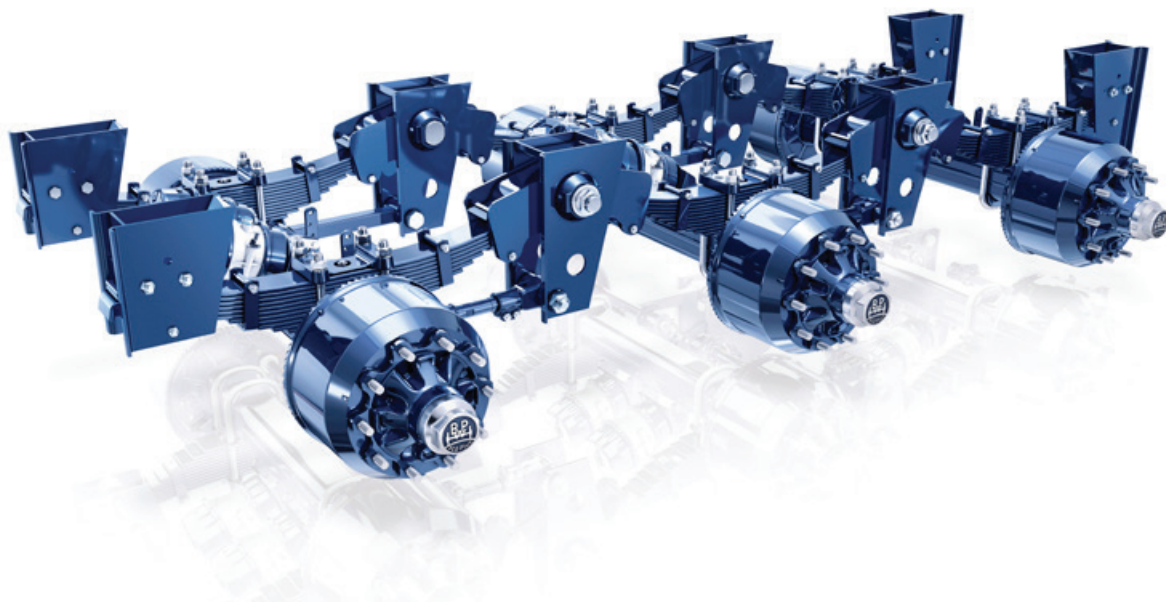
Axle restraints: Cable catchstraps are supplied as standard on Heavy Duty suspensions.

Axles that are suitable for BPW Heavy Duty air suspensions are: BPW 120mm square beam axles; BPW 150mm square beam axles.

Special configurations of BPW air suspensions are available to suit specialised trailer needs. For more details please contact your nearest BPW Transpec office.

BPW MECHANICAL SUSPENSION

Wherever the conditions pose a challenge and the next workshop cannot be reached, BPW mechanical suspension comes into its own. This is because the VB suspension has been constructed in such a way that it can also cope with difficult road conditions and can be quickly and easily repaired, should this be required. Furthermore, the latest generation possesses an optimised bushing of the connecting rods and low-wear, long life wear plates. Assembly and, in particular, track setting have however also been made even easier by employing tried and tested technology from the high-volume BPW air suspension series. The precise track setting as well as optimum positioning of the connecting rods, after all, ensure less tyre wear and therefore even more cost-effectiveness.



WHEEL BASE (RS) (MM)		SPRING	RIDE HEIGHT (FH) (MM)		SUSPENSION WEIGHT ²⁾ (KG)		
			laden ¹⁾	unladen	single axle	2-axle	3-axle
1,360	9t	multi-leaf spring	367	409	494	1,015	1,536
	12t		390	432	584	1,194	1,805
	12t	parabolic spring	377	396	530	1,086	1,643

¹⁾ Take account of clearance for dynamic upward travel and equalizing route with suspension axles.

²⁾ Weight without wheels and tyres; weight tolerances are within

the permitted DIN tolerances for the respective production procedures.

ADDITIONAL INFORMATION

AIR SUSPENSIONS

BPW offers a range of airbag suspension models which are optimised to suit a large variety of operating conditions. The new BPW Airlight II range suits highway conditions and supersedes the AL and SL range. The Heavy Duty range of O, OM and OT models continue to cover more extreme road conditions and for axle loads up to 12 tonne. BPW also offers an extra heavy duty suspension with axle loads up to 14 tonne for mining operations.

MODULAR SYSTEM

BPW airbag suspensions have been designed with the philosophy that equipment must have lowest possible whole-of-life costs. The similarities between BPW and other brand air suspensions are only superficial, the many differences are in the details of suspension component design and selection, and quality of workmanship, the small things that are all important when adding up the total cost of the running gear over the life of the vehicle.

SOFT RIDE CHARACTERISTICS

Because the BPW airbags are fitted further behind the axle than with other suspensions, the ride characteristics of the BPW trailer air suspension delivers superior driver comfort and increased freight protection. The trailer's structural fatigue is reduced as well as lowering the stress on the road surface and the tyres.

HEAVY DUTY SHOCK ABSORBERS

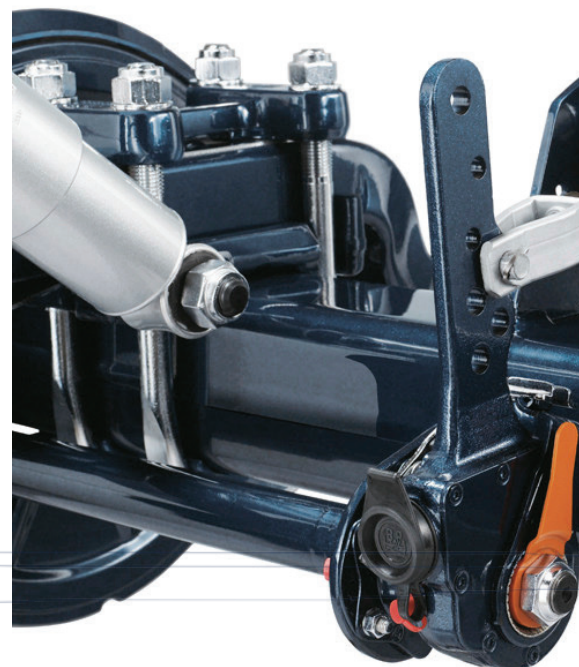
The BPW trailer suspension uses purpose-built, heavy duty, high efficiency shock absorbers, with high oil volumes keeping operating temperatures to a minimum, therefore maintaining dampening performance, extending service life and tyre life.

TRAILING ARMS

The BPW trailing arms are highly flexible spring steel elements that are hot-rolled from one piece, after which they are shot-peened, zinc-phosphated and cathodically dipcoated. They absorb much of the flexural forces and reduce both the torsional forces into the axle beam and the stress on the trailer frame.

The rigid connection of the trailing arm springs to the axle beam forms a 'U'-type stabiliser to minimise lateral movement and give progressive roll stiffness. This offers greater confidence to the driver when cornering thereby improving safety and handling. Fabricated trailing arms rely on a large bush to deal with torsional stresses.

When these large bushes compress to their maximum yield point, remaining stresses are transferred into the trailer frame. Flexible trailing arms have a greater yield capacity.





Steel-Rubber-Steel Bushes

AIRBAGS

The outstanding ride characteristics of the BPW airbag suspension are due in most part to the airbags themselves. BPW uses rolling-lobe airbags because of their spring characteristics.

They roll neatly over the piston during compression. BPW airbags are firmly crimped into the top plate and are bonded onto the clamping plate at the bottom by vulcanization, which means they are guaranteed to be air-tight. The bump-stop, integrated onto the bottom plate, protects against damage when the bags are vented. The piston is made from a sturdy glass-fibre reinforced plastic with a steel support to give reduced weight and resistance to corrosion.



STEEL-RUBBER-STEEL BUSHES

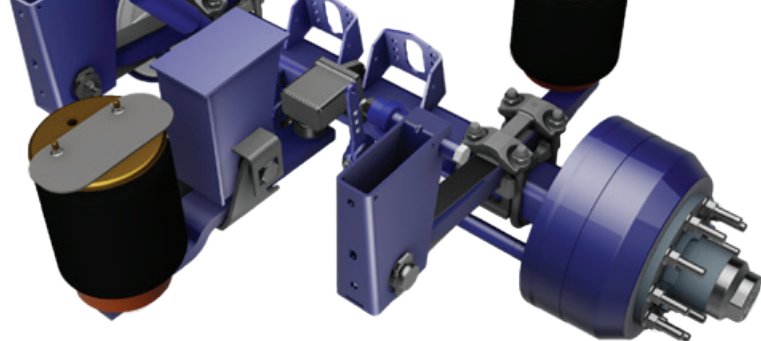
BPW long-life steel-rubber-steel bushes offer low maintenance mounting of the trailing arm. The axle is precisely located which improves handling and tracking and therefore both tyre wear and operating costs are reduced.

HANGER BRACKETS

BPW air suspension hanger brackets transfer all control, braking and acceleration forces from the axle to the trailer frame. BPW air suspensions are offered with a variety of hanger options. Various heights are also available to give trailer designers the freedom to optimise their choice of designs. BPW hangers are offered in both alignable and non-alignable configurations depending on the suspension model.

SERVICEABILITY

The BPW trailer air suspension has been designed to be service friendly with ease of access to all major components, as well as a high degree of parts interchangeability between suspension models. Reduced downtime and higher vehicle utilisation is the result.



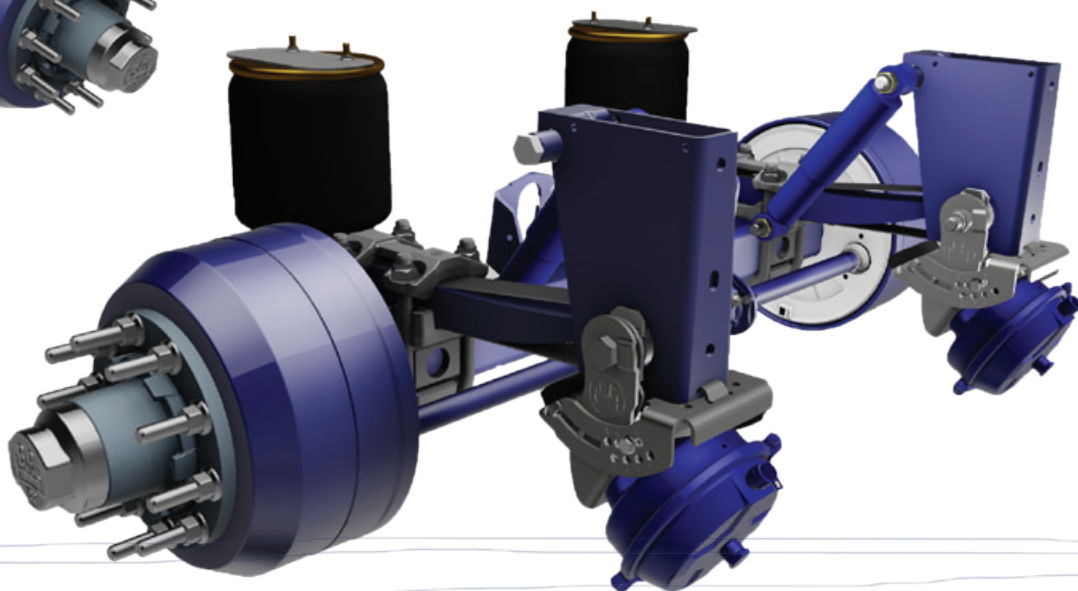
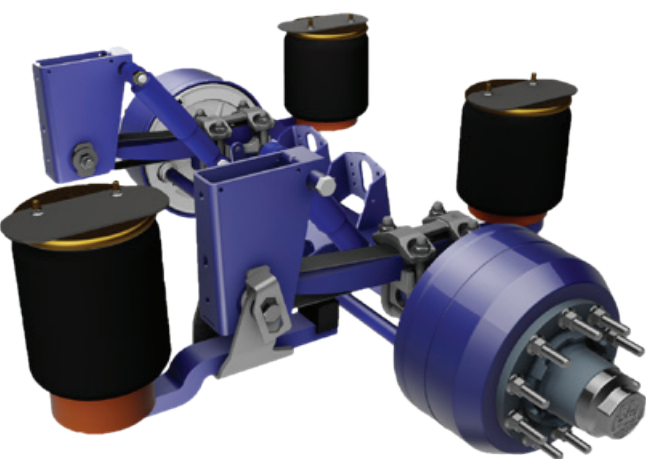
BPW AXLE LIFT

REDUCE YOUR OPERATIONAL COSTS WITH BPW AXLE LIFT

As an option, multi-axle trailers can be equipped with an axle lift. Operators have found that the benefits of the BPW Axle-Lift include reduced fuel consumption, improved brake balance when unladen and reduced tyre wear.

The Axle-Lift Systems are available with 'side-lift', 'centre-lift' or double booster-style side lift configurations, to suit the particular trailer application and can be installed on up to two axles of the tri-group. All BPW Axle-Lift Systems comply with current ADR requirements and are supplied as standard with fully automatic pneumatic controls which lifts and lowers the Lift Axle(s) at the legally prescribed axle loads. The system has an 'off' switch located in a lockable enclosure as stipulated by the ADRs.

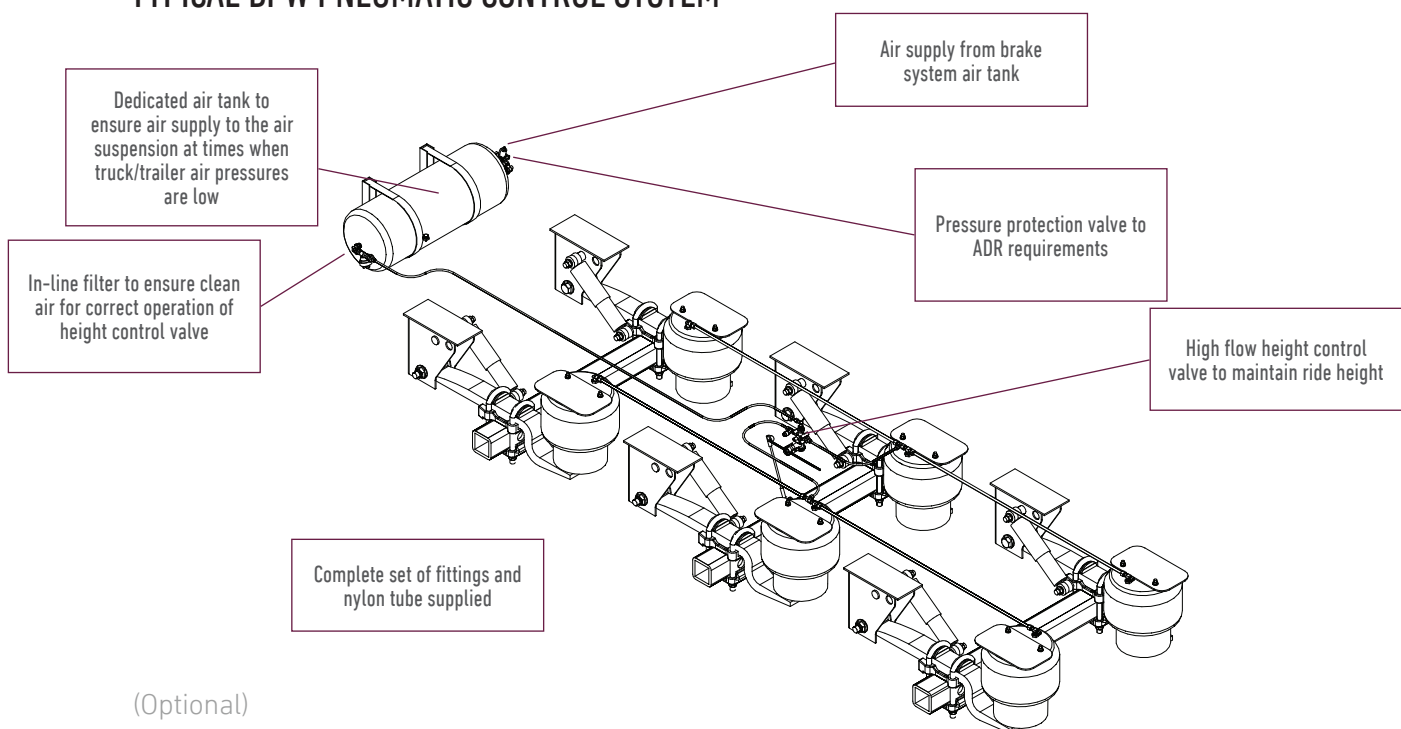
When fitted to a trailer with BPW EBS the Lift Axle(s) is/are controlled by the EBS and again is lifted and lowered automatically at the legally prescribed axle loads. An 'off' switch in a lockable enclosure is also provided. The BPW Axle-Lift System is simple to use and can be fitted to most BPW trailer airbag suspensions, in both the 'Highway Series' Airlight II range and the on/off road 'Heavy Duty' range.



PNEUMATIC CONTROL KIT

The BPW Airbag Suspension pneumatic control system employs a single high flow height control valve to ensure pressure equalisation giving a constant ride height for all load conditions. BPW Air Suspensions are supplied with a complete pneumatic control kit.

TYPICAL BPW PNEUMATIC CONTROL SYSTEM



RAISE & LOWER SYSTEM

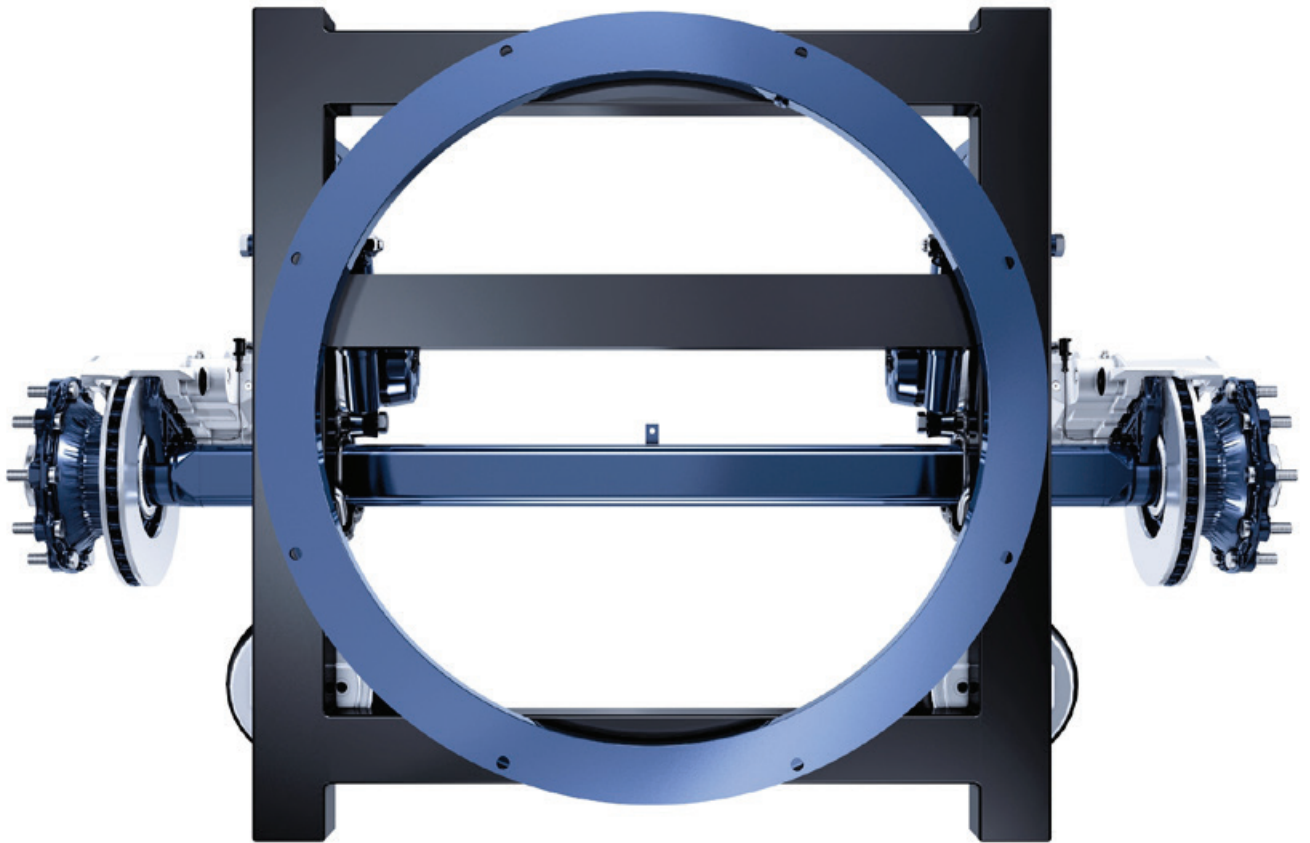
BPW offers a raise/lower valve system which enables the height of the trailer to be matched to various dock levels, saving costly loading/unloading times.

RESET-TO-RIDE

BPW Transpec also offers an optional 'reset-to-ride' raise/lower system, which automatically resets to ride height once the trailer brakes are activated. This function can be incorporated into the Transpec EBS system when fitted.

BPW TURNTABLES WITH DOUBLE BALLRACE

Compared to conventional, single-row systems, BPW turntables are characterised by the high-quality feature of a double ball race to guarantee optimum distribution of the axial and radial forces that arise. The rigid front axle of the drawbar trailer on turntable drawbar trailers is steered using a pivot mounting with a turntable and drawbar. The turntable establishes the connection between the vehicle subframe and the pivot mounting. BPW turntables generally have two rows of ball bearings. This special design ensures you are provided with better transmission and therefore longer operating times as well as being much more wear-resistant.



THE BENEFITS OF BPW TURNTABLES:

– **Optimum force transmission**

BPW turntables have one axial and one radial ball race between the upper and lower rings.

- The vertical loads acting on the turntable are absorbed by the larger axial ball race.
- The* horizontal forces are absorbed by the smaller radial ball race.
- The torque loadings arising from braking and centrifugal force are absorbed in the interplay between the two ball races.
- The radial ball race retains the upper and lower rings in place

– **Absolute functional reliability**

- The design principle guarantees the greatest possible safety, because the acting axial and radial forces are transmitted onto the two ball races separately.
- The special selection of material and production processes achieves the highest quality. The turntable sections made from high-strength steel are cold formed, butt welded and heat treated. Turntables can be used even under extreme conditions.

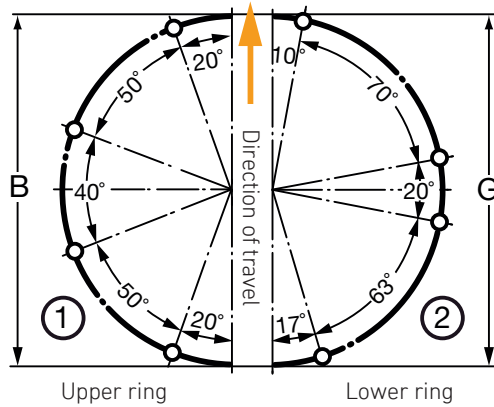
– **Economy through long service life**

BPW turntables guarantee a minimum of downtime due to their long service life.

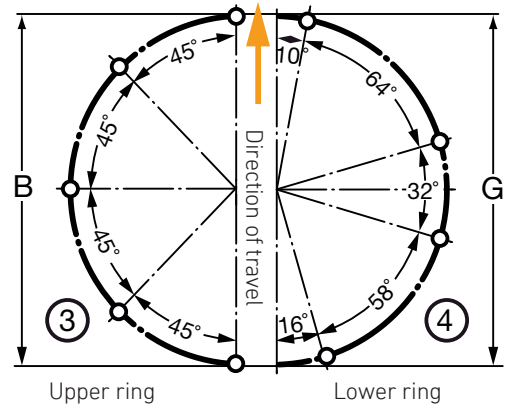
- The ball race is secured under load by the axial ball race.
- The space inside the turntable is provided with long-lasting protection against dust and dirt by a labyrinth seal.
- The sum of all these advantages ensures reliability, freedom of movement and the highest possible service life.
- Reliable axial loading of 5 to 30 t
- Drilled or non-drilled options
- Optimum distribution of axial and radial forces occurring due to doubled row of all bearings
- Crown mouldings made of heat-formed, butt-welded, calibrated, high-strength steel
- Protection of the rim interior against dust and dirt through heat sealing
- Wear-resistant due to low roll depth of the load-carrying balls and increasing hardening of the ball track under stress
- Less sensitive to short-term overloading

STANDARD PRODUCT RANGE

8-Hole
only DK 80/8

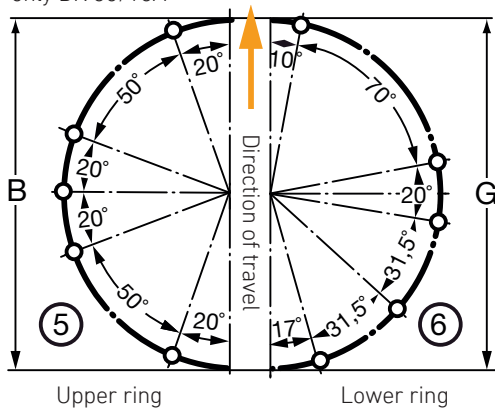


8-Hole

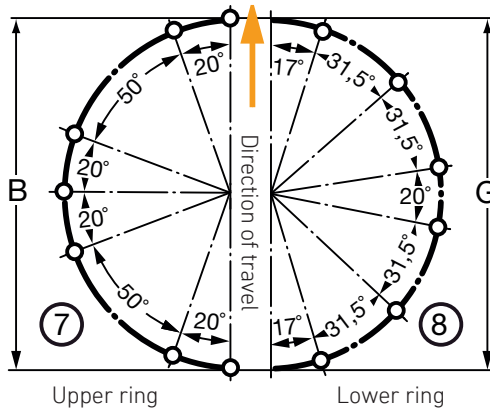


BPW TURNTABLE = DRILLED ^{1) 2)}		BPW TURNTABLE = UNDRILLED		UPPER RING								
Type	BPW no.	Type	BPW no.	Perm. axial load in t ⁴⁾	Perm. gross trailer weight in t	Exterior Ø Amm	Hole circle Ø Bmm	Hole pattern Ø	Interior Ø Cmm	Bore Ø Dmm	Flange thickness Emm	
		DK 80/5	02.6415.01.00	5	25	664	(636)		519.5	(14)	9	
DK 80/8	02.6415.10.00	DK 80/8	02.6415.11.00	8	40	984	866	①	749.5	16	9	
DK 80/10	02.6415.13.00	DK 80/10	02.6415.14.00	10	50	1,108	1,074	③	959.5	16	9	
DK 80/16 A ³⁾	02.6415.17.00 ³⁾	DK 80/16 A ³⁾	02.6415.18.00 ³⁾	16	50	984	866	⑤	749.5	16	9	
DK 90/10/1208	02.6415.66.00			10	50	1,208	1,174	③	1,042.0	18	10	
DK 90/10/1212	02.6415.70.00	DK 90/10/1200	02.6415.71.00	10	50	1,208	1,174	⑦	1,042.0	18	10	
DK 90/12	02.6415.24.00	DK 90/12	02.6415.23.00	12	50	1,000	966	③	834.0	18	10	
DK 90/13	02.6415.20.00	DK 90/13	02.6415.22.00	13	55	1,108	1,074	③	942.0	18	10	
DK 90/13/1208	02.6415.67.00			13	55	1,208	1,174	③	1,042.0	18	10	
DK 90/13/1212	02.6415.72.00	DK 90/13/1200	02.6415.73.00	13	55	1,208	1,174	⑦	1,042.0	18	10	
DK 90/14	02.6415.34.00	DK 90/14	02.6415.33.00	14	55	1,000	966	③	834.0	18	10	
DK 90/16	02.6415.30.00	DK 90/16	02.6415.31.00	16	60	1,108	1,074	③	942.0	18	10	
DK 90/16/1212	02.6415.74.00	DK 90/16/1200	02.6415.75.00	16	60	1,208	1,174	⑦	1,042.0	18	10	
DK 90/20	02.6415.41.00	DK 90/20	02.6415.40.00	20	60	1,108	1,074	③	942.0	18	10	
DK 90/20/1212	02.6415.76.00	DK 90/20/1200	02.6415.77.00	20	60	1,208	1,174	⑦	1,042.0	18	10	
DK 90/26/1212	02.6415.78.00	DK 90/26/1200	02.6415.79.00	26	70	1,208	1,174	⑦	1,042.0	18	10	
DK 90/30/1212 SP	02.6415.80.00	DK 90/30/1200 SP	02.6415.81.00	30	70	1,208	1,174	⑦	1,042.0	18	10	

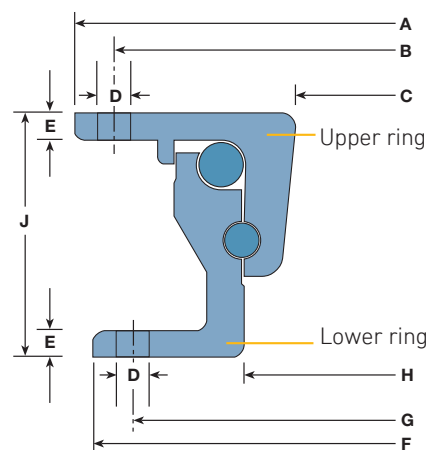
10-Hole
only DK 80/16A



12-Hole



	LOWER RING						BOLTS PER RING		Height J min.	Weight (kg)
	Exterior Ø Fmm	Holes circle Ø Gmm	Hole pattern O	Interior Ø Hmm	Bore Ø Dmm	Flange thickness Emm	Quantity	Thread o min.		
	650	(622)		554	(14)	9	8	(M 12)	80	38
	880	852	②	784	16	9	8	M 14	80	49
	1,095	1,060	④	994	16	9	8	M 14	80	64
	880	852	⑥	784	16	9	10	M 14	80	49
	1,195	1,160	④	1,079	18	10	8	M 16	90	92
	1,195	1,160	⑧	1,079	18	10	12	M 16	90	92
	987	952	④	871	18	10	8	M 16	90	72
	1,095	1,060	④	979	18	10	8	M 16	90	82
	1,195	1,160	④	1,079	18	10	8	M 16	90	92
	1,195	1,160	⑧	1,079	18	10	12	M 16	90	92
	987	952	④	871	18	10	8	M 16	90	72
	1,095	1,060	④	979	18	10	8	M 16	90	82
	1,195	1,160	⑧	1,079	18	10	12	M 16	90	95
	1,095	1,060	④	979	18	10	8	M 16	90	82
	1,195	1,160	⑧	1,079	18	10	12	M 16	90	95
	1,195	1,160	⑧	1,079	18	10	12	M 16	90	96
	1,195	1,160	⑧	1,079	18	10	12	M 16	90	96



¹⁾ Special versions on request.

²⁾ See figures for hole patterns.

³⁾ Only used for semi-trailer coupling.

⁴⁾ Permitted axial load = static axial load over the steered axle which acts on the turntable. Subject to modifications!

BPW LANDING LEGS

ADVANTAGES OF BPW LANDING LEGS

ROBUST

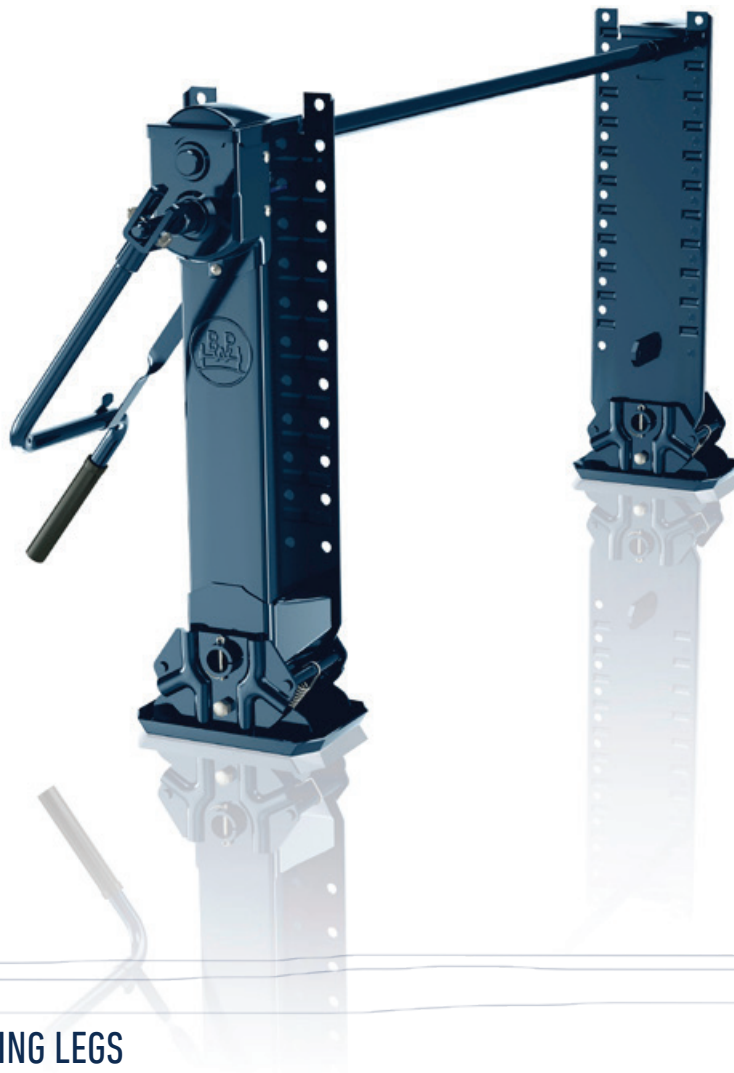
Just the right thing for usage in heavy jobs with a trailer, thanks to the reinforced shaft for the absorption of lateral forces and the continuous screw-on plate for optimum strength. And all with built-in safety.

SIMPLE

The long, continuously perforated screw-on plate for different fixing positions ensures an easy, flexible installation. The low crank forces ensure less operator fatigue during operation.

ECONOMICAL

Advantages that pay off: BPW landing leg's are particularly light – and therefore the first choice, if every kilo of vehicle load makes a difference. BPW landing gear is maintenance-free for one year due to the long-term greasing with BPW ECO Li 91. In addition, it impresses with the lowest level of wear and is optimally protected from corrosion through high-quality coatings.

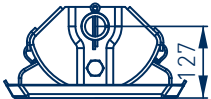




BPW LANDING LEGS

Length M	Dimension H	Dimension G	No. of Mounting Holes	Landing Leg Kit	Kit Components Part Numbers	
700	355	430	8	023710KIT700S-2	02.3710.63.01	Geared leg with S type foot
					02.3710.62.01	Non geared leg with S type foot
					02.1404.31.01	Handle 450mm
					02.4307.10.01	Connecting shaft max. 1,500mm
800	455	530	9	023710KIT800S-2	02.3710.33.01	Geared leg with S type foot
					02.3710.32.01	Non geared leg with S type foot
					02.1404.31.01	Handle 450mm
					02.4307.10.01	Connecting shaft max. 1,500mm
850	505	580	10	023710KIT850S-2	02.3710.43.01	Geared leg with S type foot
					02.3710.42.01	Non geared leg with S type foot
					02.1404.31.01	Handle 450mm
					02.4307.10.01	Connecting shaft max. 1,500mm

Please note: Landing legs are supplied as Landing Leg Kits. When ordering spare parts, please use the individual Kit Components Part Numbers

SUPPORT FEET (WITHOUT LANDING LEGS)

S TYPE	T TYPE	A TYPE
		
02.3710.01.01	02.3710.00.00	02.3710.03.01

Please Note: S Type feet are supplied with all kits as standard. Other feet types available on request.

BPW GENUINE REPAIR PARTS

Arrive safely and reduce costs with genuine BPW parts. Genuine BPW parts undergo continuous development and offer you the security of knowing that they are designed exactly for your trailer chassis and suspension system.

As 'duty-of-care' and 'corporate compliance' become more important in the running of a business, genuine BPW parts offer peace of mind, with the knowledge that the ongoing safety and legislative compliance of the vehicle is maintained.

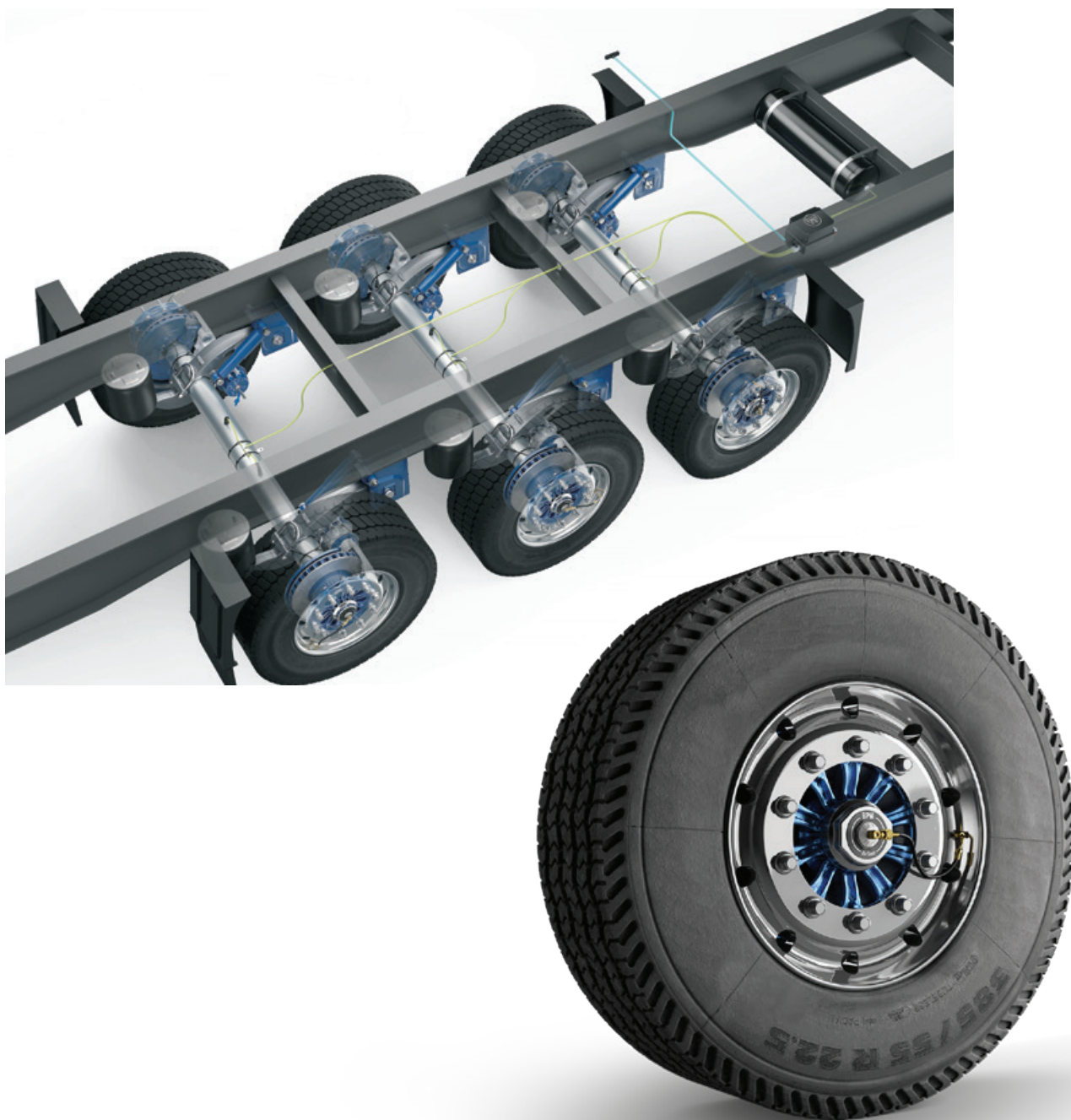
BPW GENUINE SPARE PARTS:

- are produced in-house with tested OEM quality assurance.
- offer long service life
- offer shorter repair times due to spare parts availability throughout Australia
- are more economical in the long run.



BPW TYRE INFLATION SYSTEM AIRSAVE

BPW Air Save not only save's you fuel and time, it also protects against uneven and premature tyre wear as well as tyre blowouts. Reduced downtime and improved tyre life BPW Air Save coupled with our Long Life axles will keep your trailers moving for even longer.





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