



TRANSPEC

ENGINEERED TO LAST



DRUM BRAKE

9t and 10-12t Conventional, ECO, ECO Plus and ECO Plus 3
Spare Parts Catalogue
FOR AUSTRALIAN ASSEMBLED DRUM BRAKED AXLES



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The information and advice contained in this brochure including prices and specifications are current and correct as at 1st December 2018 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.



BPW Genuine parts are carefully designed to give you the best in quality, reliability and life expectancy. They are put through rigorous testing both in Europe and around the world.

The BPW axle is tested as a working group of components in order to receive the required SARN (sub-assembly registration number) - indicating the axle conforms to Australian legal requirements. When this test is performed all the components used are genuine BPW components.

Our spare parts catalogues are designed to assist you in correctly identifying the parts you will need to service your BPW suspension systems.

This particular book is intended to assist with the identification of spare parts for Australian assembled axles fitted with **BPW Drum Brakes** only. It is not intended to give detailed technical service and/or maintenance information.

For technical service and/or maintenance information please refer to the BPW Operator's Manual and workshop manual or contact your nearest BPW Transpec Branch listed on the back cover of this book.

Identification of BPW Genuine spare parts

At time of assembly an identification **Type Label** is affixed to every Australian assembled BPW axle, usually along the axle centreline on the rear face of the axle beam.

The characters that make up the axle part number gives important information about that axle which can assist in the correct identification of spare parts.

Below is a legend that can be used to decipher BPW Transpec Axle part numbers.

The legend is divided into blocks that represent specific information. They are Axle Beam Profile, Hub, Bearing Combination, Wheel Fixing, Brake Size, Serial No, Hubcap Type, Hub Lubrication, Slack Adjuster Type (Drum Brakes Only) and ABS. Within these blocks there are the various alternatives that are represented by different character sets in the axle Part number.

On the top, left hand side of the legend there is an example axle part number highlighted in blue.

An example part number for H/R Series is: **HZA10110A11SPSN**

An example part number for KH Series is: **KHZM10108B15SMSN**

An example part number for NH/NR Series is: **NRZM9010C17SBSN**

Follow the grey lines moving down through each block of the legend to find the meaning of each character set within that example axle part number. The other character sets in each block of the legend represent all other alternatives that may appear in other BPW Transpec axle part numbers.

The axles fitted to any one trailer may have different axle part numbers. Therefore, when using the BPW Transpec axle part number for the purposes of the correct identification of spare Part numbers it is important that the axle Part number being used is the actual part number for the specific axle requiring the parts.

BPW TRANSPEC AXLE MODEL AND PART NUMBERS For Australian assembled axles														
Axle part number examples										Legend				
H	ZA	101	10	A	11	T	P	S	N					
KH	ZM	101	08	B	15	T	M	S	N					
NR	ZM	90	10	C	17	T	B	S	N					
NR										Axle beam profile	Round Beam 127mm,15" Tyres			
H											Square Beam 120mm & 150mm, 20" Tyres			
R											Round Beam 127mm, 20" Tyres			
KH											Square Beam 120mm, 19.5" Tyres			
SH											Square Beam 120mm, 20" Tyres			
SKH, SK										Hub	Square Beam 120mm, 19.5" or 20" Tyres			
NH											Square Beam 120mm, 15"/17.5" Tyres			
ZA											10 Stud 285 PCD Dual Wheel, Spigot Mount			
ZM											10 Stud 335 PCD, 8 Stud 275 PCD, 10 Stud 225 PCE Dual Wheel, Spigot Mount			
SA											10 Stud 285 PCD Single Wheel, Spigot Mount			
SM										Bearing combination	10 Stud 335 PCD Single Wheel, Spigot Mount			
XZ											Spider Dual Wheel			
X											Spider Single Wheel			
90											9 tonne bearing combination, 120mm square or 127mm round axle beam			
91											10-12 tonne bearing combination, 120mm square axle beam			
100										Wheel fixing	10-12 tonne bearing combination, 150mm square or 127mm round axle beam			
101											10-12 tonne bearing combination, 120mm square axle beam, ECO Plus, ECO Plus 3.			
00											Spider			
08											8 Stud			
10											10 Stud			
A										Brake size	Drum Brake Ø420 x 180mm, suits 20" Tyres			
B											Drum Brake Ø360 x 200mm, suits 19.5" Tyres			
C											Drum Brake Ø300 x 200mm, suits 15" Tyres			
D											Disc Brake SB3745 (Knorr Caliper), Ø370mm rotor, suits 19.5" and 20" Tyres			
E											Disc Brake SB4309T (Knorr Caliper), Ø430mm rotor, suits 20" Tyres			
F											Disc Brake SB3745T (Knorr Caliper), Ø370mm rotor, suits 19.5" Tyres			
G											Disc Brake TSB4309 (BPW Caliper), Ø430mm rotor, suits 20" Tyres			
H											Disc Brake TSB3709 (BPW Caliper), Ø370mm rotor, suits 19.5" Tyres			
00										Serial No	Consecutive Serial No 00-99			
99														
S										Hubcap type	Standard Hubcap			
H											Hubcap with Hubodometer			
G										Hub lubrication	Grease, Conventional Hub			
O											Oil, Conventional Hub			
B											Grease with Oil seal, Conventional Hub			
E											ECO Hub, Grease			
M											ECO Hub, Grease, Push it studs (ECO MAXX)			
P											ECO Plus Hub, Grease			
T											ECO Plus Hub 3			
S										Slack adjuster (Drum brake only)	Manual Slack Adjusters			
M											Manual Slack Adjusters with multihole			
A											Automatic Slack Adjusters			
N										ABS	No ABS fitted			
A											ABS fitted			



INTRODUCTION AND GENERAL INFORMATION

This book is separated into four chapters:

- General information
- **H/R** axle series
- **KH** axle series
- **NH/NR** axle series

These can be identified by the different colored bars on top of every page.
With the general information please first find out which model range you are using. After reading the general information please make sure that you continue reading in the right chapter of the book.

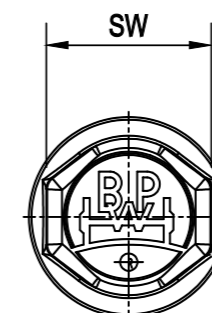
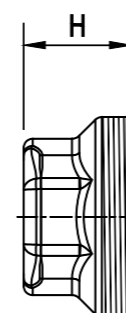
BPW DRUM BRAKE AXLE RANGE

Pages	Model range	Axle beam profile	Beam options	To suit tyre size	Brake type	Brake size	Hub options
18-43	H/R Series	H - Square beam R - Round beam	120mm square 150mm square 127mm round	20"/22.5"	SN4218	Ø420 x 180mm	10 Stud 335 PCD 10 Stud 285 PCD Spider
44-63	KH Series	KH - Square beam	120mm square	19.5"	SN3620	Ø360 x 200mm	8 Stud 275 PCD 10 Stud 225 PCD
64-80	NH/NR Series	NH - Square beam NR - Round beam	120mm square 127mm round	15"/17.5"	SN3020	Ø300 x 200mm	10 Stud 225 PCD Spider

DIFFERENT HUB GENERATIONS

Hub type	Axle load	Date range
Conventional	9 & 10-12 tonne	1987 - Late 1996 *
ECO	9 & 10-12 tonne	Late 1996 - Late 2008
ECO Plus	9 & 10-12 tonne	2009 - Late 2018
ECO Plus 3	9 & 10-12 tonne	Late 2018 - Present

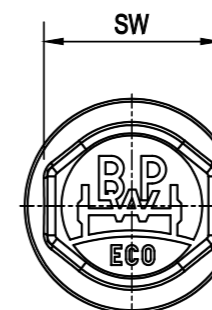
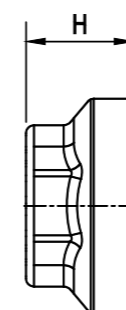
IDENTIFICATION CONVENTIONAL / ECO / ECO PLUS HUB



CONVENTIONAL HUB

From 1982 to present

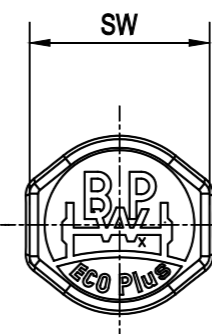
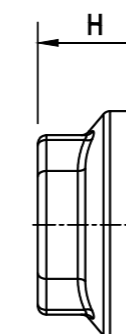
- Oval cap
- external thread



ECO HUB

From 1992 to 2008

- Oval cap
- internal thread
- Bearings, seal carrier and seals retained in hub by circlips



ECO Plus HUB

2009 to Late 2018

- Oval cap
- internal thread
- Bearings, seal carrier and seals retained in hub by circlips
- Axle nut is torque limiting



ECO Plus HUB 3

Late 2018 to Present

- Oval cap
- internal thread
- Bearings, seal carrier and seals retained in hub by circlips
- Axle nut is torque limiting



BPW AXLE BEAM

Square, reliable, light – the BPW axle beam. It's the stable foundation for a long vehicle life. And in combination with our brakes and suspension systems, the square axle produces axle systems which offer convincing all round performance with long service lives and maintenance intervals.

The BPW square axle beam consists of two high-quality, specially rolled "U" sections which are welded together inside and out.

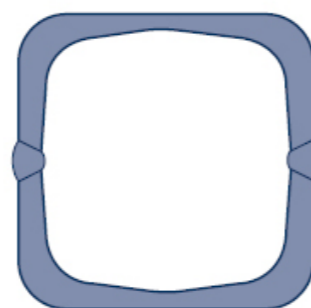
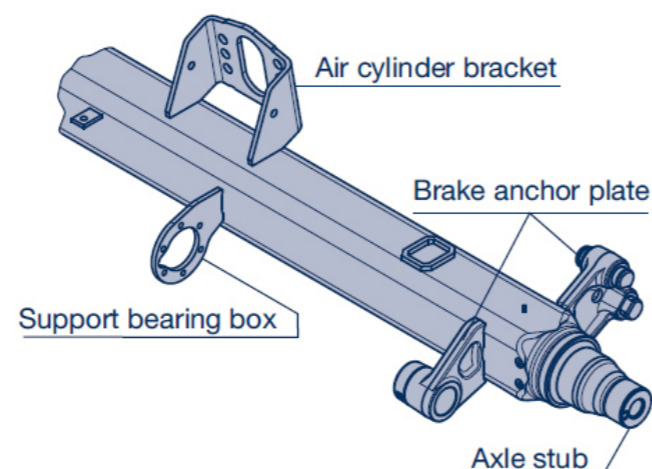
The special feature of the BPW standard axle tube with a 120 mm axle cross-section is its Q.U.A.D. profile (Quality Upgraded Advanced Design). This profile features more material at the corner radii and less material in the top and bottom areas. As a result, the axle cross-sections are reinforced at the points where the force is applied and are optimally shaped to cope with the load.

The Q.U.A.D. profile ensures that the maximum service life can be achieved. BPW axle tubes are available with various cross-sections and wall thickness values depending on the axle load and the application conditions.

BPW axle stubs are forged, quenched and tempered. They have two stepped bearing seats.

The axle stubs and axle tube are flash butt welded together to produce the one piece BPW axle beam.

In this welding process, the axle tube and the ends of the axle stubs are heated up to welding temperatures by an electric current applied at their joining faces, whilst at the same time being forced together. This produces an absolutely homogenous connection without any inclusions. In contrast to conventional welding processes, no filler metals are needed. At the same time, the axle beam is given its chamber and toe-in.



Axle beam after flash butt-welding

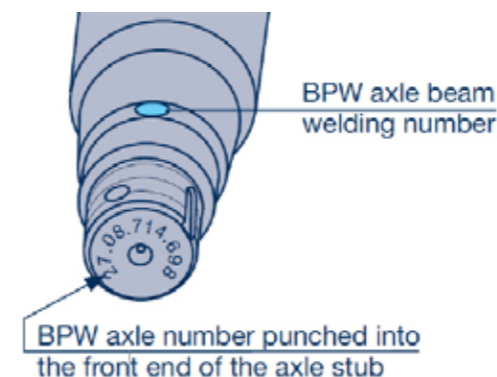


Axle beam after removing the welding flash

BPW AXLE BEAM

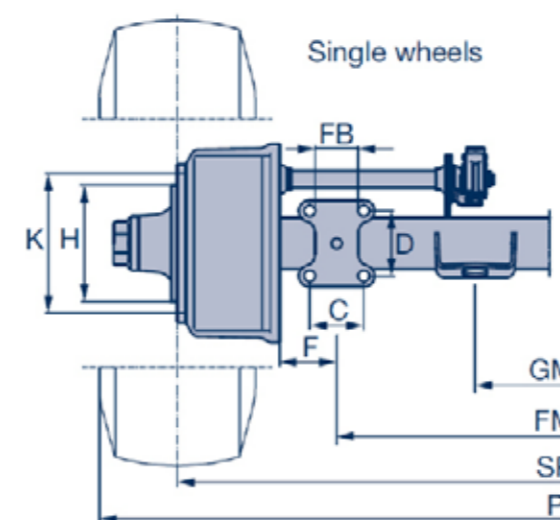


DETERMINING REPLACEMENT AXLE BEAMS



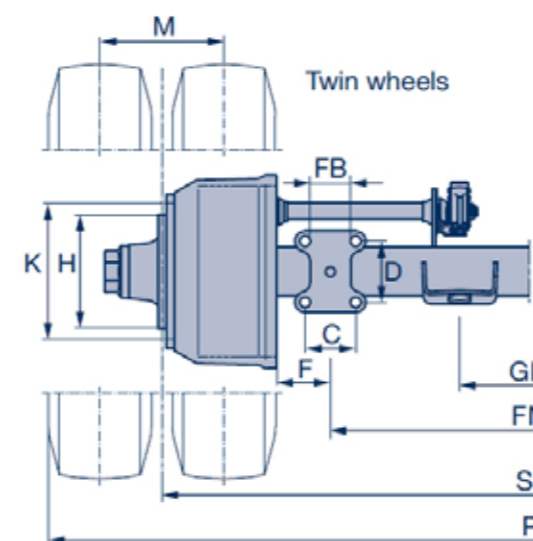
The BPW axle number is shown on the type Plate. If this is missing or no longer legible, The BPW axle number can be read off the front end of the axle stub in most cases. When ordering the axle beam, quote this BPW axle number with the reference to a replacement axle beam.

If there is no BPW axle number or none is known, BPW can identify the axle on the basis of the axle beam welding number (see also BPW Internet application for spare part lists for commercial vehicles) or the dimensions.



1. Axle beam cross section (\square 120 / 150, \varnothing 127)
2. Axle beam wall thickness (if known)
3. Booster bracket centre (GM)
4. Spring centre (FM)
5. Track (SP)
6. Overall width (P)
7. Leaf spring width (FB)
8. Spring pad hole pattern (C and D) (if present)
9. Wheel seat (H)
10. Pitch circle diameter (PCD) and number of wheel studs

In addition to which the **type of tyres**, the **wheel size** and the **brake size** should also be specified, as well as the approximate **year of manufacture** (initial registration).

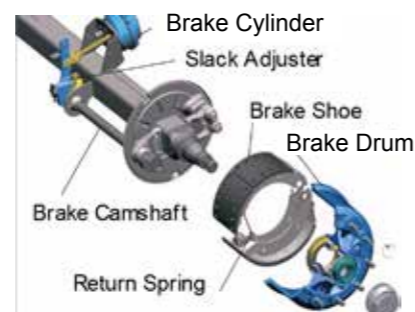




BPW BRAKE COMPONENTS

General information and identification of brake generations

GENERAL INFORMATION



BPW DRUM BRAKES

The proven technology and robust construction of BPW drum brakes makes them suitable for every application. They shrug off dirt and are extremely hardwearing, even under the harshest of conditions.

Function:

The force from the brake cylinders is transmitted by the slack adjuster to the brake camshaft causing it to rotate. The S-cam forces the brake shoes apart, pressing them against the inside of the brake drum. When the brake is released, the brake camshaft rotates the S-cam back to its neutral position. The brake shoes are returned to their initial position by the return springs.

IDENTIFICATION OF BRAKE GENERATIONS



The Pre BPW Brake 95 drum brakes can be identified by:

- Single piece cam rollers
- Two return springs
- Removable anchor pins
- Four retention springs
- Wedge plates to locate the anchor pins and to serve as spring mounts

In 1995 BPW introduced a new Foundation Brake for drum brake axles. BPW Transpec introduced this new Foundation Brake in Australia in 1996.

The new BPW Brake 95 drum brakes have been designed to achieve a high level of safety with less weight and fewer wearing parts. BPW Brake 95 allows for fast and easy brake shoe replacement.

BPW Brake 95 drum brakes can be retrofitted to all BPW drum brakes from 1974 onwards. See the information on pages 19-20 / 45-46 / 66-67 for the part numbers required for conversion from pre BPW Brake 95 to BPW Brake 95.



BPW Brake 95 drum brakes can be identified by:

- Two piece cam rollers
- Single return spring
- Non removable anchor pins
- Brake shoes snap onto anchor pins using sacrificial C'clip locking rings.
- Retention springs that hook together to secure the brake shoes

BPW BRAKE COMPONENTS

Pre BPW Brake 95 - conversion to BPW Brake 95



CONVERSION OF PRE BPW BRAKE 95 TO BPW BRAKE 95

Conversion to brake with split roller (BPW Brake 95)

Replacement shoes for Pre Brake 95 brakes are no longer available. When Pre Brake 95 replacement shoes are required they should be converted to BPW brake 95. See table on pages 19-20 / 45-46 / 66-67 for the part numbers required for the conversion.

BPW Brake 95 features:

- High degree of safety

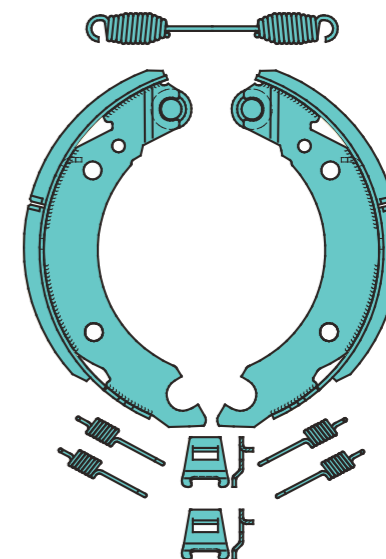
Short response time and a consistent braking effect throughout the entire life of the lining thanks to the permanently lubricated brake rollers.

- Reduced tare weight

Weight optimized design with fewer wear parts.

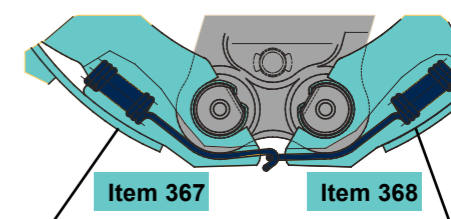
- Easy to change brake linings

Fast and easy brake shoe replacement. Same brake components on all axles of the corresponding series.



Position springs

The position springs ensure the brake shoes are firmly and securely seated on the C-clamps. (The diagram right shows brake type SN4218)

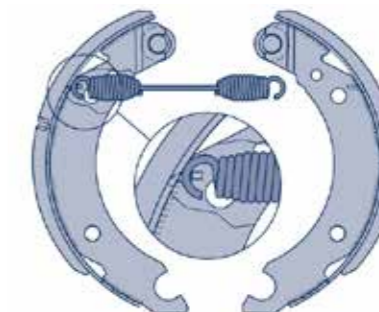


03.397.33.12.0
Return spring (Hook)

03.397.33.13.0
Return spring (Eye)

Brake return springs

The brake return spring is hooked into lugs that are formed on the brake shoes.



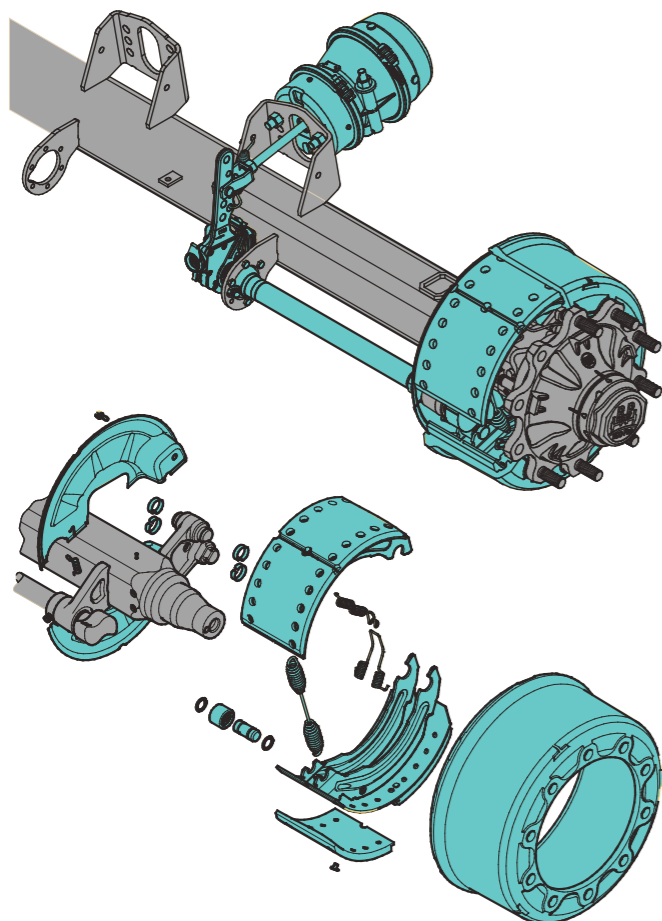
For general and identification information regarding BPW Brake 95 please refer to page 10.



BPW DUST COVERS

BPW ECO Drum

BPW ECO DRUM



BPW has been a leader in the field of drum brake technology for many years.

The customers of over 11 million drum brakes from BPW globally value the proven technology, the sturdy construction and the simple maintenance of the BPW drum brake.

In a further development stage the tried and tested SN4218 brakes have now been improved yet again in terms of weight, wear behavior and service friendliness.

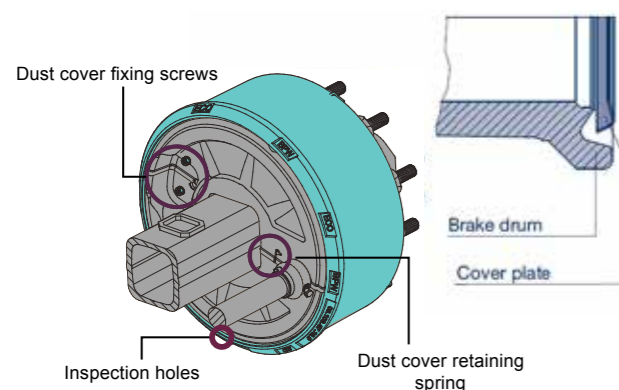
The result of this development is called the **ECO Drum**.

BPW axles with ECO Drum brakes include BPW's proven drum brake technology along with a reduction in weight.

The most noticeable feature of the ECO Drum brake is the new drum contour in the flared area, plus a new dust cover design. The newly designed inspection holes in the dust covers (see drawing below) make it simple to check the wear edges of the brake linings and the brake drums.

The improved seal between the dust covers and the brake drum reduces the ingress of dirt into the brake, and thus extends the life of the brake components.

The benefit to the user is obvious:
Less time and effort, and hence less cost.



The quality of the dust cover attachment has been improved by the use of screws and retaining spring. They ensure that the dust cover can be removed with no difficulty at all, even after years of use under the harshest conditions. On the camshaft side the dust cover is simply plugged in and held by a spring.

Spares compatibility:

In the future there will only be the new ECO Drum brake drums and brake shoes available. The new brake drums and brake shoes can also be used on the old drum brake axles without replacing the dust covers.

BPW BRAKE COMPONENTS

Identifying replacement camshafts

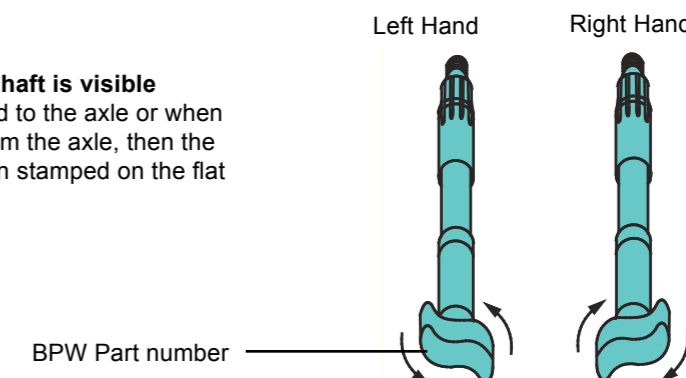


IDENTIFYING REPLACEMENT CAMSHAFTS

THERE ARE TWO WAYS TO CORRECTLY IDENTIFY REPLACEMENT CAMSHAFTS AS FOLLOWS:

1. When the end of the camshaft is visible

When the camshaft is not fitted to the axle or when the hub has been removed from the axle, then the BPW Part number can be seen stamped on the flat face of the S cam.



2. When the camshaft is fitted to an assembled axle

While the camshaft is still fitted to an assembled axle the correct Part number can be identified by measuring the visible portion of the camshaft. This dimension is referred to as dimension X in the diagrams below. Add 20mm to this measurement.

The total measured dimension X plus 20mm will be approximately equivalent to dimension A as seen in the diagram on the Camshaft dimension pages in each chapter (p.24 / p.50 / p.70).

Look in the first column of the relevant table to find the closest to your calculated dimension A. Look at the part numbers on the right part number for the left and right hand replacement camshafts.

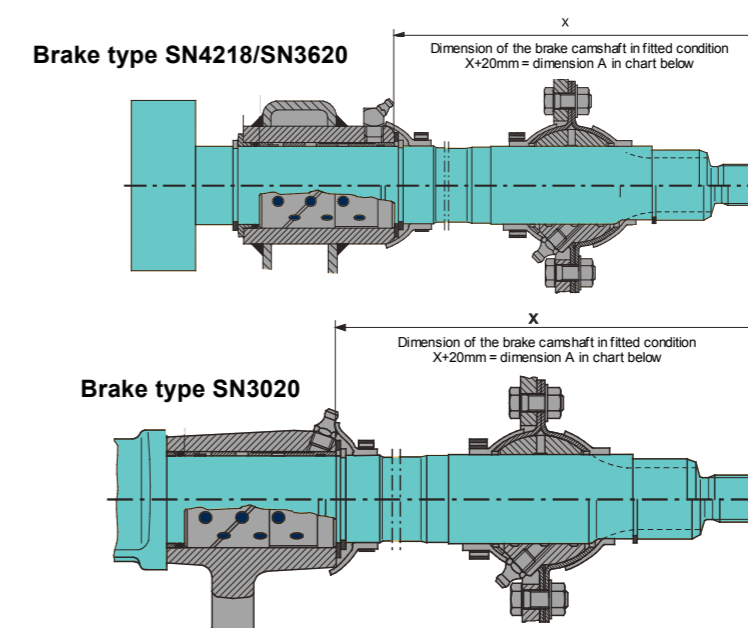
Example - finding correct replacement camshaft part number while camshaft is fitted to axle:

Brake type = **SN4218**

Dimension X is physically measured as 450mm, then add 20mm to get dimension A which therefore = 470mm

Closest Dimension A to 470mm in table on page 22 to suit brake type SN4218/3620 = 470mm.

Therefore correct replacement camshafts = 05.097.05.17.4 (left hand) and 05.097.05.18.4 (right hand)





BPW BRAKE SLACK ADJUSTERS

General information

GENERAL INFORMATION



BPW Slack adjusters:

The required brake cylinder stroke increases as the brake lining thickness reduces.

The slack adjuster makes up for this change and keeps the brake cylinder stroke in the optimum range at all times.

The principle of automatic adjustment

Brake linings and brake drums are parts subject to wear. As the thickness of the material is reduced, the brake cylinder stroke increases, meaning that the brake camshaft has to rotate further.

In this case, the automatic function of the ECO-Master automatic slack adjuster provides the necessary adjustment. As a result, the brake cylinder stroke is always kept within the same, optimum range.

The adjustment stroke is designed so that there is always sufficient air gap even at higher levels of elasticity and given thermal expansion of the adjacent components (eg the brake drum).



For information regarding the fitting and setting of BPW ECO-Master Automatic Slack Adjusters please refer to the BPW Transpec Operators Manual.

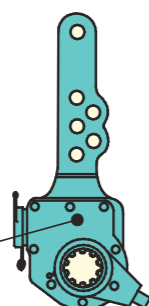
DETERMINING REPLACEMENT SLACK ADJUSTERS

The BPW Part number is punched into the cover plate

GSK (Manual)



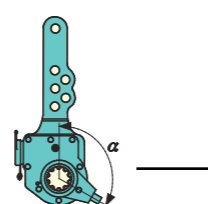
AGS (Automatic)



Punched
BPW part number

If there is no BPW Part number or it is not legible, the slack adjuster can be identified on the basis of shape and dimensions:

- Automatic (AGS) or Manual (GSK) slack adjuster.
- The number of holes.
- Position of fixed holder in AGS (a)



BPW ABS COMPONENTS

General information



ABS/EBS

With the anti-lock brake system (ABS), the wheel movement is recorded using a proximity type arrangement with an exciter ring attached to the hub and a sensor (speed sensor) that generates pulses.

As a result, the wheel speed of each wheel is continuously sent to the central electronic control unit (ECU).

This runs a complex program for processing the received information about the movement of the wheel as well as for calculating and performing logical operations on the control signals.

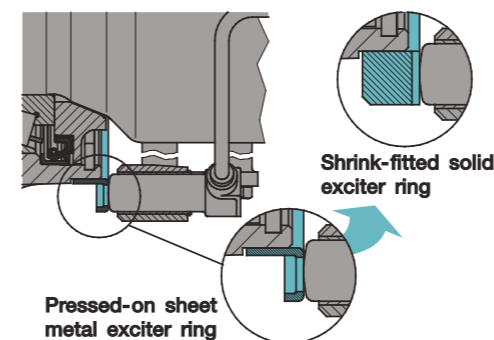
Using the pressure control valves assigned to each wheel, it adjusts the air pressure and therefore the braking of each individual wheel (depending on the ABS system).

EBS (Electronic Braking System) is a development of ABS, and offers more safety features.

Exciter/Pole rings

Both press on sheet metal and solid exciter rings (or pole rings) are used.

To fit a solid exciter ring, heat the new solid exciter ring to approx 80-120°C and shrink fit.

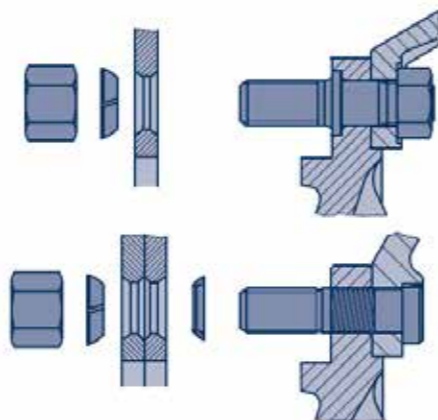




STUD ALIGNMENT

In stud centring, the wheel nave (with countersunk stud holes) is centred using wheel studs with (spring) centring rings.

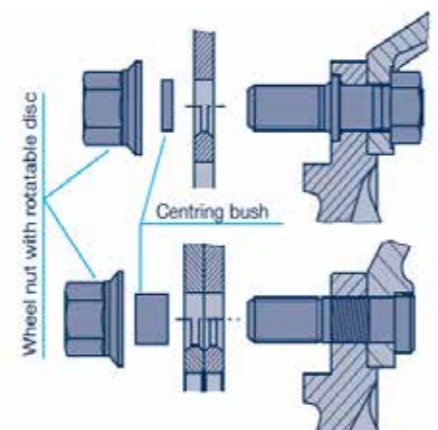
In the case of spherical studs, the wheel nave is directly centred on the collar of the wheel studs.



SPIGOT ALIGNMENT

In hub centring, the wheel nave is centred using a centring spigot or ring surfaces on the wheel hub.

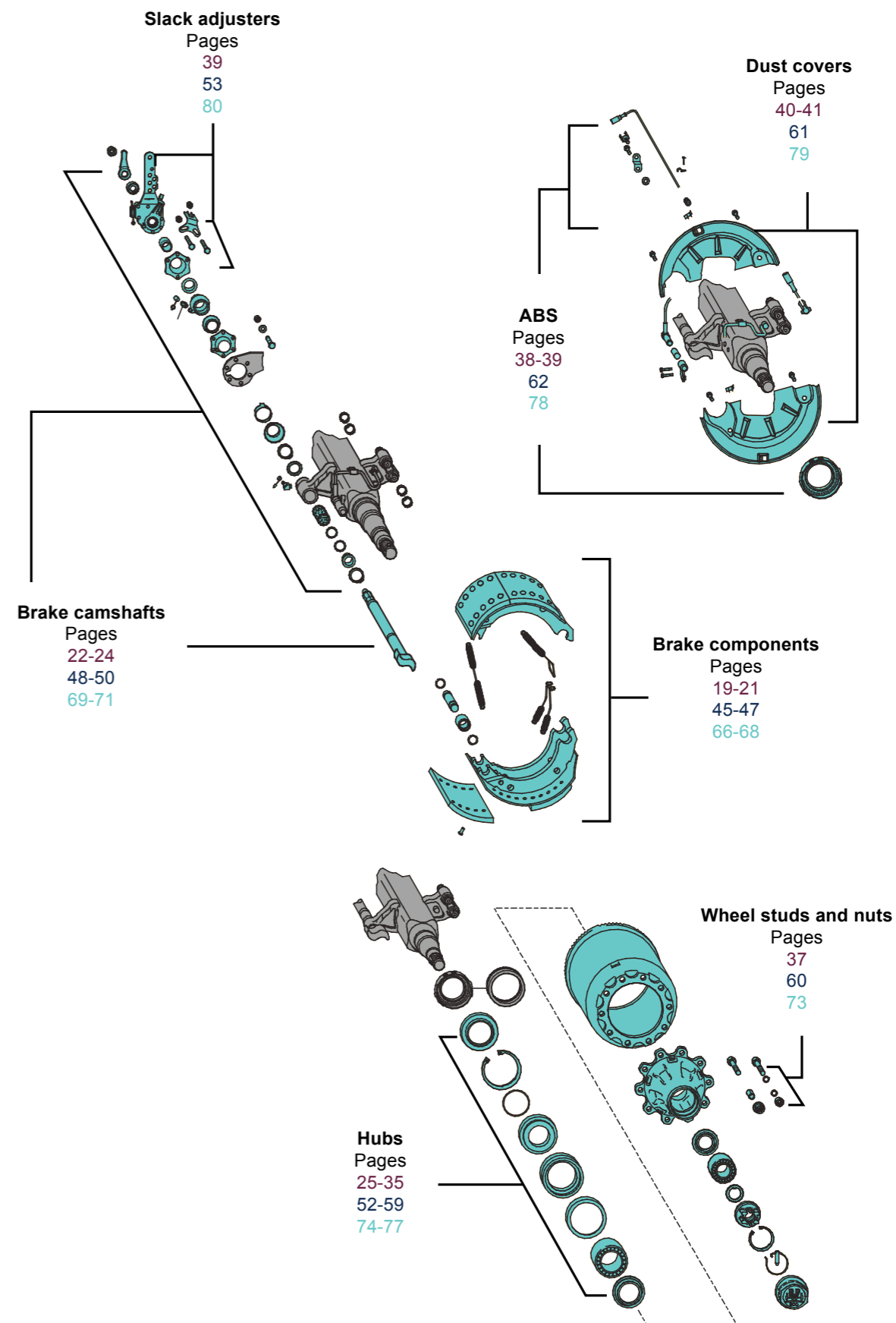
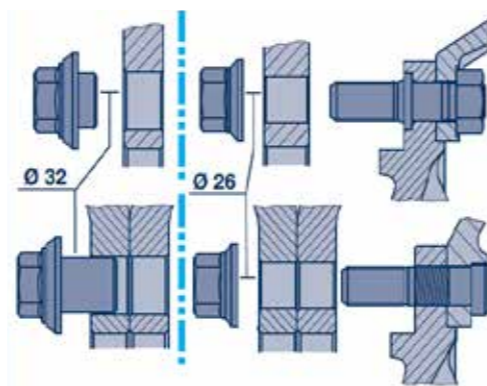
Centring bushes may be mounted on two opposing wheel bolts of each hub in the case of wheels with hub centring. This is not, however, necessary. Centring bushes must be mounted on two opposing wheel bolts of each hub in the case of wheels with mixed centring.



ALLOY WHEEL

In the case of aluminium wheels, the wheel nave is centred using a centring cam or ring surfaces on the wheel hub.

The flange thickness of aluminium wheels is greater than that of steel wheels, so it is necessary to check whether the vehicle is equipped for having aluminium wheels fitted (with stud hole Ø 26), i.e. whether there is a sufficient hub shoulder and longer wheel studs). If not, aluminium wheels with stud hole Ø 32 can be used in conjunction with sleeve nuts without replacing the hub or the wheel studs. (The wheel is not centred by the shaft nuts).

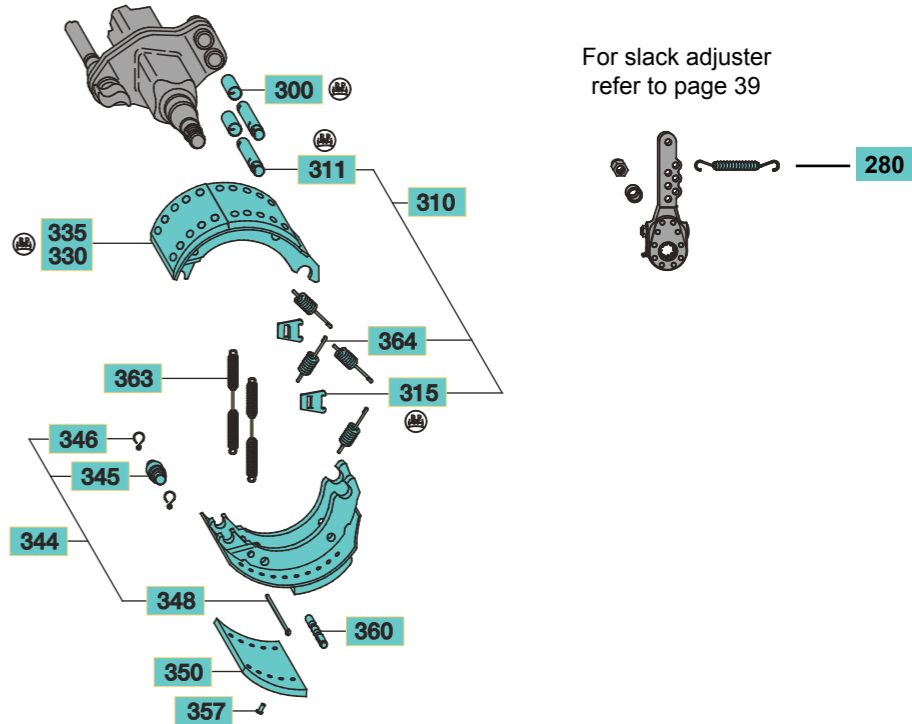




BPW DRUM BRAKE AXLE RANGE						
Model range	Axle beam profile	Beam options	To suit tyre size	Brake type	Brake size	Hub options
H/R Series	H - Square beam R - Round beam	120mm square 150mm square 127mm round	20"/22.5"	SN4218	Ø420 x 180mm	10 Stud 335 PCD 10 Stud 285 PCD Spider
KH Series	KH - Square beam	120mm square	19.5"	SN3620	Ø360 x 200mm	8 Stud 275 PCD 10 Stud 225 PCD
NH/NR Series	NH - Square beam NR - Round beam	120mm square 127mm round	15"/17.5"	SN3020	Ø300 x 200mm	10 Stud 225 PCD Spider

DIFFERENT HUB GENERATIONS		
Hub type	Axle load	Date range
Conventional	9 & 10-12 tonne	1987 - Late 1996 *
ECO	9 & 10-12 tonne	Late 1996 - Late 2008
ECO Plus	9 & 10-12 tonne	2009 - Late 2018
ECO Plus 3	9 & 10-12 tonne	Late 2018 - Present

CONVENTIONAL BRAKE 20"/22.5"



BRAKE COMPONENTS												
KITS								PARTS				
Description	Part no.	Qty per axle	Description	Part no.	Qty per axle	Description	Part no.	Qty per axle	Item	Description	Part no.	Qty per axle
Brake lining kit	T090/4218	1							350	Brake lining segment	Not available as individual item. refer to brake lining kit	
									357	Steel rivet	02.5805.80.35	80
			BPW Brake spring kit	4218SP-KIT83	1	BPW Brake hardware kit	098064218BHNG	2	280	Return spring	05.397.26.03.0	2
									315	Wedge lock	03.167.23.02.0	4
			363	Return spring	05.397.46.07.0				4			
			364	Return spring	03.397.44.06.0				4			
			300	Bush	03.112.33.08.0				4			
			311	Anchor pin	03.084.46.22.0				4			
			345	Roller assembly	03.331.34.05.0				2			
			346	Roller retainer	03.350.00.13.0				4			
			348	Split pin	02.6201.66.03				2			
			360	Pin	03.001.08.05.0				2			
									330	Brake shoe assembly lined	No longer available Retrofit to BPW Brake 95 with split roller. Refer to page 20 .	
									335	Brake shoe unlined		

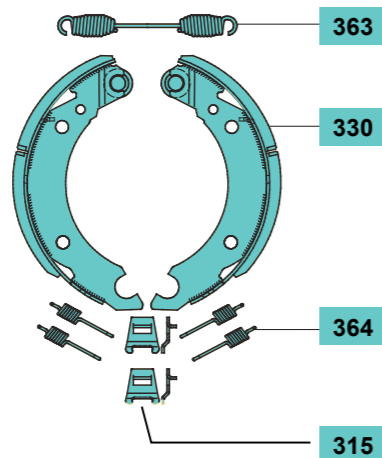
Ensure that the correct riveting pressure is used when relining genuine BPW brake shoes with genuine BPW lining segments and rivets. Correct riveting force = 25,000 N.



BPW DRUM BRAKE COMPONENTS SN4218

Pre BPW Brake 95 - conversion to BPW Brake 95

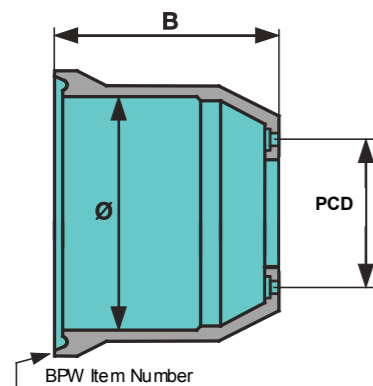
CONVERSION TO BRAKE 95



CONVERSION TO BPW BRAKE 95

Item	Description	Part no.	Qty per axle
330	Lined brake shoe c/w roller	05.091.46.32.1	4
363	Return spring	05.397.58.04.0	2
364	Return spring	03.397.44.06.0	8
315	Wedge lock BPW Brake 95 conversion	03.167.23.09.0	4

DRUM BRAKE DIMENSIONS



B = overall width

PCD = Pitch circle diameter
i.e. The diameter measured through the centre of the holes for the Wheel studs.

BRAKE DRUMS

Part no.	To suit tyre size	B Dimension	Stud holes	PCD	Bearings	Stud type
03.109.67.17.0	20"/22.5"	228 mm	Spider		9t	
03.109.67.81.0		252 mm			10-12t	
03.109.67.87.0		252 mm	10	285	9t & 10-12t	Back nut
03.109.67.74.0		252 mm	10	335	9t & 10-12t	
03.109.67.13.0		226 mm	10	335	9t *	
03.109.67.78.0		252 mm	10	335	10-12t	Push in

* For 9 tonne axles with track width 2,010mm - 2,040mm for single tyres.

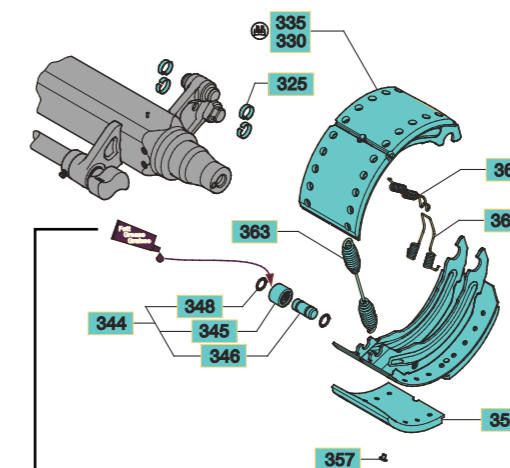
BPW DRUM BRAKE COMPONENTS SN4218

BPW Brake 95



H/R

BRAKE TYPE 20"/22.5"



BPW ECO-Li^{Plus} Grease

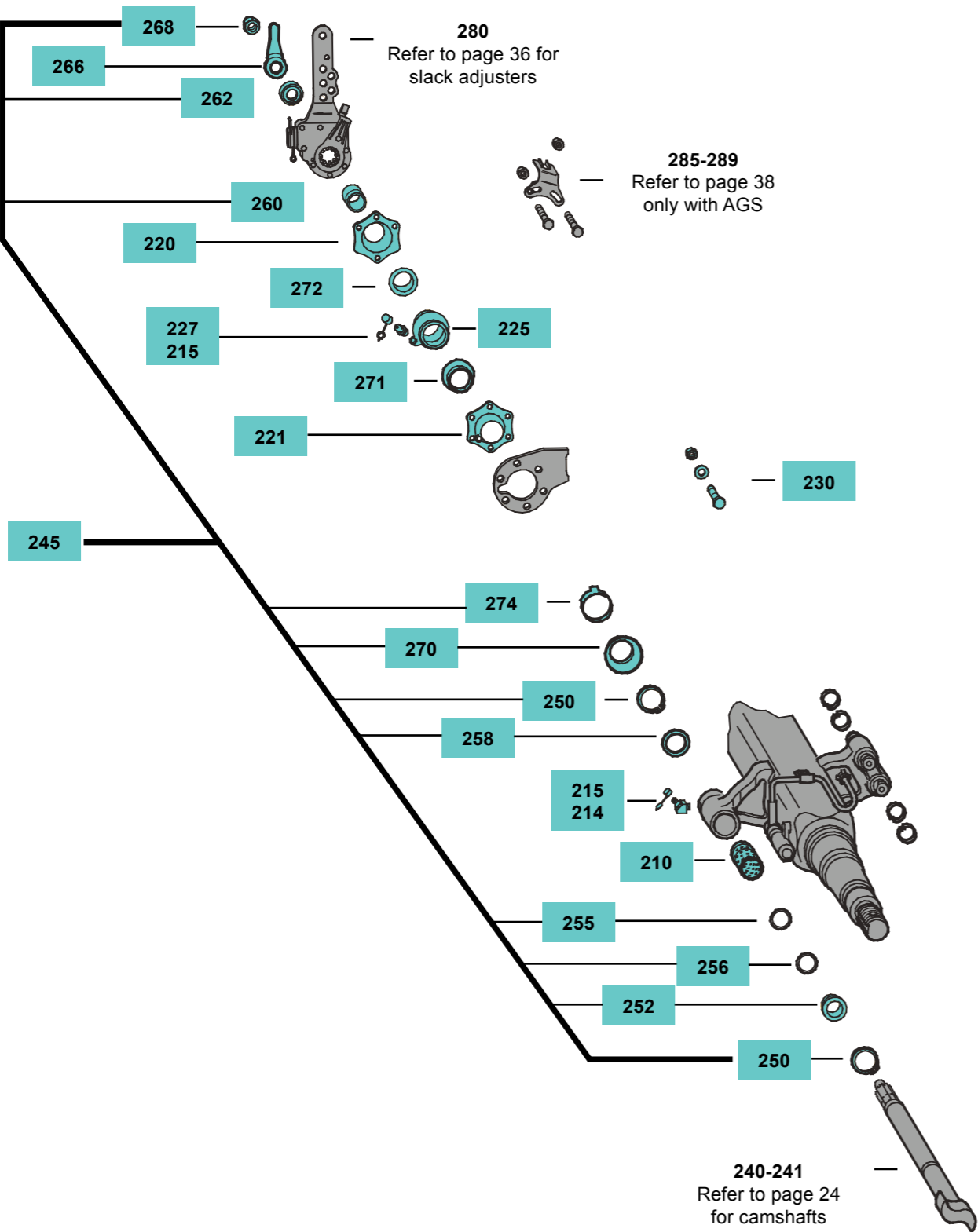
BRAKE COMOPONENTS

Description	Part no.	Qty per axle	Description	Part no.	Qty per axle	Description	Part no.	Qty per axle	Description	Part no.	Qty per axle	Item	Description	Part no.	Qty per axle
BPW Brake shoe and hardware kit	0509146320BH95	2	BPW Brake hardware kit	098064218BH95	2	BPW Brake spring kit	4218SPKIT	1				330	Lined brake shoe complete with roller	05.091.46.32.1	4
												325	Ring, anchor end C Clip	03.188.02.02.0	8
												363	Return spring	05.397.58.04.0	2
												367	Retention spring (Hook)	05.397.33.12.0	2
												368	Retention spring (Eye)	05.397.33.13.0	2
						BPW Brake shoe roller repair kit	09.801.02.91.0	2				345	Camshaft roller complete with bush	05.331.44.02.0	4
												346	Roller shaft	03.084.75.24.0	4
												348	Ring, roller retainer	03.310.70.15.0	8
									Brake lining kit	T090/4218	1	350	Brake lining segment	Not sold seperately, refer kits - Brake lining kit	
												357	Rivet (steel)	02.5805.8035	80

Ensure that the correct riveting pressure is used when relining genuine BPW brake shoes with genuine BPW lining segments and rivets. Correct riveting force = 25,000 N.



BPW DRUM BRAKE COMPONENTS SN4218
Brake camshaft bearings



BPW DRUM BRAKE COMPONENTS SN4218
Brake camshaft bearings



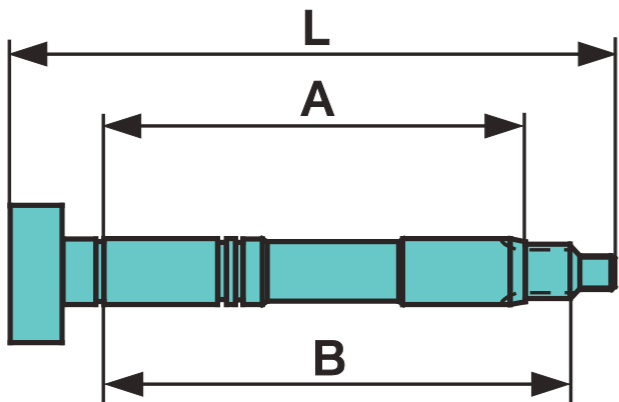
H/R

BRAKE CAMSHAFT BEARINGS													
KITS						PARTS							
Description	Part no.	Qty per axle	Item	Description	Part no.	Qty per axle	Item	Description	Part no.	Qty per axle			
BPW Camshaft repair kit	0509700KIT	1	245	BPW Camshaft small parts kit	09.801.00.14.2	2	250	Circlip	02.5676.01.00	2			
							252	Camshaft washer	03.310.12.24.0	2			
							254	Ring	03.310.81.02.0	2			
							255	O Ring (Ø37 x 2.6 Black)	02.56773.7.42	2			
							256	O Ring (Ø40 x 2.5 Green)	02.5679.23.00	2			
							258	Dust Seal Outer Cam	03.120.42.02.0	2			
							262	Disc	03.320.11.16.1	2			
							270	Dust seal camshaft large grey	03.120.43.14.0	2			
							274	Clamp	03.350.30.02.0	2			
							210	Bush outer camshaft bronze	03.112.44.34.0	2			
							214	Grease nipple (M10 x 1/4)	02.6802.06.50	2			
							214	Grease nipple inner camshaft bush	02.6802.14.50	2			
							215	Cap grease nipple	02.3505.20.00	4			
							220	Bearing box outer	03.229.02.18.0	2			
							221	Bearing box inner	03.229.02.19.0	2			
							225	Bush inner camshaft	03.113.14.04.0	2			
							227	Grease nipple	02.680.21.45.0	2			
							260	Circlip camshaft spline	02.5616.05.90	2			
							260	Bush adaptor sleeve	03.113.03.06.0	2			
							271	Dust seal outer - inner camshaft	03.120.42.09.0	2			
							272	Dust seal inner - inner camshaft	03.120.42.08.0	2			
							230	Bolt assembly	05.865.00.02.0	2			
							231	Spring washer	02.540.30.89.2	2			
							232	Nut	02.520.21.28.2	2			
							266	Lever (brake wear indicator) suit ECO-Master slack adjuster	03.190.14.07.1	2			
							268	Lock nut camshaft	05.260.14.12.0	2			



BPW DRUM BRAKE COMPONENTS SN4218
Brake camshaft dimensions

CAMSHAFT DIMENSION



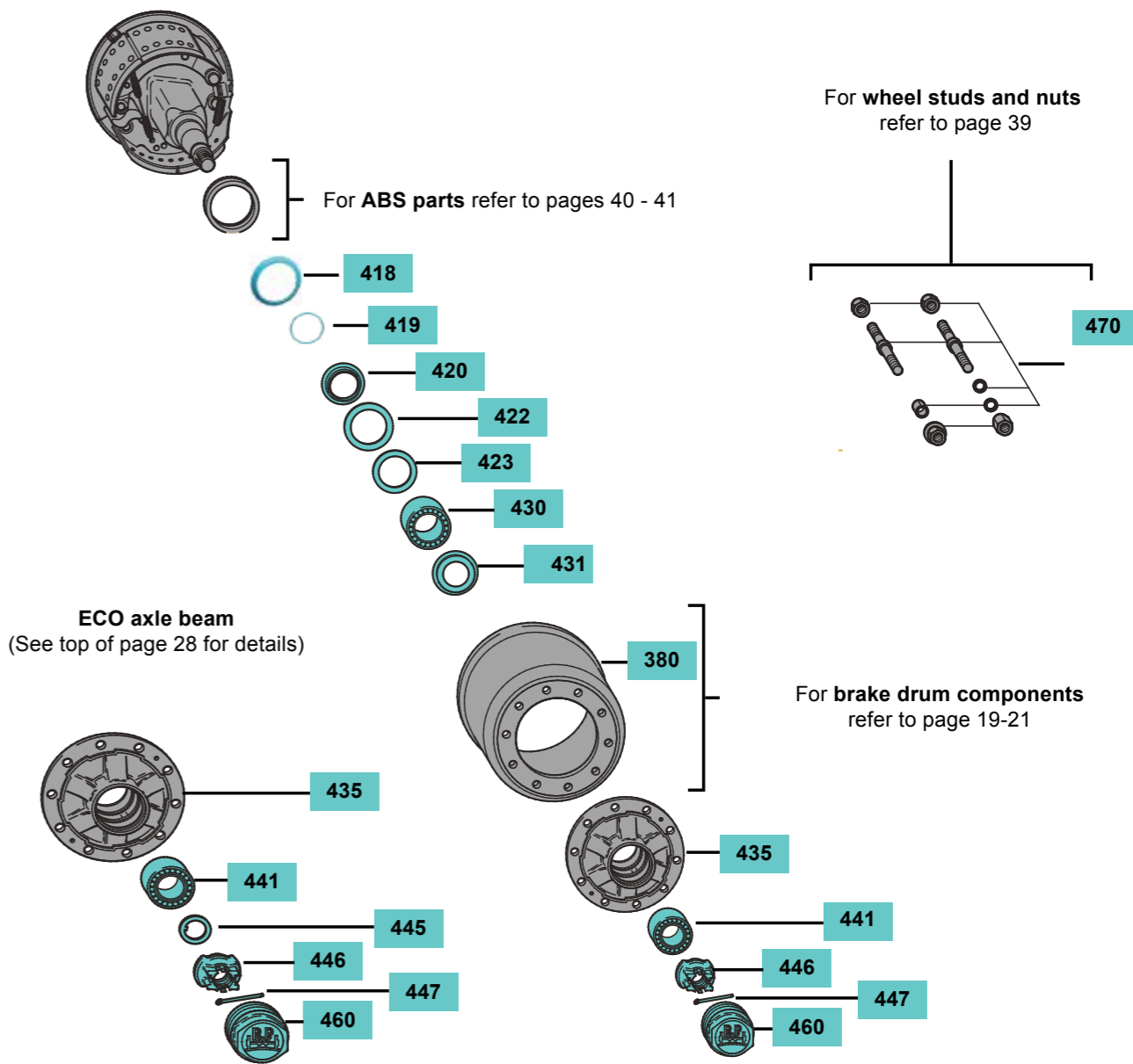
CAMSHAFTS TO SUIT BRAKE SIZE SN4218						
Dimensions			Part no.			
A (mm)	L (mm)	B (mm)	Item	Left hand	Item	Right hand
470	585	500	240	05.097.05.17.4	241	05.097.05.18.4
510	628	540		05.097.05.21.4		05.097.05.22.4
523	641	563		05.097.05.23.4		05.097.05.24.4
548	666	578		05.097.05.25.4		05.097.05.26.4
578	696	608		05.097.05.27.4		05.097.05.28.4
616	734	646		05.097.05.29.4		05.097.05.30.4
635	753	665		05.097.05.37.4		05.097.05.38.4
700	818	730		05.097.05.49.4		05.097.05.50.4
742	860	772		05.097.05.31.4		05.097.05.32.4

BPW CONVENTIONAL HUB SN4218
Hub components to suit 9t and 10-12t



H/R

Axle beam profile H



For grease filling quantities and details on **BPW ECO-LI^{Plus} grease** refer page 85 and for information regarding **BPW grease shower tools** refer to page 86.



BPW CONVENTIONAL HUB SN4218

Hub components to suit 9t

HUB COMPONENTS TO SUIT 9 TONNE							
KIT per hub		PARTS					
Description	Part no.	Item	Description	Tyre size	Part no.		Qty per axle
					Oil hub	Grease hub	
		435	Spider hub - dual wheels	20"/	08.328.70.15.0 *	08.328.70.14.0 *	2
			Spider hub - single wheels	22.5"	08.328.70.16.0 *	08.328.70.13.0 *	2
			Hub 10 stud 285 PCD - dual aluminium wheels	20"/ 22.5"	03.272.29.08.0	03.000.61.86.7	2
			Hub 10 stud 285 PCD - single wheels				2
			Hub 10 stud 335 PCD - dual aluminium wheels				2
			Hub 10 stud 335 PCD - single wheels				2
		418	Dust seal		03.120.47.05.0		2
		419	O Ring seal carrier oil hub		02.5677.90.40		2
Wheel bearings & seal kit (Grease hub)	0980102170TSSC	420	Seal carrier		03.370.51.07.0	05.370.06.48.0	2
		422	Seal grease inner			03.310.97.31.0	2
			Hub seal - oil hub		02.5664.26.57		2
		430	Inner bearing		02.6410.24.00		
		441	Outer bearing		02.6410.25.00 02.6410.25.00		2
		445	Washer ECO axle beam (refer to page 28)		03.320.73.13.0		2
		447	Split pin		02.6201.82.01	02.6201.82.01	2
		423	Grease seal outer			03.310.97.32.0	2
		431	Grease shield (slinger)			03.010.04.15.0	2
		446	Axle nut		03.262.16.08.0		2
	Axle nut for ECO axle beam (refer to page 28)			03.262.16.15.0		2	
		460	Hub cap (see dimensions below)		03.212.23.09.0	03.212.23.09.0	2
					For hubcaps with integrated hubodometers please refer to page 43.		

* No longer available. No replacement.

HUBCAP (from 1982 to present)				
Description	Part no.	H	SW	Thread (external)
9 tonne	03.212.23.09.0	62	95	M115 x 2
10-12 tonne	03.212.24.07.0	62	110	M125 x 2
10-12 tonne chrome	0321224070C	62	110	M125 x 2

BPW CONVENTIONAL HUB SN4218

Hub components to suit 10-12t



H/R

HUB COMPONENTS TO SUIT 10-12 TONNE									
KIT per hub				PARTS					
Description	Part no.	Description	Part no.	Item	Description	Tyre size	Part no.		Qty per axle
							Oil hub	Grease hub	
				435	Spider hub - dual wheels	20"/22.5"	08.328.76.33.0 **	08.328.76.29.0 (bear hub)	2
					Spider hub - single wheels		08.328.76.36.0 *	08.328.76.30.0 *	2
					Hub 10 stud 285 PCD - dual aluminium wheels	20"/22.5"	03.272.47.27.0 **	03.272.47.25.0 **	2
					Hub 10 stud 285 PCD - single wheels				2
					Hub 10 stud 335 PCD - dual aluminium wheels		03.272.48.55.0 **	03.272.48.52.0	2
					Hub 10 stud 335 PCD - single wheels				2
Wheel bearings & seal kit (Oil hub)	0980102180TSSCO			418	Dust seal		03.310.98.24.0		2
				419	O Ring seal carrier oil hub		02.5678.00.00		2
		Wheel bearings & seal kit (Grease hub)	0980102180TSSC	420	Seal carrier		0337007470H	05.370.07.43.0	2
				422	Seal grease inner			03.310.97.30.0	2
					Hub seal - oil hub		02.5664.46.57		2
				430	Inner bearing		02.6410.23.00		
				441	Outer bearing		02.6410.22.00 02.6410.22.00		2
				445	Washer ECO axle beam (refer to page 28)		03.320.64.01.0		2
				447	Split pin		02.6201.84.01 02.6201.84.01		2
				423	Grease seal outer			03.310.98.21.0	2
				431	Grease shield (slinger)			03.010.05.22.0	2
				446	Axle nut		03.262.17.12.0		2
					Axle nut for ECO axle beam (refer to page 28)		03.262.17.18.0		2
				460	Hub cap (See previous page for dimensions)		03.212.24.07.0 03.212.24.07.0		2
					For hubcaps with integrated hubodometers please refer to page 43.				

* No longer available. No replacement.

** No longer available. See table below for replacement hub.

Hub to be replaced	Replacement hub
08.328.76.33.0 ⁽¹⁾	05.801.49.43.0 ⁽²⁾
03.272.47.25.0 ⁽¹⁾	03.272.45.45.0
03.272.47.27.0	
03.272.47.39.0	

- ⁽¹⁾ The replacement hub cannot be oil lubricated
⁽²⁾ This item number is an assembly which includes the hub, wheel studs, wheel nuts and wheel clamps

Important note:

When replacing the above mentioned hubs on:

- **Conventional axle stubs** (without keyway) retrofit kit **0980107082CONVTS** must be used
- **ECO axle stubs** (with keyway) retrofit kit **0980107082TS** must be used

For further information refer to **pages 32-33**.



BPW CONVENTIONAL HUB SN4218
Hub components to suit 9t and 10-12t

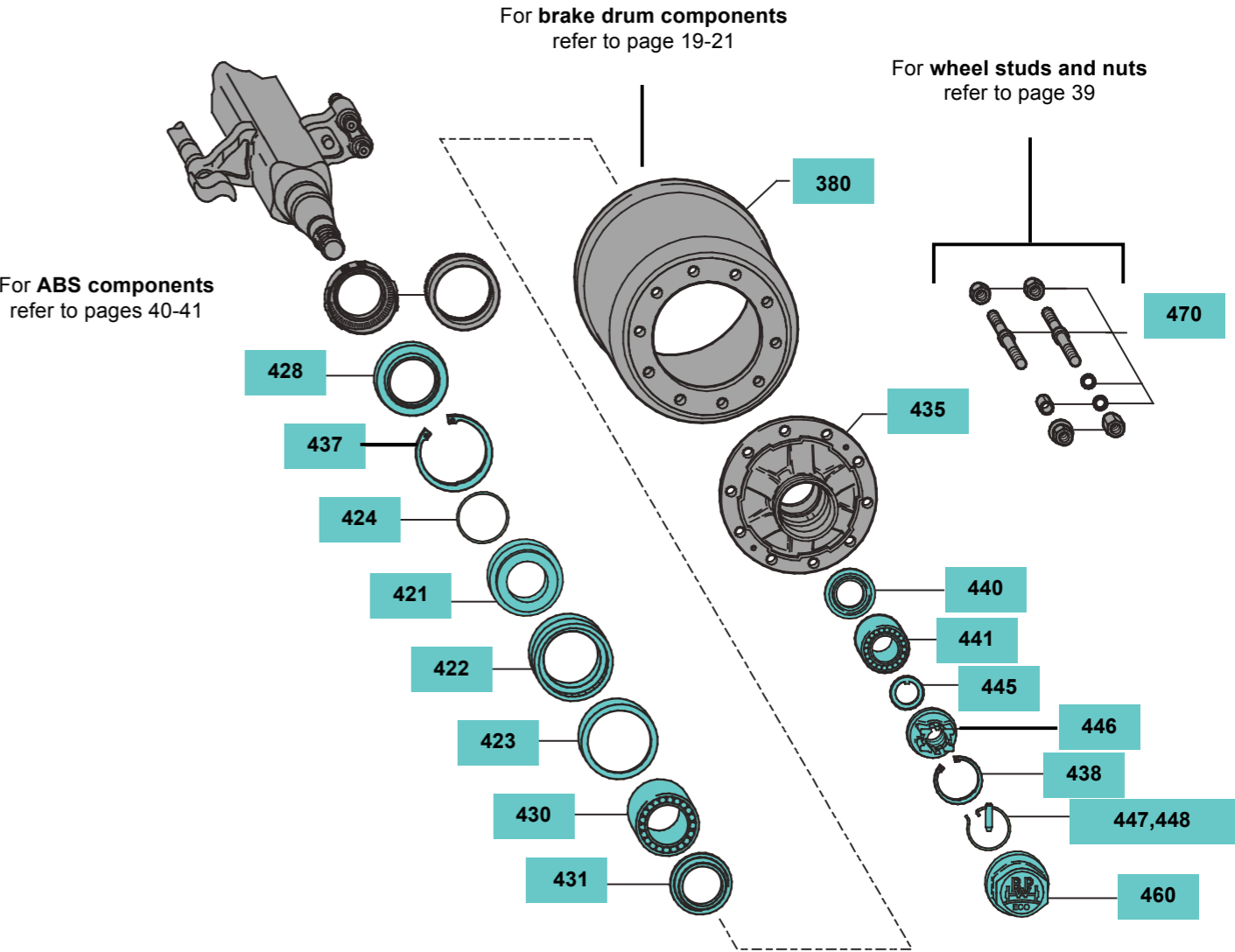
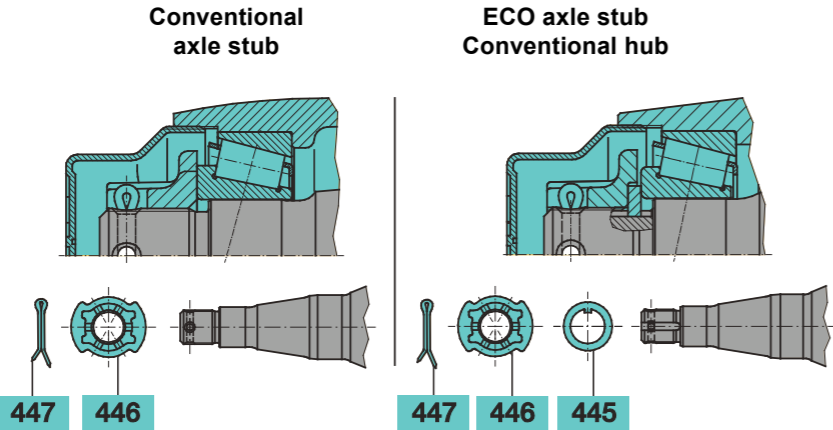


BPW ECO HUB SN4218
Hub components to suit 9t and 10-12t

H/R

Axle beam profile H

Uniform axle stubs for all BPW trailer axles
As of January 1995 BPW axle beams were converted to ECO axle stubs. These differ from the conventional axle stubs by a keyway in the thread area. A new axle nut (item 446) and a washer (item 445) is used to fit conventional bearing to ECO axle stubs. When supplying axle beams for replacement on conventional axles the beams will be fitted with washers (item 445) and axle nuts (item 446) To suit. If the axle beam is required for replacement on an ECO or ECO Plus axle the axle nuts and washers will not be supplied with the beam and will need to be ordered separately if required.



BPW BEARING COMBINATIONS						
Hub series	Journal size - nomenclature	Bearings				To suit tyre size
		Inner bearing		Outer bearing		
		Part no.	ISO size	Part no.	ISO size	
Conventional Hub 9t	Ø80mm, Ø50mm	02.6410.24.00	33116	02.6410.25.00	32310	20"/22.5"
Conventional Hub 10-12t	Ø90mm, Ø65mm	02.6410.23.00	33118	02.6410.22.00	33213	20"/22.5"

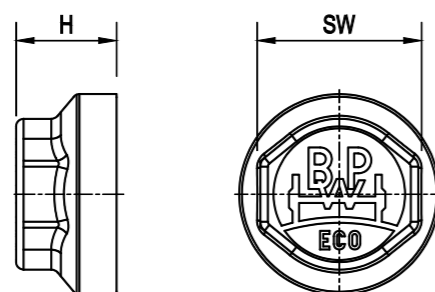
For grease filling quantities and details on **BPW ECO-LI^{Plus} grease** refer page 87 and for information regarding **BPW grease shower tools** refer to page 88.



BPW ECO HUB SN4218

Hub components to suit 9t

HUB COMPONENTS TO SUIT 9 TONNE							
KITS per hub				PARTS			
Description	Part no.	Description	Part no.	Item	Description	Tyre size	Qty per axle
Wheel bearings and seal kits (incl. seal carrier)	0980102720TSSC	Wheel bearings and seal kits	0980102720TSS	435	Hub Steel 10 335 - dual aluminium wheels	20"/22.5"	03.272.32.01.0 2
					Hub 10 Stud 285 PCD - dual aluminium wheels		03.272.28.63.0 2
				421	Seal carrier		03.370.07.76.0 2
				422	Hub seal		02.5664.57.00 2
				423	Seal keeper ring		02.5683.62.00 2
				424	O Ring		02.5677.90.40 2
				428	Dust seal		02.5681.98.00 2
				430	Inner bearing		02.6410.24.00 2
				431	Dust cover		03.010.93.33.0 2
				440	Thrust ring		03.370.25.16.0 2
				441	Outer bearing		02.6410.25.00 2
				445	Washer		03.320.73.13.0 2
				447	Pin lock axle nut		03.084.71.17.0 2
				448	Locking ring axle nut		03.188.03.06.0 2
				437	Circlip inner hub		02.5606.40.90 2
				438	Circlip outer hub		02.5606.12.90 2
				446	Axle nut		03.266.46.02.0 2
				460	Hubcap (see dimensions below)		03.212.24.25.0 2
							For hubcap with integrated hubodometer refer to page 43.



ECO HUB (from 1992 to present)				
Hubcap part no.	Description	H	SW	Thread (internal)
03.212.24.25.0	9 tonne	61	110	M125 x 2

BPW BEARING COMBINATION					
Hub series	Journal size - nomenclature	Inner bearing		Outer bearing	
		Part no.	ISO size	Part no.	ISO size
ECO Hub 9t	Ø80mm, Ø50mm	02.6410.24.00	33116	02.6410.25.00	32310
					20"/22.5"

BPW ECO HUB SN4218

Hub components to suit 10-12t



H/R

HUB COMPONENTS TO SUIT 10-12 TONNE							
KIT per hub				PARTS			
Description	Part no.	Description	Part no.	Item	Description	Tyre size	Qty per axle
Wheel bearings and seal kits (incl. seal carrier)	0980106890TSSC	Wheel bearings and seal kits	0980106890TSS	435	Hub Steel 10 335 - dual aluminium wheels	20"/22.5"	03.272.48.88.0 2
					Hub 10 Stud 285 PCD - dual aluminium wheels		03.272.47.29.0 * 2
				421	Seal carrier		03.370.07.77.0 2
				422	Hub seal		02.5664.58.00 2
				423	Seal keeper ring		02.5683.63.00 2
				424	O Ring		02.5678.00.00 2
				428	Dust seal		03.120.48.13.0 2
				430	Inner bearing		02.6410.23.00 2
				431	Dust cover		03.010.93.34.0 2
				440	Thrust ring		03.370.26.24.0 2
				441	Outer bearing		02.6410.22.00 2
				445	Washer		03.320.64.01.0 2
				447	Pin lock axle nut		03.084.71.17.0 2
				448	Locking ring axle nut		03.188.04.08.0 2
				437	Circlip inner hub		02.5606.60.90 2
				438	Circlip outer hub		02.5606.22.90 2
				446	Axle nut		03.266.47.03.0 2
				460	Hubcap (see dimensions below)		03.212.25.08.0 2
							For hubcap with integrated hubodometer refer to page 43

* No longer available. See table below for replacement hub.

Hub to be replaced	Replacement hub
0327247290	0327247390

Important note:

When replacing the above mentioned hubs on:

- **Conventional axle stubs** (without keyway) retrofit kit **0980107082CONVTS** must be used
- **ECO axle stubs** (with keyway) retrofit kit **0980107082TS** must be used

For further information refer to pages 32-33.

ECO HUB (from 1992 to present)				
Hubcap part no.	Description	H	SW	Thread (internal)
03.212.25.08.0	10-12 tonne	70	110	M135 x 2
0321225080C	10-12 tonne chrome	70	110	M135 x 2

BPW BEARING COMBINATION					
Hub series	Journal size - nomenclature	Inner bearing		Outer bearing	
		Part no.	ISO size	Part no.	ISO size
ECO Hub 10-12t	Ø90mm, Ø65mm	02.6410.23.00	33118	02.6410.22.00	33213
					20"/22.5"



BPW REPLACEMENT HUBS SN4218

10-12t conventional spider, conventional 10/285, ECO 10/285 and Eco Plus 3 plus 10 x 335

BPW Transpec will now supply ECO Plus hubs as replacement parts for 10-12 tonne axles with spider hubs or 10 stud 285 PCD with either Conventional or ECO hubs.

A retrofit kit will also be needed that includes axle nut, bearings, hubcap, seals etc to enable the installation of the new hub.

Two retrofit kits are available, one for the “ECO” beam, which has a keyway through the axle nut thread (these beams were used from early 1996) and one for the older beams that do not have the keyway. Note that the axle nut will not be the ECO Plus type.

The table below shows the item numbers of hubs to be replaced and the item number of the corresponding replacement hubs:

HUB TO BE REPLACED		REPLACEMENT HUB	
Item no.	Description	Item no.	Description
08.328.76.33.0	HUB 3 SPOKE OIL HXZ N/GEN *	03.328.76.51.0**	HUB 3 SPOKE GREASE HXZ N/GEN
03.272.47.25.0	HUB 10/285 HZ910 D/ALU GRS	03.272.47.45.0	HUB ECO P 10010 TK 285
03.272.47.27.0	HUB 10/285 HZ91 D/ALU OIL *		
03.272.47.29.0	HUB 10/285 HZ91 D/ALU ECO GRS		
03.272.47.39.0	HUB H10 10/285 ECO Plus D/AL DRUM		

* The replacement hub cannot be oil lubricated
** Hub only

Retrofit wheel bearing and seal kits

When an ECO Plus hub is used to replace a Conventional Spider, Conventional 10/285 or ECO 10/285 hub then a retrofit Wheel Bearing and Seal Kit must also be fitted.

There are two retrofit kits:

- 1) Item number = 0980107092CONVTS
Description = KIT BSC 10-12t ECO Plus - ECO RETROFIT CONV BEAM
(This kit suits older Conventional beams that do not have a keyway through the axle nut thread.)
- 2) Item number = 0980107092TS
Description = KIT BSC 10-12t ECO Plus - ECO RETROFIT
(This kit suits ECO axle beams with the keyway through the axle nut thread, these were used from early 1996 on axles with ECO hubs and axles with Conventional hubs)

BPW REPLACEMENT HUBS SN4218

10-12t conventional spider, conventional 10/285 and ECO 10/285

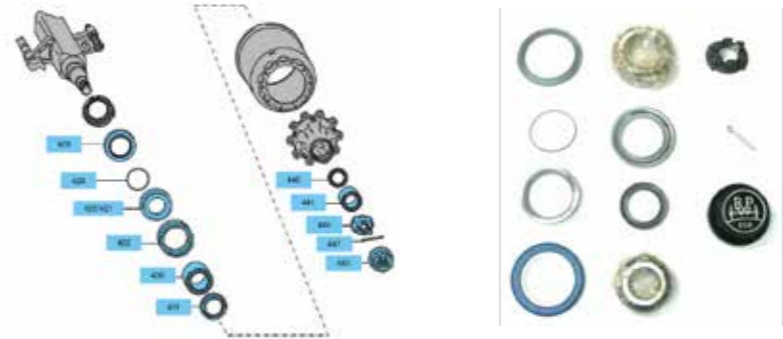


H/R

RETROFIT KIT ITEM NUMBER 0980107082CONVTS

This kit includes some ECO Plus hub components except for the circlips, hub sleeve, axle nut and the locking ring and pin. The kit includes the axle nut and split pin to suit the Conventional axle stub that does not have the ECO keyway.

Figure A

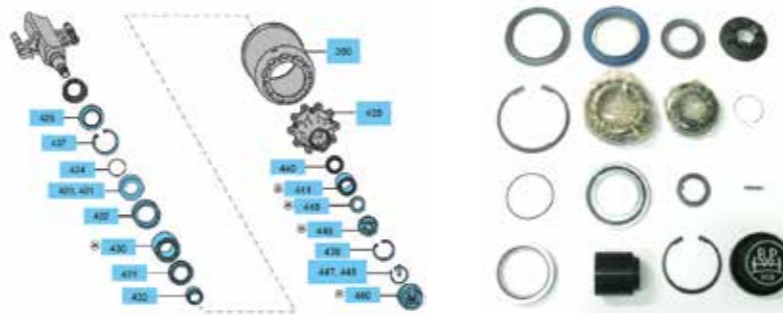


Kit part number 0980107082CONVTS includes items: 420 - 422, 424, 428, 430, 431, 440, 441, 446, 447 & 460

RETROFIT KIT ITEM NUMBER 0980107082TS

This kit includes ECO Plus hub components except for the axle nut, locking ring and locking pin which are ECO hub components to suit ECO axle stub with the keyway through the axle nut thread.

Figure B



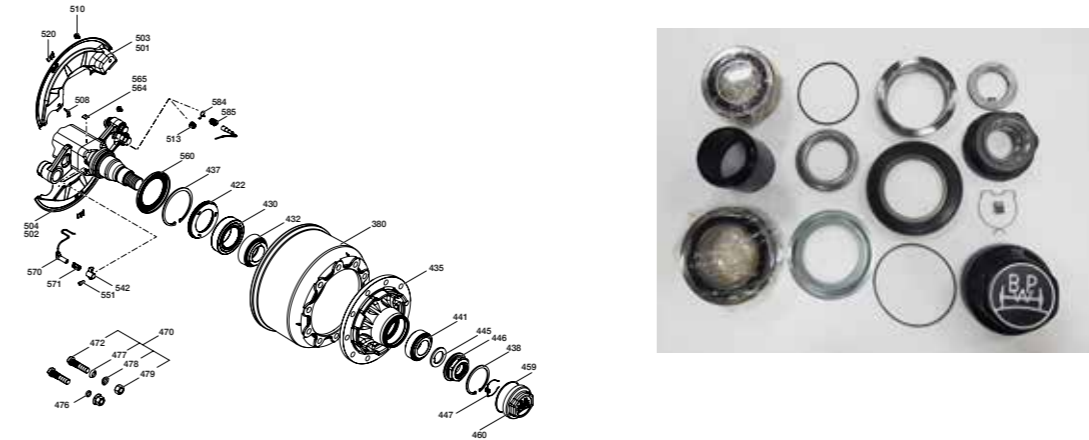
Kit part number 0980107082TS includes items: 420 - 422, 424, 428, 430 - 432, 437, 438, 440, 441, & 445 - 448

Please note that both retrofit kits include a special M136 x 2.5 hub cap with the ECO logo. This special hub cap is specifically for these retrofit kits and will not fit on an ECO hub.

RETROFIT KIT ITEM NUMBER XXXXXXXXXX

XXXXX

Figure C

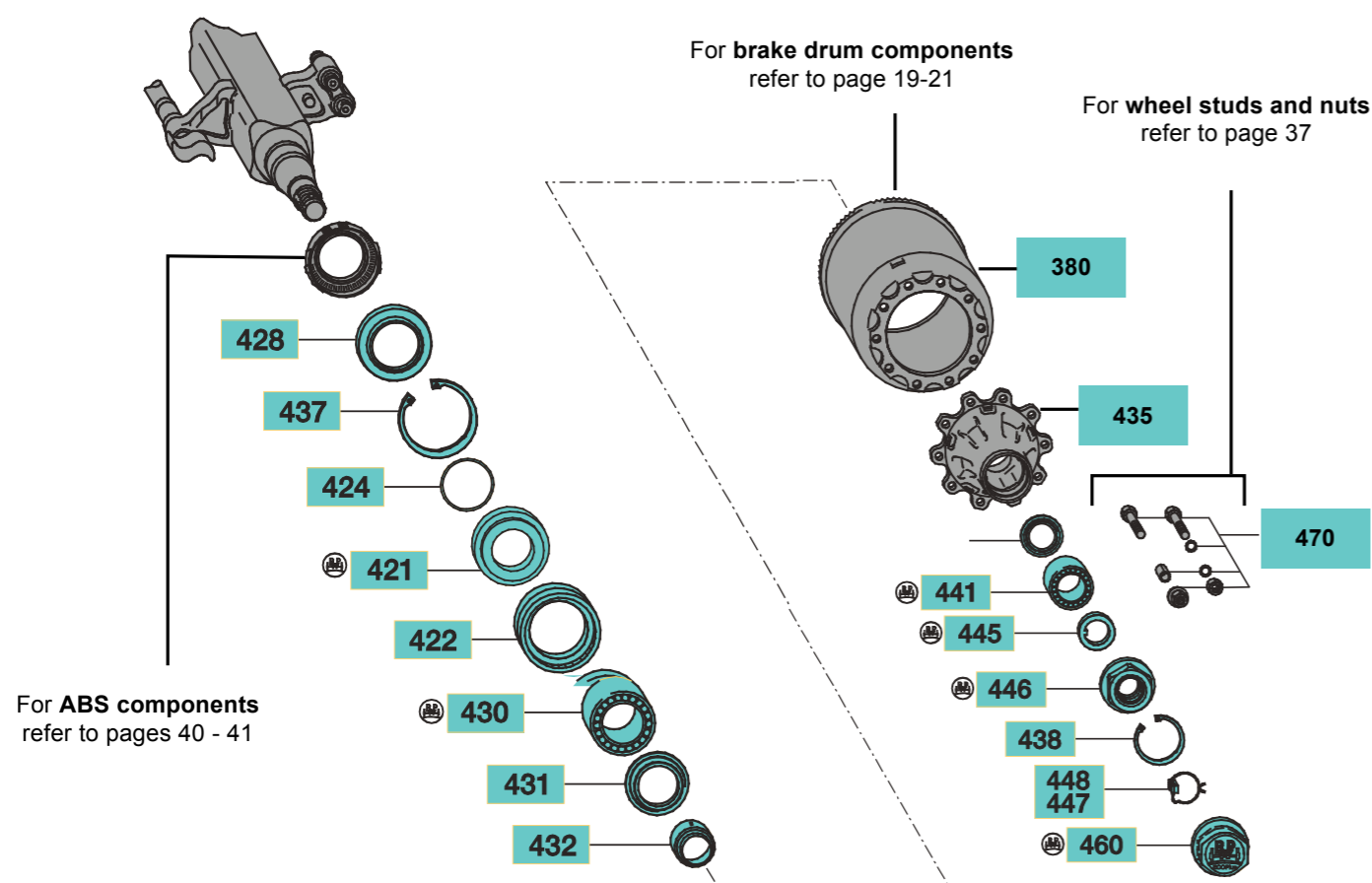




BPW ECO PLUS HUB SN4218

Hub components to suit 10-12t

Axle beam profile H



For grease filling quantities and details on **BPW ECO-LI^{Plus} grease** refer page 85 and for information regarding **BPW grease shower tools** refer to page 86.



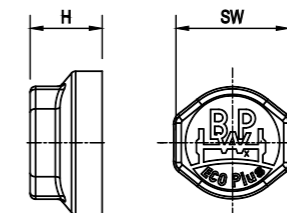
BPW ECO PLUS HUB SN4218

Hub components to suit 10-12t

H/R

HUB COMPONENTS TO SUIT 10-12 TONNE						
KIT per hub				PARTS		
Description	Part no.	Description	Part no.	Item	Description	Tyre size
						Part no.
						Qty per axle
				435	Hub Spider - dual wheels	20"/22.5"
					Hub 10 stud 285 PCD - dual aluminium wheels	20"/22.5"
					Hub 10 stud 335 PCD - dual & single wheels	20"/22.5"
Wheel bearings and seal kit	0980107040TS	Wheel bearings and seal kit	0980107040TSSC	422	Thrust ring with seal	02.5664.74.00
				428	Dust seal	03.120.48.15.0
				430	Inner bearing	02.6410.23.00
				431	Dust cover, bearing shield	03.010.93.34.0
				440	Thrust ring	03.370.26.24.0
				441	Outer bearing	02.6410.22.00
				447	Locking wedge axle nut	03.277.00.07.0
				448	Locking ring for wedge	03.188.04.10.0
				424	O Ring	02.5678.00.00
				432	Dust seal	03.120.45.16.0
				421	Seal carrier	03.370.07.72.0
				437	Circlip inner hub	02.5606.58.90
				438	Circlip outer hub	02.5606.22.90
				445/446	Axle nut and washer kit	05.807.00.44.0
				460	Hubcap (see dimensions below)	03.212.25.31.0
						For hubcaps with integrated hubodometer refer to page 43

* This item number is an assembly which includes the hub, wheel studs, wheel nuts and wheel clamps.



ECO PLUS HUB (from 2005)				
Hubcap part no.	Description	H	SW	Thread (internal)
03.212.25.31.0	Standard	70	110	M136 x 2.5
0321225310C	Chrome	70	110	M136 x 2.5

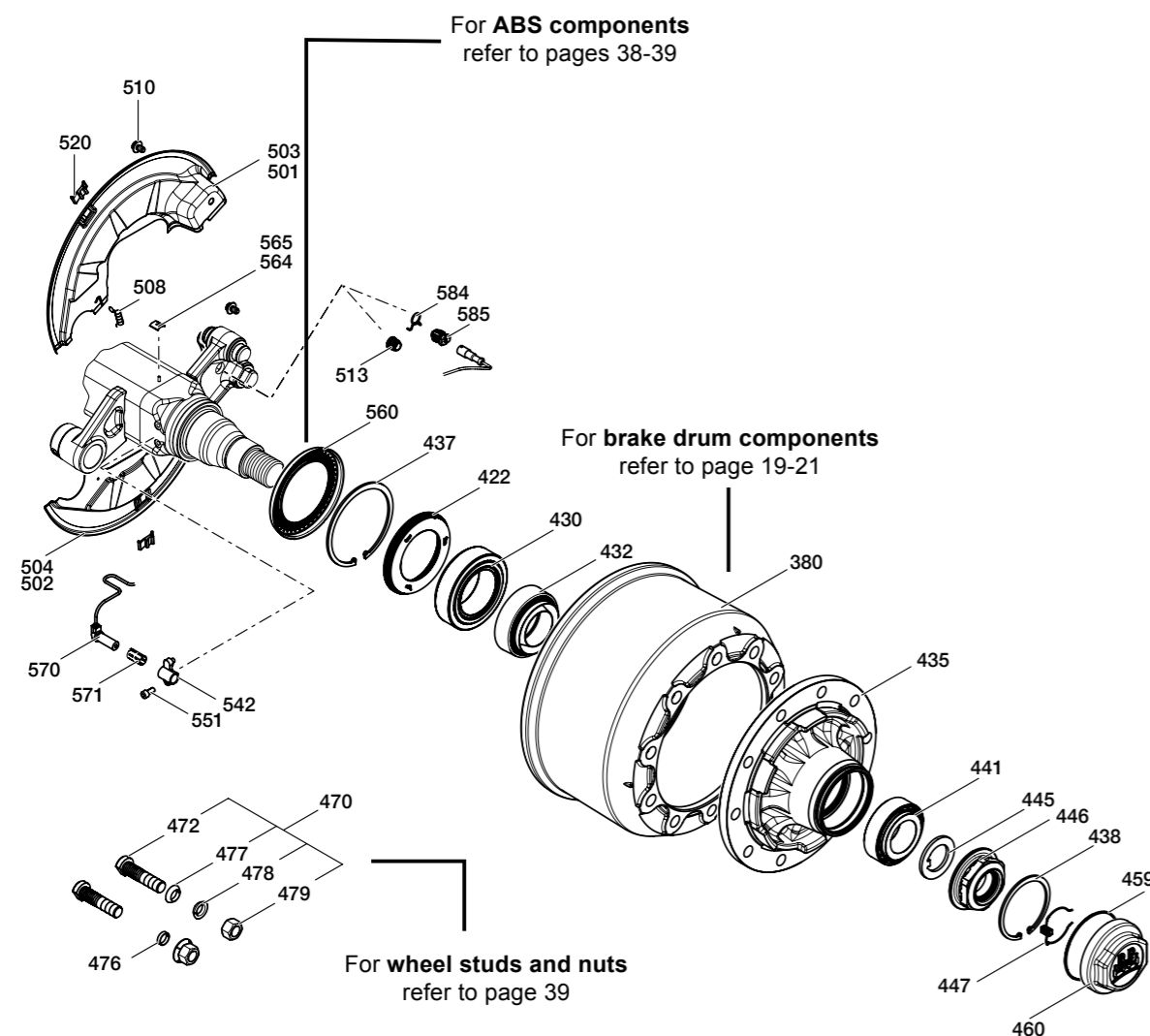
BPW BEARING COMBINATIONS						
Hub series	Journal size - nomenclature	Inner bearing		Outer bearing		To suit tyre size
		Part no.	ISO size	Part no.	ISO size	
ECO Plus 10-12t	Ø90mm, Ø65mm	02.6410.23.00	33118	02.6410.22.00	33213	20"/22.5"



BPW ECO PLUS 3 HUB SN4218

Hub components to suit 10-12t

Axle beam profile H



For grease filling quantities and details on **BPW ECO-LI^{Plus} grease** refer page 85 and for information regarding **BPW grease shower tools** refer to page 86.

BPW ECO PLUS 3 HUB SN4218

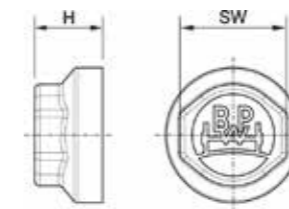
Hub components to suit 10-12t



H/R

HUB COMPONENTS TO SUIT 10-12 TONNE						
KIT per hub				PARTS		
Description	Part no.	Description	Part no.	Item	Description	Qty per axle
				435	Hub Spider - dual wheels	2
					ECO P 10010 TK 285 Drum	2
					Hub HZF Eco P 10010 TK 335 Drum	2
Wheel bearings and seal kit	0980107050TS	Wheel bearings and seal kit	0980107050TSSC	422	Thrust ring with lip seal	2
				428	Dust seal	2
				430	Inner bearing	2
				431	Dust cover, bearing shield	2
				440	Thrust ring	2
				441	Outer bearing	2
				447	Locking wedge axle nut	2
				448	Locking ring for wedge	2
				424	O Ring	2
				432	Dust seal	2
				421	Seal carrier	2
				437	Circlip inner hub	2
				438	Circlip outer hub	2
				445/446	Axle nut and washer kit	2
				459	O ring	2
				460	Hubcap (see dimensions below)	2
					For hubcaps with integrated hubodometer refer to page 43	

* This item number is an assembly which includes the hub, wheel studs, wheel nuts and wheel clamps.



ECO PLUS 3 HUB (from 2018)				
Hubcap part no.	Description	H	SW	Thread (internal)
03.212.29.08.0	Standard	70	110	M135 x 2.5
03.212.29.08.8C	Chrome	70	110	M135 x 2

Only in conjunction with O Ring 02.5678.72.00

BPW BEARING COMBINATIONS						
Hub series	Journal size - nomenclature	Inner bearing		Outer bearing		To suit tyre size
		Part no.	ISO size	Part no.	ISO size	
ECO Plus 3 10-12t	Ø90mm, Ø65mm	02.6410.23.00	33118	02.6410.22.00	33213	20"/22.5"



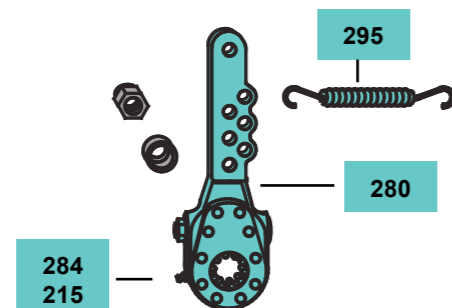
BPW BRAKE SLACK ADJUSTERS SN4218

Manual and automatic slack adjusters



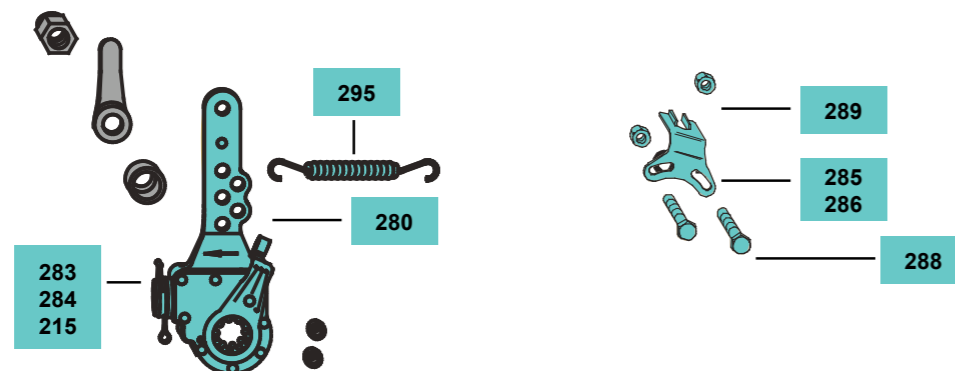
H/R

MANUAL SLACK ADJUSTER (GSK)



MANUAL SLACK ADJUSTER (GSK)			
Item	Description	Part no.	Qty per axle
280	Slack adjuster 4 holes	05.174.52.61.0	2
	Slack adjuster 6 hole (Multihole)	05.174.65.13.0	2
284	Grease nipple	02.6850.01.02	2
215	Cap	02.3505.20.00	2
295	Return spring	05.397.26.03.0	2

AUTOMATIC SLACK ADJUSTER (AGS) ECO-MASTER

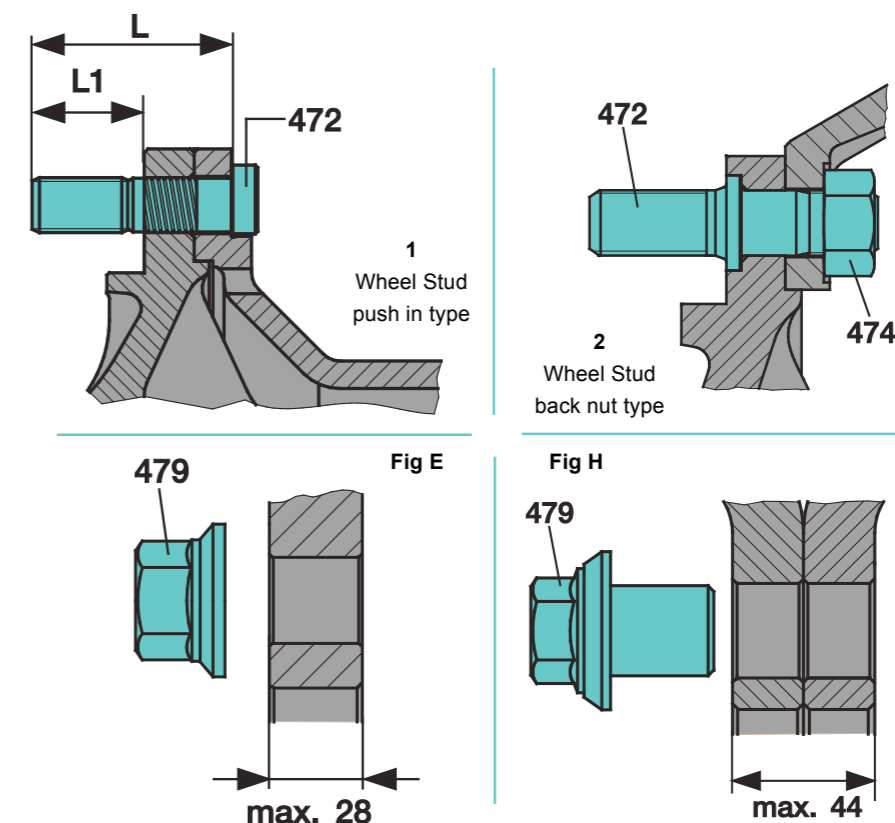


AUTOMATIC SLACK ADJUSTER (AGS) ECO-MASTER					
KITS		PARTS			
Description	Part no.	Item	Description	Part no.	Qty per axle
Kit auto slack adjuster 6 holes a=120° (H/R)	05.574.82.43.3 *	280	Auto slack adjuster 6 Holes, a = 24° **	05.174.82.21.3	2
		283	Cap	03.211.90.15.0	2
		284	Grease nipple	02.6850.01.02	2
		215	Cap grease nipple	02.3505.20.00	2
		285	Shaped plate (left hand)	03.165.25.15.0	1
		286	Shaped plate (right hand)	03.165.25.16.0	1
		288	Hexagon screw M 8x25/933	02.5025.30.82	4
		289	Lock nut	02.5273.32.82	4
		295	Return spring	05.397.26.03.0	2

* Standard automatic slack adjusters for H/R axles.

** Only available in kit.

BPW WHEEL STUDS & NUTS SN4218



To help to determine replacement wheel studs and nuts select the wheel stud or bolt type from figures 1 and 2 above. Then determine the wheel nut type from Figures E or H below. Then select the appropriate combination using the table below. For example the combination 1E represents push in type wheel studs for steel wheels.

WHEEL STUDS & NUTS FOR ECO PLUS HUB								
Item	Description	Part no.	Wheel type		Fig	Stud style	No. of studs	Dimension
472	Wheel stud	03.296.33.12.1	dual	Steel	1	push in	10	M 22x1.5x97
		03.296.33.17.1	dual	Aluminium			8	
		03.296.23.17.0	dual / single	Steel	2	back nut	10	M 22x1.5x114
		03.296.23.24.0	dual	Aluminium			10	M 22x1.5x136
479	Wheel nut	05.260.54.10.0	dual / single	Steel	E			M 22x1.5
474	Back nut	03.260.04.06.0	dual / single	Steel / Aluminium	2			M 22x2
	Peg	02.6010.35.60				back nut		Ø 6x19.5

* Qty 16 for 8 stud hub/ 20 per axle for 10 stud hub

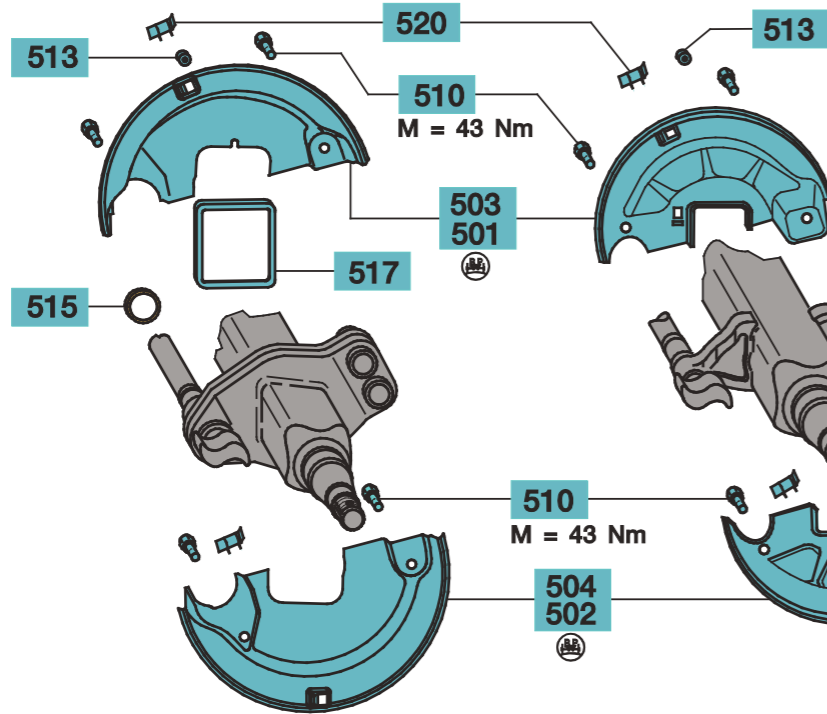


BPW DUST COVER COMPONENTS SN4218
Pre BPW Brake 95, BPW Brake 95, BPW ECO Drum



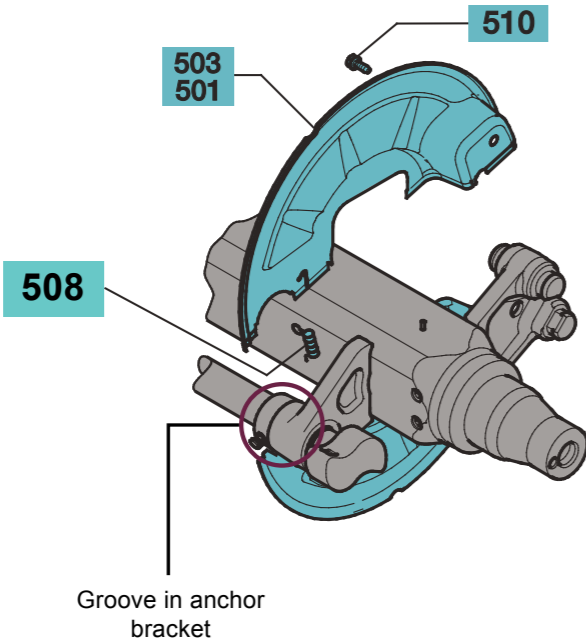
H/R

PRE BPW BRAKE 95



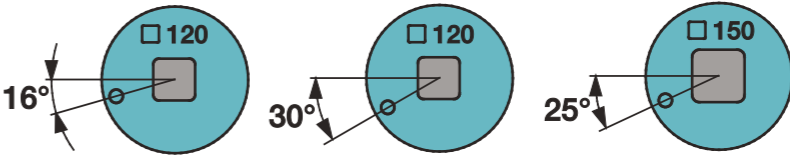
BPW BRAKE 95

BPW ECO DRUM



Please note:
Non ECO Drum dust covers **CANNOT** be used on ECO Drum axles.
ECO Drum dust cover **CANNOT** be used on non ECO Drum axles.

BPW DUST COVER COMPONENTS SN4218
Pre BPW Brake 95, BPW Brake 95, BPW ECO Drum



The diagrams directly to the right show the axle beam brake positions available for Brake type SN4218. This represents the angle between the S Cam and the centre line of the axle.
Different dust covers are required for the different brake positions as shown in the table on the next page.
For Ø127mm round beam axles the same set of dustcovers are used for all cam positions.

DUST COVERS SUIT BRAKE TYPE SN4218						
Brake generation	Axle beam profile	Brake position	Item 501 Left upper	Item 502 Left lower	Item 503 Right upper	Item 504 Right lower
Pre BPW Brake 95	Square beam 120mm	30°	03.010.98.45.1	03.010.98.08.0	03.010.98.46.1	03.010.98.09.0
		16°	03.010.99.34.0	03.010.99.33.0	03.010.99.36.0	03.010.99.35.0
	Square beam 150mm	25°	03.010.98.91.0	03.010.98.12.0	03.010.98.92.0	03.010.98.13.0
	Round beam 127mm	30°	03.010.98.69.0	03.010.98.06.0	03.010.98.70.0	03.010.98.05.0
BPW Brake 95	Square Beam 120mm	30°	03.010.81.03.0	03.010.81.04.0	03.010.81.01.0	03.010.81.02.0
		16°	03.010.81.31.0	03.010.81.32.0	03.010.81.29.0	03.010.81.30.0
	Square Beam 150mm	25°	03.010.81.35.0	03.010.81.36.0	03.010.81.33.0	03.010.81.34.0
	Round Beam 127mm	30°	03.010.81.07.0	03.010.81.08.0	03.010.81.05.0	03.010.81.06.0
BPW ECO Drum	Square Beam 120mm	16°	03.010.81.31.0 ⁽¹⁾	03.010.81.32.0 ⁽¹⁾	03.010.81.29.0 ⁽¹⁾	03.010.81.30.0 ⁽¹⁾
			03.010.71.93.0 ⁽²⁾	03.010.71.94.0 ⁽²⁾	03.010.71.91.0 ⁽²⁾	03.010.71.92.0 ⁽²⁾
	Square Beam 150mm	25°	03.010.71.97.0 ⁽²⁾	03.010.71.98.0 ⁽²⁾	03.010.71.95.0 ⁽²⁾	03.010.71.96.0 ⁽²⁾

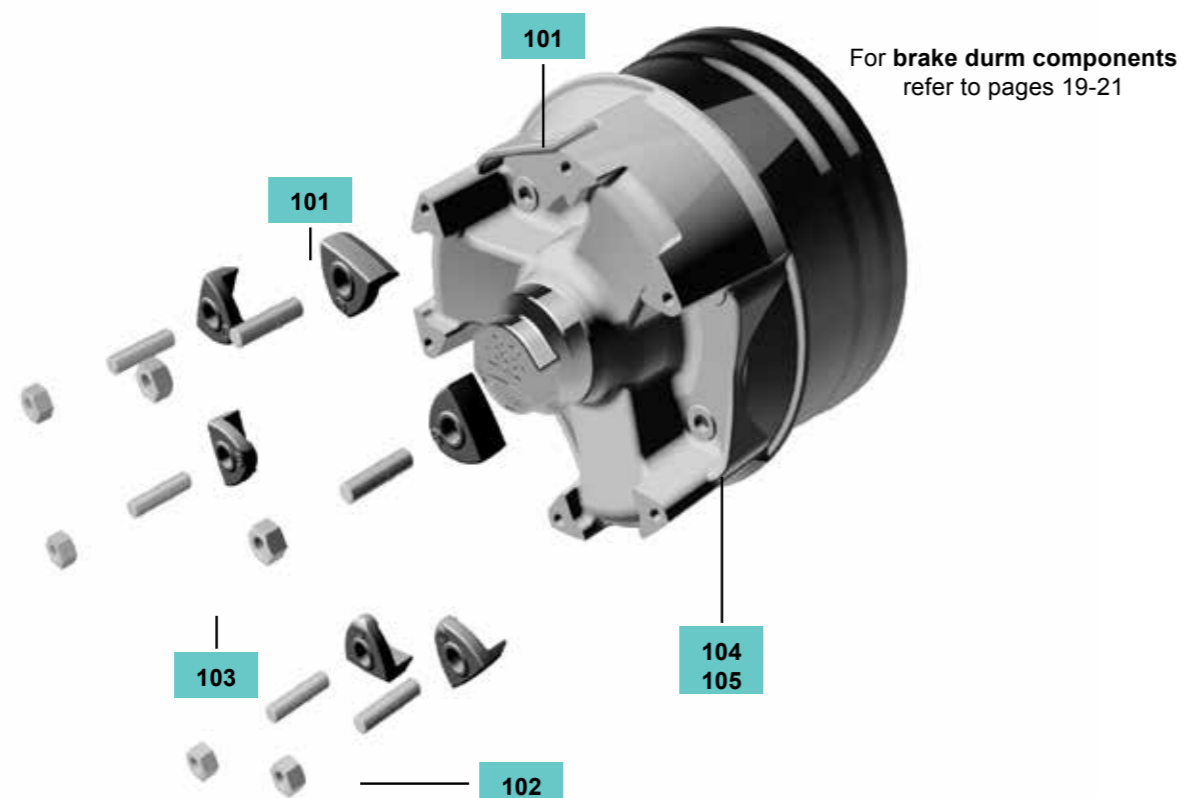
⁽¹⁾ ECO Drum dust covers for old axle beam, attached with two screws per dust cover.
⁽²⁾ ECO Drum dust covers for ECO Drum axle beam, attached with one screw per dust cover and a return spring.

DUST COVER ATTACHMENT PARTS				
Item	Description	Part no.	Dimensions	Qty per axle
508	Dust Cover Retaining Spring - ECO Drum only	03.397.11.02.0		2
510	Bolt Dust Cover Self Locking	02.5071.22.00	M10 x 18	4
	Bolt Dust Cover Self Locking - ECO Drum only	02.5071.55.80	M10 x 1.5 x 15	2
513	Plug, No ABS, Pre BPW Brake 95	02.3704.33.00	Ø 10.7	2
513	Plug, No ABS, BPW Brake 95 and ECO Drum	02.3704.57.00	Ø 6/10/13	2
515	Seal	03.120.23.06.0	Ø 52/68/8	2
517	Seal - Square axle beam 120mm/Round axle beam 127mm (Used with both Pre BPW Brake 95 and BPW Brake 95)	05.121.30.06.0	L = 340, o 8	2
	Seal - Square axle beam 150mm	05.121.30.07.0	L = 450, o 8	2
520	Plug Rubber Backing Plate	03.379.00.23.0		4



BPW SPIDER HUB COMPONENTS SN4218

Spider hubs, wheel clamps, wheel studs, wheel nuts, bolts



BPW HUBCAPS SN4218

With integrated analogue hubodometer



H/R



Tyre rolling circumference:

The tyre rolling circumferences in the table below are based according to standard ETRTO (European Tyre and Rim Technical Organisation). Data of various tyre manufacturers can vary slightly.

WHEEL CLAMPS, STUDS AND NUTS TO SUIT SPIDER HUBS								
Item	Description	Tyre size	Conventional 9t		Conventional 10-12t		ECO Plus 10-12t	Qty per axle
			Oil hub	Grease hub	Oil hub	Grease hub	Grease hub	
100	Spider Hub - dual wheels	20"/22.5"	0832870150* (Incl. 101-103) 6 spoke	0832870140* (Incl. 101-103) 6 spoke		03.328.76.29.0 (Incl. 101-103) 3 spoke	05.801.49.43.0 (Incl. 101-103) 3 spoke	2
	Spider Hub - single wheels	20"/22.5"	0832870160* (Incl. 101-103) 6 spoke	0832870130* (Incl. 101-103) 6 spoke	0832876360* (Incl. 101-103) 6 spoke	0832876300* (Incl. 101-103) 6 spoke		
101	Wheel clamp - dual wheels	20"/22.5"	03.372.03.02.0					12
	Wheel clamp - single wheels		02.1816.20.00					12
102	Wheel stud	20"/22.5"	03.340.73.07.1					12
103	Wheel nut		03.260.03.04.0					12
104	Bolt - spider hub drum assy	20"/22.5"	02.5026.61.10					12
105	Nut - spider hub drum assy		03.260.03.12.0					12

* No longer available. No replacement.

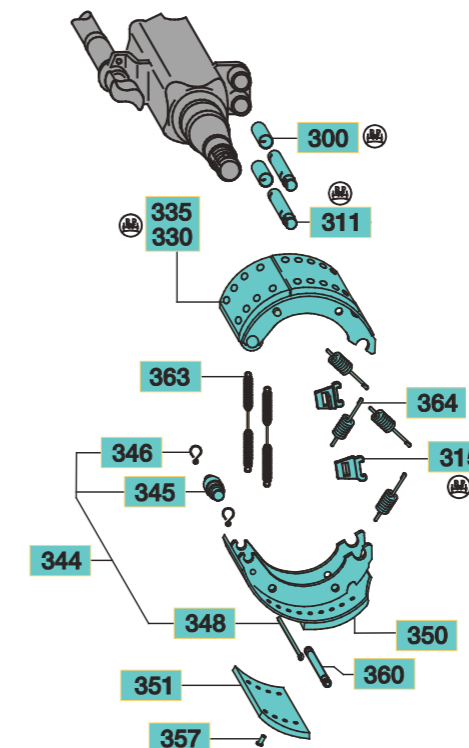
BPW HUBCAPS WITH INTERGRATED ANALOGUE HUBODOMETER					
Axle load	Hub type	Hubcap Thread	Tyre size	Tyre rolling circumference $\pm 2\%$	Part no.
9 tonne	Conventional	M 115 x 2	11 R 22.5	3175 mm - 3220 mm	05.212.23.34.0
	ECO	M 125 x 2	11 R 22.5	3175 mm - 3220 mm	05.212.24.49.0
		M 125 x 2	315/70 R 22.5	3015 mm - 3134 mm	05.212.24.33.0
		M 125 x 2	255/70 R 22.5	2830mm - 2860 mm	05.212.24.53.0
		M 125 x 2	275/70 R 22.5	2915 mm	05.212.24.52.0
		M 125 x 2	275/70 R 22.5	2915 mm	0521224520C*
	ECO Plus	M 136 x 2.5	275/70 R 22.5	2915 mm	05.212.25.42.0
		M 136 x 2.5	385/65 R 22.5	3240 mm - 3260 mm	05.212.25.46.0
10-12 tonne	Conventional	M 125 x 2	445/65 R 22.5	3505 mm	05.212.24.37.0
		M 125 x 2	275/70 R 22.5	2915 mm	05.212.24.38.0
	ECO	M 135 x 2	425/65 R 22.5	3410 mm - 3470 mm	05.212.25.11.0
		M 135 x 2	11 R 22.5	3175 mm - 3220 mm	05.212.25.10.0
		M 135 x 2	275/70 R 22.5	2915	05.212.25.13.0
		M 135 x 2	255/70 R 19.5	2830 - 2860	05.212.25.24.0
		M 135 x 2	315/70 R 22.5	3015 mm - 3134 mm	05.212.25.25.0
	ECO Plus	M 136 x 2.5	255/70 R 22.5	2830 mm - 2860 mm	05.212.25.41.0
		M 136 x 2.5	275/70 R 22.5	2915 mm	05.212.25.42.0
		M 136 x 2.5	315/70 R 22.5	3015 mm - 3134 mm	05.212.25.44.0
		M 136 x 2.5	11 R 22.5	3175 mm - 3220 mm	05.212.25.45.0
		M 136 x 2.5	385/65 R 22.5	3240 mm - 3260 mm	05.212.25.46.0
	ECO Plus 3	M 136 x 2.5	12.00 R 22.5	3280 mm - 3310 mm	05.212.25.47.0
		M 136 x 2.5	215/75 R 17.5	2830 mm - 2860 mm	05.212.75.53.0
		M 136 x 2.5	235/75 R 17.5	2915 mm	05.212.75.54.0
		M 136 x 2.5	245/70 R 19.5	3015 mm - 3134 mm	05.212.75.55.0
		M 136 x 2.5	265/70 R 19.5	3175 mm - 3220 mm	05.212.75.56.0
		M 136 x 2.5	255/70 R 22.5	3240 mm - 3260 mm	05.212.75.46.0
		M 136 x 2.5	12.00 R 22.5	3280 mm - 3310 mm	05.212.75.47.0
		M 136 x 2.5	11R 22.5	3175 mm - 3220 mm	05.212.75.49.0



BPW DRUM BRAKE AXLE RANGE						
Model range	Axle beam profile	Beam options	To suit tyre size	Brake type	Brake size	Hub options
H/R Series	H - Square beam R - Round beam	120mm square 150mm square 127mm round	20"/22.5"	SN4218	Ø420 x 180mm	10 Stud 335 PCD 10 Stud 285 PCD Spider
KH Series	KH - Square beam	120mm square	19.5"	SN3620	Ø360 x 200mm	8 Stud 275 PCD 10 Stud 225 PCD
NH/NR Series	NH - Square beam NR - Round beam	120mm square 127mm round	15"/17.5"	SN3020	Ø300 x 200mm	10 Stud 225 PCD Spider

DIFFERENT HUB GENERATIONS		
Hub type	Axle load	Date range
Conventional	9 tonne	1987 - Late 1996 *
ECO	9 tonne	Late 1996 - Late 2008
ECO Plus	9 & 10-12 tonne	Late 2009 - Present

CONVENTIONAL BRAKE



BRAKE COMPONENTS						
KITS			PARTS			
Description	Part no.	Qty per axle	Item	Description	Part no.	Qty per axle
Brake lining set	T090/3620	1	350	Brake lining segment	Not available as individual items refer kits - Brake lining set	
			357	Steel rivet	02.5805.80.35	80
			315	Wedge lock	03.167.23.02.0	4
			363	Return spring	05.397.45.14.0	4
			364	Return spring	03.397.44.06.0	4
			300	Bush	03.112.33.08.0	4
			311	Anchor pin	03.084.46.22.0	4
			345	Roller assembly	03.331.34.05.0	2
			346	Roller retainer	03.350.00.13.0	4
			348	Split pin	02.6201.66.03	2
			360	Pin	03.084.42.02.0	2
			330	Brake shoe assembly lined	No longer available. Retrofit to BPW Brake 95 with split roller. Refer to page 46.	
			335	Brake shoe unlined		

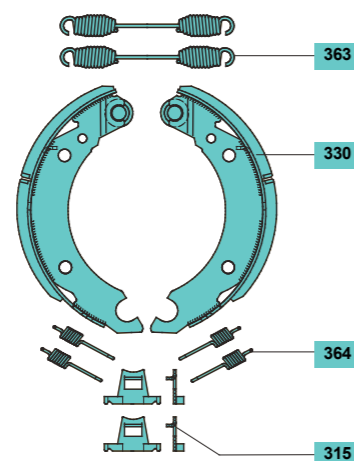
Ensure that the correct riveting pressure is used when relining genuine BPW brake shoes with genuine BPW lining segments and rivets. Correct riveting force = 25,000 N



BPW BRAKE COMPONENTS SN3620

Pre BPW Brake 95 - conversion to BPW Brake 95

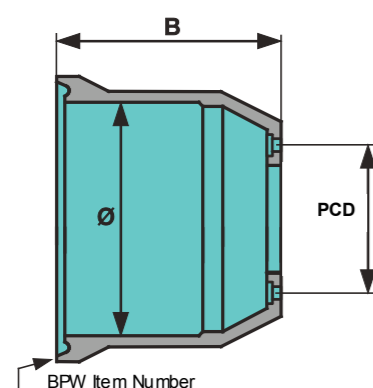
CONVERSION TO BRAKE 95



CONVERSION TO BPW BRAKE 95

Item	Description	Part no.	Qty per axle
315	Wedge lock BPW Brake 95 conversion	03.167.23.09.0	4
330	Lined brake shoe c/w roller	05.091.19.22.0	4
363	Return spring	05.397.46.13.0	4
364	Return spring	03.397.44.06.0	8

DRUM BRAKE DIMENSIONS



B = overall width

PCD = Pitch circle diameter
i.e. The diameter measured through the centre of the holes for the Wheel studs.

BRAKE DRUMS

Part no.	To suit tyre size	B Dimension	Stud holes	PCD	Bearings	Stud type
03.109.90.22.0	19.5"	263 mm	8	275	9t	Back nut
03.109.90.24.0		263 mm	10	225	9t	
03.109.90.03.0		263 mm	8	275	9 & 10-12t	Push in

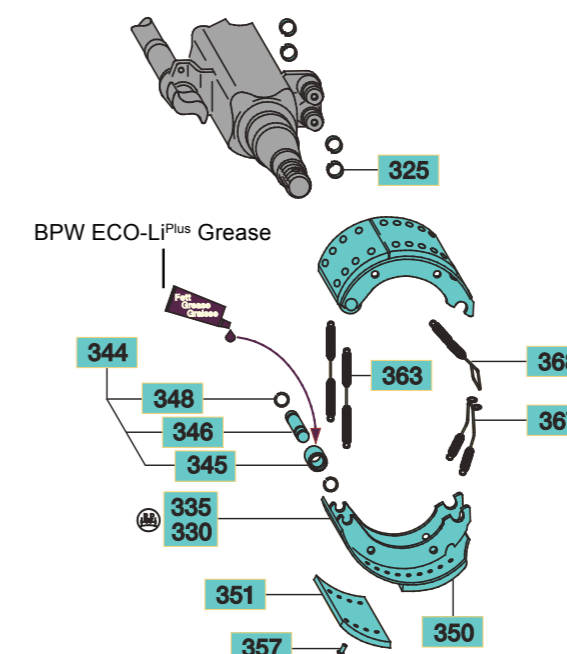
* For 9 tonne axles with track width 2,010mm - 2,040mm for single tyres.

BPW BRAKE COMPONENTS SN3620

BPW Brake 95/ECO Drum



KH



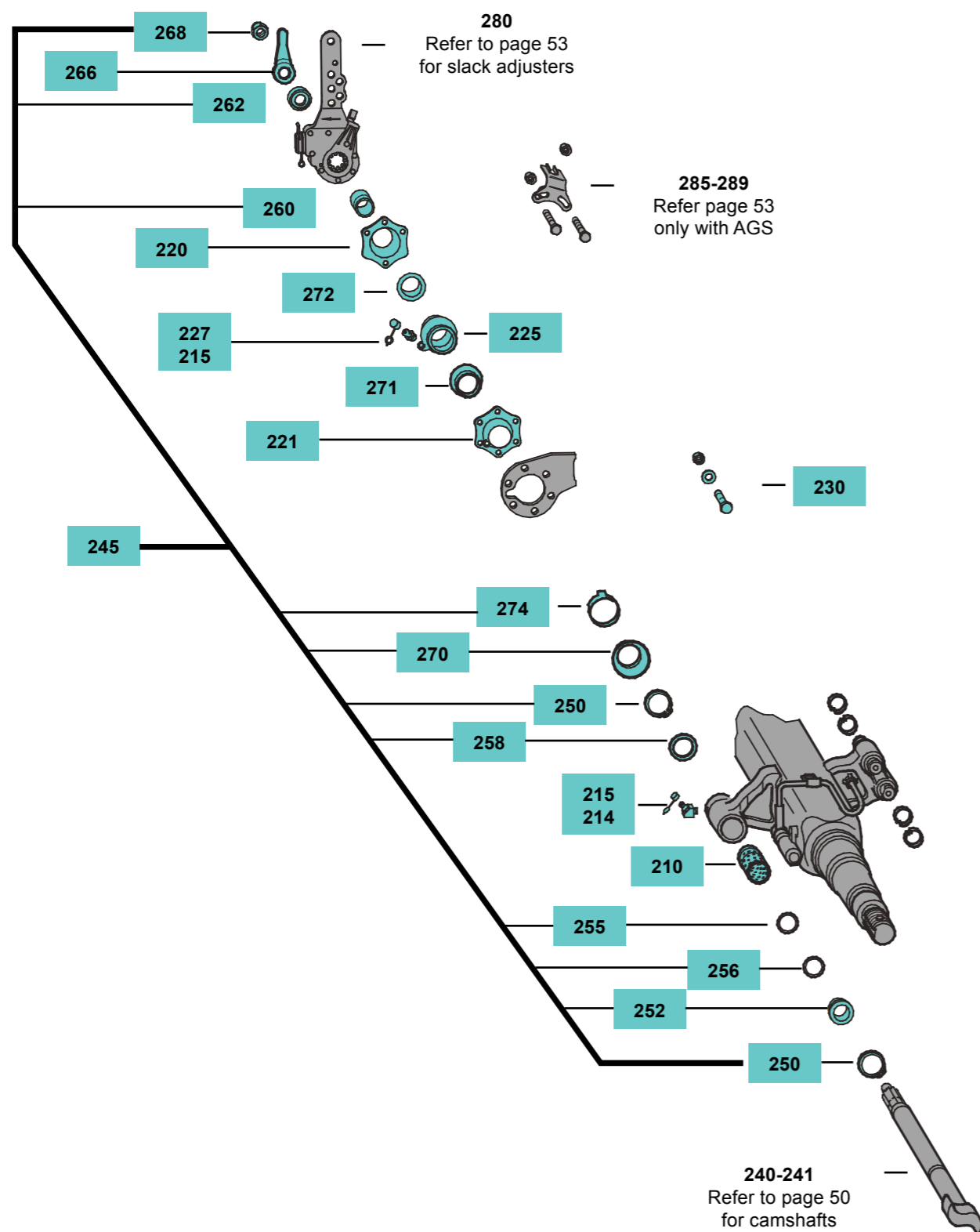
BRAKE COMPONENTS

BRAKE COMPONENTS																		
Description	Part no.	Qty per axle	Description	Part no.	Qty per axle	Description	Part no.	Qty per axle	Description	Part no.	Qty per axle	Description	Part no.	Qty per axle	Item	Description	Part no.	Qty per axle
BPW Brake shoe and hardware kit	0509119220BH95	2	BPW Brake hardware kit	098063620BH95	2	BPW Brake spring kit	3620SPKIT	1	BPW Brake shoe roller repair kit	09.801.02.91.0	2				330	Lined brake shoe complete with roller	05.091.19.22.0	4
															325	Ring, anchor end C Clip	03.188.02.02.0	8
															363	Return spring	05.397.58.04.0	2
															367	Retention spring (Hook)	05.397.46.13.0	4
															368	Retention spring (Eye)	03.397.33.13.0	2
															345	Camshaft roller complete with bush	05.331.44.02.0	4
															346	Roller shaft	03.084.75.24.0	4
															348	Ring, roller retainer	03.310.70.15.0	8
												Brake lining set	T090/3620	1	350	Brake lining segment	Not sold separately, refer kits - Brake lining set	
											357				Rivet (steel)	02.5805.8035	80	

Ensure that the correct riveting pressure is used when relining genuine BPW brake shoes with genuine BPW lining segments and rivets. Correct riveting force = 25,000 N



BPW DRUM BRAKE COMPONENTS SN3620
Brake camshaft bearings

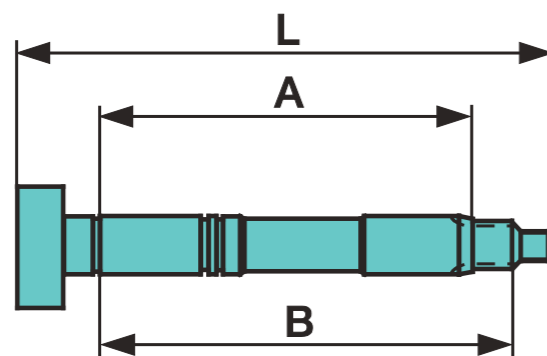


BPW DRUM BRAKE COMPONENTS SN3620
Brake camshaft bearings

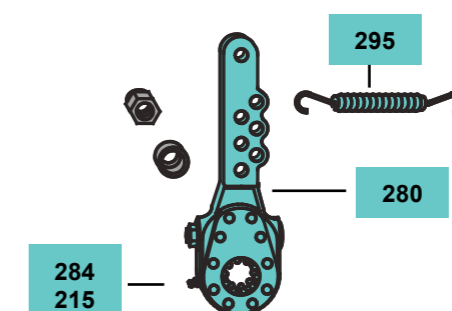


KH

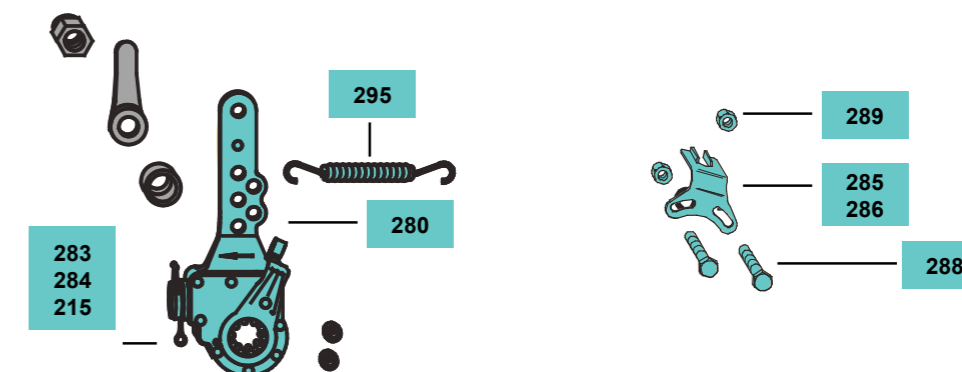
BRAKE CAMSHAFT BEARINGS												
KITS						PARTS						
Description	Part no.	Qty per axle	Description	Part no.	Item	Qty per axle	Item	Description	Part no.	Qty per axle		
BPW Camshaft repair kit	0509700KIT	1	BPW Camshaft small parts kit	09.801.00.14.2	245	2	250	Circlip	02.5676.01.00	2		
							252	Camshaft washer	03.310.12.24.0	2		
							254	Ring	03.310.81.02.0	2		
							255	O Ring (Ø37 x 2.6 Black)	02.56773.7.42	2		
							256	O Ring (Ø40 x 2.5 Green)	02.5679.23.00	2		
							258	Dust Seal Outer Cam	03.120.42.02.0	2		
							262	Disc	03.320.11.16.1	2		
							270	Dust seal camshaft large grey	03.120.43.14.0	2		
							274	Clamp	03.350.30.02.0	2		
								210	Bush outer camshaft bronze	03.112.44.34.0	2	
								214	Grease nipple (M10 x 1/4)	02.6802.06.50	2	
									Grease nipple inner camshaft bush	02.6802.14.50	2	
								215	Cap grease nipple	02.3505.20.00	4	
								220	Bearing box outer	03.229.02.18.0	2	
								221	Bearing box inner	03.229.02.19.0	2	
								225	Bush inner camshaft	03.113.14.04.0	2	
								227	Grease nipple	02.680.21.45.0	2	
								260	Circlip camshaft spline	02.5616.05.90	2	
									Bush adaptor sleeve	03.113.03.06.0	2	
								271	Dust seal outer - inner camshaft	03.120.42.09.0	2	
								272	Dust seal inner - inner camshaft	03.120.42.08.0	2	
									230	Bolt assembly	05.865.00.02.0	2
									231	Spring washer	02.540.30.89.2	2
									232	Nut	02.520.21.28.2	2
									266	Lever (brake wear indicator) suit ECO-Master slack adjuster	03.190.14.07.0	2
									268	Lock nut camshaft	03.260.14.12.0	2

**CAMSHAFT DIMENSION****CAMSHAFTS**

Dimensions			Part no.			
A (mm)	L (mm)	B (mm)	Item	Left hand	Item	Right hand
470	585	500	240	05.097.05.17.4	241	05.097.05.18.4
510	628	540		05.097.05.21.4		05.097.05.22.4
523	641	563		05.097.05.23.4		05.097.05.24.4
548	666	578		05.097.05.25.4		05.097.05.26.4
578	696	608		05.097.05.27.4		05.097.05.28.4
616	734	646		05.097.05.29.4		05.097.05.30.4
635	753	665		05.097.05.37.4		05.097.05.38.4
700	818	730		05.097.05.49.4		05.097.05.50.4
742	860	772		05.097.05.31.4		05.097.05.32.4

MANUAL SLACK ADJUSTER (GSK)**MANUAL SLACK ADJUSTER (GSK)**

Item	Description	Part no.	Qty per axle
280	Slack adjuster 4 holes	05.174.52.61.0	2
	Slack adjuster 6 hole (Multihole)	05.174.65.13.0	2
284	Grease nipple	02.6850.01.02	2
215	Cap	02.3505.20.00	2
295	Return spring	05.397.26.03.0	2

AUTOMATIC SLACK ADJUSTER (AGS) ECO-MASTER**AUTOMATIC SLACK ADJUSTER (AGS) ECO-MASTER**

KITS		PARTS			
Description	Part no.	Item	Description	Part no.	Qty per axle
Kit auto slack adjuster 6 holes a=180° (KH/NR)	05.574.82.44.3	280	Auto slack adjuster 6 Holes, a = 24° *	05.174.82.24.3	2
		283	Cap	03.211.90.15.0	2
		284	Grease nipple	02.6850.01.02	2
		215	Cap grease nipple	02.3505.20.00	2
		285	Shaped plate (left hand)	03.165.25.15.0	1
		286	Shaped plate (right hand)	03.165.25.16.0	1
		288	Hexagon screw M 8x25/933	02.5025.30.82	4
		289	Lock nut	02.5273.32.82	4
		295	Return spring	05.397.26.03.0	2

* Only available in kit.



BPW CONVENTIONAL HUB SN3620

Hub components to suit 9t

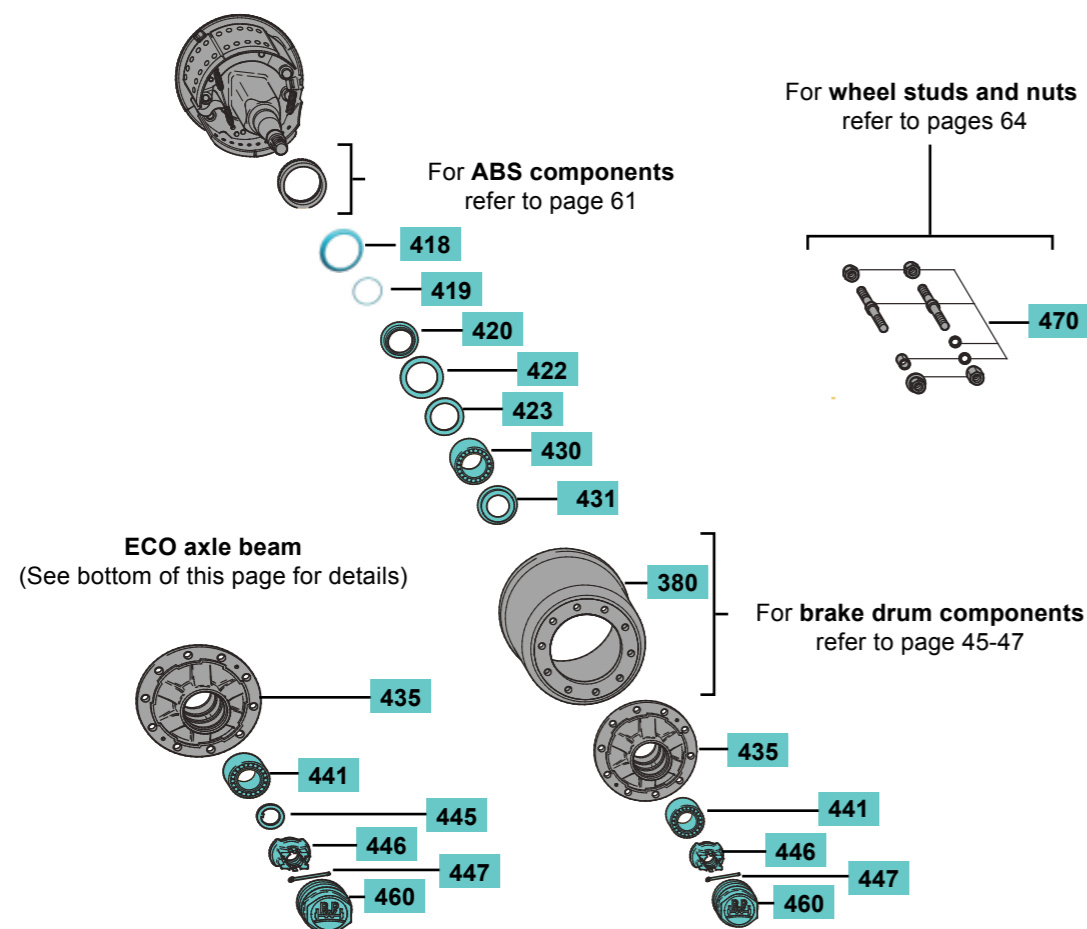
BPW CONVENTIONAL HUB SN3620

Hub components to suit 9t



KH

Axle Beam Profile KH

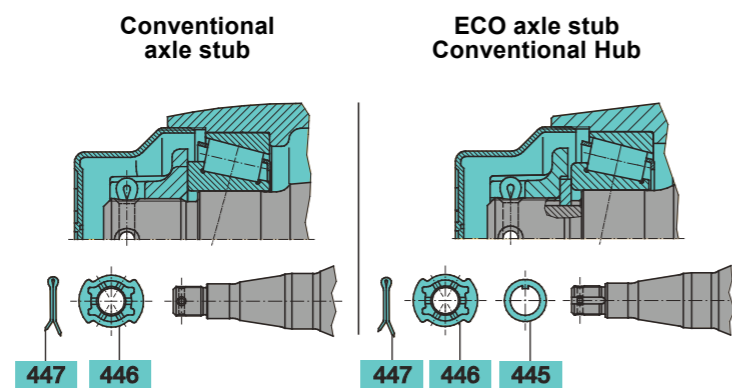


Uniform axle stubs for all BPW trailer axles

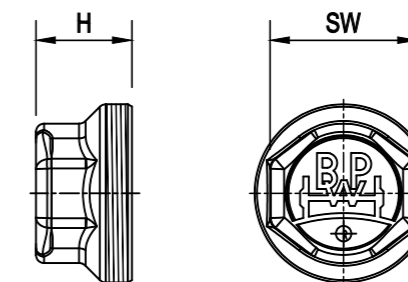
As of January 1995 BPW axle beams were converted to ECO axle stubs. These differ from the conventional axle stubs by a keyway in the thread area.

A new axle nut (item 446) and a washer (item 445) is used to fit conventional bearing to ECO axle stubs.

When supplying axle beams for replacement on conventional axles the beams will be fitted with washers (item 445) and axle nuts (item 446) To suit. If the axle beam is required for replacement on an ECO or ECO Plus the axle nuts and washers will not be supplied with the beam and will need to be ordered separately if required.



HUB COMPONENTS TO SUIT 9 TONNE							
KIT per hub		PARTS					
Description	Part no.	Item	Description	Tyre size	Part no.		Qty per axle
					Oil hub	Grease hub	
		435	Hub 8 stud 275 PCD - dual aluminium wheels	19.5"		03.272.28.51.0	2
		418	Dust seal		03.120.47.05.0		2
		419	O Ring seal carrier oil hub		02.5677.90.40		2
Wheel bearings & seal kit (Grease hub)	0980102170TSSC	420	Seal carrier		03.370.07.46.0	05.370.06.48.0	2
			Seal grease inner			03.310.97.31.0	2
		422	Hub seal - oil hub		02.5664.26.57		2
		430	Inner bearing		02.6410.24.00		
		441	Outer bearing		02.6410.25.00	02.6410.25.00	2
		445	Washer ECO axle beam (refer to page 52)		03.320.73.13.0		2
		447	Split pin		02.6201.82.01	02.6201.82.01	2
		423	Grease seal outer			03.310.97.32.0	2
		431	Grease shield (slinger)			03.010.04.15.0	2
			Axle nut		03.262.16.08.0		2
		446	Axle nut for ECO axle beam (refer to page 52)		03.262.16.15.0		2
		460	Hub cap (See dimensions below)		03.212.230.90	03.212.23.09.0	2
					For hubcaps with integrated hubodometers please refer to page 63.		



HUBCAP (from 1982 to present)				
Description	Hubcap part no.	H	SW	Thread (external)
9 tonne	03.212.23.09.0	62	95	M115 x 2

BPW BEARING COMBINATIONS						
Hub series	Journal size - nomenclature	Inner bearing		Outer bearing		To suit tyre size
		Part no.	ISO size	Part no.	ISO size	
Conventional Hub 9t	Ø80mm, Ø50mm	02.6410.24.00	33116	02.6410.25.00	32310	19.5"

For grease filling quantities and details on **BPW ECO-LI^{plus} grease** refer page 85 and for information regarding **BPW grease shower tools** refer to page 86.



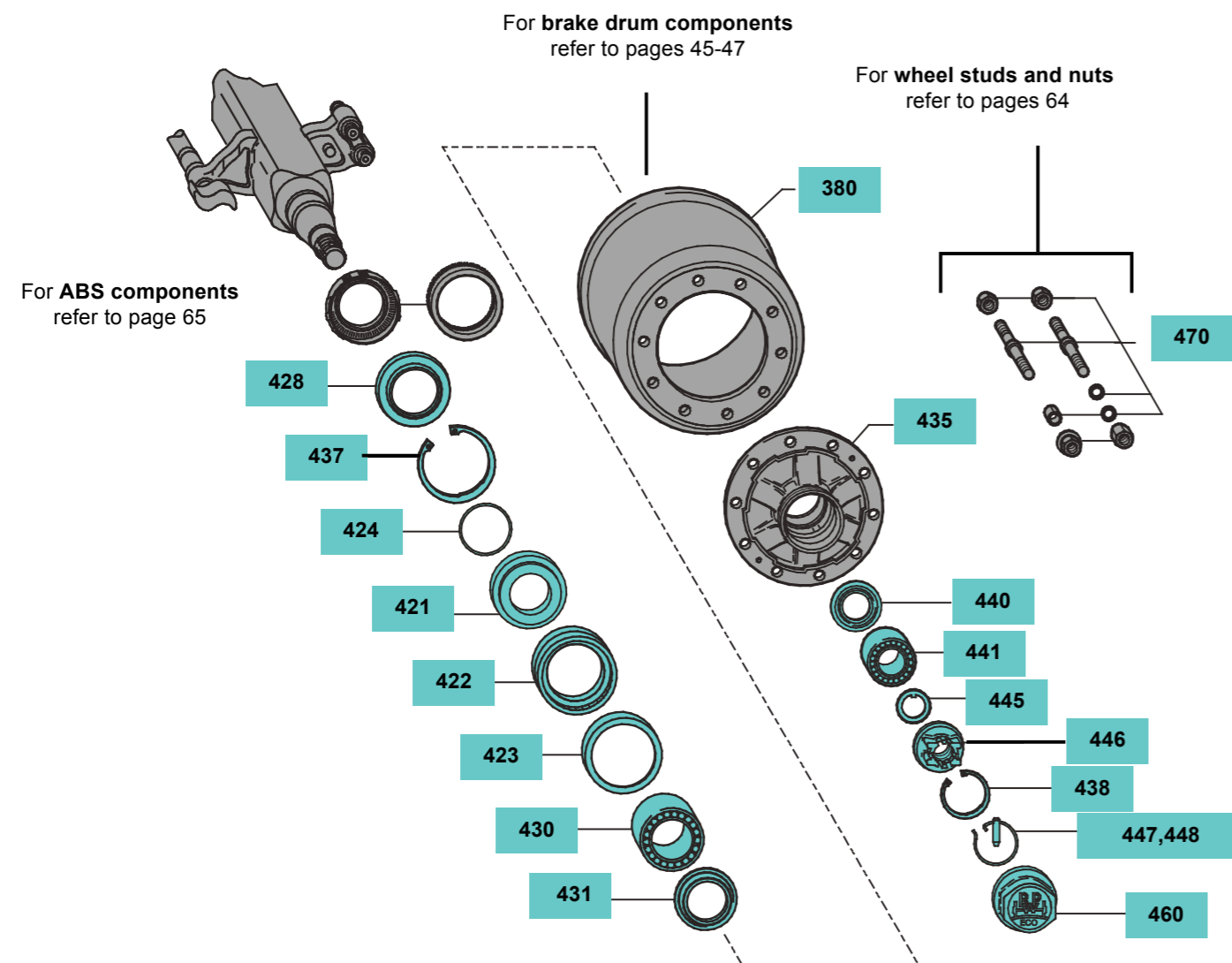
BPW ECO HUB SN3620

Hub components to suit 9t



KH

Axle beam profile KH



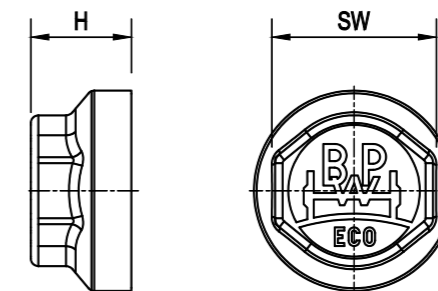
For grease filling quantities and details on **BPW ECO-LI^{Plus}** grease refer page 85 and for information regarding **BPW grease shower tools** refer to page 86.

BPW ECO HUB SN3620

Hub components to suit 9t

HUB COMPONENTS TO SUIT 9 TONNE						
KIT per hub				PARTS		
Description	Part no.	Description	Part no.	Item	Description	Tyre size
						Part no.
						Qty per axle
				435	Hub 8 Stud 275 PCD - dual aluminium wheels	19.5"
					Hub 10 Stud 225 - dual aluminium wheels	19.5"
Wheel bearings and seal kits (incl. seal carrier)	0980102720TSSC	Wheel bearings and seal kits	0980102720TSS	421	Seal carrier	03.370.07.76.0
				422	Hub seal	02.5664.57.00
				423	Seal keeper ring	02.5683.62.00
				424	O Ring	02.5677.90.40
				428	Dust seal	02.5681.98.00
				430	Inner bearing	02.6410.24.00
				431	Dust cover	03.010.93.33.0
				440	Thrust ring	03.370.25.16.0
				441	Outer bearing	02.6410.25.00
				445	Washer	03.320.73.13.0
				447	Pin lock axle nut	03.084.71.17.0
				448	Locking ring axle nut	03.188.03.06.0
				437	Circlip inner hub	02.5606.40.90
				438	Circlip outer hub	02.5606.12.90
				446	Axle nut	03.266.46.02.0
				460	Hubcap (see dimensions below)	03.212.24.25.0
						For hubcap with integrated hubodometer refer to page 63.

* This hub is no longer available. Replace with hub **0300061844** plus **drum 03.109.90.22.0** and **studs 03.296.23.24.0**.



ECO HUB (from 1992 to present)				
Description	Hubcap part no.	H	SW	Thread (internal)
9 tonne	03.212.24.25.0	61	110	M125 x 2

BPW BEARING COMBINATIONS						
Hub series	Journal size - nomenclature	Inner bearing		Outer bearing		To suit tyre size
		Part no.	ISO size	Part no.	ISO size	
ECO Hub 9t	Ø80mm, Ø50mm	02.6410.24.00	33116	02.6410.25.00	32310	19.5"



BPW ECO PLUS HUB SN3620

Hub components to suit 9t

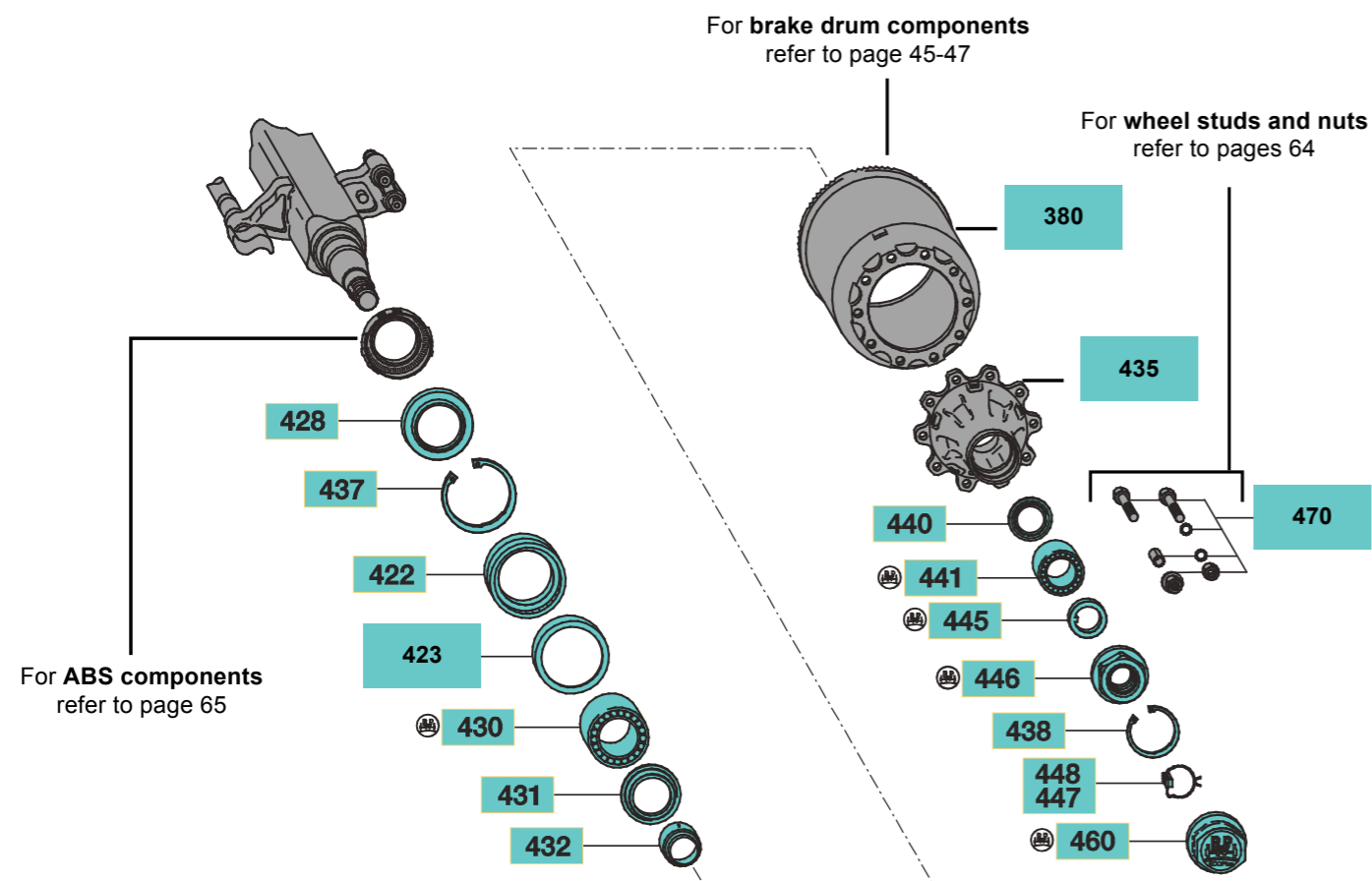
BPW ECO PLUS HUB SN3620

Hub components to suit 9t



KH

Axle Beam Profile KH



From approx May 2007 this item is no longer used in new hubs due to hub design change.
When new seal 02.5664.74.00 (item 422) is installed this item acts as a check stop & must therefore be left in it's former installation & must not be removed.

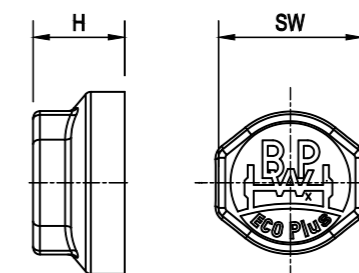
For grease filling quantities and details on **BPW ECO-LI^{Plus} grease** refer page 85 and for information regarding **BPW grease shower tools** refer to page 86.

HUB COMPONENTS 9 TONNE

KIT per hub		PARTS				
Description	Part no.	Item	Description	Tyre size	Part no.	Qty per axle
Wheel bearings and seal kit	0980106360TS	435	Hub 8 stud 275 PCD - dual aluminium wheels	19.5"	03.272.46.28.2	2
		422	Hub seal		02.5664.74.00	2
		428	Dust seal		03.120.48.15.0	2
		430	Inner bearing		02.6410.23.00	2
		431	Dust cover, bearing shield		03.010.93.34.0	2
		440	Thrust ring		03.370.26.24.0	2
		441	Outer bearing		02.6410.22.00	2
		447	Locking wedge axle nut		03.277.00.07.0	2
		448	Locking ring for wedge		03.188.04.10.0	2
		423	Seal Runner		02.568.38.000	
		437	Circlip inner hub		02.5606.58.90	2
		438	Circlip outer hub		02.5606.22.90	2
		445/446	Axle nut and washer kit		05.807.00.44.0	2
		460	Hubcap (see dimensions below)		03.212.25.31.0	2
					For hubcaps with integrated hubodometer refer to page 63.	

* This item number is an assembly which includes the hub, wheel studs, wheel nuts and wheel clamps.

** 432 Hub Sleeve NLA.



ECO PLUS HUB (from 2005)				
Hubcap part no.	Description	H	SW	Thread (internal)
03.212.25.31.0	Standard	70	110	M136 x 2.5
0321225310C	Chrome	70	110	M136 x 2.5

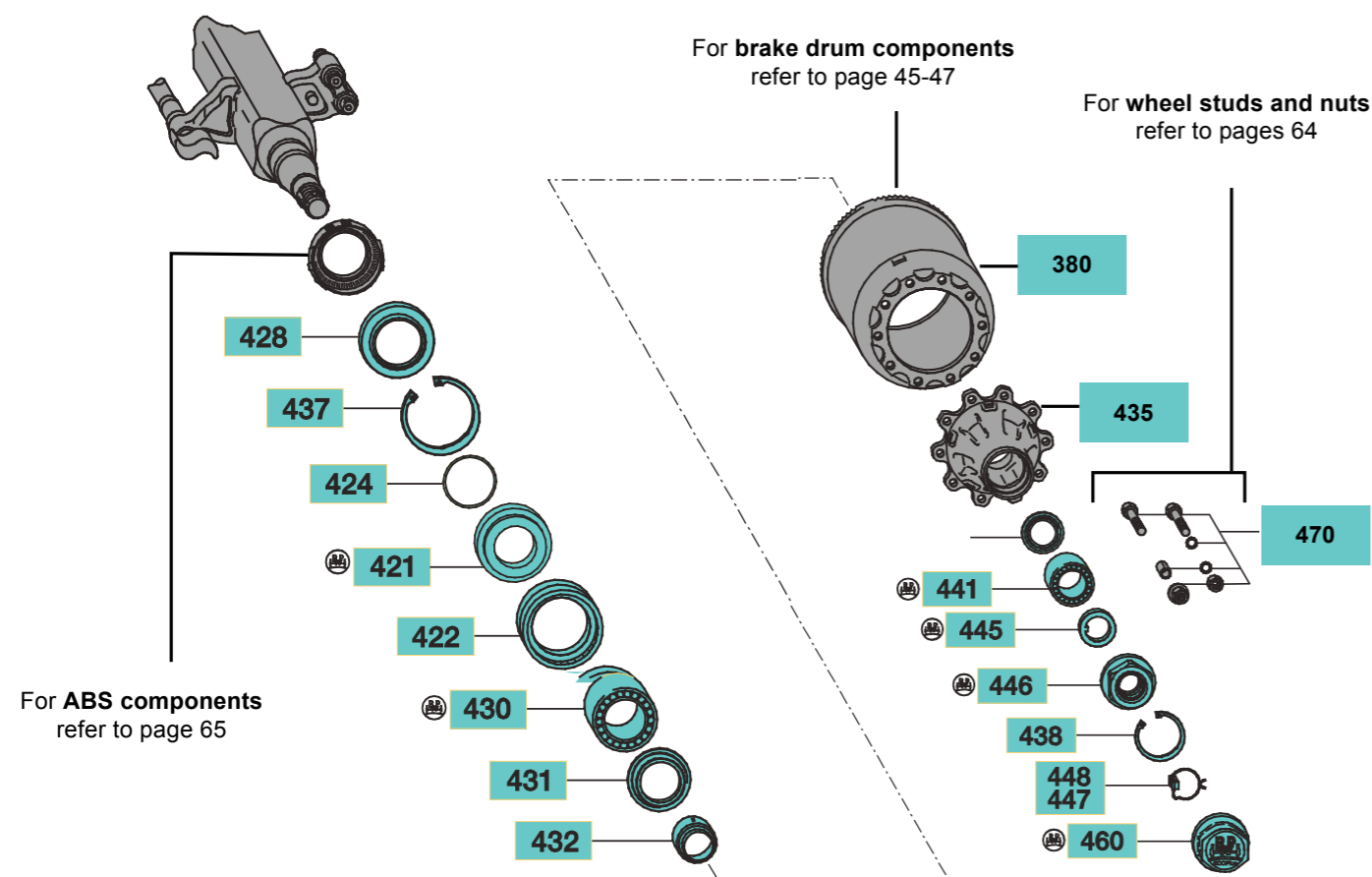
BPW BEARING COMBINATIONS						
Hub series	Journal size - nomenclature	Inner bearing		Outer bearing		To suit tyre size
		Part no.	ISO size	Part no.	ISO size	
ECO Plus 9t	Ø90mm, Ø65mm	02.6410.23.00	33118	02.6410.22.00	33213	19.5"



BPW ECO PLUS HUB SN3620

Hub components to suit 10-12t

Axle Beam Profile KH



For grease filling quantities and details on **BPW ECO-LI^{Plus} grease** refer page 85 and for information regarding **BPW grease shower tools** refer to page 86.

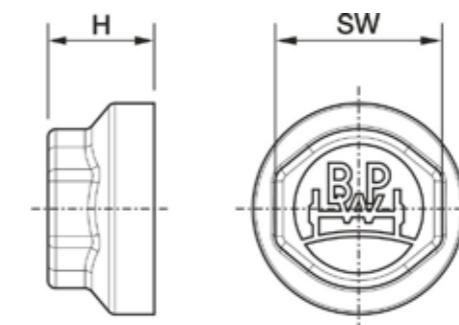
BPW ECO PLUS HUB SN3620

Hub components to suit 10-12t



KH

HUB COMPONENTS TO SUIT 10-12 TONNE							
KIT per hub				PARTS			
Description	Part no.	Description	Part no.	Item	Description	Tyre size	Qty per axle
Wheel bearings and seal kit	0980107040TS	Wheel bearings and seal kit	0980107040TSSC	435	Hub 8 stud 275 PCD - dual aluminium wheels	19.5"	03.272.46.31.2 2
				422	Hub seal		02.5664.74.00 2
				428	Dust seal		03.120.48.15.0 2
				430	Inner bearing		02.6410.23.00 2
				431	Dust cover, bearing shield		03.010.93.34.0 2
				440	Thrust washer		03.370.26.24.0 2
				441	Outer bearing		02.6410.22.00 2
				447	Locking wedge axle nut		03.277.00.07.0 2
				448	Locking ring for wedge		03.188.04.10.0 2
				424	O Ring		02.5678.00.00 2
				432	Dust seal		03.120.45.16.0 2
				421	Seal carrier		03.370.07.72.0 2
				437	Circlip inner hub		02.5606.58.90 2
				438	Circlip outer hub		02.5606.22.90 2
				445/446	Axle nut and washer kit		05.807.00.44.0 2
				460	Hubcap (see dimensions below)		03.212.25.31.0 2
						For hubcaps with integrated hubodometer refer to page 63.	



ECO PLUS HUB (from 2005)				
Hubcap part no.	Description	H	SW	Thread (internal)
03.212.25.31.0	Standard	70	110	M136 x 2.5
0321225310C	Chrome	70	110	M136 x 2.5

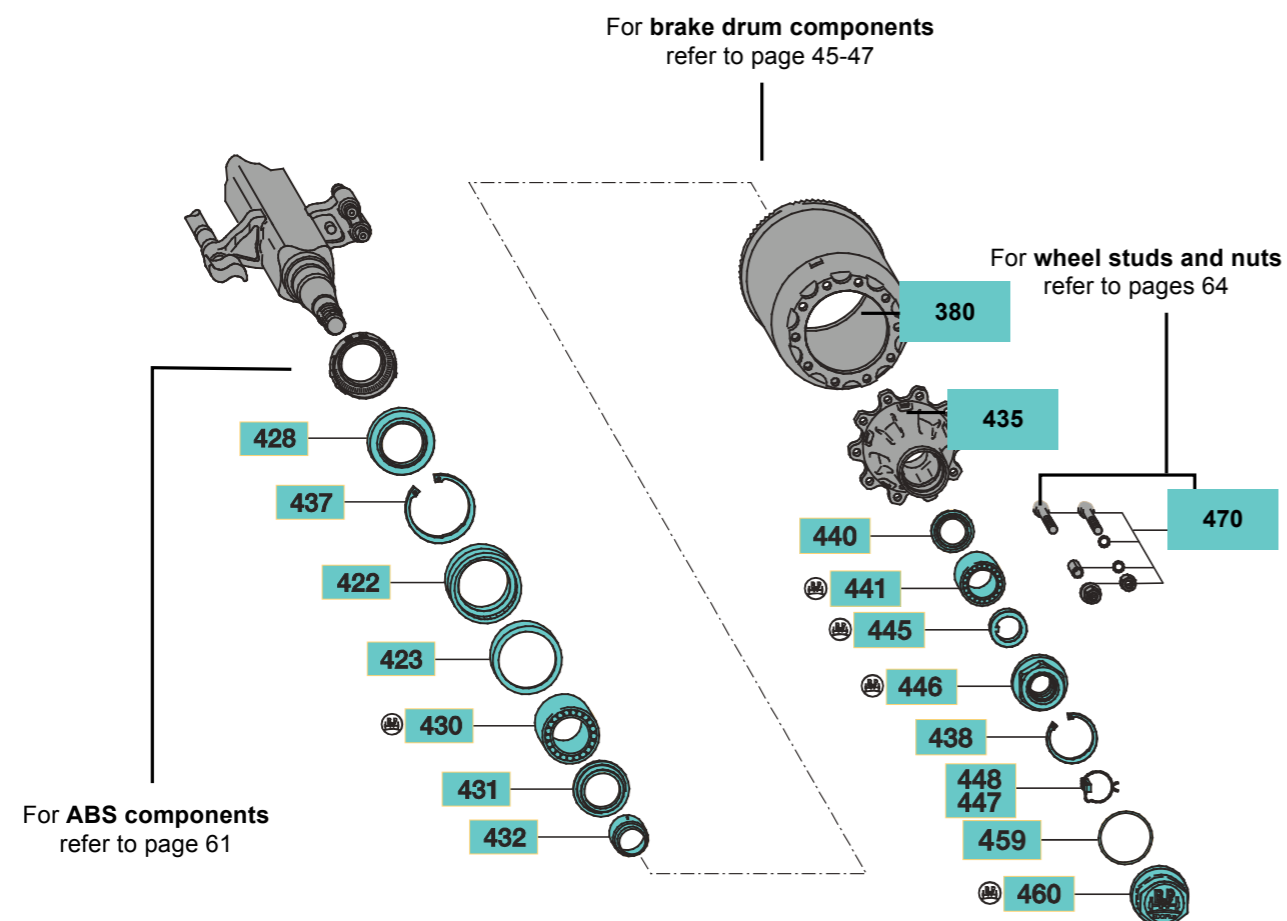
BPW BEARING COMBINATIONS						
Hub series	Journal size - nomenclature	Inner bearing		Outer bearing		To suit tyre size
		Part no.	ISO size	Part no.	ISO size	
ECO Plus 10-12t	Ø90mm, Ø65mm	02.6410.23.00	33118	02.6410.22.00	33213	19.5"



BPW ECO PLUS 3 HUB SN3620

Hub components to suit 10-12t

Axle Beam Profile KH



For grease filling quantities and details on **BPW ECO-LI^{Plus} grease** refer page 85 and for information regarding **BPW grease shower tools** refer to page 86.

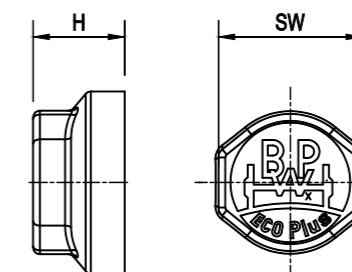
BPW ECO PLUS 3 HUB SN3620

Hub components to suit 10-12t



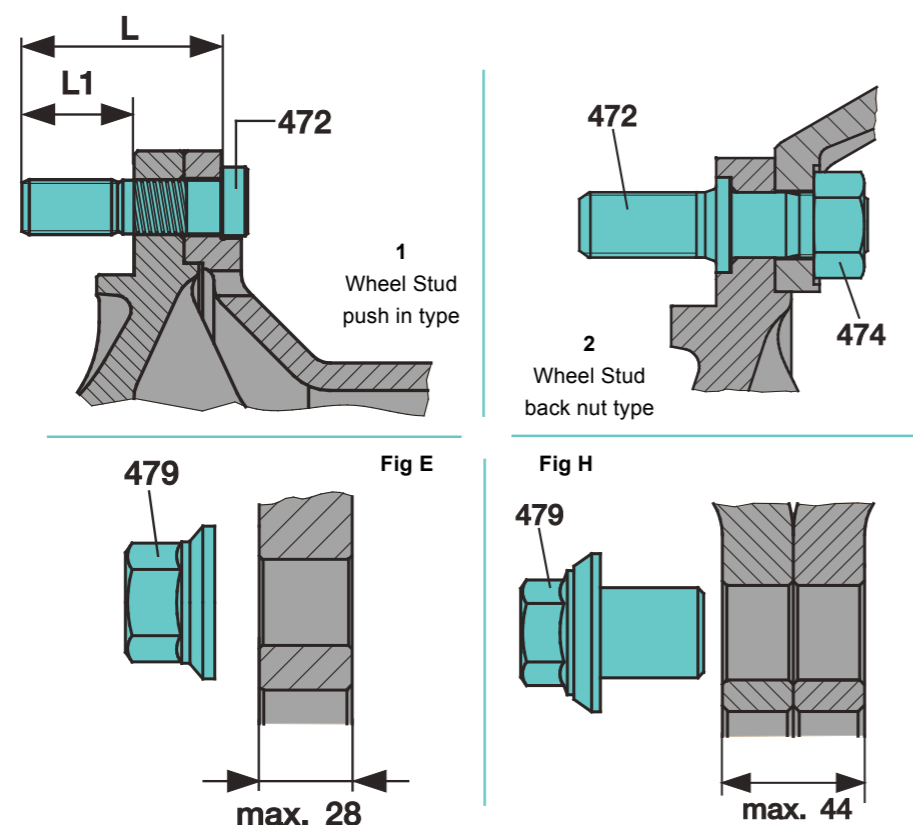
KH

HUB COMPONENTS TO SUIT 10-12 TONNE							
KIT per hub				PARTS			
Description	Part no.	Description	Part no.	Item	Description	Tyre size	Qty per axle
Wheel bearings and seal kit	TBA	Wheel bearings and seal kit	TBA	435	Hub ECO P 10008	19.5"	03.272.46.39.0 2
				422	Hub seal		02.5664.77.0 2
				428	Dust seal		03.120.48.15.0 2
				430	Inner bearing		02.6410.23.00 2
				431	Dust cover, bearing shield		03.010.93.34.0 2
				440	Thrust washer		03.370.26.24.0 2
				441	Outer bearing		02.6410.22.00 2
				447	Locking wedge axle nut		03.277.00.07.0 2
				448	Locking ring for wedge		03.188.04.10.0 2
				424	O Ring		02.5678.00.00 2
				432	Dust seal		03.120.45.16.0 2
				421	Seal carrier		03.370.07.82.0 2
				437	Circlip inner hub		02.5606.58.90 2
				438	Circlip outer hub		02.5606.22.90 2
				445/446	Axle nut and washer kit		05.807.00.44.0 2
				459	O-ring		02.5678.72.00 2
				460	Hubcap (see dimensions below)		03.212.29.06.0 2
						For hubcaps with integrated hubodometer refer to page 63.	



ECO PLUS 3 HUB (from 2018)				
Hubcap part no.	Description	H	SW	Thread (internal)
03.212.25.31.0	Standard	70	110	M135 x 2
0321225310C	Chrome	70	110	M135 x 2

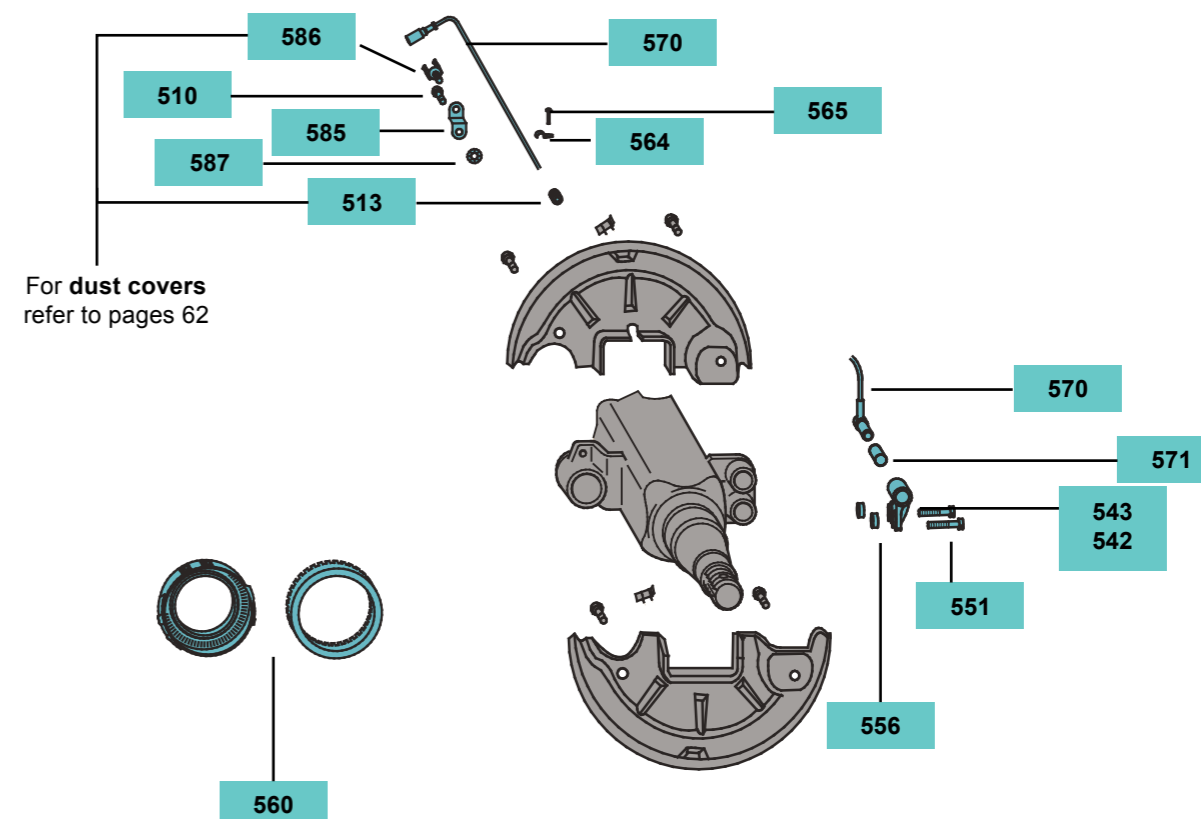
BPW BEARING COMBINATIONS						
Hub series	Journal size - nomenclature	Inner bearing		Outer bearing		To suit tyre size
		Part no.	ISO size	Part no.	ISO size	
ECO Plus 3 10-12t	Ø90mm, Ø65mm	02.6410.23.00	33118	02.6410.22.00	33213	19.5"



To help to determine replacement wheel studs and nuts select the wheel stud or bolt type from figures 1 and 2 above. Then determine the wheel nut type from Figures E or H below. Then select the appropriate combination using the table below. For example the combination 1E represents push in type wheel studs for steel wheels.

WHEEL STUDS & NUTS FOR ECO PLUS HUB									
Item	Description	Part no.	Wheel type		Fig	Stud style	No. of studs	Dimension	Qty per axle
472	Wheel stud	03.296.33.12.1	dual	Steel	1	push in	10	M 22x1.5x97	20
		03.296.33.17.1	dual	Aluminium					16
		03.296.23.17.0	dual / single	Steel	2	back nut	10	M 22x1.5x114	20
		03.296.23.24.0	dual	Aluminium					20
479	Wheel nut	05.260.54.10.0	dual / single	Steel	E			M 22x1.5	16/20*
474	Back nut	03.260.04.06.0	dual / single	Steel / Aluminium	2			M 22x2	20
	Peg	02.6010.35.60				back nut		Ø 6x19.5	20

* Qty 16 for 8 stud hub/ 20 per axle for 10 stud hub



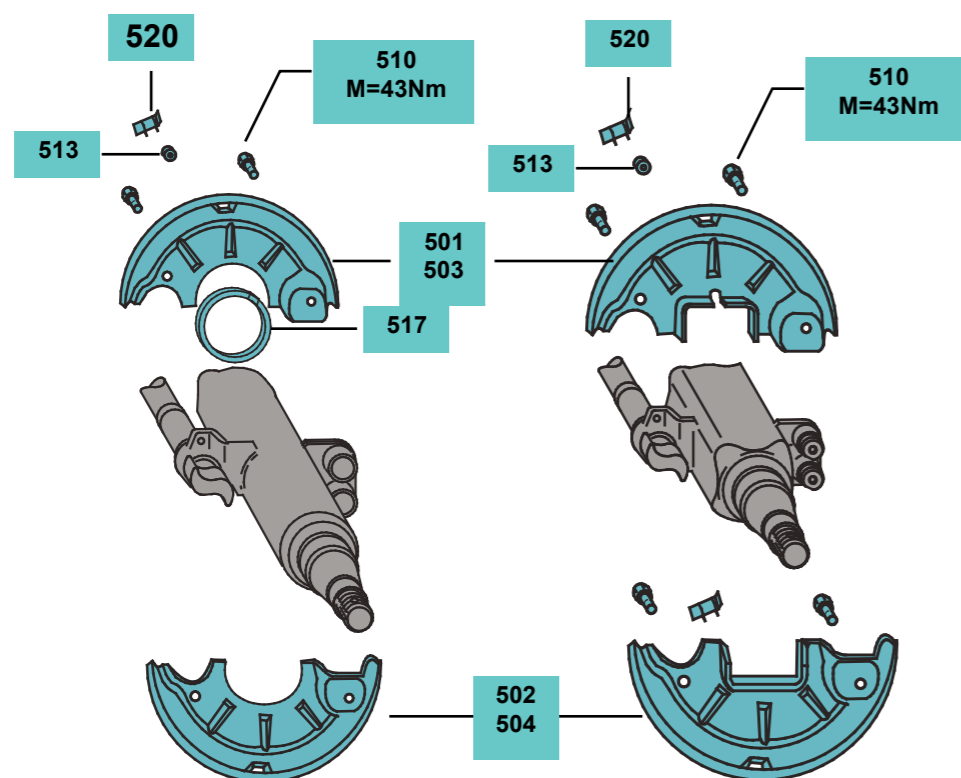
ABS SENSOR BRACKET PARTS TO SUIT BRAKE SIZE SN3620					
Item	Description	Part no.			Qty per axle
		To suit			
		KH90 120 mm square 9t bearings Conventional and ECO hub	KH101 120 mm square 10-12t bearings ECO Plus hub	KH90 120 mm square 9t bearings ECO Plus hub	
542	Sensor bracket right	03.189.07.58.0		03.189.14.61.0 (Qty 2 per axle)	1
543	Sensor bracket left	03.189.07.59.0			1
551	Hexagon bolt	02.5071.23.00			4

ABS PARTS TO SUIT BRAKE SIZE SN3620				
Item	Description	To suit	Part no.	Qty per axle
560	Exciter Ring 80 Teeth	9t Conventional and ECO hub	03.310.08.18.0	2
	Exciter Ring 80 Teeth	9t ECO Plus	03.310.08.53.0	2
	Exciter Ring 80 Teeth	10-12t ECO Plus	05.310.08.44.1	2
564	Clamp Lead ABS		02.0326.32.00	2
565	Rivet, ABS, Lead Clamp		02.6005.25.40	2
570	Sensor and Lead Angled		02.3317.05.00	2
571	Bush Sensor ABS		02.0316.59.00	2
585	Bracket ABS		03.189.07.72.0	2
586	Clamp ABS Plug Bracket		02.1421.11.00	2
587	Washer ABS Plug Bracket		02.5414.11.90	2

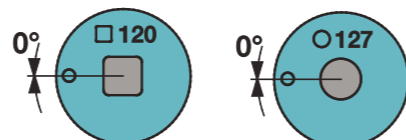


Please note:

There are different dust covers for the different BPW Brake Generations. In order to correctly identify replacement dust covers and attachment parts the correct brake generation must be identified.



The diagrams on the right show the axle beam brake positions available for Brake type SN3620. This represents the angle between the S Cam and the centre line of the axle. Different dust covers are required for the different brake positions as shown in the table below.



DUST COVERS SUIT BPW BRAKE 95						
Brake type	Axle beam profile	Brake position	Item 501 Left upper	Item 502 Left lower	Item 503 Right upper	Item 504 Right lower
Pre BPW Brake 95						
SN3620	Square Beam 120mm	0°	03.010.96.67.0	03.010.96.68.0	03.010.96.70.0	03.010.96.69.0
SN3020	Round Beam 127mm		03.010.96.80.0	03.010.96.79.0	03.010.96.82.0	03.010.96.81.0
BPW Brake 95						
SN3620	Square Beam 120mm	0°	03.010.99.79.0	03.010.99.80.0	03.010.99.77.0	03.010.99.78.0

DUST COVER ATTACHMENT PARTS				
Item	Description	Part no.	Dimensions	Qty per axle
510	Bolt dust cover self locking	02.5071.22.00	M10 x 18	8
513	Plug, no ABS	02.3704.33.00	Ø 10.7	2
517	Seal - square axle beam 120mm/round axle beam 127mm (Used with both Pre BPW Brake 95 and BPW Brake 95)	05.121.30.06.0	L = 340, o 8	2
520	Plug rubber backing plate	03.379.00.23.0		4



Tyre rolling circumference:

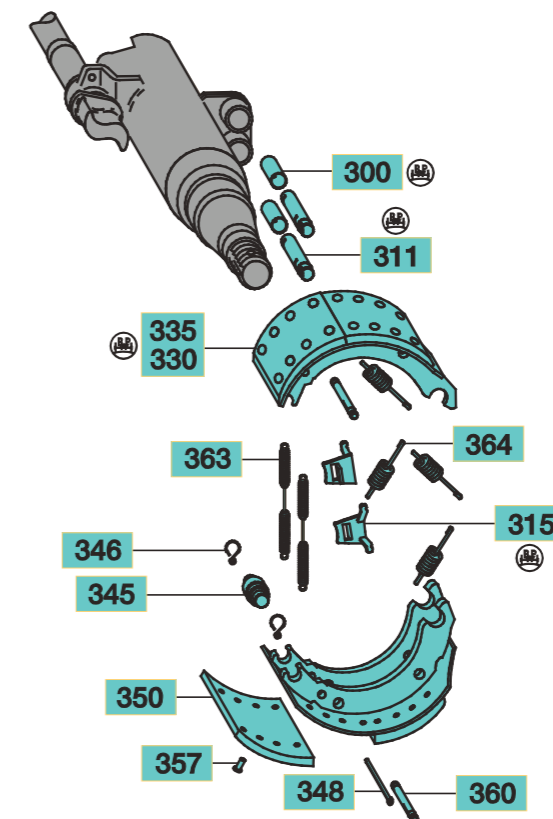
The tyre rolling circumferences in the table below are based according to standard ETRTO (European Tyre and Rim Technical Organisation). Data of various tyre manufacturers can vary slightly.

BPW HUBCAPS WITH INTERGRATED ANALOGUE HUBODOMETER						
Axle load	Brake type	Hub type	Hubcap Thread	Tyre size	Tyre rolling circumference ± 2 %	Part no.
9 tonne	SN3620	Conventional	M 115 x 2	265/70 R 19.5	2620 mm - 2650 mm	05.212.23.29.0
		ECO	M 125 x 2	265/70 R 19.5	2620 mm - 2650 mm	05.212.24.34.0
10-12 tonne	SN3620	ECO	M 125 x 2	245/70 R 19.5	2560 mm	05.212.24.44.0
		ECO Plus	M 136 x 2.5	265/70 R 19.5	2620 mm - 2650 mm	05.212.25.20.0
					2620 mm - 2650 mm	05.212.25.38.0



BPW DRUM BRAKE AXLE RANGE						
Model range	Axle beam profile	Beam options	To suit tyre size	Brake type	Brake size	Hub options
H/R Series	H - Square beam R - Round beam	120mm square 150mm square 127mm round	20"/22.5"	SN4218	Ø420 x 180mm	10 Stud 335 PCD 10 Stud 285 PCD Spider
KH Series	KH - Square beam	120mm square	19.5"	SN3620	Ø360 x 200mm	8 Stud 275 PCD 10 Stud 225 PCD
NH/NR Series	NH - Square beam NR - Round beam	120mm square 127mm round	15"/17.5"	SN3020	Ø300 x 200mm	10 Stud 225 PCD Spider

DIFFERENT HUB GENERATIONS		
Hub type	Axle load	Date range
Conventional	9 tonne	1987 - Late 1996 *
ECO	9 tonne	Late 1996 - Late 2008

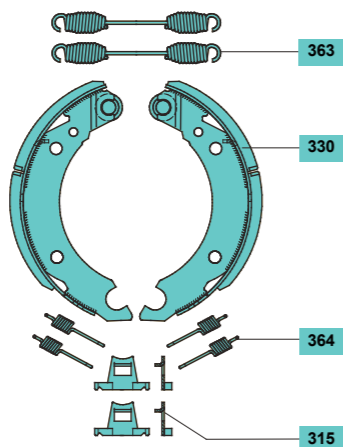


BRAKE COMPONENTS 15"/17.5"						
KITS			PARTS			
Description	Part no.	Qty per axle	Item	Description	Part no.	Qty per axle
Brake lining set	T090/3620	1	350	Brake lining segment	Not available as individual items refer kits - Brake lining set	
			357	Steel rivet	02.5805.80.35	80
			315	Wedge lock	03.167.24.01.0	4
			363	Return spring	05.397.35.03.0	4
			364	Return spring	03.397.44.06.0	4
			300	Bush	03.112.33.08.0	4
			311	Anchor pin	09.177.23.09.0	4
			345	Roller assembly	03.331.34.01.0	2
			346	Roller retainer	03.350.00.14.0	4
			348	Split pin	02.6201.66.03	2
			360	Pin	03.001.08.05.0	2
			330	Brake shoe assembly lined	No longer available. Retrofit to BPW Brake 95 with split roller. Refer to page 66.	
			335	Brake shoe unlined		

Ensure that the correct riveting pressure is used when relining genuine BPW brake shoes with genuine BPW lining segments and rivets. Correct riveting force = 25,000 N.



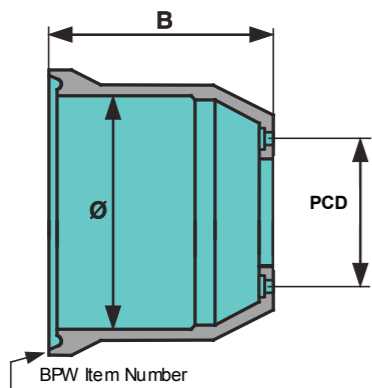
BRAKE TYPE SN3020 CONVERSION TO BRAKE 95



CONVERSION TO BPW BRAKE 95

Item	Description	Part no.	Qty per axle
315	Wedge lock BPW Brake 95 conversion	03.167.24.01.0	4
330	Lined brake shoe c/w roller	05.091.14.77.1	4
363	Return spring	05.397.46.12.0	4
364	Return spring	03.397.44.06.0	8

DRUM BRAKE DIMENSIONS



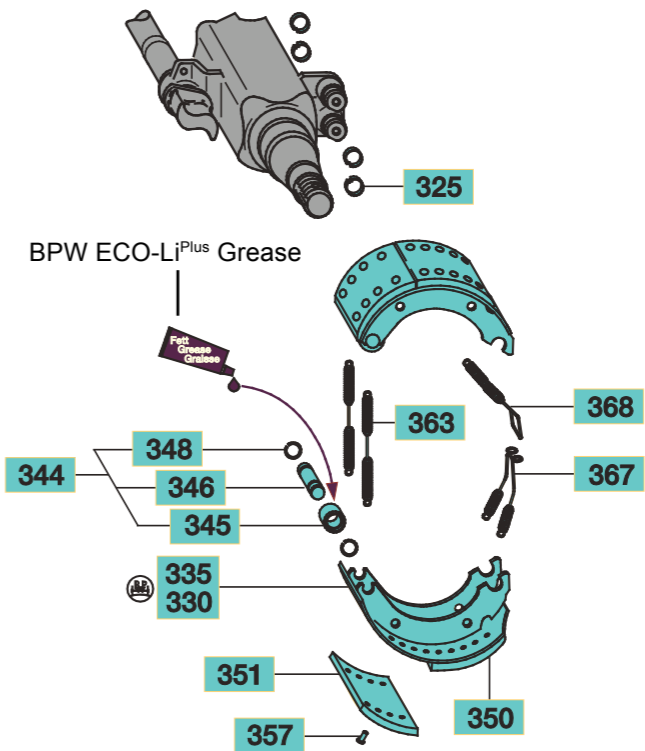
B = overall width

PCD = Pitch circle diameter
i.e. The diameter measured through the centre
of the holes for the wheel studs.

BRAKE DRUMS

Part no.	To suit tyre size	B Dimension	Stud holes	PCD	Bearings	Stud type
03.105.47.05.0	15"/17.5"	255 mm	Spider		9t	
03.109.46.40.0	15"/17.5"	295 mm	10	225	9t	Back nut

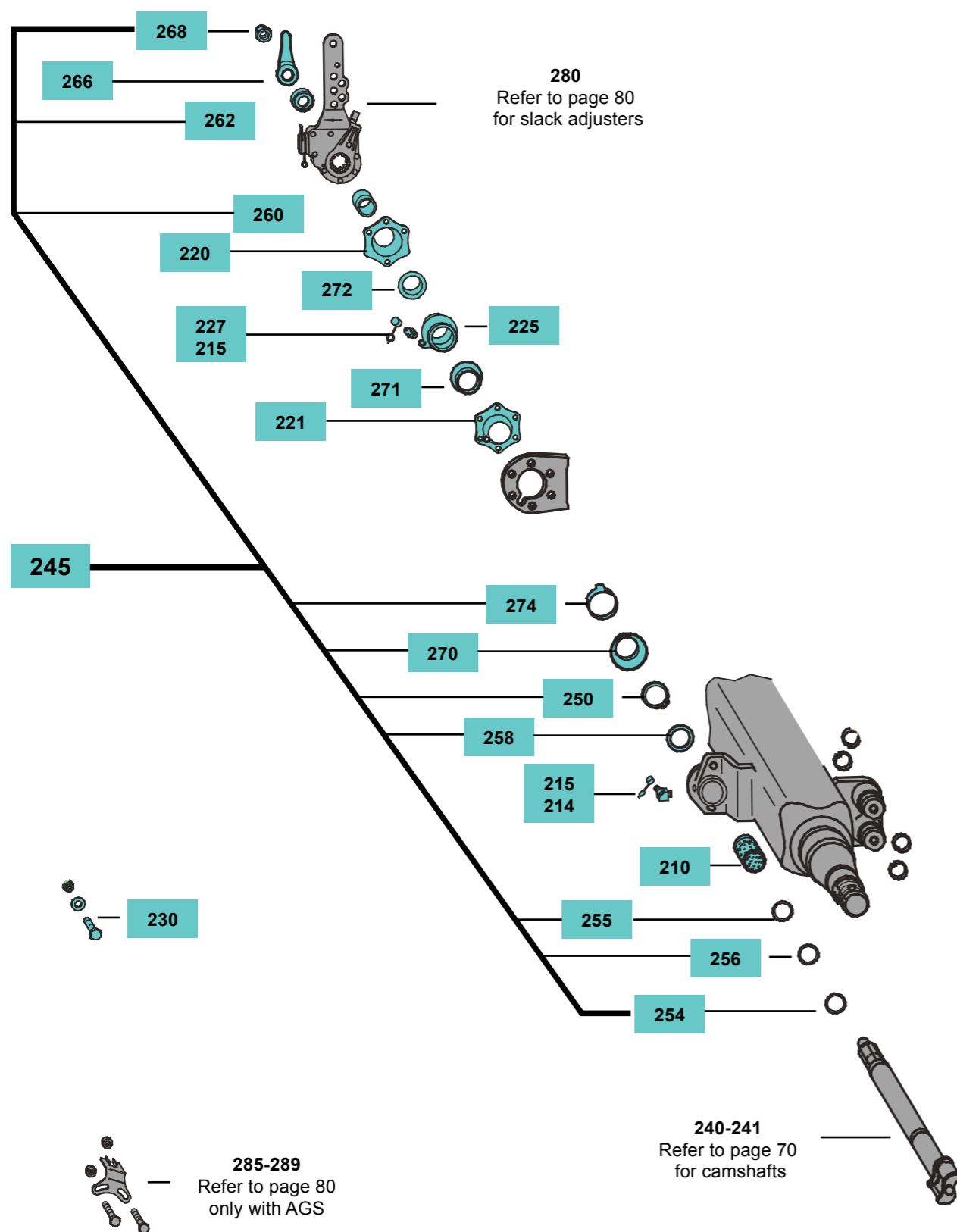
* For 9 tonne axles with track width 2,010mm - 2,040mm for single tyres.



BRAKE COMPONENTS 15"/17.5"

Description	Part no.	Qty per axle	Description	Part no.	Qty per axle	Item	Description	Part no.	Qty per axle
						330	Lined brake shoe complete with roller	05.091.14.77.1	4
						325	Ring, anchor end C Clip	03.188.02.02.0	8
						363	Return spring	05.397.34.17.0	4
						367	Retention spring (Hook)	03.397.33.08.0	2
						368	Retention spring (Eye)	03.397.33.09.0	2
BPW Brake shoe roller repair kit	09.801.02.91.0	2				345	Camshaft roller complete with bush	05.331.44.02.0	4
						346	Roller shaft	03.084.75.24.0	4
						348	Ring, roller retainer	03.310.70.15.0	8
			Brake lining set	T090/3020	1	351	Brake lining segment	Not sold separately, refer kits - Brake lining set	
						357	Rivet (steel)	02.5805.8035	80

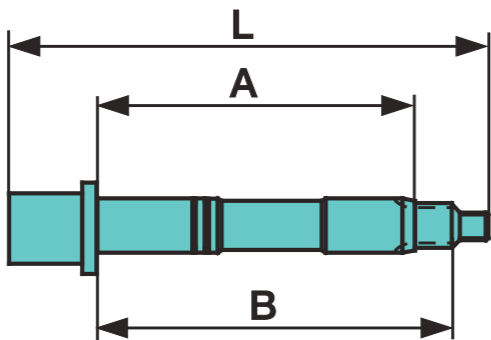
Ensure that the correct riveting pressure is used when relining genuine BPW brake shoes with genuine BPW lining segments and rivets. Correct riveting force = 25,000 N.



BRAKE CAMSHAFT BEARINGS												
KITS							PARTS					
Description	Part no.	Qty per axle	Item	Description	Part no.	Qty per axle	Item	Description	Part no.	Qty per axle		
BPW Camshaft repair kit	0509700KIT	1	245	BPW Camshaft small parts kit	09.801.00.14.2	2	250	Circlip	02.5676.01.00	2		
							252	Camshaft washer	03.310.12.24.0	2		
							254	Ring	03.310.81.02.0	2		
							255	O Ring (Ø37 x 2.6 Black)	02.56773.7.42	2		
							256	O Ring (Ø40 x 2.5 Green)	02.5679.23.00	2		
							258	Dust Seal Outer Cam	03.120.42.02.0	2		
							262	Disc	03.320.11.16.1	2		
							270	Dust seal camshaft large grey	03.120.43.14.0	2		
							274	Clamp	03.350.30.02.0	2		
									210	Bush outer camshaft bronze	03.112.44.34.0	2
									214	Grease nipple (M10 x 1/4)	02.6802.06.50	2
										Grease nipple inner camshaft bush	02.6802.14.50	2
									215	Cap grease nipple	02.3505.20.00	4
									220	Bearing box outer	03.229.02.18.0	2
									221	Bearing box inner	03.229.02.19.0	2
									225	Bush inner camshaft	03.113.14.04.0	2
									227	Grease nipple	02.680.21.45.0	2
									260	Circlip camshaft spline	02.5616.05.90	2
										Bush adaptor sleeve	03.113.03.06.0	2
									271	Dust seal outer - inner camshaft	03.120.42.09.0	2
									272	Dust seal inner - inner camshaft	03.120.42.08.0	2
									230	Bolt assembly	05.865.00.02.0	2
									231	Spring washer	02.540.30.89.2	2
									232	Nut	02.520.21.28.2	2
									266	Lever (brake wear indicator) suit ECO-Master slack adjuster	03.190.14.07.0	2
									268	Lock nut camshaft	03.260.14.12.0	2



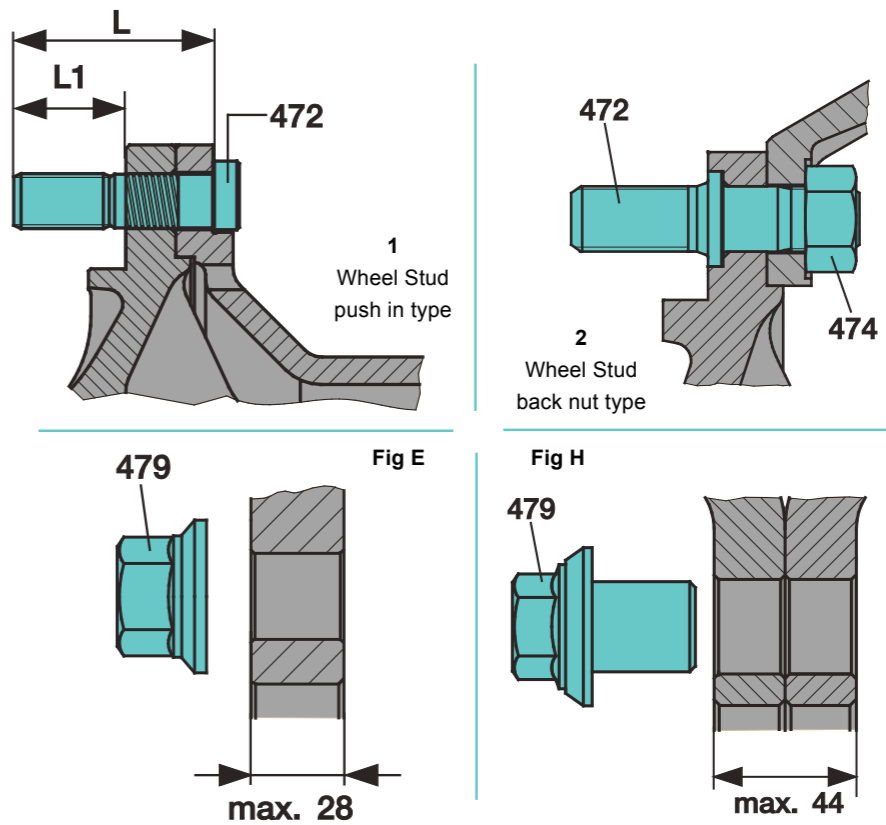
CAMSHAFT DIMENSION



CAMSHAFTS TO SUIT BRAKE

Dimensions			Part no.			
A (mm)	L (mm)	B (mm)	Item	Left Hand	Item	Right Hand
213	363	243	240	05.097.60.19.2	241	05.097.60.20.2
470	620	500		05.097.60.03.2		05.097.60.04.2
510	660	540		05.097.60.09.2		05.097.60.10.2
523	673	553		05.097.60.07.2		05.097.60.08.2
549	673	579		05.097.60.23.2		05.097.60.24.2
558	682	588		05.097.60.05.4		05.097.60.06.4
583	707	613		05.097.60.45.4		05.097.60.46.4

BPW WHEEL STUDS & NUTS



To help to determine replacement wheel studs and nuts select the wheel stud or bolt type from figures 1 and 2 above. Then determine the wheel nut type from Figures E or H below. Then select the appropriate combination using the table below. For example the combination 1E represents push in type wheel studs for steel wheels.

WHEEL STUDS & NUTS FOR ECO PLUS HUB										
Item	Description	Part no.	Wheel type		Fig	Stud style	No. of studs	Tyre size	Dimension	Qty per axle
472	Wheel stud	03.296.33.12.1	dual	Steel	1	push in	10	20"	M 22x1.5x97	20
		03.296.33.17.1	dual	Aluminium			8	19.5"		16
		03.296.23.17.0	dual / single	Steel	2	back nut	10	20"	M 22x1.5x114	20
		03.296.23.24.0	dual	Aluminium			10	20"	M 22x1.5x136	20
479	Wheel nut	05.260.54.10.0	dual / single	Steel	E				M 22x1.5	16/20*
474	Back nut	03.260.04.06.0	dual / single	Steel / Aluminium	2				M 22x2	20
	Peg	02.6010.35.60				back nut			Ø 6x19.5	20

* Qty 16 for 8 stud hub/ 20 per axle for 10 stud hub



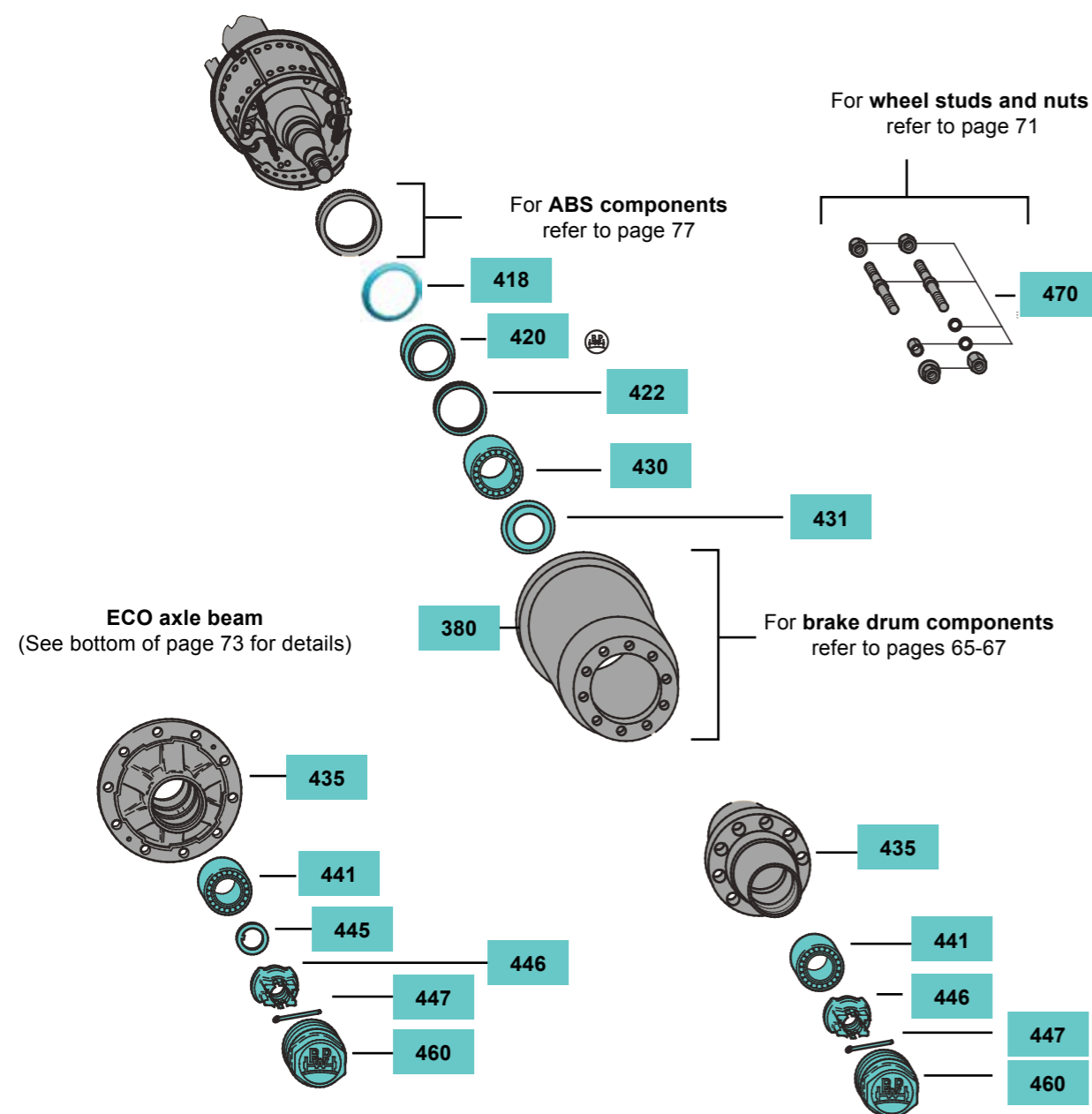
BPW CONVENTIONAL HUB SN3020

Hub components to suit 9t



NH/NR

Axle beam profile NR



For grease filling quantities and details on **BPW ECO-LI^{plus} grease** refer page 87 and for information regarding **BPW grease shower tools** refer to page 88.

BPW CONVENTIONAL HUB SN3020

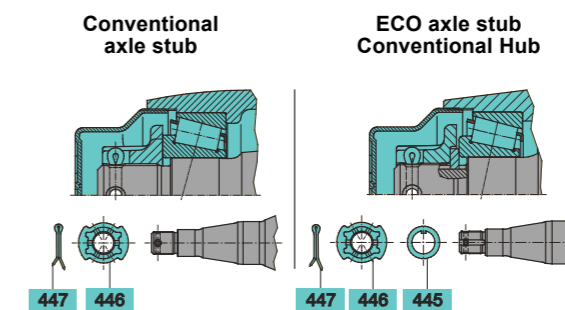
Hub components to suit 9t

HUB COMPONENTS			
Item	Description	Part no.	Qty per axle
435	Spider hub - dual wheels with lip seal	02.3910.31.18 (no longer available)	2
418	Dust seal	03.120.47.05.0	2
420	Seal carrier	03.370.07.45.0	2
422	Hub seal - oil hub	02.5664.26.57	2
430	Inner bearing	02.6410.24.00	2
431	Grease Shield	03.010.04.15.0	2
441	Outer bearing	02.6410.25.00	2
445	Washer ECO axle beam (refer to info below)	03.320.73.13.0	2
446	Axle nut	03.262.16.08.0	2
	Axle nut for ECO axle beam (refer to info below)	03.262.16.15.0	2
447	Split pin	02.6201.84.01	2
460	Hub cap (see dimensions below)	03.212.23.09.0	2
		For hubcaps with integrated hubodometers please refer to page 80.	

Uniform axle stubs for all BPW trailer axles

As of January 1995 BPW axle beams were converted to ECO axle stubs. These differ from the conventional axle stubs by a keyway in the thread area.

A new axle nut (item 446) and a washer (item 445) is used to fit conventional bearing to ECO axle stubs. When supplying axle beams for replacement on conventional axles the beams will be fitted with washers (item 445) and axle nuts (item 446) To suit. If the axle beam is required for replacement on an ECO or ECO Plus axle the axle nuts and washers will not be supplied with the beam and will need to be ordered separately if required.



HUBCAP (from 1982 to present)				
Description	Hubcap part no.	H	SW	Thread (external)
9 tonne	03.212.23.09.0	62	95	M115 x 2

BPW BEARING COMBINATIONS						
Hub series	Journal size - nomenclature	Inner bearing		Outer bearing		To suit tyre size
		Part no.	ISO size	Part no.	ISO size	
Conventional Hub 9t	Ø80mm, Ø50mm	02.6410.24.00	33116	02.6410.25.00	32310	15"/17.5"



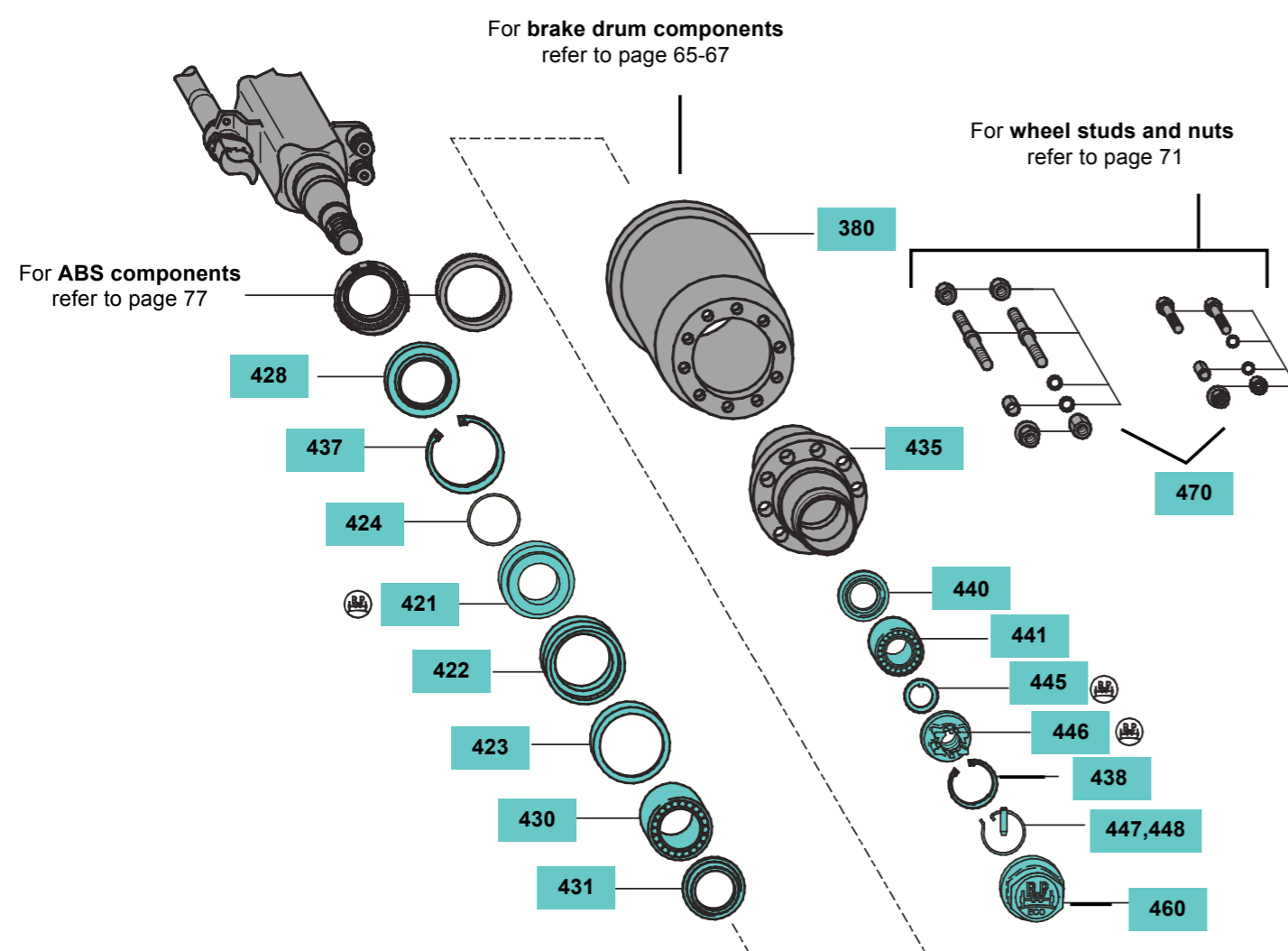
BPW ECO HUB SN3020

Hub components to suit 9t



NH/NR

Axle beam profile NR



For grease filling quantities and details on **BPW ECO-LI^{Plus} grease** refer page 85 and for information regarding **BPW grease shower tools** refer to page 86.

BPW ECO HUB SN3020

Hub components to suit 9t

HUB COMPONENTS TO SUIT 9 TONNE						
KITS per hub				PARTS		
Description	Part no.	Description	Part no.	Item	Description	Tyre size
Wheel bearings and seal kits (incl. seal carrier)	0980102720TSSC	Wheel bearings and seal kits	0980102720TS	435	Hub 10 Stud 225 - dual aluminum wheels	15"/17.5"
				421	Seal carrier	03.370.07.76.0
				422	Hub seal	02.5664.57.00
				423	Seal keeper ring	02.5683.62.00
				424	O Ring	02.5677.90.40
				428	Dust seal	02.5681.98.00
				430	Inner bearing	02.6410.24.00
				431	Dust cover	03.010.93.33.0
				440	Thrust washer	03.370.25.16.0
				441	Outer bearing	02.6410.25.00
				445	Washer	03.320.73.13.0
				447	Pin lock axle nut	03.084.71.17.0
				448	Locking ring axle nut	03.188.03.06.0
				437	Circlip inner hub	02.5606.40.90
				438	Circlip outer hub	02.5606.12.90
				446	Axle nut	03.266.46.02.0
				460	Hubcap (see dimensions below)	03.212.24.25.0
						For hubcap with integrated hubodometer refer to page 80.

ECO HUB (from 1992 to present)				
Hubcap part no.	Description	H	SW	Thread (internal)
03.212.24.25.0	9 tonne	61	110	M125 x 2

BPW BEARING COMBINATIONS						
Hub series	Journal size - nomenclature	Inner bearing		Outer bearing		To suit tyre size
		Part no.	ISO size	Part no.	ISO size	
ECO Hub 9t	Ø80mm, Ø50mm	02.6410.24.00	33116	02.6410.25.00	32310	15"/17.5"



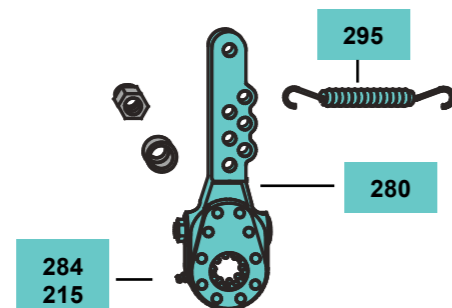
BPW BRAKE SLACK ADJUSTERS SN3020

Manual and automatic slack adjusters



NH/NR

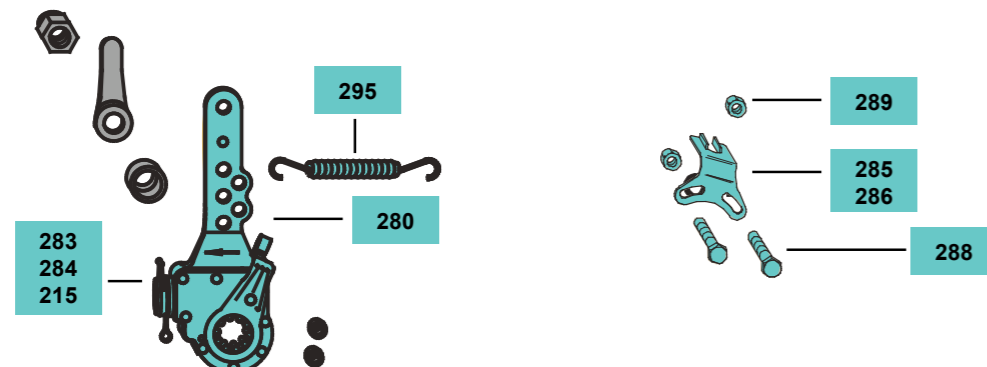
MANUAL SLACK ADJUSTER (GSK)



MANUAL SLACK ADJUSTER (GSK)

Item	Description	Part no.	Qty per axle
280	Slack adjuster 4 holes	05.1745.24.30	2
	Slack adjuster 6 hole (Multihole)	05.174.65.13.0	2
284	Grease nipple	02.6850.01.02	2
215	Cap	02.3505.20.00	2
295	Return spring	05.397.26.03.0	2

AUTOMATIC SLACK ADJUSTER (AGS) ECO-MASTER

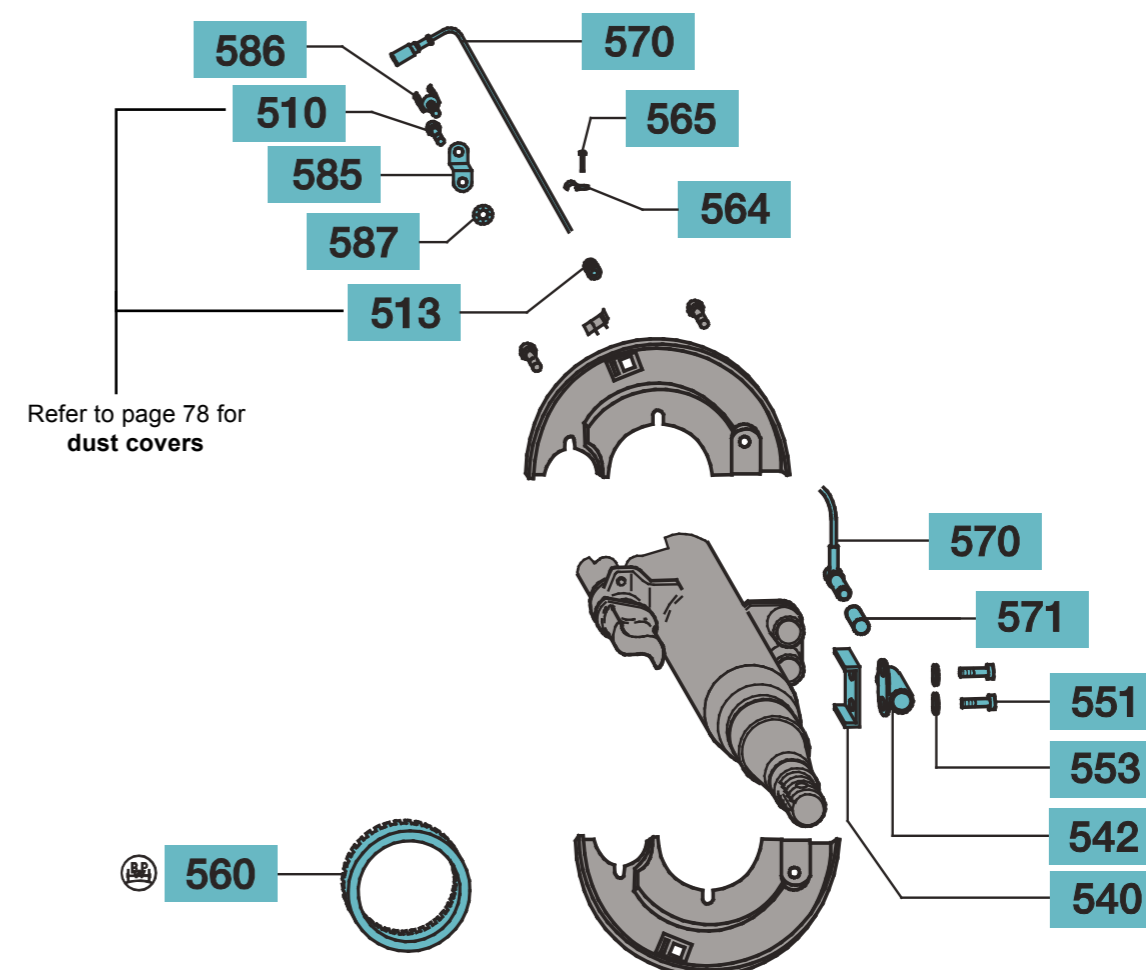


AUTOMATIC SLACK ADJUSTERS (AGS) ECO-MASTER

KITS per axle		PARTS			
Description	Part no.	Item	Description	Part no.	Qty per axle
Kit auto slack adjuster 6 holes	05.574.82.87.3 a=24° (NH)	280	Auto slack adjuster 6 Holes, a = 24° *	05.174.82.63.3	2
		285	Shaped plate	03.165.25.28.0	2
		283	Cap	03.211.90.15.0	2
		284	Grease nipple	02.6850.01.02	2
		215	Cap grease nipple	02.3505.20.00	2
	05.574.82.44.3 a=180° (KH/NR)	285	Shaped plate (left hand)	03.165.25.15.0	1
		286	Shaped plate (right hand)	03.165.25.16.0	1
		280	Auto slack adjuster 6 Holes, a = 180° *	05.174.82.24.3	2
		295	Return spring	05.3972.60.30	2
		288	Hexagon screw M 8x25/933	02.5025.30.82	4
		289	Lock nut	02.5273.32.82	4

* Only available in kit.

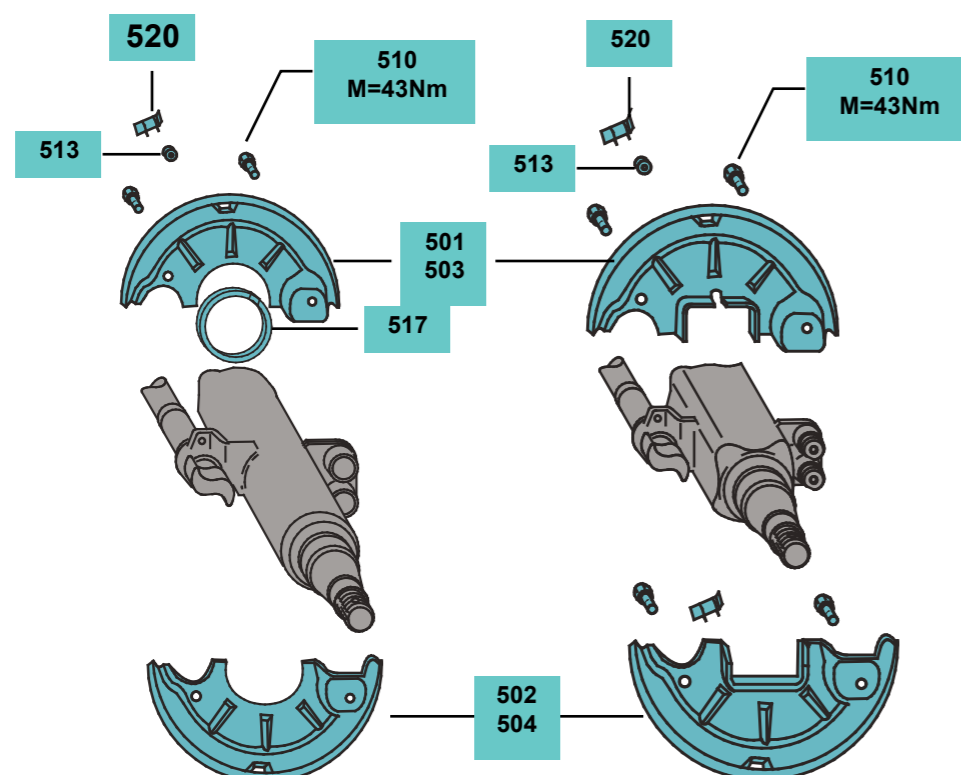
BPW ABS COMPONENTS SN3020



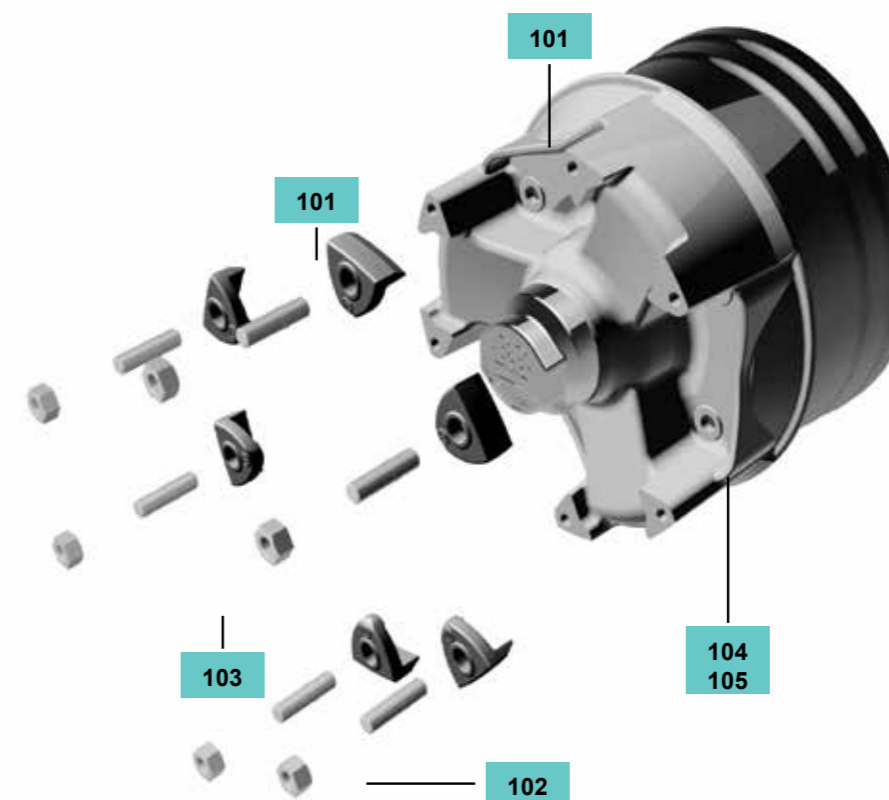
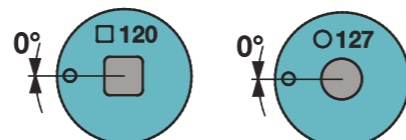
ABS PARTS				
Item	Description	Part no.	Dimensions	Qty per axle
542	Sensor bracket	03.189.07.87.0		2
551	Cap screw	02.5015.94.80	M 16 x 12/912	4
553	Spring washer	02.5601.06.90	A 6/127	4
560	Exciter ring 80 teeth	03.310.08.18.0	Ø 152/170x15	2
564	Clamp lead ABS	02.0326.32.00		
565	Rivet, ABS, lead clamp	02.6005.25.40		2
570	Sensor and lead angled	02.3317.05.00		2
571	Bush sensor ABS	02.0316.59.00		2
585	Bracket ABS	03.189.07.72.0		2
586	Clamp ABS plug bracket	02.1421.11.00		2
587	Washer ABS plug bracket	02.5414.11.90		2

**Please note:**

There are different dust covers for the different BPW Brake generations. In order to correctly identify replacement dust covers and attachment parts the correct brake generation must be identified.



The diagrams on the right show the axle beam brake positions available for Brake type SN3020. This represents the angle between the S Cam and the centre line of the axle. Different dust covers are required for the different brake positions as shown in the table below.



DUST COVERS SUIT BPW BRAKE 95						
Brake type	Axle beam profile	Brake position	Item 501 Left upper	Item 502 Left lower	Item 503 Right upper	Item 504 Right lower
Pre BPW Brake 95						
SN3620	Square Beam 120mm	0°	03.010.96.67.0	03.010.96.68.0	03.010.96.70.0	03.010.96.69.0
SN3020	Round Beam 127mm		03.010.96.80.0	03.010.96.79.0	03.010.96.82.0	03.010.96.81.0
BPW Brake 95						
SN3620	Square Beam 120mm	0°	03.010.99.79.0	03.010.99.80.0	03.010.99.77.0	03.010.99.78.0

DUST COVER ATTACHMENT PARTS				
Item	Description	Part no.	Dimensions	Qty per axle
510	Bolt dust cover self locking	02.5071.22.00	M10 x 18	8
513	Plug, no ABS	02.3704.33.00	Ø 10.7	2
517	Seal - square axle beam 120mm/round axle beam 127mm (Used with both Pre BPW Brake 95 and BPW Brake 95)	05.121.30.06.0	L = 340, o 8	2
520	Plug rubber backing plate	03.379.00.23.0		4

WHEEL CLAMPS, STUDS AND NUTS TO SUIT SPIDER HUBS							
Item	Description	Tyre size	Conventional 9t		Conventional 10-12t		Qty per axle
			Oil hub	Grease hub	Oil hub	Grease hub	
100	Spider Hub - dual wheels	15"		02.3910.31.18* (Hub only) 3 spoke			2
	Wheel clamp - dual wheels	15"		03.372.06.20.0			6
	Wheel stud	15"		03.340.73.10.0			12
103	Wheel nut	15"	03.260.03.04.0				12
104	Bolt - spider hub drum assy		02.5026.61.10				12
105	Nut - spider hub drum assy		03.260.03.12.0				12

* No longer available. No replacement.



BPW HUBCAPS SN3020

With integrated analogue hubodometer



Tyre rolling circumference:

The tyre rolling circumferences in the table below are based according to standard ETRTO (European Tyre and Rim Technical Organisation). Data of various tyre manufacturers can vary slightly.

BPW HUBCAPS WITH INTERGRATED ANALOGUE HUBODOMETER						
Axle load	Brake type	Hub type	Hubcap Thread	Tyre size	Tyre rolling circumference $\pm 2\%$	Part no.
9 tonne	SN3020	ECO	M 125 x 2	215/75 R 17.5	2350 mm	05.212.24.35.0
			M 125 x 2	235/75 R 17.5	2464 mm - 2520 mm	05.212.24.58.0
			M 125 x 2	245/70 R 17.5	2425 mm	05.212.24.36.0
			M 125 x 2	205/65 R 17.5	2170 mm	05.212.24.48.0

BPW ECO-Li^{Plus} GREASE AND GREASE SHOWER TOOLS



BPW ECO-Li^{Plus} Grease

BPW ECO-Li^{Plus} is:

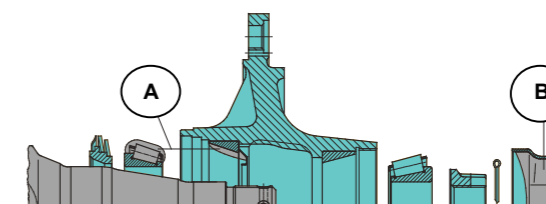
- usable at temperature between -30°C and + 150°C
- resistant to aging
- protecting against corrosion, even in aggressive surroundings
- wear reducing
- generally plastics compatible
- suitable for extremely long re-lubrication periods

ECO-Li^{Plus} is suitable for the lubrication of high temperature roller and friction bearings of commercial vehicles. It has been especially developed for highly loaded taper roller bearings and hub units with very long re-lubrication periods.

BPW ECO-Li^{Plus} GREASE is available in the following container sizes

Part no.	Container size
0210404500-450	450g Cartridge
02.1040.47.00	5kg Container
0210404900-20	20kg Container

CONVENTIONAL HUB BEARING SYSTEM



BPW special long life grease ECO-Li^{Plus} - Grease quantity per taper roller bearing

Axle load	A = Inner bearing	B = Outer bearing (cap filling)
6,000 - 9,000kg	170g	290g
10,000 - 12,000kg	180g	320g

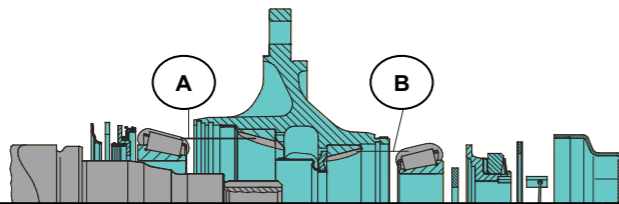


BPW special long life grease ECO-Li^{Plus} Grease quantity per taper roller bearing

Axle load	A = Inner bearing	B = Outer bearing
6,000 - 9,000kg	120g	120g
10,000 - 12,000kg	170g	120g



ECO Plus HUB BEARING SYSTEM

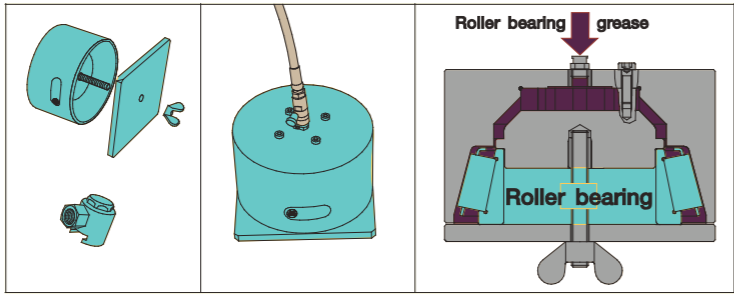


BPW special long life grease ECO-Li ^{Plus} Grease quantity per taper roller bearing		
Axle load	A = Inner bearing	B = Outer bearing
8,000 - 12,000kg - Manual greasing	170g	120g

BPW GREASE SHOWER TOOLS

Used to quickly, accurately and cleanly fill the bearing with the required amount of BPW ECO-Li^{Plus} Grease

Grease shower part number	To suit bearing size	
	ISO	BPW Bearing part numbers
99.00.000.9.54	33116 / 32310	02.6410.24.00 / 02.6410.25.00
99.00.000.9.55	33118 / 33213	02.6410.23.00 / 02.6410.22.00



TOOLS

In order to simplify the maintenance procedures on BPW axles a comprehensive range of special tools are available. BPW tools offer the following advantages:

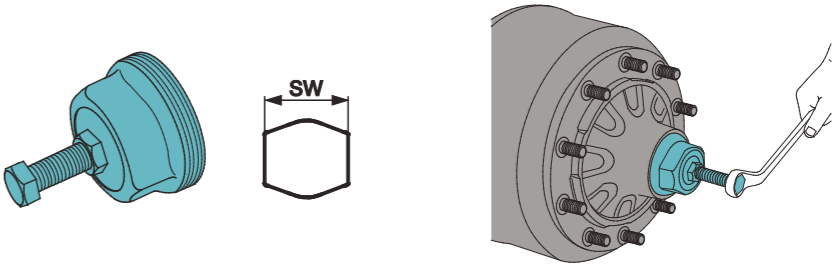
- **Tried and tested design**
Tools must prove their worth in everyday use. Only then does it become clear whether tools are up to the demands of the real world.
- **Use of high quality materials**
High quality materials are absolutely essential for producing high quality tools. Continuous quality assurance guarantees consistent quality.
- **Favourable price/performance ratio**
Quality is not always obvious at first glance (e.g. materials). Buying quality tools is often the cheaper option in the long term. This particularly applies in those cases where tools are regularly needed and where their trouble free use must be guaranteed at all times.
- **Long service life, low wear**
BPW tools are designed to be particularly resistant to wear and tear, and guarantee an extremely long service life, even with frequent use.
- **Simple to handle**
Ideal solutions are always simple. This statement also particularly applies to tools. For that reason BPW tools are designed strictly to the necessary technical requirements. Solutions that do not meet practical requirements are rigorously weeded out at the development stage.

The following pages show a representative range of the tools available.
For complete details please contact your local BPW Transpec Office or BPW distributor.

HUB PULLER FOR WHEEL HUBS FOR CONVENTIONAL HUB UNITS

Hub puller tool:
BPW Shape, SW 110 mm
Part number 05.012.27.05.0

Screw:
M22 x 100
Part number 02.5026.70.80



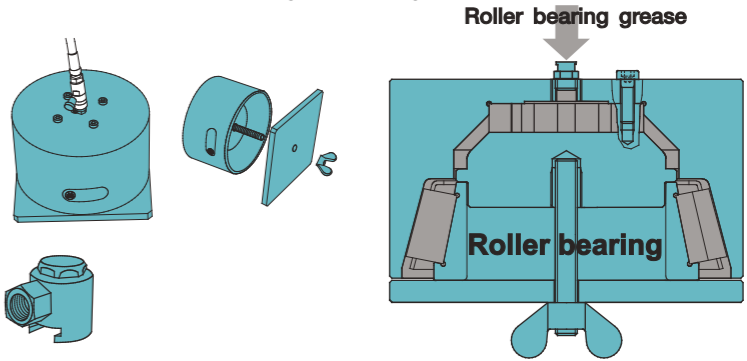
GREASE SHOWER TOOLS

To quickly, accurately and cleanly fill the hub bearings with the required amount of BPW ECO-LiPlus Grease (see page16 and 17 for information about BPW ECO-LiPlus Grease and grease filling quantities)

Available to suit:
33116/32310 ISO Bearings
Part number **9900000954**

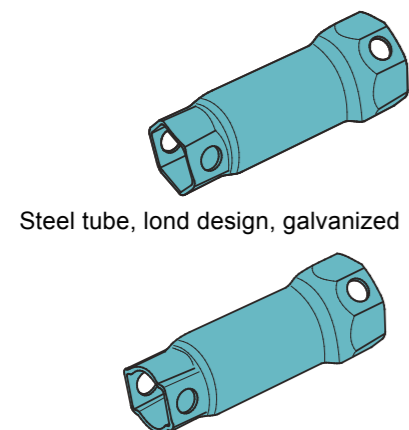
33118/33213 ISO Bearings
Part number **9900000955**

A flat grease nipple adapter is also available
Part number **1506922935**



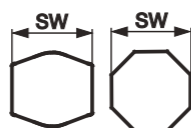
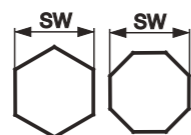


BOX SPANNER FOR HUB CAP AND AXLE NUT

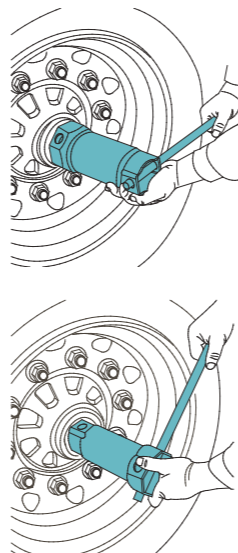


Steel tube, long design, galvanized

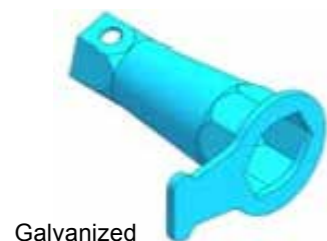
SW Hexagonal - 80mm
SW Octagonal - 110mm
Part no. **03.364.27.01.0**



SW BPW shape - 80mm
SW Octagonal - 110mm
Part no. **03.364.27.03.0**



COMBINATION SPANNER



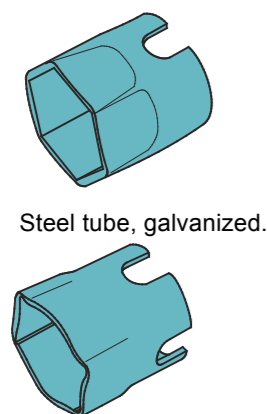
Galvanized

BPW Transpec also offers a combination spanner where the Ring Spanner for the Hubcap is welded to the Box Spanner for the Axle Nut.

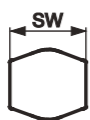
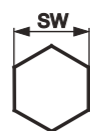
Part no. - **0336427010M** = 80mm hex / 110 mm Octagonal
Part no. - **0336426030M** = 65mm BPW Shape / 95mm Octagonal
Part no. - **0336427030M** = 80mm BPW Shape / 110mm Octagonal

BOX SPANNER

For setting of BPW Hub Unit Axle Nuts



Steel tube, galvanized.

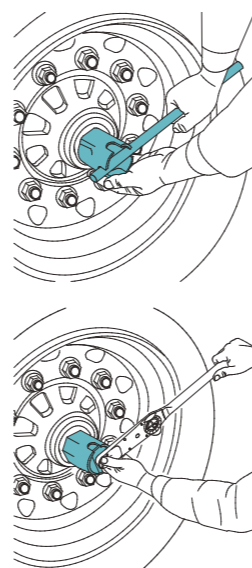


SW Hexagonal

Part no. **03.364.20.01.0** = 65mm
Part no. **03.364.24.01.0** = 80mm
Part no. **03.364.25.01.0** = 85mm
Part no. **05.364.26.05.0** = 95mm
Part no. **03.364.26.02.0** = 100mm

SW BPW Shape

Part no. **03.364.20.02.0** = 65mm
Part no. **03.364.24.02.0** = 80mm

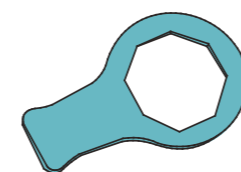


Note: Always check the setting with a torque wrench as soon as possible afterwards.

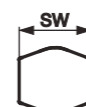
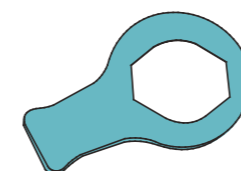
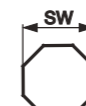


RING SPANNER FOR HUB CAP

Designed for emergency use, this ring spanner can be carried in the vehicle tool kit for use anywhere at any time. Caution - repeated use of this spanner may lead to damage to the hub caps.



Steel Plate (ST 52), galvanized.

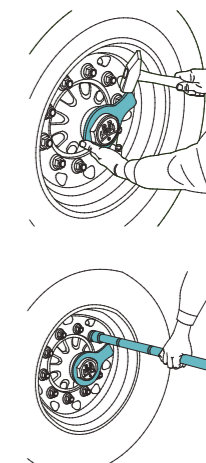


SW Octagonal

Part no. **03.33904.01.0** = 95mm
Part no. **03.339.05.01.0** = 110mm
Part no. **03.339.05.02.0** = 120mm
Part no. **03.339.05.03.0** = 130mm

SW BPW Shape

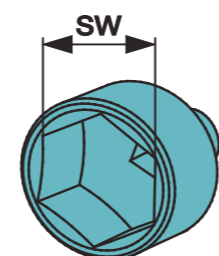
Part no. **03.339.04.03.0** = 95mm
Part no. **03.339.05.04.0** = 110mm



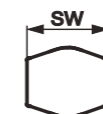
Note: Always check the setting with a torque wrench as soon as possible afterwards.

SOCKET SPANNER

To correctly set the bearing play in the hub and to tighten hubcaps utilizing a torque wrench. These spanners are for workshop use.



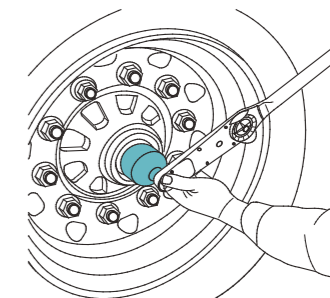
Chromium-steel box spanner (31 CR V3)



For axle nuts

SW BPW Shape - 1/2" drive
Part no. **03.364.20.03.0** = 65mm
Part no. **03.364.24.03.0** = 80mm

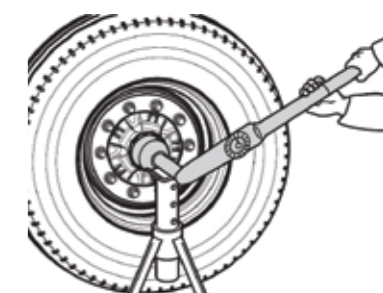
ECO Plus socket = 29mm
does all ECO Plus 05.364.26.05.0



For hub caps

SW Octagonal - 1" drive
Part no. **03.364.27.04.0** = 110mm

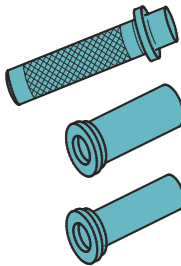
SW BPW Shape
Part no. **03.364.29.02.0** = 95mm
Part no. **03.364.29.03.0** = 110mm
1" drive torque wrench required





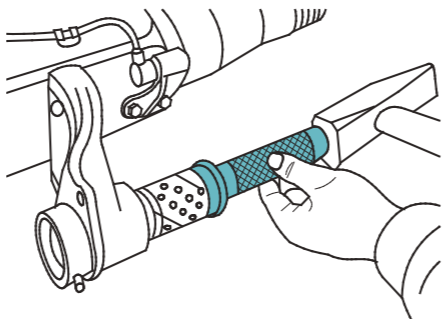
DRIVING MANDREL FOR S-CAM BUSHES

Handle and mandrels available to correctly seat replacement s-cam bushes on BPW drum brake axles.
Handles and mandrels are available separately.



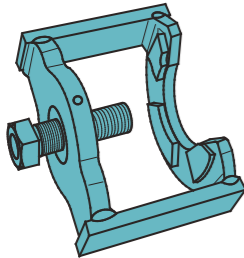
Handle
Part no. **02.061.90.20.0**

Mandrels
Part no. **03.084.17.02.0** = Ø 36
Part no. **03.084.17.01.0** = Ø 42
Kit no. **05.001.04.04.0**



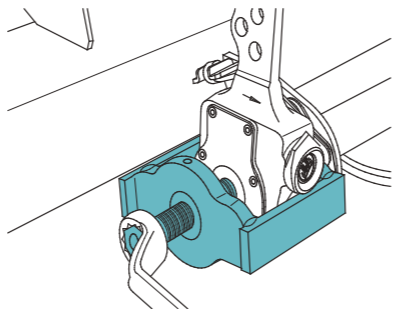
PULLING DEVICE FOR SLACK ADJUSTERS

To quickly and safely remove slack adjusters on BPW drum braked axles.



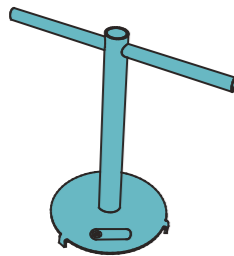
Part no. **02.4306.15.00**

Suitable for both manual and auto-
matic slack adjusters.

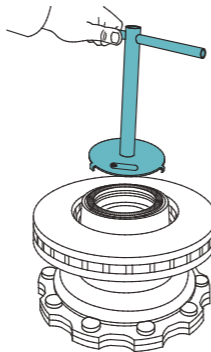


EXCITER RING (POLE RING) ASSEMBLY AID

To fit and remove ABS exciter ring from BPW 9 tonne ECO Plus Hub Unit axles.



Part no. **1602022953**

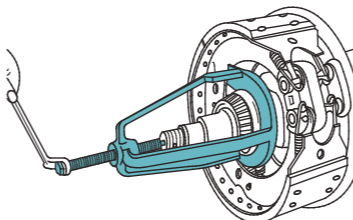


DRAWING TOOL

Drawing tool to remove taper roller bearings with thrust ring on BPW Conventional Hub Units.



Part number **02.0125.10.00**
(Not required for ECO or ECO Plus Hub Units)



ABS KITS

AXLE SPEC	AM	
	KIT	POLE RING HEAT ON
DRUM 20" ROUND 127mm	05.801.74.38.0	03.310.08.14.0
DRUM 20" 16DEG 120mm	05.801.74.38.0	03.310.08.14.0
DRUM 20" 30DEG 120mm	05.801.74.38.0	03.310.08.14.0
DRUM 20" STEER 120mm	05.801.72.07.0	03.310.08.14.0
DRUM 20" 150mm	05.801.74.39.0	03.310.08.14.0
DRUM STEER 150mm	05.801.72.07.0	03.310.08.14.0
DRUM 19.5" 120MM	05.801.73.67.0	05.310.08.44.1
DRUM 19.5" STEER 120mm	05.801.73.69.0	05.310.08.44.1
DRUM 15" 120mm	05.801.73.55.0	05.310.08.44.1
DRUM 15" STEER 120mm	05.801.73.79.0	05.310.08.44.1
DISC 20" 120mm	05.801.74.59.0	05.310.08.50.1
DISC 20" STEER 120mm	05.801.74.24.0	05.310.08.50.1
DISC 19.5" 120mm	05.801.74.58.0	03.310.09.38.0
DRUM 19.5 STEER 120mm	05.801.74.26.0	03.310.09.38.0



NOTES

NOTES





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