



BPW ECO Disc  
Trailer disc brake  
TSB 3709 / 4309 / 4312

Service Campaign

SH

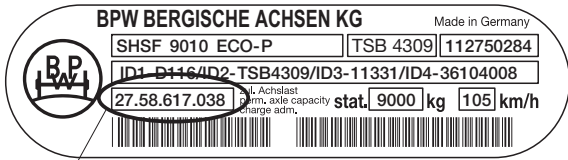
SK

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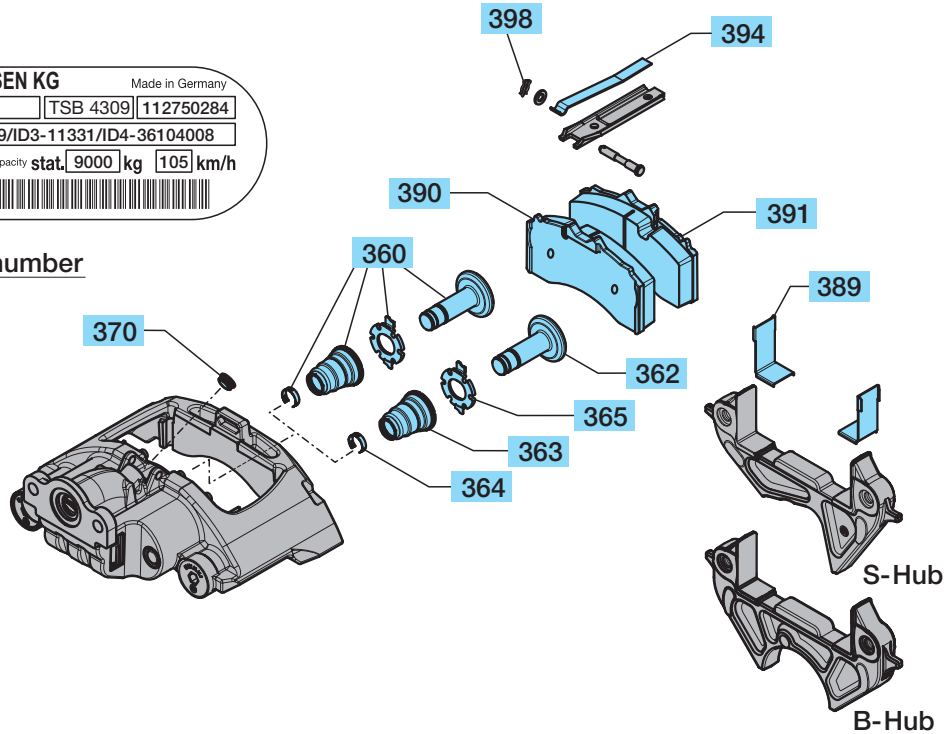
# BPW ECO Disc Service Campaign

## Contents of BPW Service Kit

BPW Type plate



BPW Axle code number



Item	Designation	BPW Code number		
		TSB 3709	TSB 4309	TSB 4312
	<b>BPW Axle code number</b>	<b>26.xx.616.xxx</b> <b>27.xx.616.xxx</b>	<b>26.xx.617.xxx</b> <b>27.xx.617.xxx</b>	<b>27.xx.618.xxx</b>
	Service Kit cpl. Item 360, 370 - 398	<b>05.801.50.91.0 *</b>	<b>05.801.50.92.0 *</b>	<b>05.801.50.93.0 *</b>
360	Service kit Tappet (item 362 - 365)	05.801.50.90.0		
362	Tappet	05.127.18.04.0		
363	Bellow	05.130.07.07.0		
364	Holding clamp	03.001.57.01.0		
365	Dirt seal	03.121.30.15.0		
370	Plug	02.3704.69.00		
389	Wearing plate	03.163.04.02.1	03.163.04.03.1	03.163.04.04.1
390	Brake pad drilled	05.092.90.12.1	05.092.90.13.1	05.092.90.20.1
391	Brake pad undrilled	05.092.90.12.0	05.092.90.13.0	05.092.90.20.0
394	Clamping spring	03.352.00.08.1		
398	Lock	02.3301.31.00		

\* Only deliverable per kit

Special tools see page 15.

## Exchange of tappets and brake pads on BPW ECO Disc trailer disc brakes

- [1] Prevent the vehicle from moving away.
- [2] Release the service and parking brakes.
- [3] Lift up one wheel side and remove the wheel with tyres.
- [4] In case fitted, remove the wear indicator unit (702) see workshop manual ECO Disc (BPW-WH-TSB 35101001 def).
- [5] Pull the spring clip (398) out of the bolt (396) with a pair of pliers and remove the washer (397).

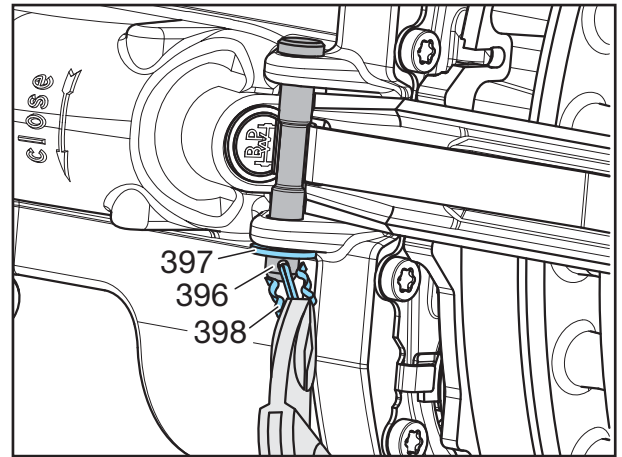


Fig. 1

- [6] Push down the clamping spring (394) and remove the bolt (396).
- [7] In case fitted, remove the brake pad cover (530), see workshop manual ECO Disc (BPW-WH-TSB 35101001 def).

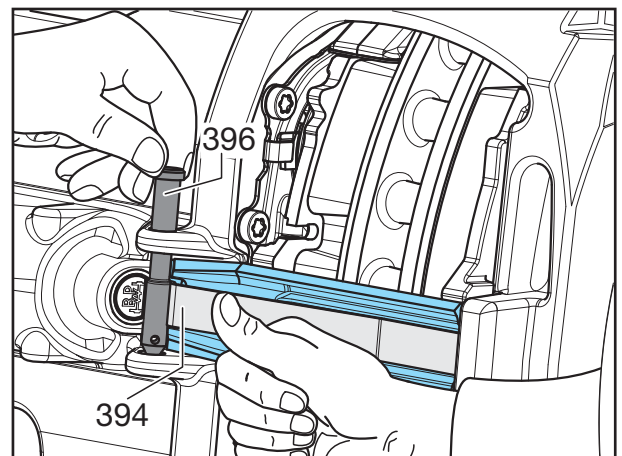



Fig. 2



**Caution!**  
Ensure the brake pads do not fall out of their housing when the tappets are withdrawn.

- [8] Remove the pad retainer (395) with retaining spring (394).

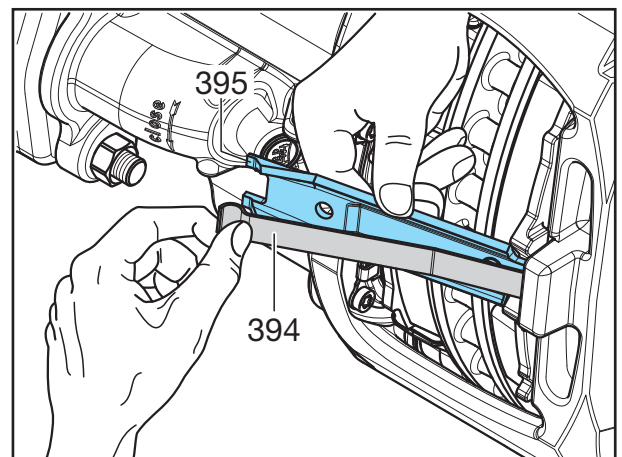


Fig. 3

- [9] Remove the sealing plug (370) of the adjuster (torx screw).

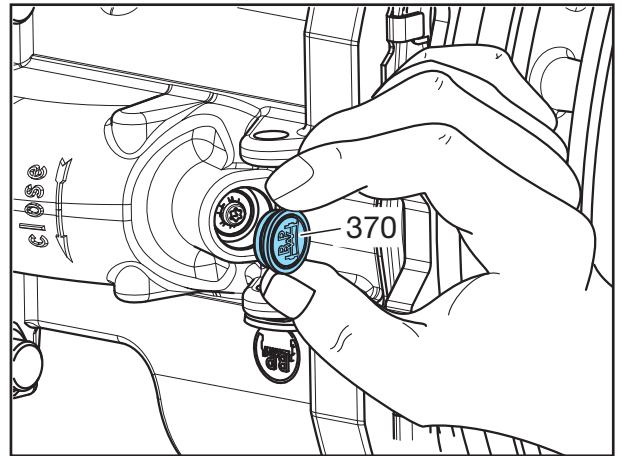


Fig. 4

- [10] Using a torx screw driver (T25), depress the adjuster screw and turn it clockwise (a clicking sound is heard) until the tappets have been completely reset.

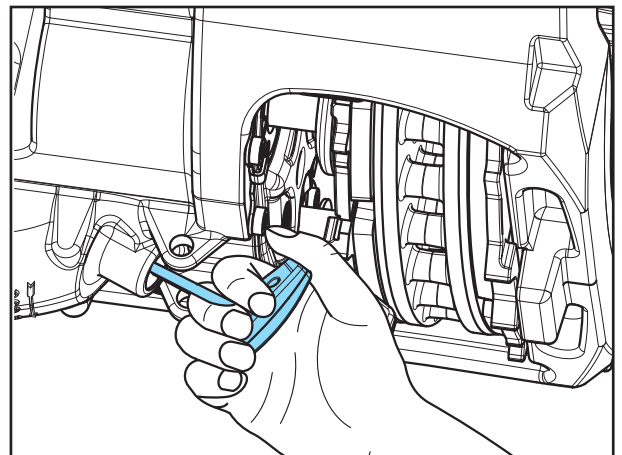


Fig. 5

- [11] Remove the brake pads (390).



**Repair guide!**  
After the brake pads have been removed make sure that the calliper is shifting easily.

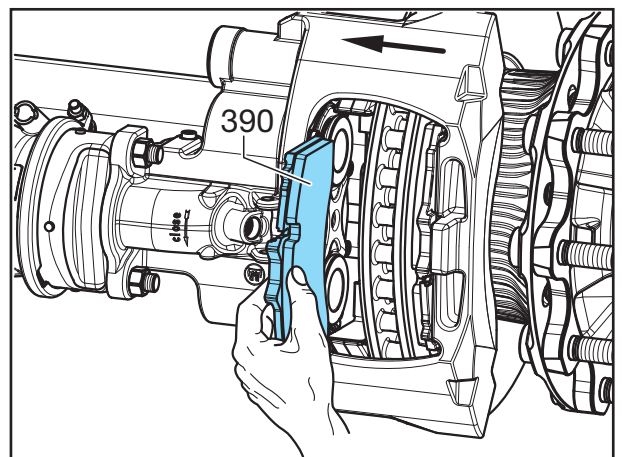


Fig. 6

- [12] Slide brake calliper towards the inner side of the vehicle. Clamp a spacer between hub and brake calliper to have enough free space to disassemble the tappets.

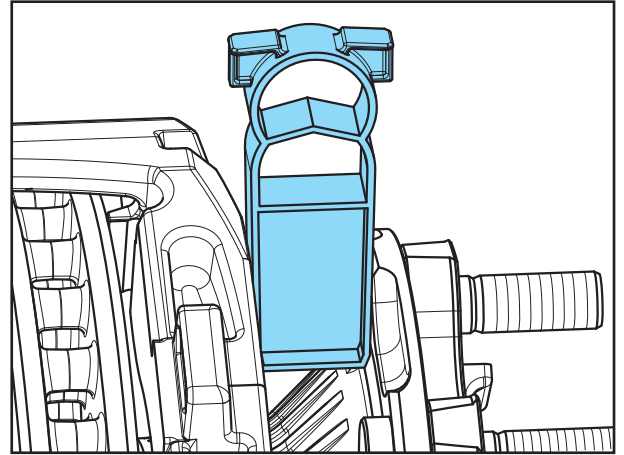


Fig. 8

- [13] Remove both wear plates (389) from the brake anchor plate and eliminate existing dust or dirt respectively first signs of rust from the brake pad housing.

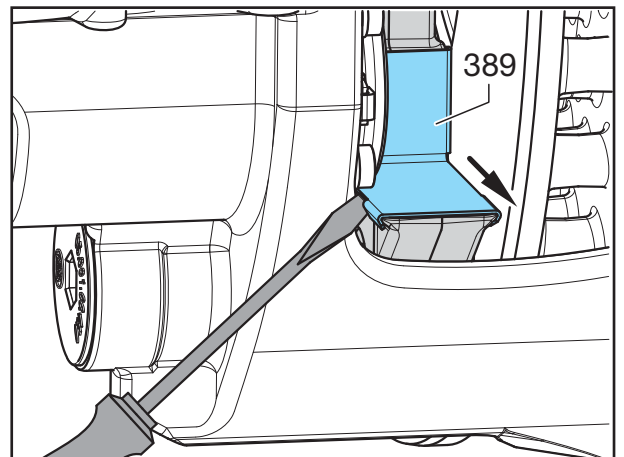


Fig. 7

- [14] Remove both tappets (362) with a screw driver from their positions.

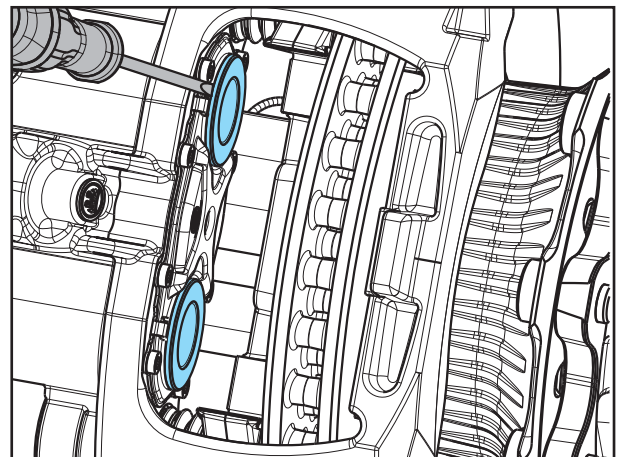


Fig. 9



- [15] Place a two-pin-spanner (BPW no. 02.3516.21.00) in the grooves of the dirt seal (365) and turn approximately 16 degrees counter-clockwise.

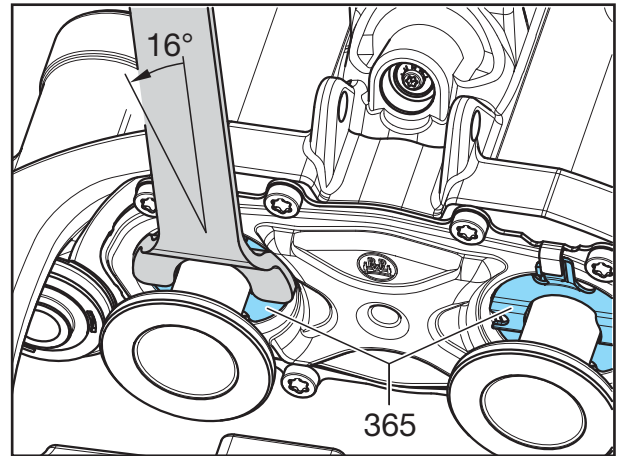


Fig. 10

- [16] Clean the bottom plate of the calliper with a steel brush and compressed air.
- [17] Pull the tappets (362) together with the bellow (363) and the dirt seal (365) out from the bottom plate of the calliper.

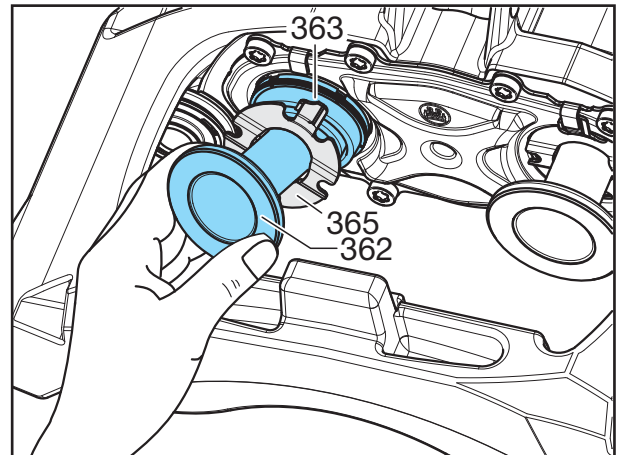


Fig. 11



**Repair guide!**

The bellow (363) must be removed completely from the position in the brake calliper.

In case the bellow has been torn off during disassembly, the remnants have to be removed from their position.

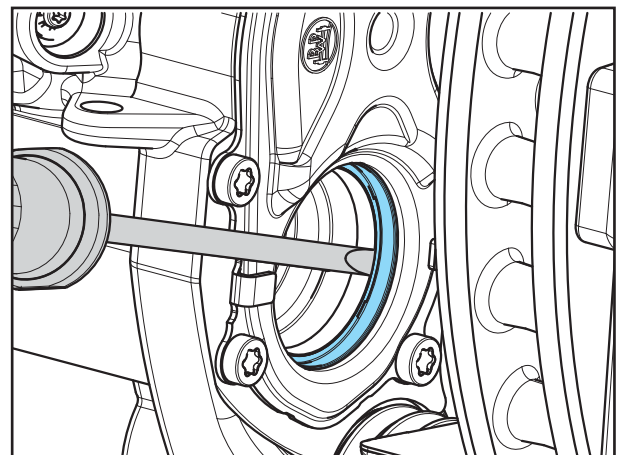


Fig. 12

- [18] Check the tappet, whether the retaining clip (364) is still fixed on top of the tappet.

In case of missing retaining clip:  
Remove the retaining clip (364) out of the housing of the brake calliper (possibly with the help of a magnet).

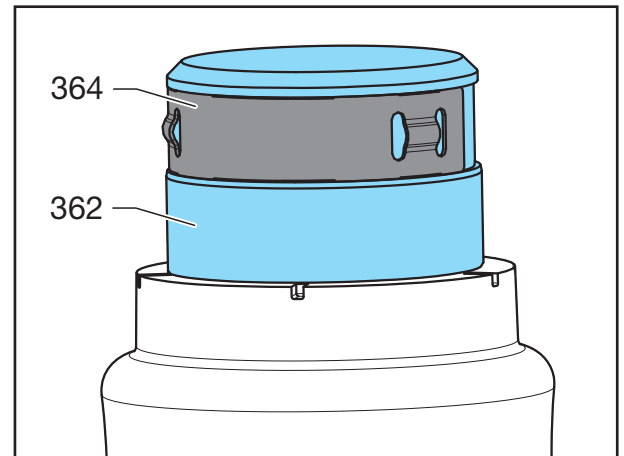


Fig. 13

- [19] Verify whether the pre-assembled tappets (362) with dirt seal (365), bellow (363) and retaining clip (364) are complete and prepare them for assembly like shown on fig. 14.



**Repair guide!**

The bellow (363) and position of the bellow in the bottom plate of the calliper must be kept free of grease and dirt.

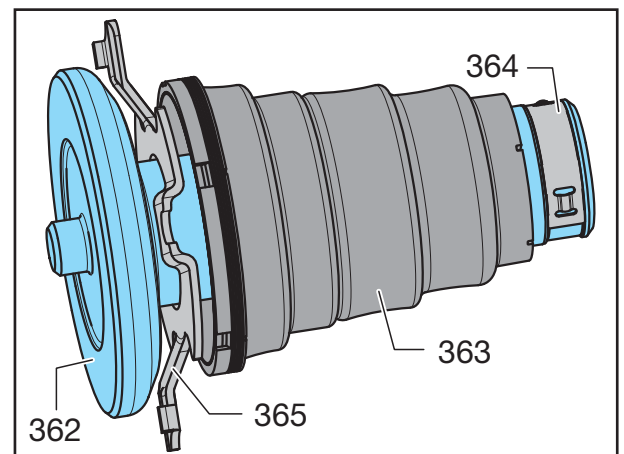


Fig. 14



**Repair guide!**

Do not damage the bellow (363) on top of the tappet when fitting into the brake calliper.  
Special caution must be paid to the retaining clip of the dirt seal (arrow).

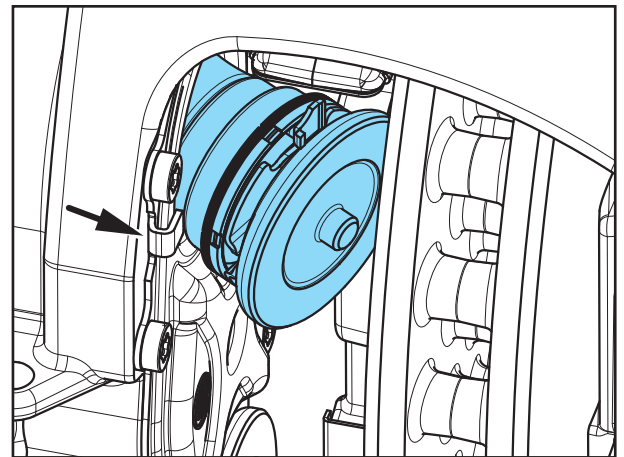


Fig. 15

- [20] Put the bellow (363) into the position in the bottom plate of the calliper manually and center it (even positioning).

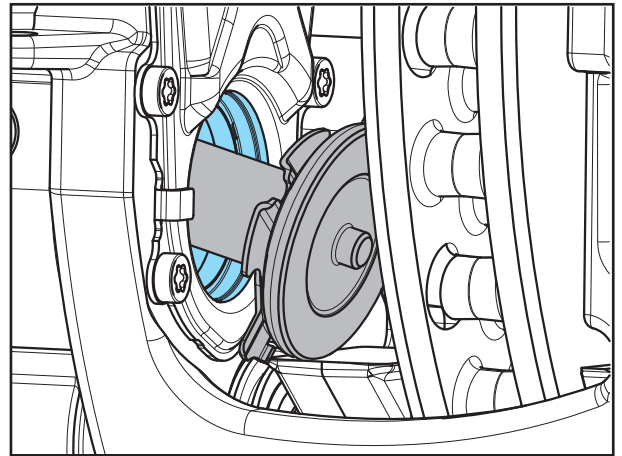


Fig. 16

- [21] Apply the mounting tool (BPW no. 02.0130.80.10) for the bellows (363) between bellow and tappet with dirt seal and then remove the spacer.
- [22] Press in the bellow right down with a suitable lever.  
Do not damage the dirt seal !

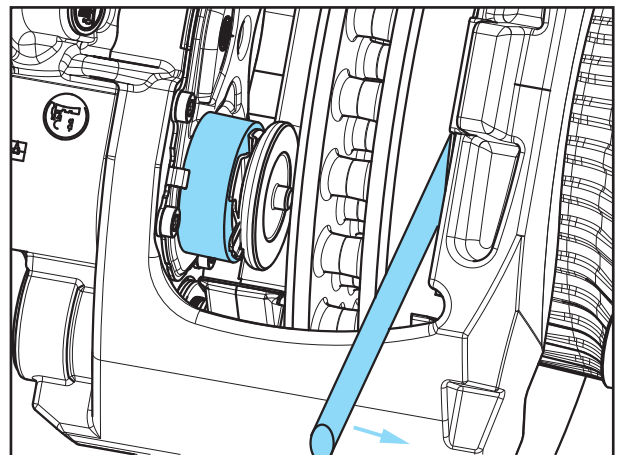


Fig. 17



**Note:**  
The ring area of the mounting tool must strike against the bottom plate of the calliper without any gap.

- [23] Pre-assemble the dirt seal (365).  
The fastening brackets must be positioned in front of the metal clips of the bottom plate of the calliper (arrow) as shown in the clockwise direction and slightly turn in to them already by hand.

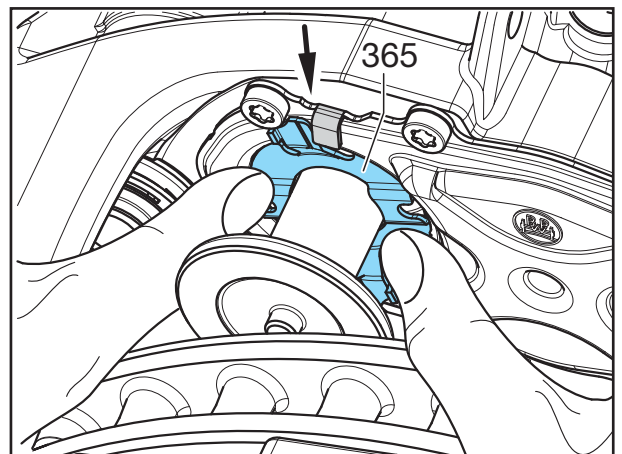


Fig. 18



- [24] Using the two-pin-spanner (BPW no. 02.3516.21.00), turn the dirt seal (365) approximately 16 degrees clockwise until it noticeably engages.

In case of tight fit having restrictions in the assembly, the position of the bellow must be verified and possibly the bellow must be slightly adjusted according to step 20) up to 22).

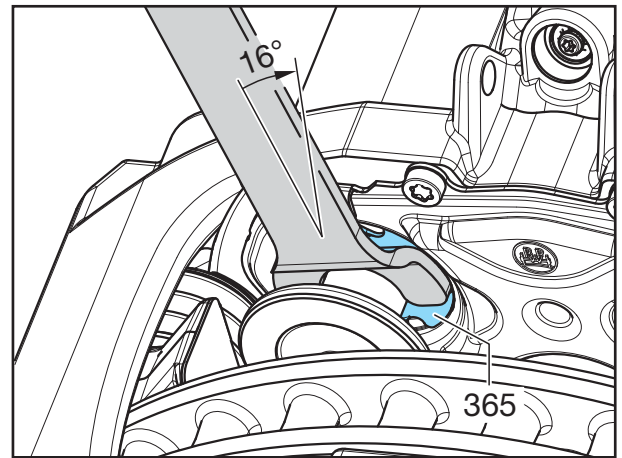


Fig. 19

- [25] Check the tight position of the dirt seal (365).



**Note:**  
Both brackets of the dirt seal (365) must be behind the metal clips of the bottom plate of the calliper for correct seating.

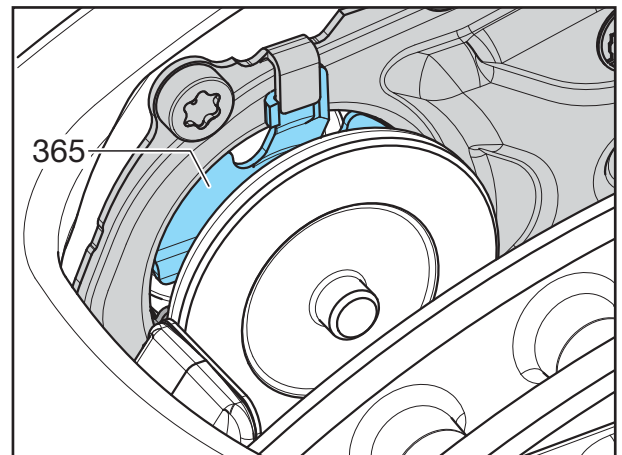


Fig. 20

- [26] Press the tappet into the brake calliper until the retaining clip (364) noticeably engages. To press in the tappets into the position in the brake calliper, a lever (e. g. two-pin-spanner) can be used.

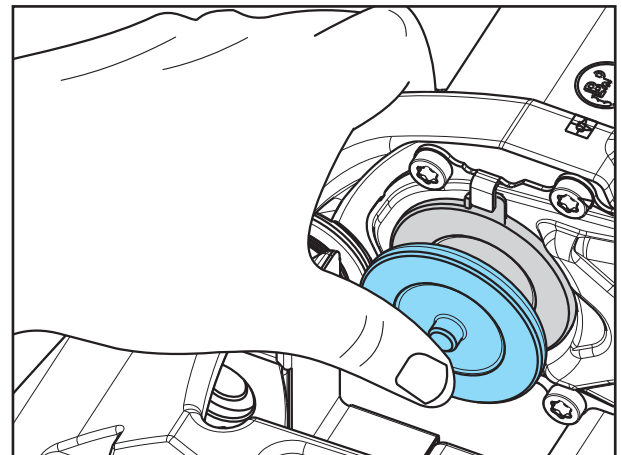


Fig. 21

- [27] Adjust the metal clips of the bottom plate of the calliper with a gentle hammer stroke.

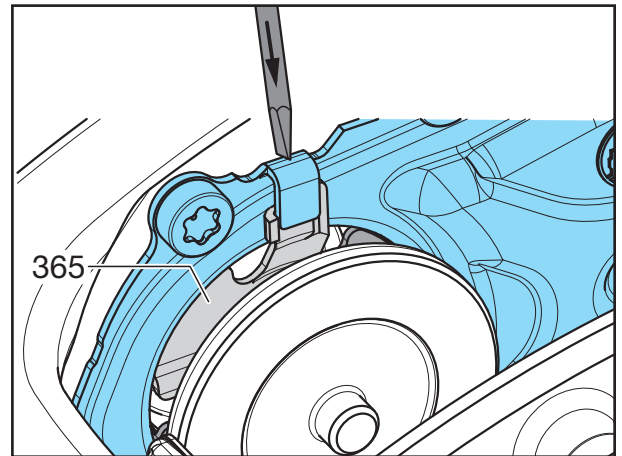


Fig. 22

- [28] Assemble new wear plates (389) greased on the rear side (with ECO Li / ECO Li +)



**Repair guide!**  
The brake disc must remain free of grease.

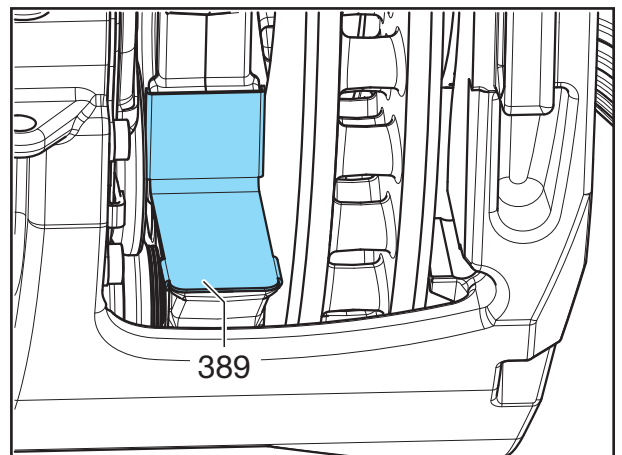


Fig. 23

- [29] Remove the spacer between hub and brake calliper.
- [30] Next, move the brake calliper towards the inside of the vehicle and fit the inner brake pad (390) with drilled holes.



**Repair guide!**  
When mounting the brake pad the dowels at the tappets have to be inserted into the centering holes of the brake pad support plate.

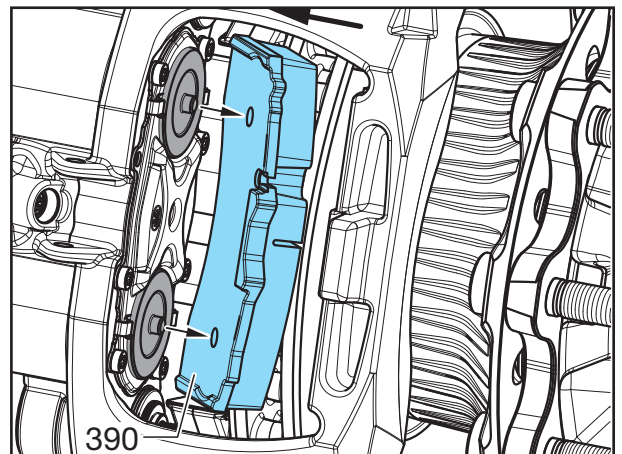


Fig. 24

- [31] Slide brake calliper towards the outside of the vehicle and fit outer brake pad (391) without holes.



**Repair guide!**

Ensure that the locator on the back of the brake pad support plate is inserted into the designated recess in the brake calliper.

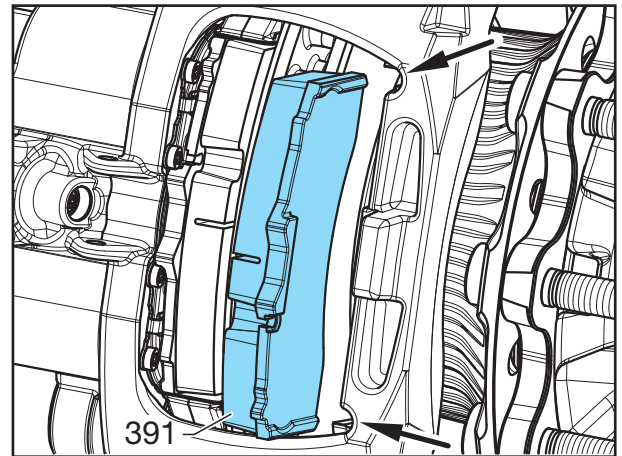


Fig. 25

- [32] Using a torx screw driver (T25), depress the adjuster and turn it counter-clockwise until the brake pads are heading to the brake disc free from play.
- [33] Next, turn back the adjuster two (2) audibly latches / clicks (corresponds to clearance 0,6 - 0,9 mm) and check whether the brake calliper is movable.

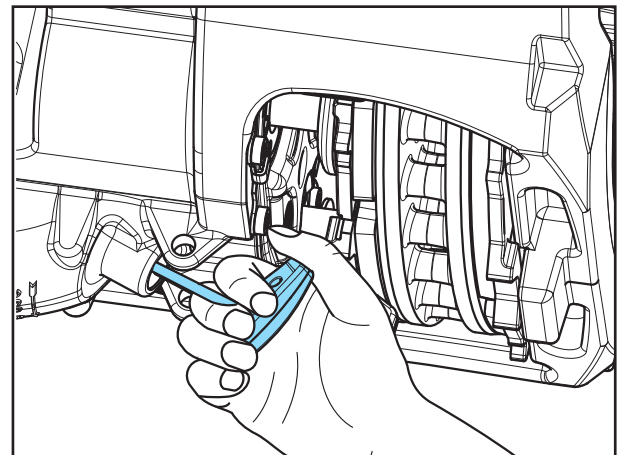


Fig. 26

- [34] Insert new sealing plug for the adjuster (370).

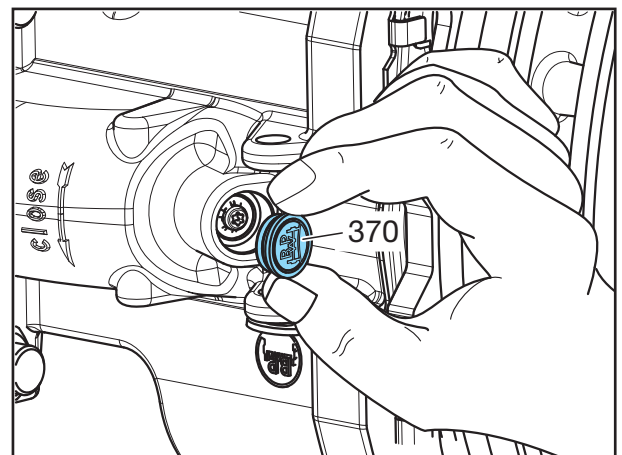


Fig. 27

# BPW ECO Disc Service Campaign

[35] Assemble the brake pad cover (530), in case disassembled (see workshop manual ECO Disc (BPW-WH-TSB 351011001 def)).

[36] Turn the pad retainer (395) with the new clamping spring (394, black) in the calliper relief and press it in so that the bolt (396) can be placed into the holes.

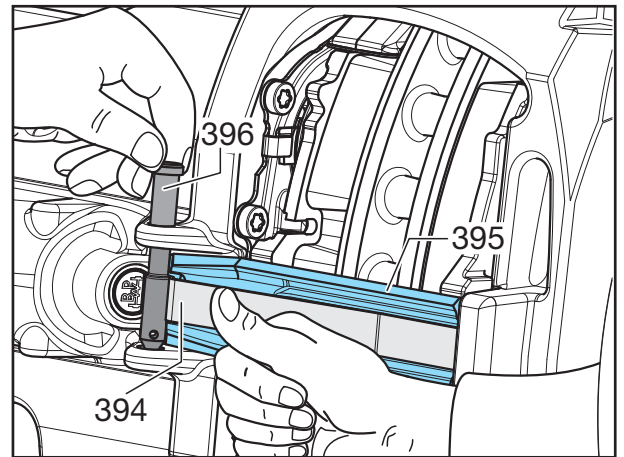


Fig. 28

[37] Insert the bolt (396) from the top, fit washer (397) and secure with spring clip (398). Ensure the correct installation position of the splint, in order to guarantee sufficient clearance to the rim (see fig. 29 atop).

[38] Following this, ensure that the wheel or hub can turn easily / smoothly when the brake is released.

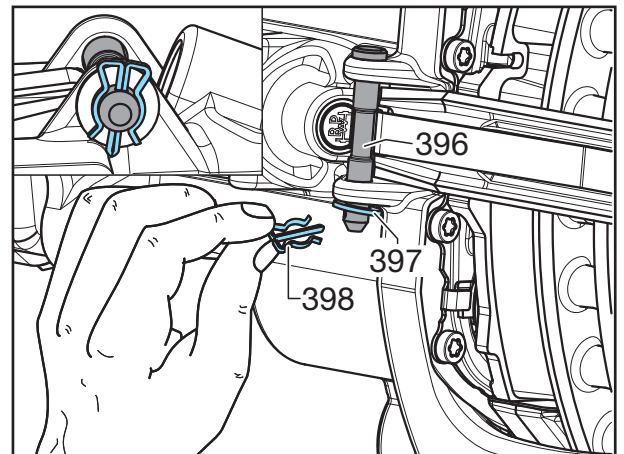


Fig. 29

- [39] Install the wear indicator unit (702), in case removed (see workshop manual ECO Disc (BPW-WH-TSB 35101001 def)).
- [40] Re-attach the wheels.
- [41] Re-assemble the wheel nuts.
- [42] Lower the axle and tighten the wheel nuts to the required torque.

**Warning!**

**The braking effect of new discs and pads is only at its optimum after a few braking applications. Therefore, bed in new brake pads. During the bedding avoid sharp braking respectively lengthy brake application.**

**Important!**

**Retighten the wheel nuts after 50 kilometres of operation.**

Set-up time per vehicle:

30 minutes


Assembly time Exchange of tappet and pad:

25 minutes per wheel side





**Special tools for the exchange of tappets and brake pads**

Item	Designation	BPW Code number	
	Tool kit cpl. item 1 - 4	05.00.603454	
1	Two-pin-spanner	02.3516.21.00	
2	Mounting tool for the bellows	02.0130.80.10	
3	Spacer	15.001.23654	
4	CD *	02.0130.81.10	without fig.

\* On CD you will find the service film in the following languages:

German  
English  
French  
Italian  
Russian  
Spanish  
Turkish



BPW-SM-TSB e

