

SBS-ANL-SBS1996-340396150\_A3 V.4 3.0 Approved brake fluids&amp;comma; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

Enclosure 3 to SI 34 03 96 (150), issue 06/2005

**3.0 Approved brake fluids***Application:*

All vehicles with DSC *without* a pre-charge pump must be filled with new brake fluid *DOT 4 with low viscosity*.

All other vehicles can be filled with the new brake fluid DOT 4 with low viscosity; it is possible to mix DOT 4 and DOT 4 with low viscosity.

*Identification of container:*

Brake fluid **DOT 4 with low viscosity**, container size 0.25 - 5.0 litres: **Cap colour black**

<i>Trade name</i>	<i>BMW part number</i>	<i>Container size</i>
BMW brake fluid DOT 4 with low viscosity	83 13 0 443 023	0,25-litre can
BMW brake fluid DOT 4 with low viscosity	83 13 0 443 024	0,50-litre can
BMW brake fluid DOT 4 with low viscosity	83 13 0 443 026	1,0-litre can
BMW brake fluid DOT 4 with low viscosity	83 13 0 443 027	5,0-litre canister
BMW brake fluid DOT 4 with low viscosity	83 13 0 443 028	30,0-litre barrel
BMW brake fluid DOT 4 with low viscosity	83 13 0 443 029	60,0-litre barrel

Status 06/2011

SBS-ANL-SBS1996-340396150\_A4 V.4 4.0 Brake fluid change intervals&amp;comma; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

Enclosure 4 to SI 34 03 96 (150), issue 09/1998

## 4.0 Brake fluid change intervals

<i>Vehicles</i>	<i>Change interval</i>
Up to model year 1990	Annually
As of model year 1990 (except 750i E32)	every 2 years
BMW i: I01	every 2 years
Changeover brake fluid (except US version)	1. Change after 3 years, then every 2 years
As of model year 03/2011:	
R55, R56, R57, R60	
E81, E82, E87, E88	
E90, E91, E92, E93	
E84, E89	
As of model year 04/2011:	
E70, E71, E72	
As of model year 07/2011:	
F12, F13	
F20, F21	
As of model year 09/2011:	
RR4	
F01, F02, F03, F04	

F07	
F10, F11	
As of model year 10/2011:	
F25	
As of model year 11/2011:	
F30, F31	
all new series launches as of 2012	3 years, then every 2 years
US models as of production 07/2013 (except E7x, E8x and E9x)	1. Change after 3 years, then every 2 years
750iE32	Annually
BMW high-security vehicles E23	Semi-annually
BMW high-security vehicles E32, E38, E67, F03	Annually
Special vehicles for authorities	Annually
Vehicles with difficult conditions of use	Annually

*Date: 06/2011*

REP-REP-RAF2034-3400025BREMBO V.8 Replacing fluid in brake system (M sport brake)  
&comma; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

34 00 027

Replacing fluid in brake system  
(M sport brake)



*Note:*

[Read and comply with General Information.](#)

The capacities are oil change quantities. See Electronics Parts Catalogue/Commercial Service Data (ETK/KSD) (capacities)



**Necessary preliminary work:**

- Remove the left [engine compartment cover](#).



**Important!**

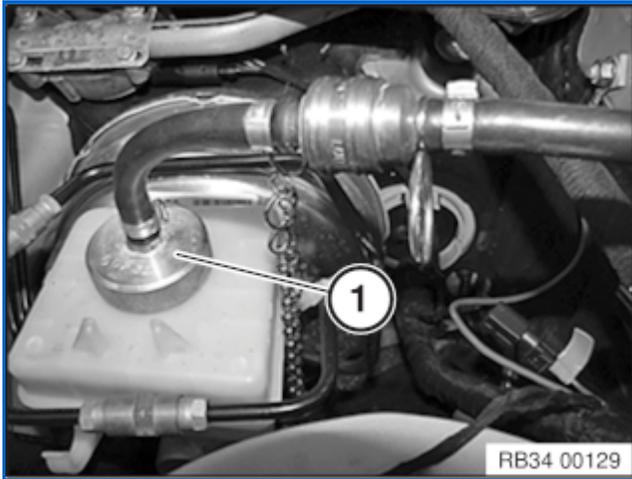
When carrying out repairs to the brake system, follow the procedure set out in [Bleeding brake system with DSC](#).

Use only BMW-approved brake fluids, see [BMW operating fluids](#).

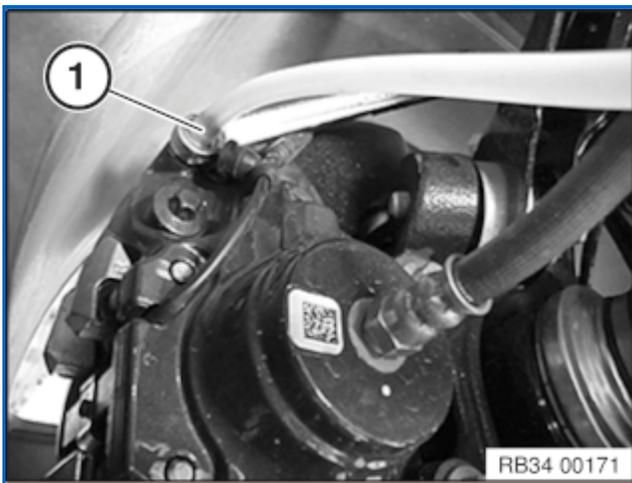
Connect bleeder unit to expansion tank (1) and switch on.

*Note:*

Follow the applicable machine manufacturer's operating instructions.



Charging pressure should not exceed 2 bar.



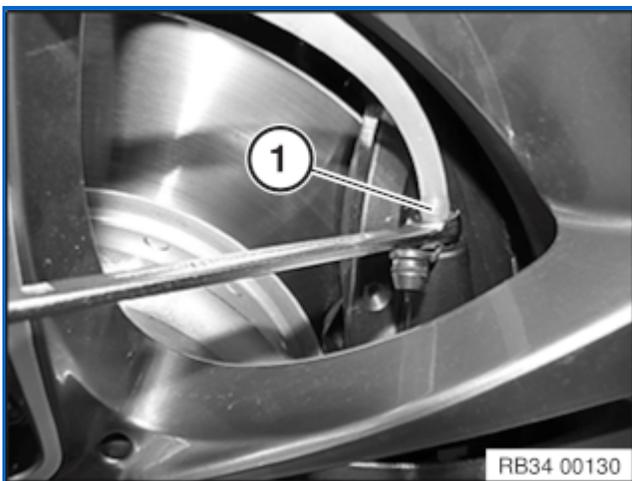
#### Completely flush brake system, rear.

Connect tank ventilation line (1) with collecting vessel to vent valve on **rear right** brake caliper.

Open bleeder valve and purge until clear, bubble-free brake fluid emerges.

Close vent valve.

Carry out the same procedure on the **rear left** wheel brake.



#### Completely flush brake system, front right outer.

Connect tank ventilation line (1) with collecting vessel to vent valve on front right outer brake caliper.

Open bleeder valve and purge until clear, bubble-free brake fluid emerges.

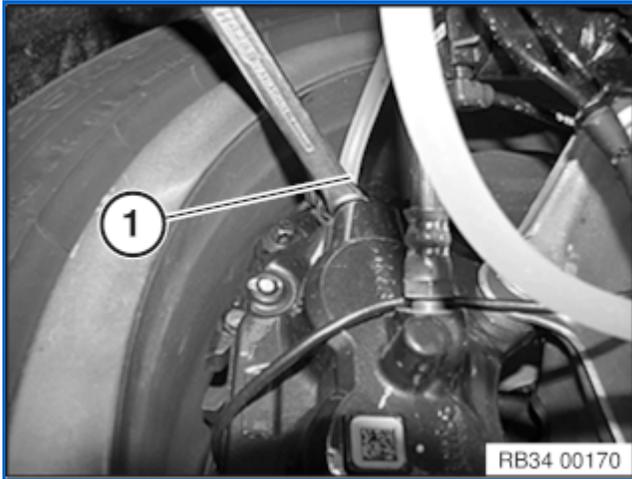
Close vent valve.

#### Completely flush brake system, front right inner.

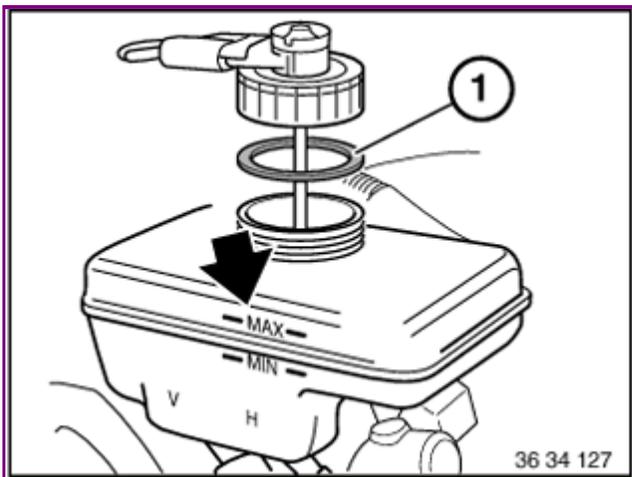
Connect tank ventilation line (1) with collecting vessel to vent valve on front right inner brake caliper.

Open bleeder valve and purge until clear, bubble-free brake fluid emerges.

Close vent valve.



Carry out the same procedure on the front left wheel brake.



Switch off bleeder unit and remove from expansion tank.

Check brake fluid level. If necessary, top up/draw off to "MAX" level.

Close expansion tank.

*Note:*

Pay attention to seal (1) in sealing cap.

REP-REP-RAF2034-3400025 V.14 Replacing fluid in brake system; VIN: XXXXXXXXXX

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ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	<span style="background-color: black; color: black;">XXXXXXXXXX</span>	Vehicle	3/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

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34 00 027

Replacing fluid in brake system



*Note:*

[Read and comply with General Information.](#)

The capacities are oil change quantities. For this purpose, refer to the Electronic Parts Catalogue/Commercial Service Data (capacities)



**Necessary preliminary work:**

- Remove the left [engine compartment cover](#).



**Important!**

When carrying out repairs to the brake system, follow the procedure set out in [Bleeding brake system with DSC](#).

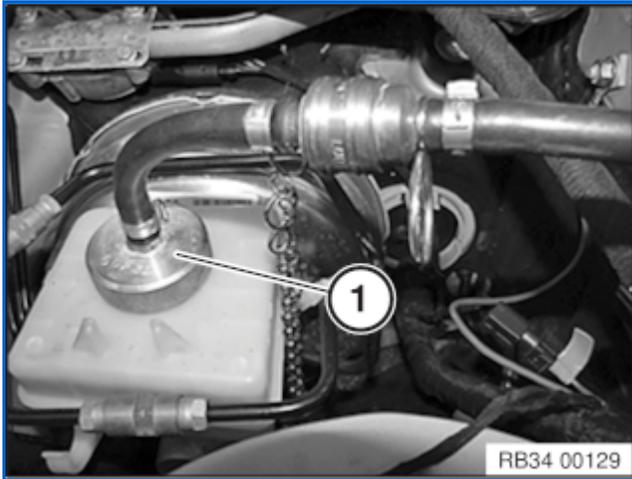
Use only BMW-approved brake fluids, see [BMW operating fluids](#).

Connect bleeder unit to expansion tank (1) and switch on.

*Note:*

Follow the applicable machine manufacturer's operating instructions.

Charging pressure should not exceed 2 bar.



### Completely bleed the brake system.

Connect vent hose (1) with collecting vessel to vent valve on rear right brake caliper.

Open bleeder valve and purge until clear, bubble-free brake fluid emerges.

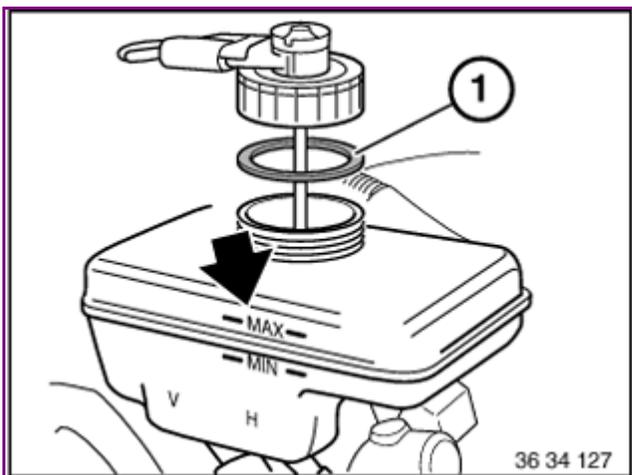
Close vent valve.

Follow same procedure on rear left, front right and front left wheel brake.



#### *Note:*

Additionally flush the clutch slave cylinder in vehicles with manual gearbox.



Switch off bleeder unit and remove from expansion tank.

Check brake fluid level. If necessary, top up/draw off to "Maximum" level.

Close expansion tank.

#### *Note:*

Pay attention to seal (1) in sealing cap.

REP-REP-RAF2034-3400050 V.13 Bleeding brake system with DSC; VIN: XXXXXXXXXX

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ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	<span style="background-color: black; color: black;">XXXXXXXXXX</span>	Vehicle	3'F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

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34 00 050

Bleeding brake system with DSC



#### Necessary preliminary tasks:

- Remove the left [engine compartment cover](#).
- Read and comply with General Information.



#### Important!

When replacing or repairing, observe the filling and bleeding instructions for the following parts:

- Tandem brake master cylinder
- Hydraulic unit
- Components and lines which are fitted between these assemblies.

Connect bleeder unit with max. 2 bar filling pressure.

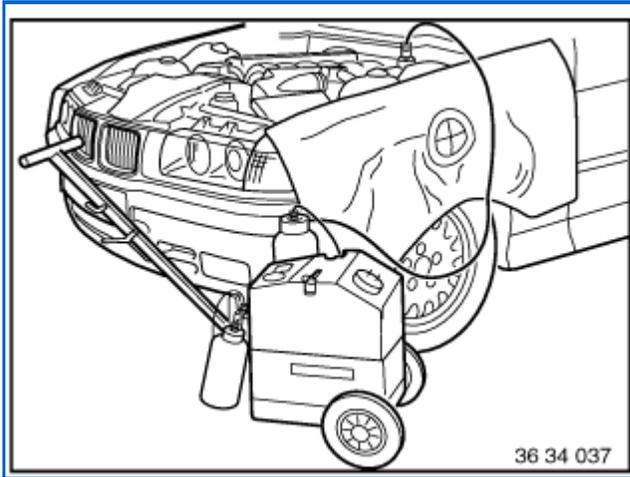
A second person is needed to help carry out this work.

Use only BMW-approved brake fluids, see [BMW operating fluids](#).

#### Important!

Check relevant equipment manufacturer's operating instructions for each device.

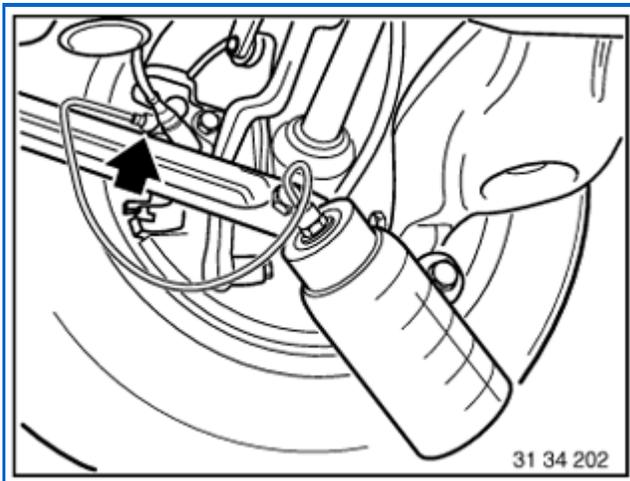
Charging pressure should not exceed 2 bar.



Connect bleeder unit to expansion tank and switch on.



Connect ISID to the vehicle and select a brake bleeding procedure.



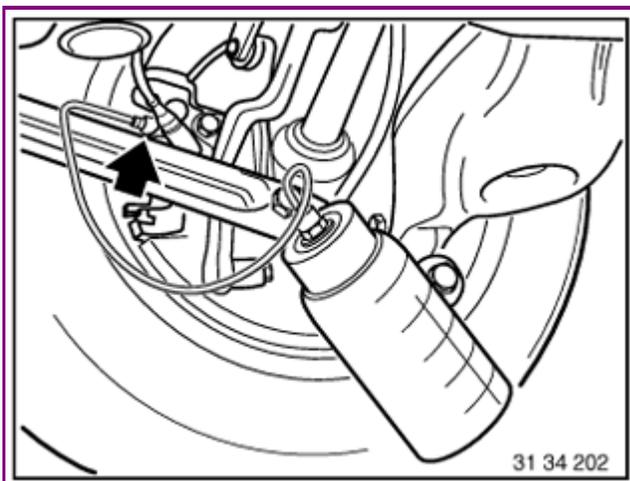
**Completely bleed the brake system.**

Connect vent hose with collecting vessel to vent valve on rear right brake caliper.

Open vent valve and purge until clear, bubble-free brake fluid emerges.

Close vent valve.

Follow same procedure on rear left, front right and front left wheel brake.



**Bleed the rear axle brake circuit.**

Connect vent hose with collecting vessel to vent valve on rear right brake caliper.

Open vent valve.

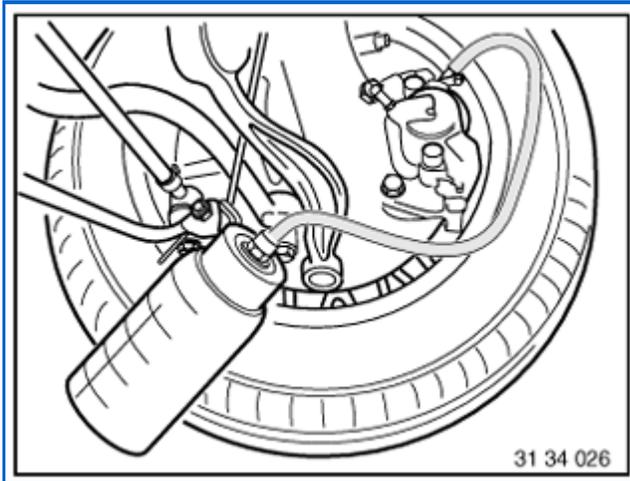
Run bleeding procedure with ISID with vent valve open.

After completing routine, press brake pedal 5 times to floor; clear and bubble-free brake fluid must flow out.

Close vent valve.

Repeat procedure at rear left.

**Bleed front-axle brake circuit.**



Connect vent hose with collecting vessel to vent valve on front right brake caliper.

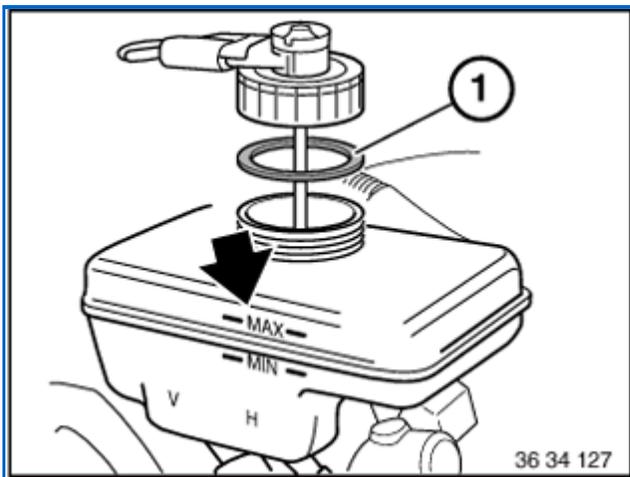
Open vent valve.

Run bleeding procedure with ISID with vent valve open.

After completing routine, press brake pedal 5 times to floor, clear and bubble-free brake fluid must flow out.

Close vent valve.

Repeat procedure at front left.



Switch off bleeder unit and remove from expansion tank.

Check brake fluid level. If necessary, top up/draw off to "MAX" level.

Close expansion tank.

*Note:*

Pay attention to gasket (1) in sealing cap.

REP-REP-RAF2034-3400XXX\_ENTL V.1 Removing and installing/replacing vent valve for brake caliper; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

34 00 xxx

Removing and installing/replacing vent valve for brake caliper

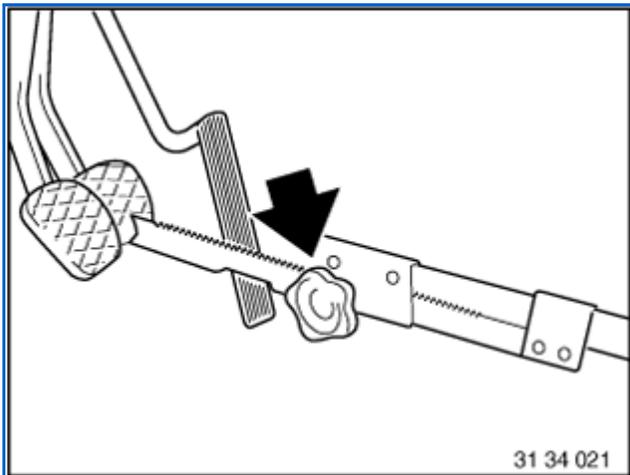


Necessary preliminary work:

- Raise vehicle.



Removal:



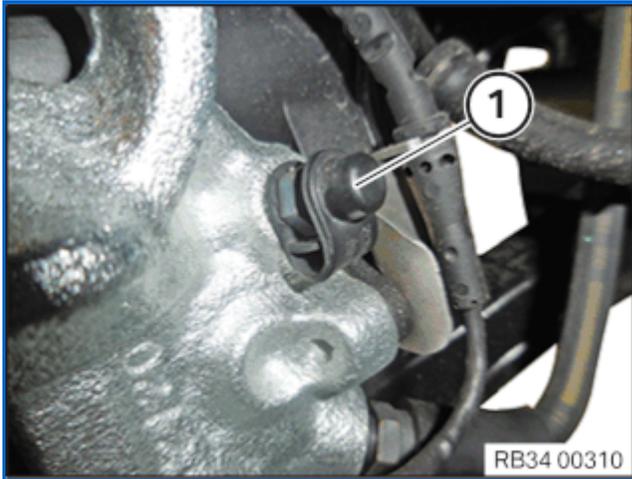
Press brake pedal down to floor and secure with pedal support.

*Note:*

The pedal support may only be released when the brake lines are reconnected.

This prevents brake fluid from emerging from the expansion tank and air from entering the system when the brake lines are opened.

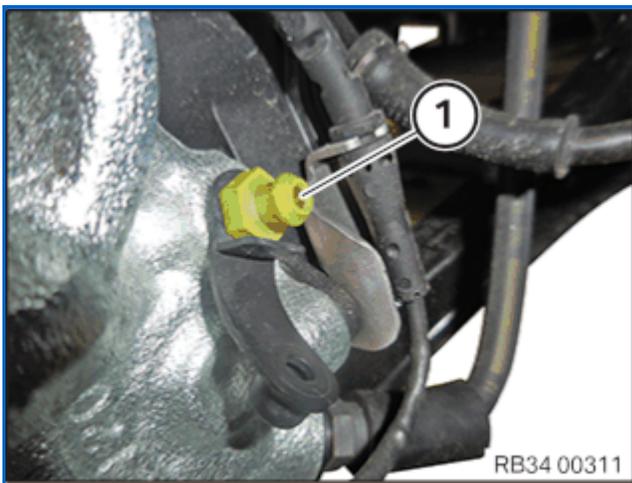
Remove dust cap (1).



Remove vent valve (1).

**Important!**

Collect escaping brake fluid in a suitable collecting vessel.



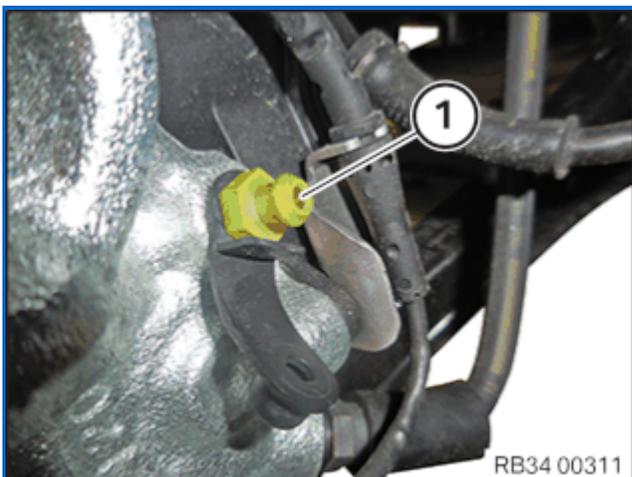
**Installation:**

**Important!**

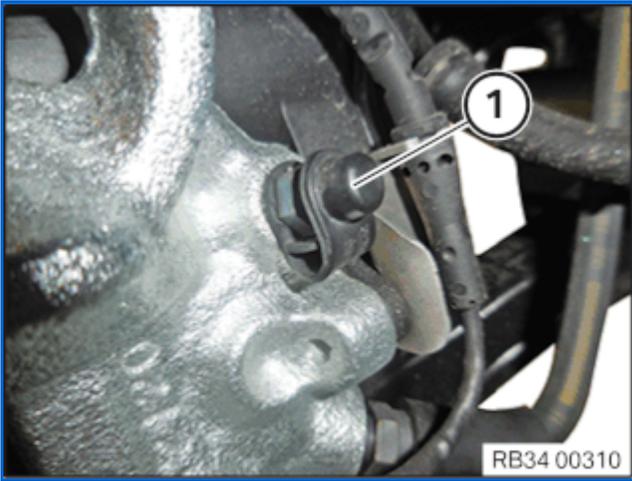
The bore hole must be free of contamination!

Install vent valve (1).

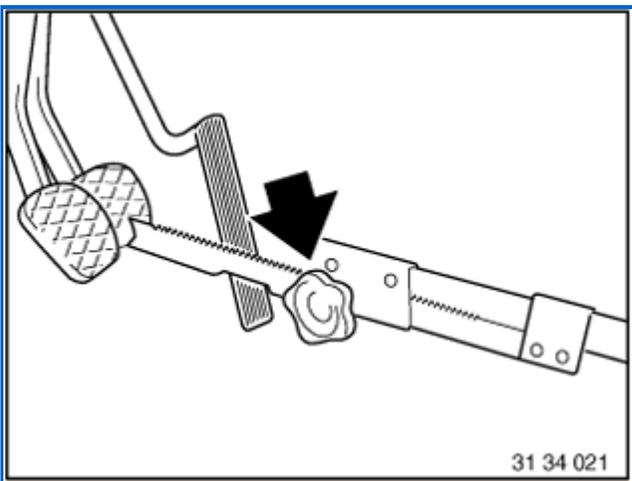
Tightening torque: [34 00 1AZ](#).



Mount dust cap (1).



Remove pedal support.



Required follow-up work:

- Bleed brake system.

AZD-AZD-AZDMUC3400-F2X V.10 Testing and bleeding brakes; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming	- data
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

**34 00 Testing and bleeding brakes**

	Type	Thread	Tightening specifications	Dimension
1AZ Vent valve	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	WAF 11		10 Nm

REP-REP-RAF1X34-3400\_BREMSKLOTZPASTE V.3 Guideline for applying brake pad paste on brake pads and caliper carrier; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

34 00 x01

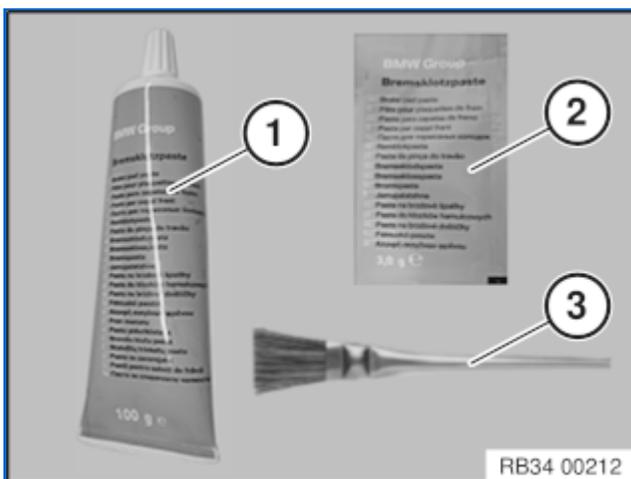
Guideline for applying brake pad paste on brake pads and caliper carrier



**Attention!**

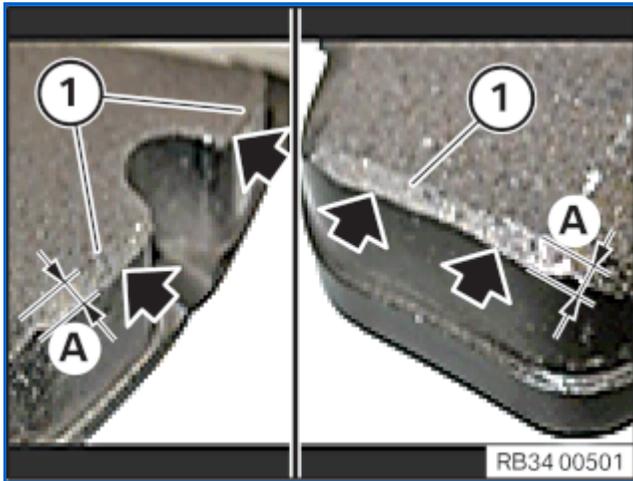
So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces for the brake pads on the brake caliper mounting bracket, but rather clean with brake cleaner BMW TI. Clean number 83 19 2 154 780 and apply a thin coating of BMW TI break pad paste. Coat number 83 19 2 158 851 (3 gr.) or 83 19 2 158 852 (100 gr.).

Spread brake pad paste onto the marked surfaces using a brush!



- (1) Brake pad paste 100 gr. BMW TI. Number 83 19 2 158 852
- (2) Brake pad paste 3 gr. BMW TI. Number 83 19 2 158 851
- (3) Brush for spreading brake pad paste over the marked areas.

RB34 00212



### Attention!

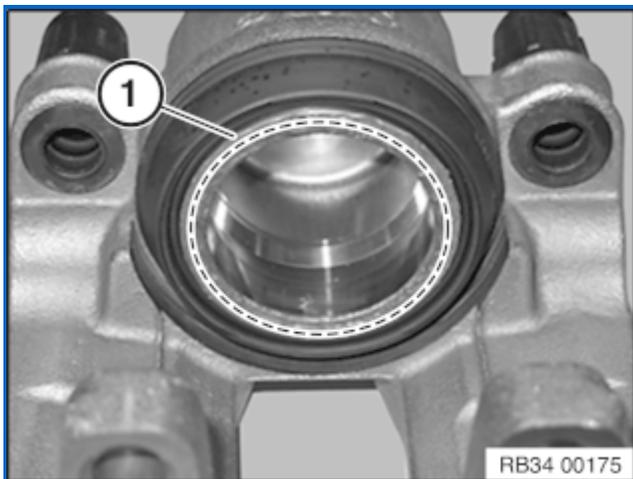
If new brake pads are mounted on a brake disc, the following must be observed:

- Bevel edges in the area (1) slightly (dimension A must not exceed maximum 1 mm).

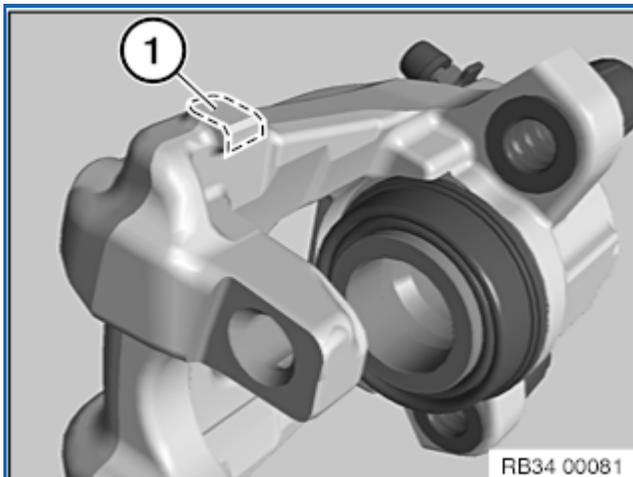
These procedures applies for all the following described brake systems.



IPS brake (made by CBI), 1-piston floating caliper brake (model ranges: 1-Series, 3-Series, 4-Series, X3)

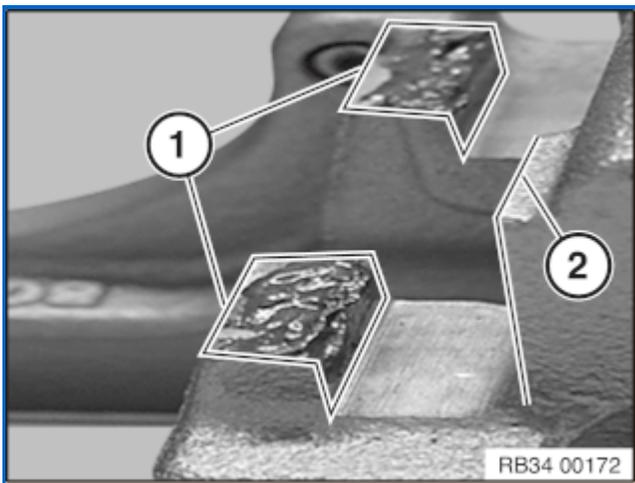
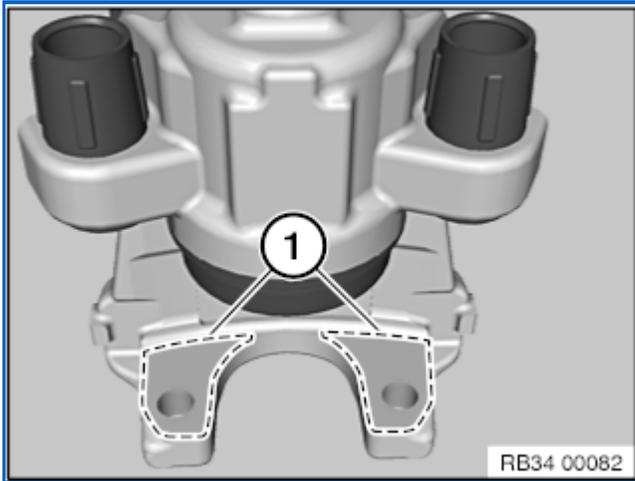


Clean contact surface (1) of brake piston with brake cleaner and apply a thin coating of brake pad paste.

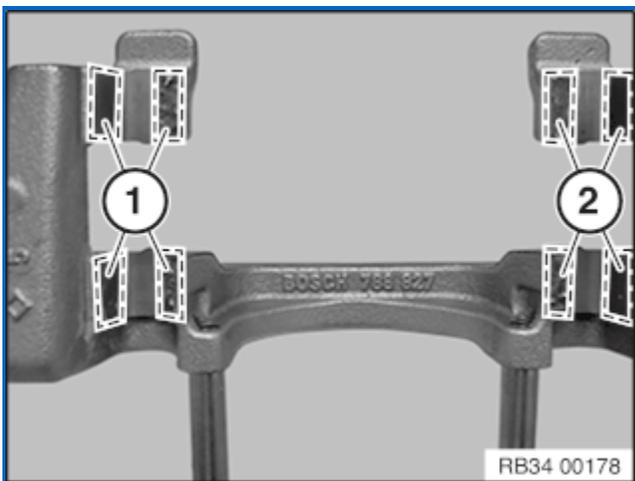


Clean contact surfaces (1) of T-heads/brake calliper housing with brake cleaner and apply a thin coating of brake pad paste.

Clean contact surface (1) of brake caliper with brake cleaner and apply a thin coating of brake pad paste.

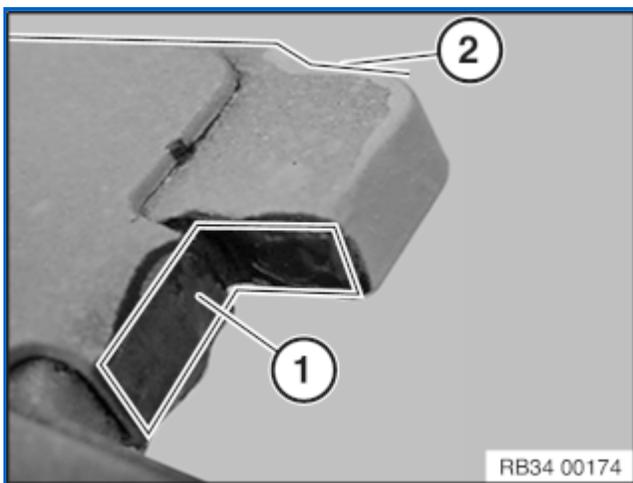
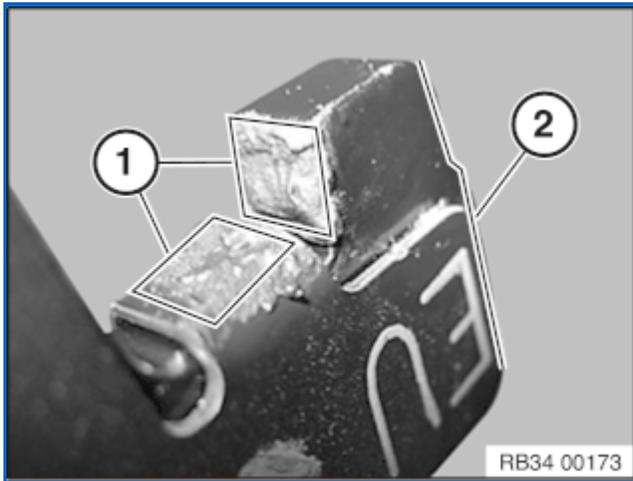


So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces (1) for the brake pads on the brake caliper mounting bracket. Clean guide surfaces (1 and 2) with brake cleaner and apply a thin coating of brake pad paste.



So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces (1 and 2) for the brake pads on the brake calliper mounting bracket. Clean guide surfaces (1 and 2) with brake cleaner and apply a thin coating of brake pad paste.

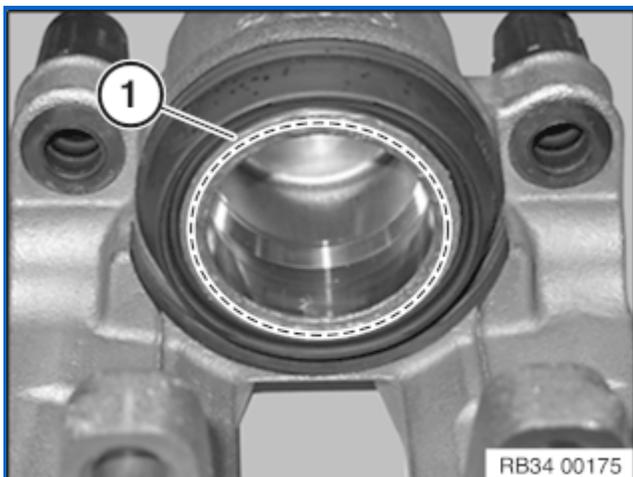
Apply a thin coating of brake pad paste to T-head of inner brake pad in area (1) and (2).



Apply a thin coating of brake pad paste to T-head of outer brake pad in area (1) and (2).

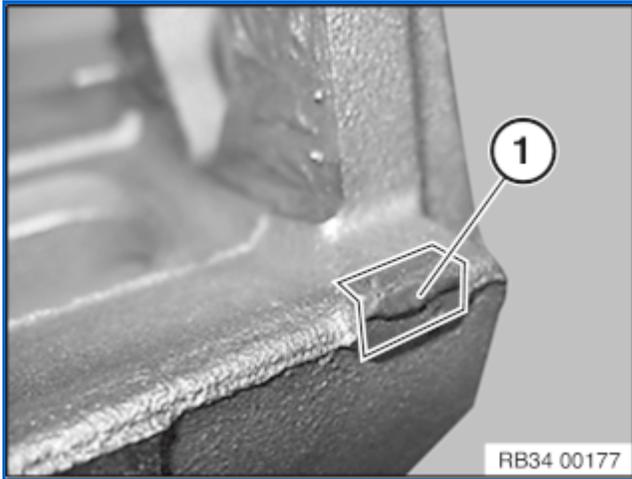


FN brake (made by Continental Teves), 1-piston floating caliper brake (model ranges: 5-Series, 6-Series, 7-Series, 8-Series, X1, X3, X5, Z4, Rolls-Royce)

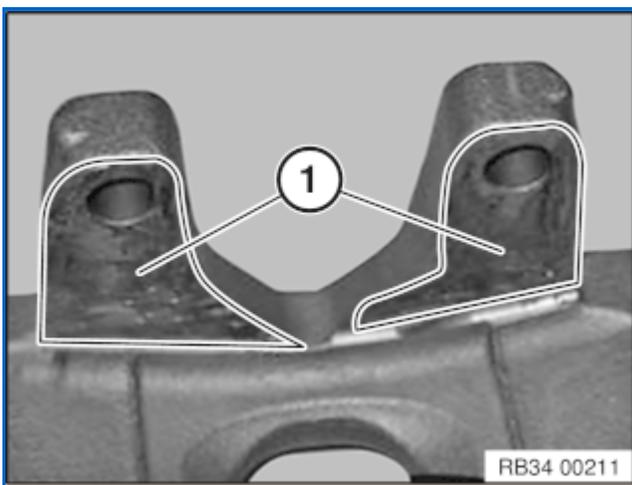


Clean contact surface (1) of brake piston with brake cleaner and apply a thin coating of brake pad paste.

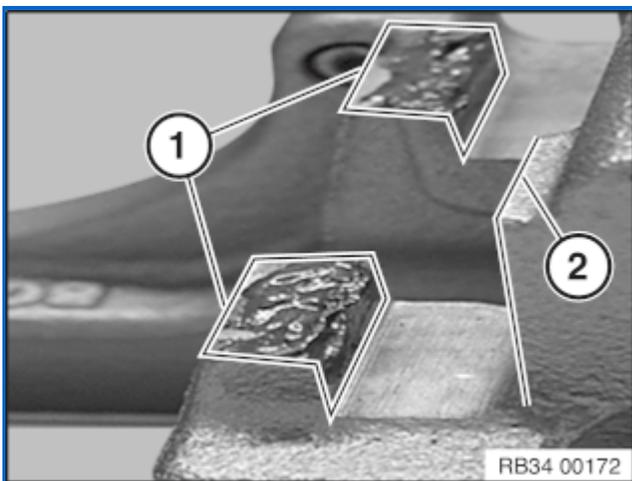
Clean contact surfaces (1) of T-heads/brake calliper housing with brake cleaner and apply a thin coating of



brake pad paste.

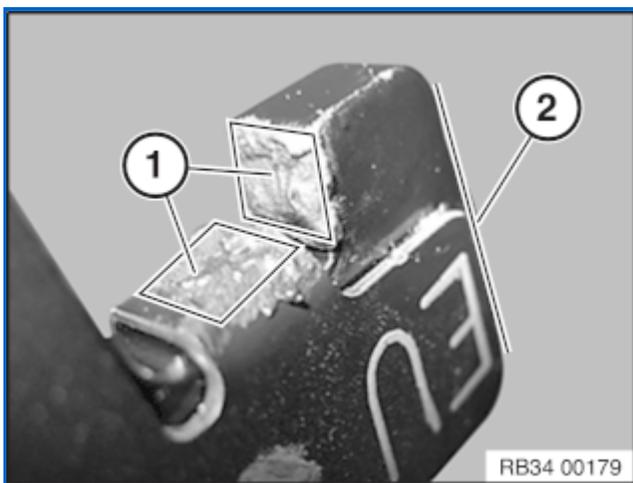
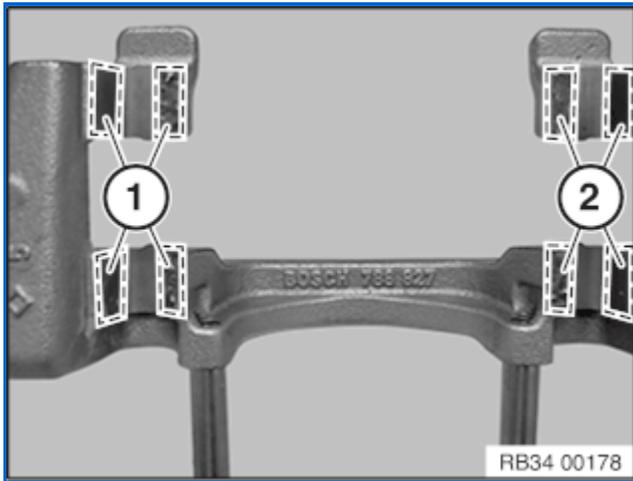


Clean contact surface (1) of brake caliper with brake cleaner and apply a thin coating of brake pad paste.

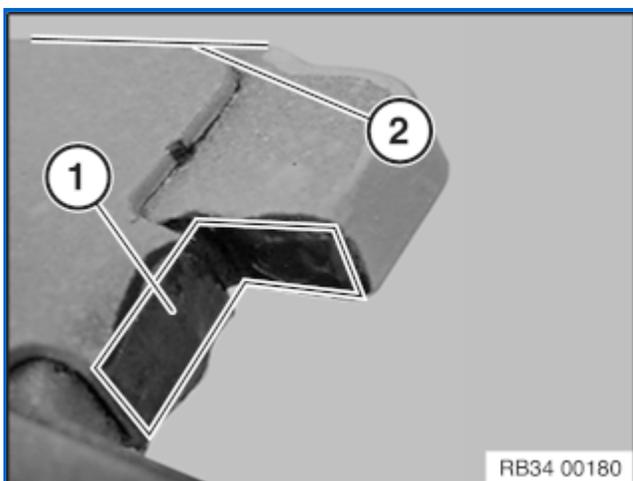


So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces (1) for the brake pads on the brake caliper mounting bracket. Clean guide surfaces (1) with brake cleaner and apply a thin coating of brake pad paste.

So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces (1 and 2) for the brake pads on the brake calliper mounting bracket. Clean guide surfaces (1 and 2) with brake cleaner and apply a thin coating of brake pad paste.



Lightly coat the T-head of the inner brake pad with brake pad paste in area (1 and 2).

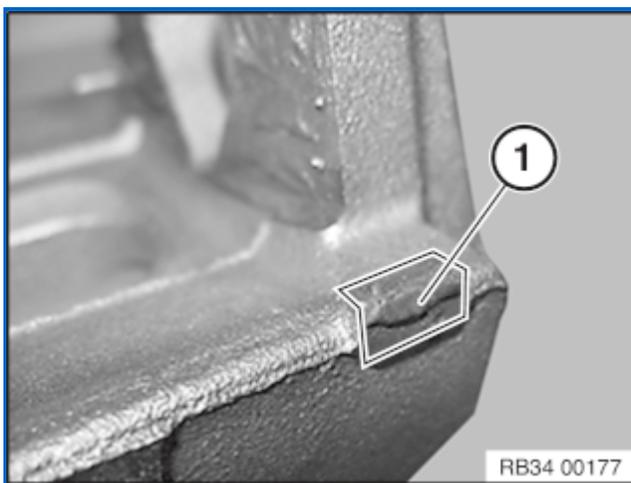
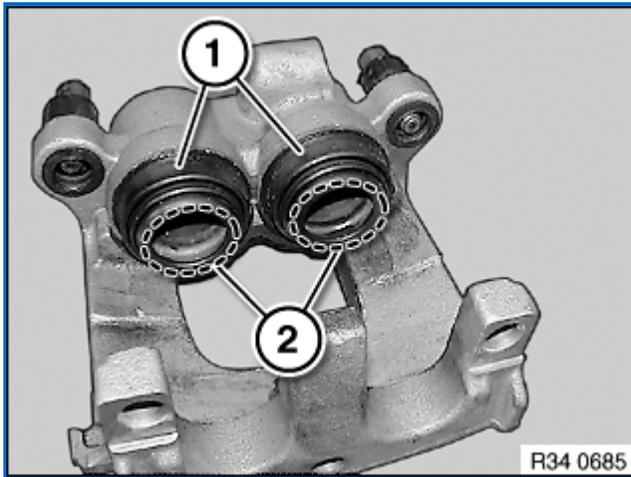


Lightly coat the T-head of the outer brake pad with brake pad paste in area (1 and 2).

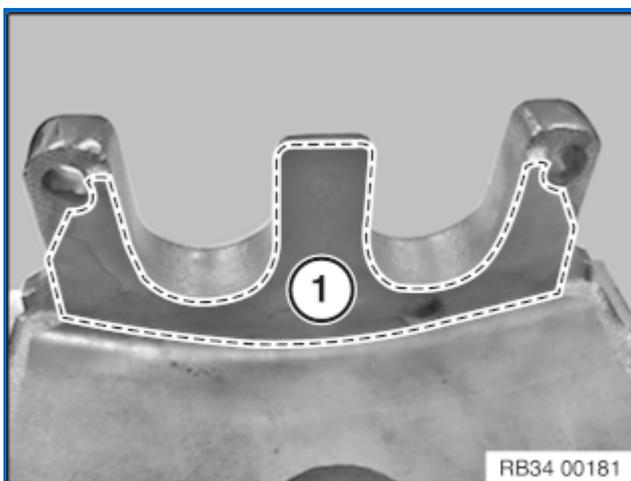


**FN brake (made by Continental Teves), 2-piston floating caliper brake (model ranges: 5-Series, 6-Series, 7-Series, 8-Series, X5, Rolls-Royce)**

Clean contact surface (2) of brake piston with brake cleaner and apply a thin coating of brake pad paste.

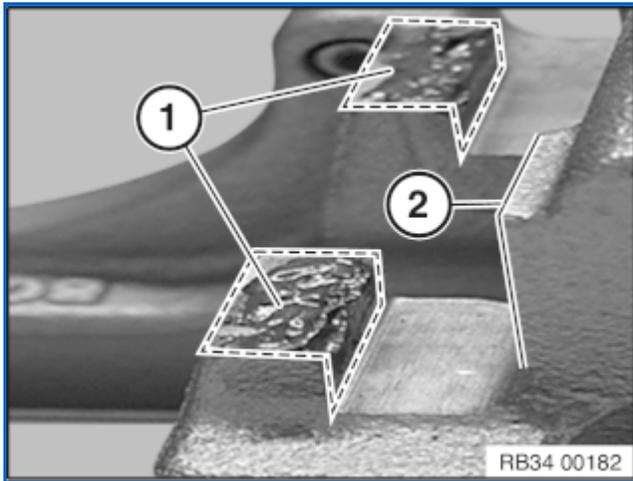


Clean contact surfaces (1) of T-heads/brake calliper housing with brake cleaner and apply a thin coating of brake pad paste.

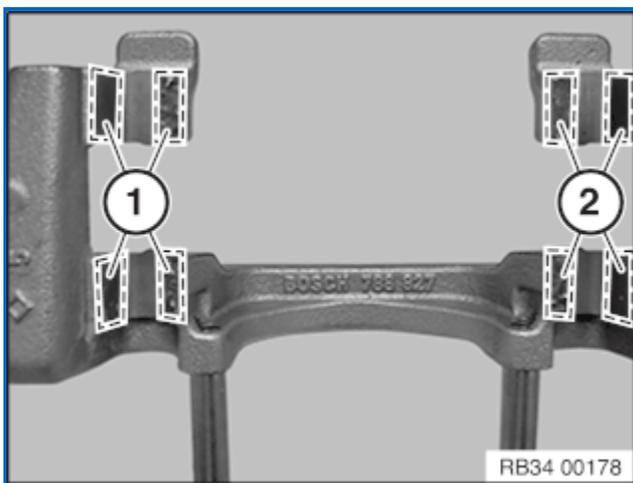


Clean contact surface (1) and brake caliper with brake cleaner and apply a thin coating of brake pad paste.

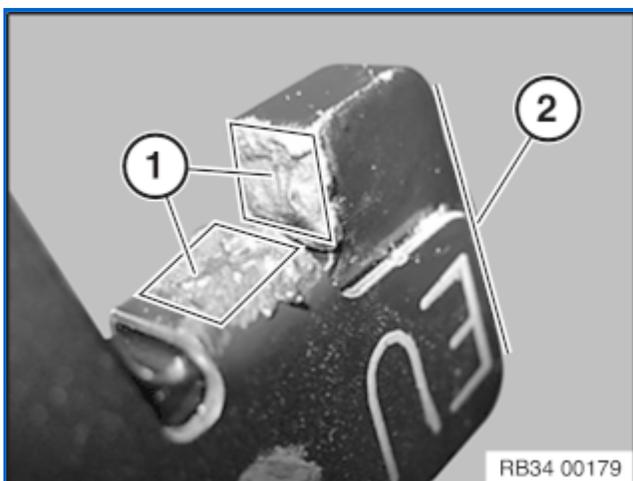
So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces (1 and 2) for the brake pads on the brake calliper mounting bracket. Clean guide surfaces (1 and 2) with brake cleaner and apply a thin coating of brake pad paste.



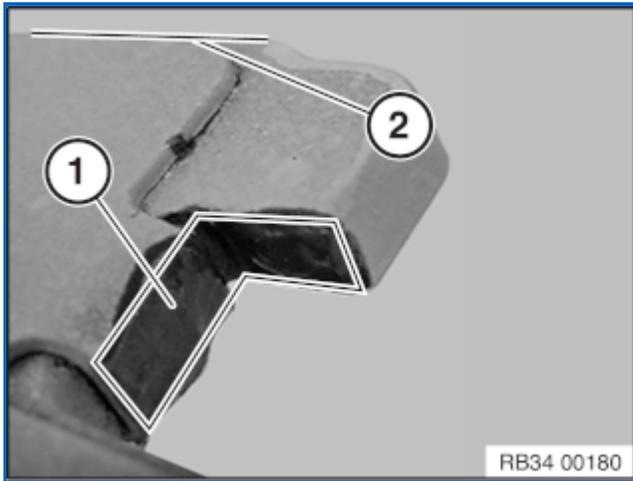
So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces (1 and 2) for the brake pads on the brake calliper mounting bracket. Clean guide surfaces (1 and 2) with brake cleaner and apply a thin coating of brake pad paste.



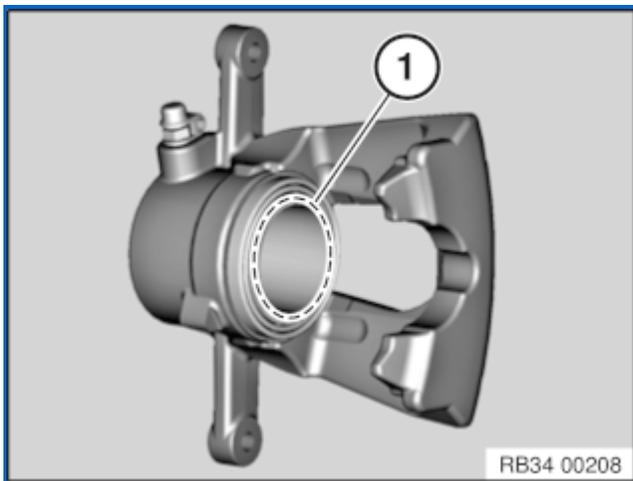
Lightly coat the T-head of the inner brake pad with brake pad paste in area (1 and 2).



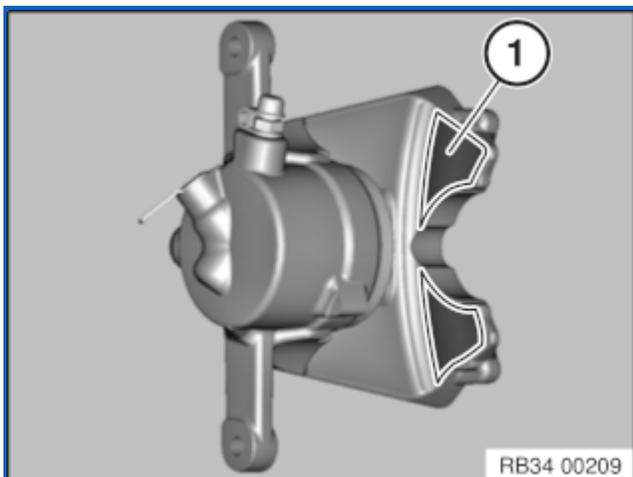
Lightly coat the T-head of the outer brake pad with brake pad paste in area (1 and 2).



Collette brake (made by TRW), 1-piston brake caliper (model ranges: MINI, 1-Series, 5-Series, 6-Series, Z4)

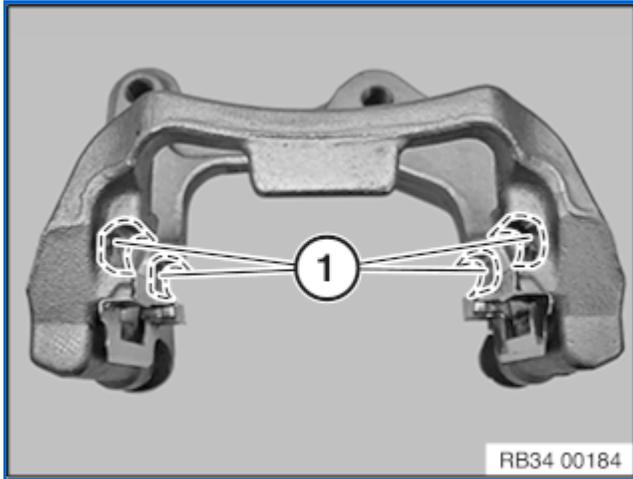


Clean contact surface (1) of brake piston with brake cleaner and apply a thin coating of brake pad paste.

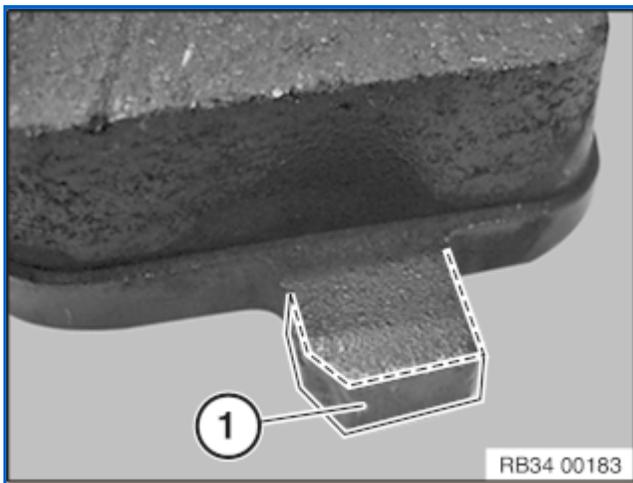


Clean contact surface (1) of brake caliper with brake cleaner and apply a thin coating of brake pad paste.

So as not to damage the surface coating, if possible do not mechanically clean the guide surface (1) for the



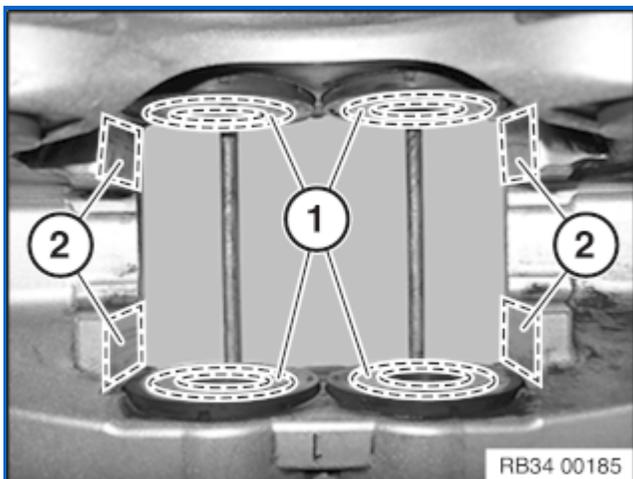
brake pads on the brake caliper mounting bracket. Clean guide surface (1) with brake cleaner and apply a thin coating of brake pad paste.



Apply a thin coating of brake pad paste to both sides of T-head of brake pad in area (1).



**P 4.40 brake (made by Brembo), 4-piston fixed caliper brake (model ranges: MINI, 1-Series, 3-Series, 4-Series, 5-Series, 6-Series, 7-Series, 8-Series, X5, Rolls-Royce)**



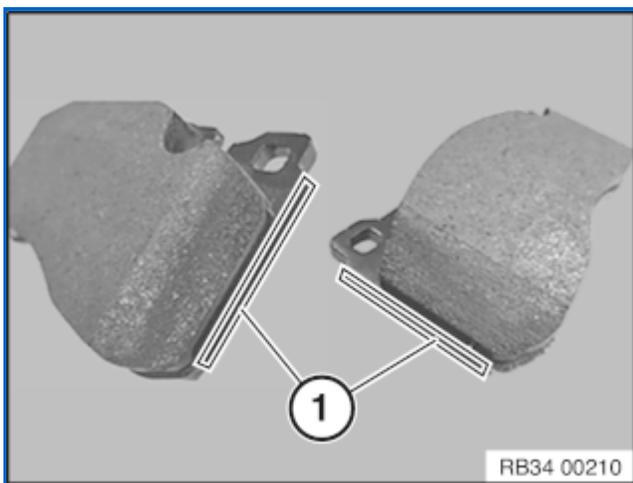
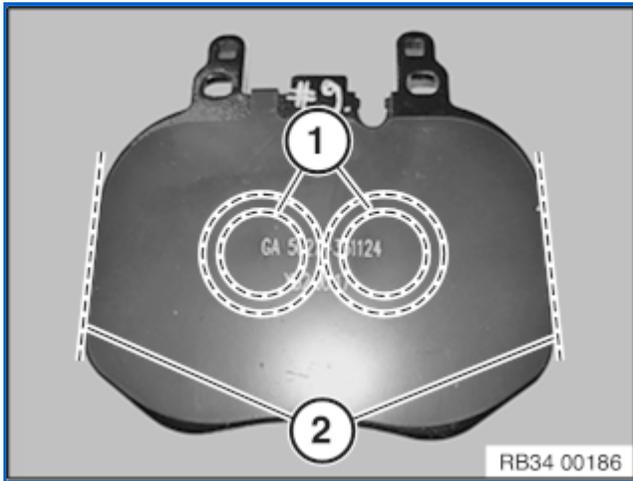
Clean contact surface (1) of brake piston with brake cleaner and apply a thin coating of brake pad paste.

So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces (2) for the brake pads on the brake calliper mounting bracket.

Clean guide surface (2) with brake cleaner and apply a thin coating of brake pad paste.

Clean both inner and outer guide surfaces (2) and apply a thin coating of brake pad paste.

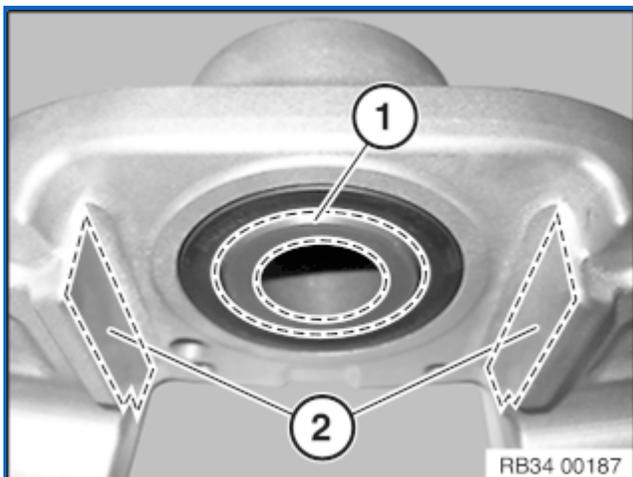
Lightly coat both sides of the contact surface in area (1 and 2) with brake pad paste.



Lightly coat the brake pad contact surface on both sides in area (1) with brake pad paste.



**P 4.40 brake (made by Brembo), 2-piston fixed caliper brake (model ranges: 1-Series, 3-Series)**



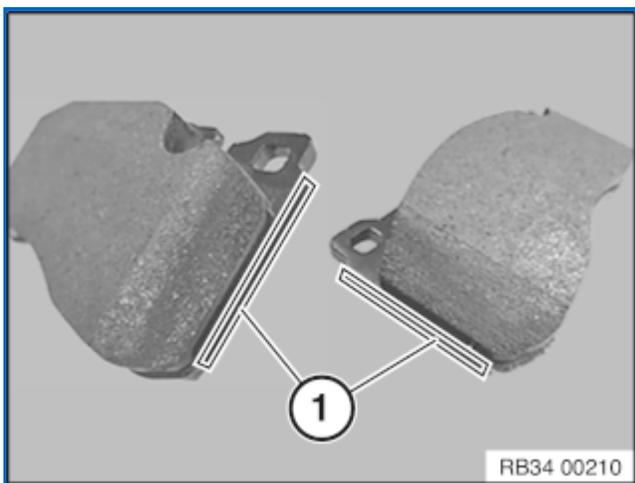
Clean contact surface (1) of brake piston with brake cleaner and apply a thin coating of brake pad paste.

So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces (2) for the brake pads on the brake calliper mounting bracket.

Clean guide surface (2) with brake cleaner and apply a thin coating of brake pad paste.

Clean both inner and outer guide surfaces (2) and apply a thin coating of brake pad paste.

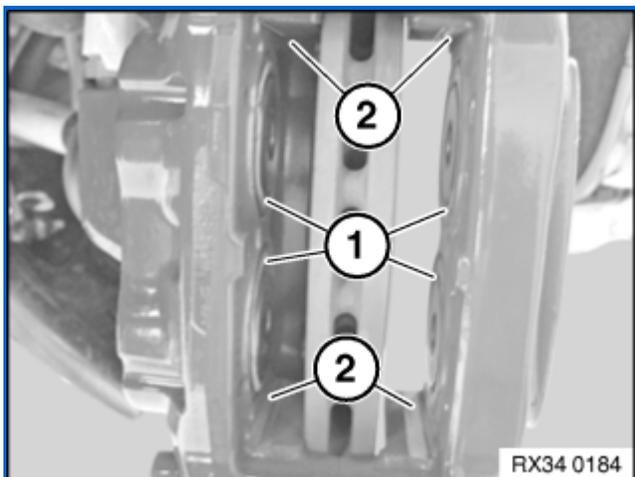
Lightly coat both sides of the contact surface in area (1 and 2) with brake pad paste.



Lightly coat the brake pad contact surface on both sides in area (1) with brake pad paste.



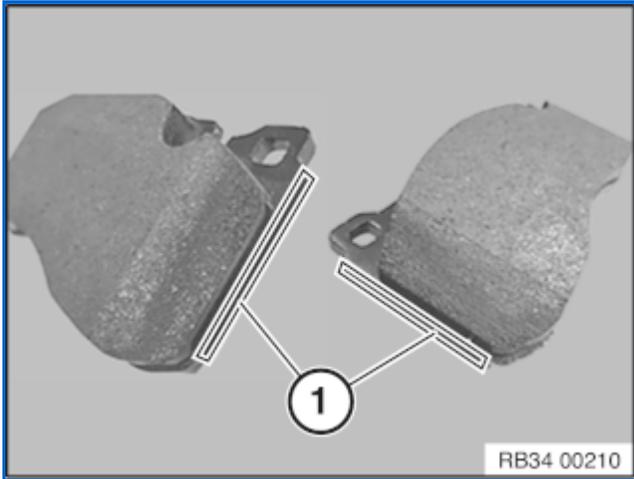
**Brake (made by Brembo), 4-piston fixed caliper brake (model ranges: MINI F5x sport brake)**



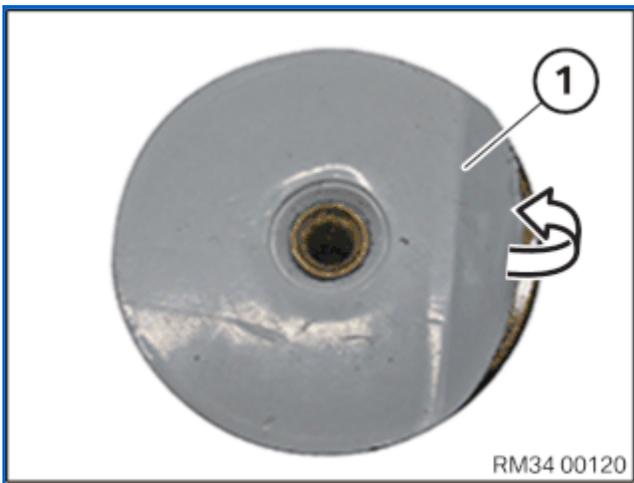
Check dust boot (1) for damage and replace if necessary.

Clean brake caliper compartments (2) and apply a thin coating of brake pad paste.

Lightly coat the brake pad contact surface on both sides in area (1) with brake pad paste.

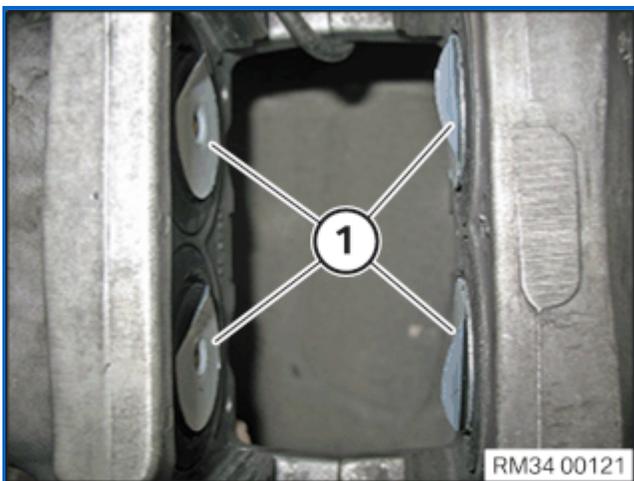


Do not grease the brake lining backplate and thoroughly clean it with brake cleaner!



Only use new claw plates!

Slightly raise the protective film (1) at a place.

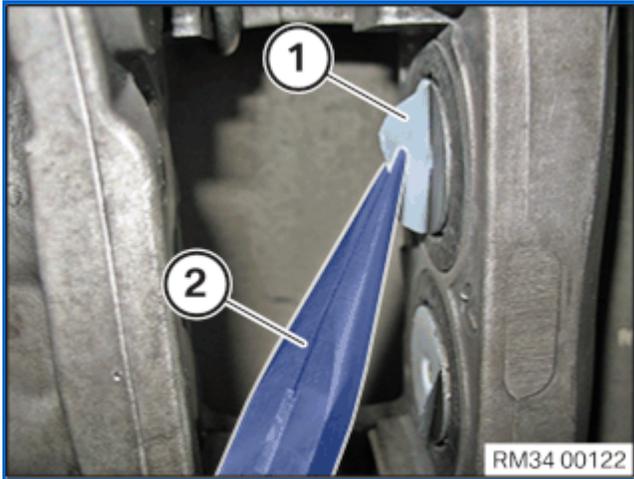


Insert the claw plates (1) into the brake pistons.

Pull off the protective film (1) with long-nose pliers (2).

**Attention!**

The bonding surface of the claw plates must not be touched!

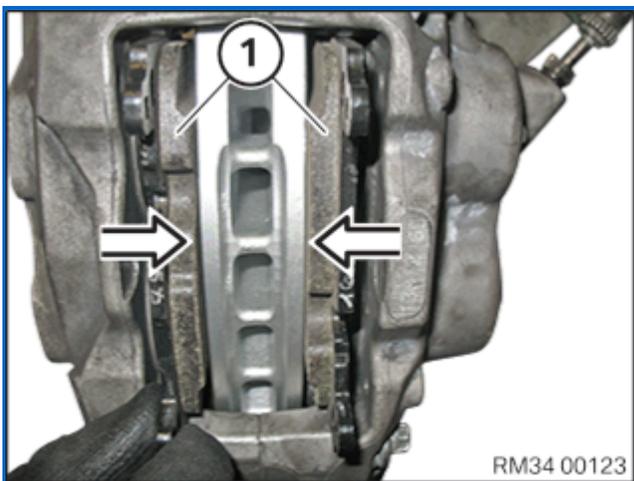
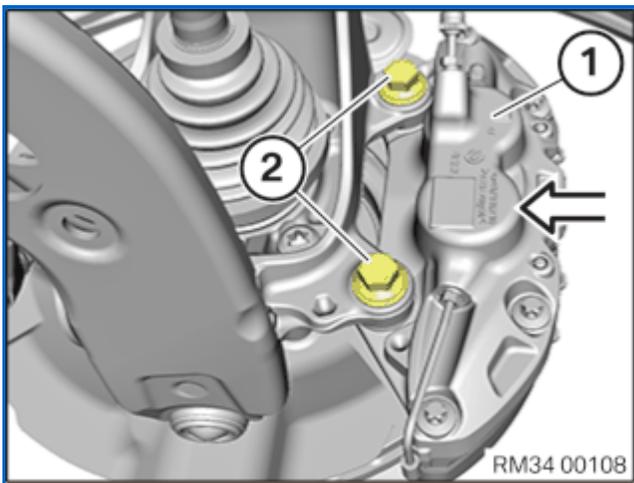


Install the brake caliper (1) in direction of arrow.

**Parts:** Replace screws (2).

Insert screws (2) and tighten.

Tightening torque: 34 11 2AZ.



Install the brake pad (1).

**Attention!**

The brake pads must not touch the bonding surface of the claw plates when inserting!

Apply the brake pads to the brake disc and insert.



In order to ensure a complete bonding of the claw plates with the brake pads, the following instruction must be strictly adhered to:

Strongly press the brake pedal and hold it for at least 1 min!

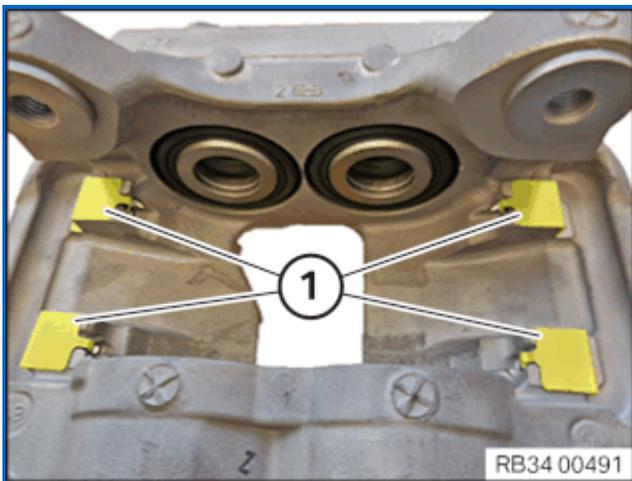


**Brake (made by Continental), 4-piston fixed caliper brake  
(model ranges: 7-Series (G11, G12))**



Clean the contact surface (1) of the brake piston (4 pieces) with brake cleaner.

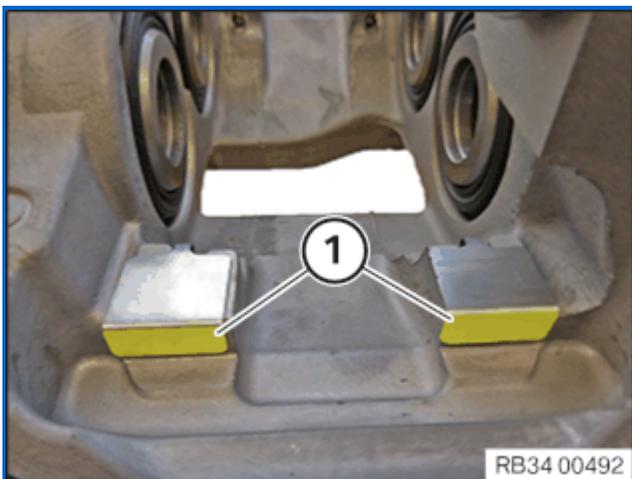
Check the dust boots (2) and renew as necessary.



Always renew retaining plates 1!

Mount retaining plate 1.

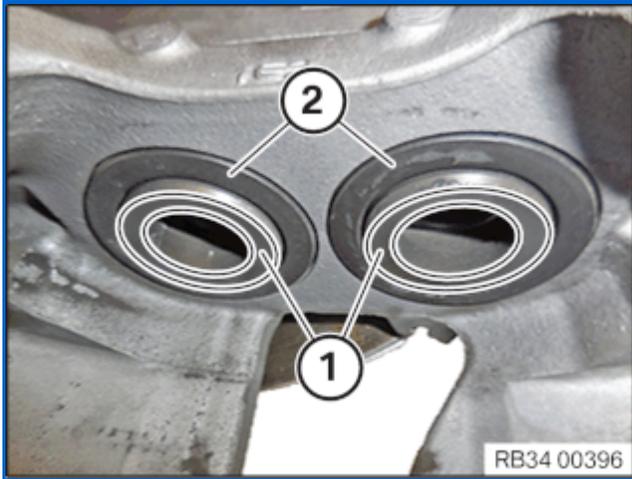
It is paramount that the slide panels are correctly positioned in the guides!



So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces for the brake pads on the brake caliper mounting bracket.

Apply a thin layer of brake pad paste to the surfaces of the sliding plates (1).

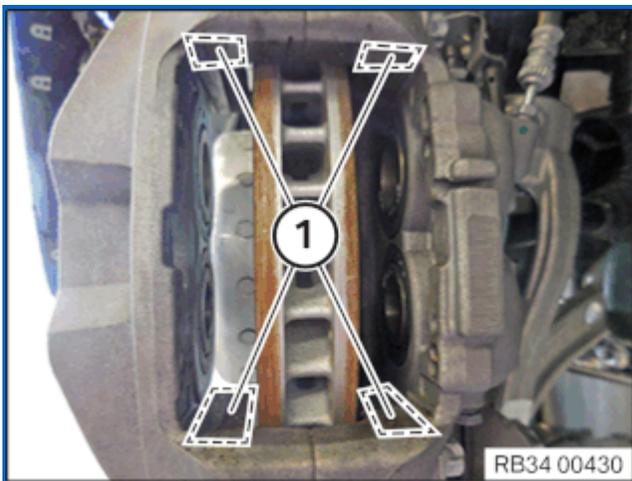
**Brake (made by Brembo), 4-piston fixed caliper brake  
(model ranges: 7-Series (G11, G12))**



Clean the contact surface (1) of the brake piston (4 pieces) with brake cleaner.

Adhesive residues must be completely removed.

Check the dust boots (2) and renew as necessary.



To prevent damage to the surface coating, do not clean the guide surfaces (1) for the brake pads on the brake calliper mechanically, if possible.

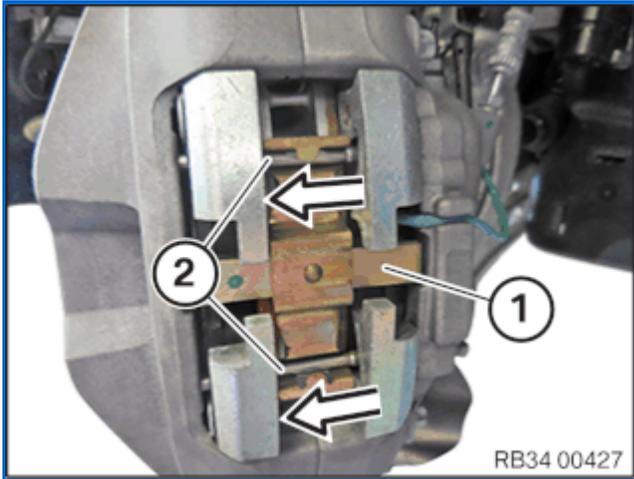
Clean guide surfaces (1) with brake cleaner and apply a thin coating of brake pad paste.



Remove the protective film of the adhesive layer (1) from the brake pads.

Do not touch the adhesive layer!

Insert brake pads in the brake caliper, making sure the adhesive layer does not touch the brake pistons.



Fit retaining clip (1).

Drive in the locking pins (2) in the direction of the arrow.

**Attention!**

After the brake pads have been installed they must immediately be bonded to the brake pistons:

- Step on the brake pedal to the floor and hold the pressure for one minute. This causes the brake pads to adhere to the brake pistons.

REP-REP-RAF2034-3435001 V.12 Replacing a brake pad sensor (front)&comma; VIN: XXXXXXXXXX

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ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	<span style="background-color: black; color: black;">XXXXXXXXXX</span>	Vehicle	3'F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

---

34 35 001

Replacing a brake pad sensor (front)



#### Important!

The brake pad wear sensor must be replaced once it has been removed (brake pad wear sensor loses its retention capability in the brake pad).

If a brake pad wear sensor that has already been ground has to be replaced even though the minimum brake pad thickness has not yet been reached, you must observe the following: The new sliding contact must be filed down with a file to the same length as the sanded sliding contact.



#### Necessary preliminary tasks:

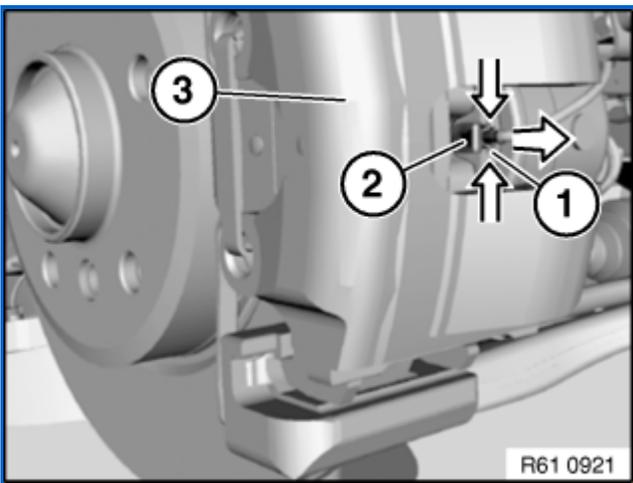
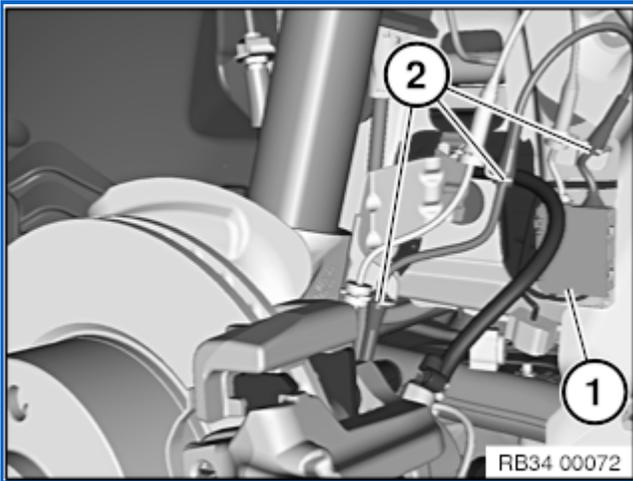
- Remove [wheel](#)

Fold the connector housing (1) up and disconnect the plug connection.

Detach the brake pad wear sensor from the brackets (2).

#### *Installation note:*

Do not route/fix the brake pad wear sensor cable via the dust cap of the brake ventilation valve!



Press clamps (1) together and pull brake pad wear sensor (2) from brake pad (3) in direction of arrow.

*Installation note:*

Make sure clamps (1) and brake pad wear sensor (2) are correctly seated in brake pad (3).

REP-REP-RAF2034-3411000BREMBO V.11 Removing and installing/replacing brake pads on both front disc brakes (Brembo)&comma; VIN: [REDACTED]

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ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

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34 11 000

Removing and installing/replacing brake pads on both front disc brakes (Brembo)



Special tools required:

- 34 1 050
- [34 1 280](#)



Attention!

- Brake pad wear sensor: After removal it must be replaced (brake pad wear sensor loses its retention capability in the break pad).
- Retaining pins and expanding spring: for vehicles older than 48 months it is recommended to replace the retaining spring!

So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces for the brake pads on the brake caliper mounting bracket, but rather clean with brake cleaner BMW TI. number 83 19 2 154 780 and apply a thin coating of break pad paste BMW TI. number 83 19 2 158 851 (3 gr.) or 83 19 2 158 852 (100 gr.).

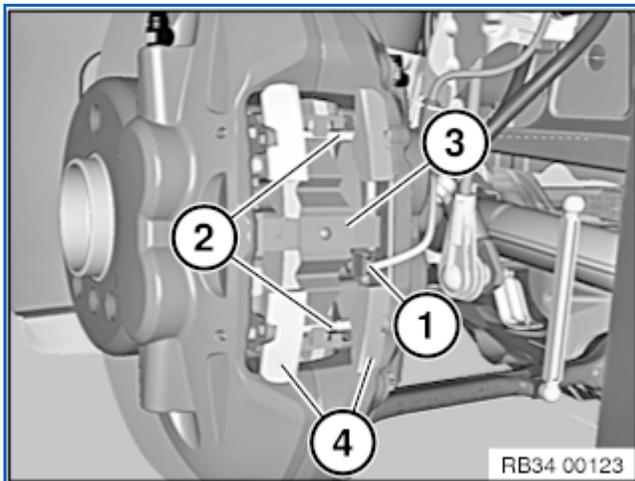
Spread brake pad paste onto the marked surfaces using a brush!

Observe [guideline for applying brake pad paste on brake pads and brake anchor plate!](#)



### Necessary preliminary tasks:

- [Remove front wheels.](#)
- Remove [brake pad wear sensor](#).



Pull brake pad wear sensor (1) forward out of the brake pad (left side only when replacing brake pads).

Drive out retaining pins (2).

Remove expanding spring (3).

Remove brake pads (4).

*Installation note:*

The following installation sequence must be followed.

- Install new brake pads.
- Align brake pads with the retaining pins in the brake caliper.
- Fully depress brake pedal several times so that brake pads contact brake discs.
- Fit retaining pins and expanding spring.

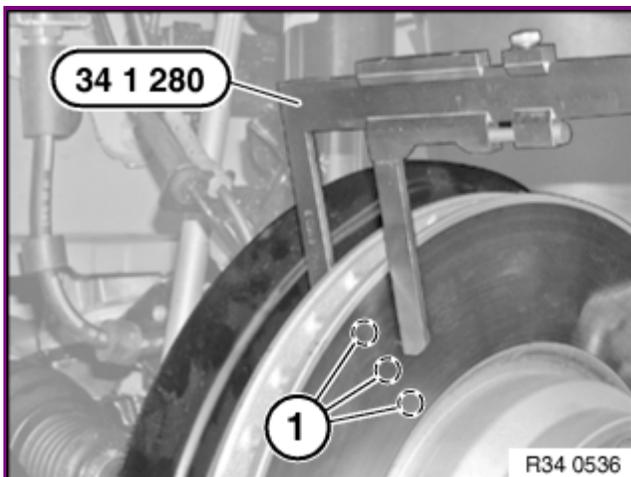
### Attention!

Mark any worn brake pads.

In the event of one-sided brake pad wear, do not change brake pads round.

Do not grease backs of brake pads sleeve.

Clean brake pads.



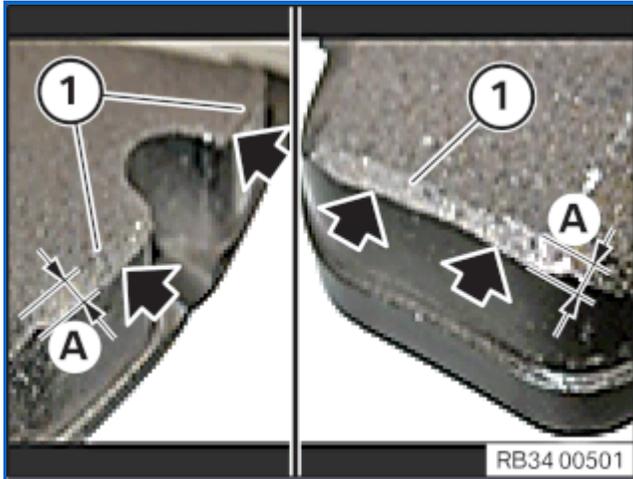
Check minimum brake disc thickness:

- Position special tool [34 1 280](#) at three measuring points in area (1) and measure.
- Compare measuring result and lowest value with [setpoint value](#).



### Attention!

New brake pads may only be installed if the brake disk thickness is greater than the [minimum brake disc thickness](#).



### Attention!

If new brake pads are mounted on a brake disc, the following must be observed:

- Bevel edges in the area (1) slightly (dimension A must not exceed maximum 1 mm).

These procedures applies for all the following described brake systems.

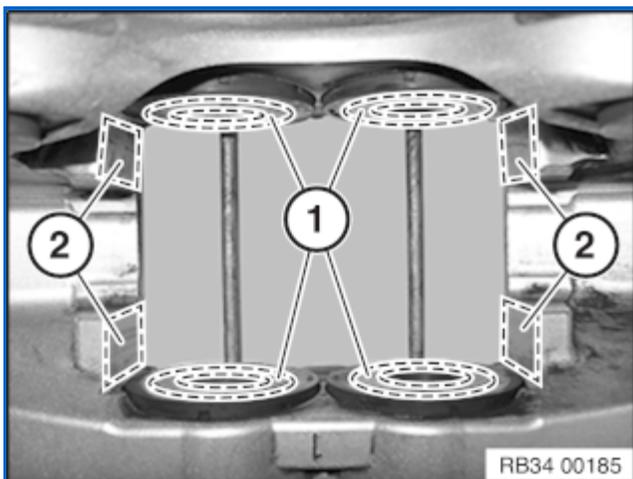


Press brake piston fully back with special tool 34 1 050.

### Attention!

When pressing piston back, note brake fluid level in expansion tank.

Overflowing brake fluid will damage the paintwork.



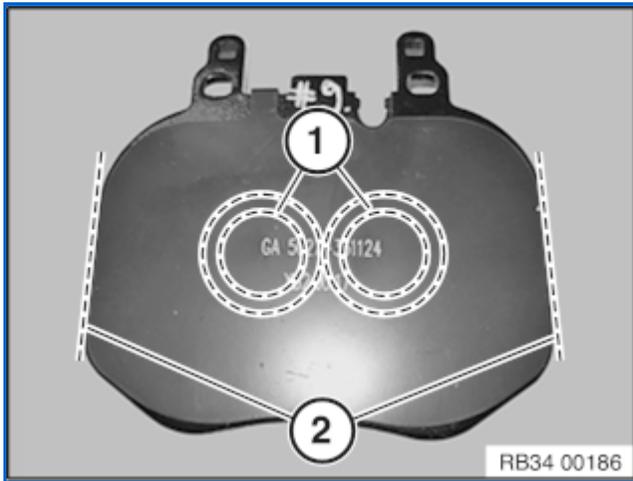
Check dust boot for damage and renew if necessary.

Clean contact surface (1) of brake piston with brake cleaner and apply a thin coating of brake pad paste.

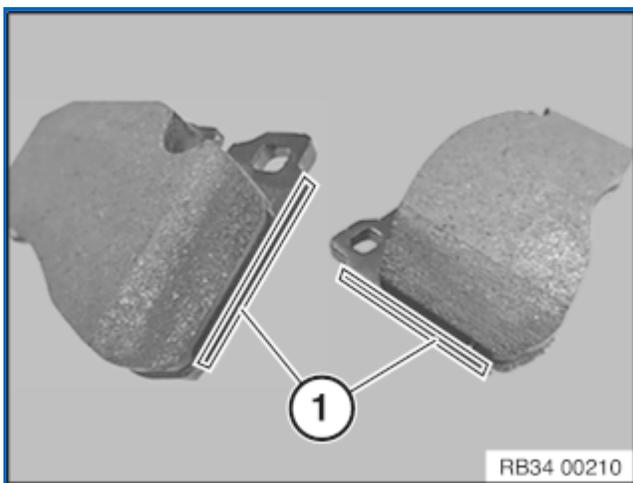
So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces (2) for the brake pads on the brake calliper mounting bracket.

Clean guide surface (2) with brake cleaner and apply a thin coating of brake pad paste.

Clean both inner and outer guide surfaces (2) and apply a thin coating of brake pad paste.



Lightly coat both sides of the contact surface in area (1 and 2) with brake pad paste.



Lightly coat the brake pad contact surface on both sides in area (1) with brake pad paste.



**Note:**

After completing repair work:

- Fully depress brake pedal several times so that brake pads contact brake discs.
- When installing new brake pads at front and rear axles, brake fluid level must be brought up to "MAX" marking.
- Read and comply with notes on [braking in new brake discs / brake pads](#).
- If necessary, when replacing brake pads, reset CBS display as per factory specification.

REP-REP-RAF2034-3411000 V.12 Removing and installing/replacing brake pads on both front disc brakes; VIN: [REDACTED]

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ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

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34 11 000

Removing and installing/replacing brake pads on both front disc brakes



Special tools required:

- 34 1 050
- [34 1 280](#)



Attention!

- Brake pad wear sensor: After removal it must be replaced (brake pad wear sensor loses its retention capability in the break pad).
- Retaining pins and expanding spring: for vehicles older than 48 months it is recommended to replace the retaining spring!

So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces for the brake pads on the brake caliper mounting bracket, but rather clean with brake cleaner BMW TI. number 83 19 2 154 780 and apply a thin coating of break pad paste BMW TI. number 83 19 2 158 851 (3 gr.) or 83 19 2 158 852 (100 gr.).

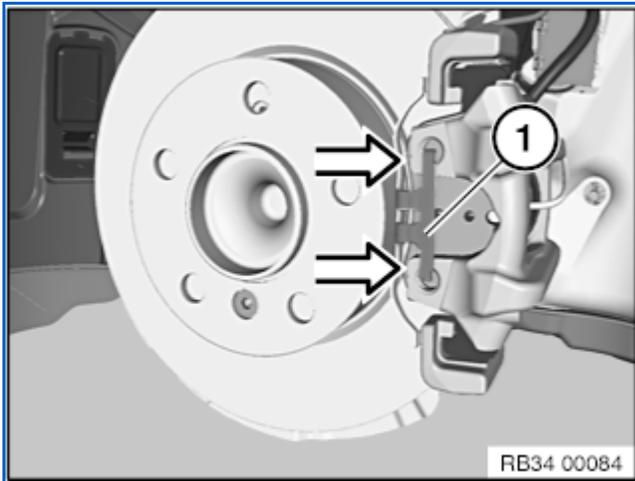
Spread brake pad paste onto the marked surfaces using a brush!

Observe [regulation on applying brake pad paste to brake pads and brake anchor plates!](#)

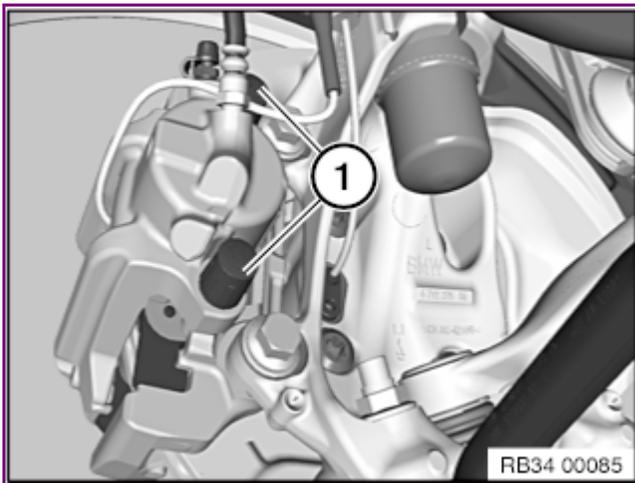


### Necessary preliminary tasks:

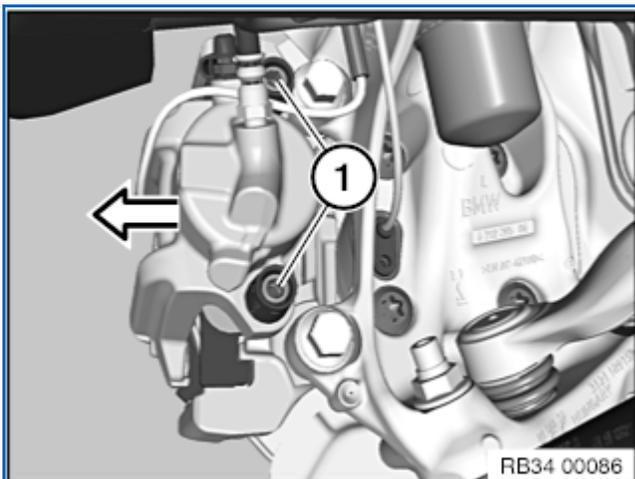
- [Remove wheels.](#)
- Remove [brake pad wear sensor.](#)



Lift out retaining spring (1).



Remove plastic plugs (1).



Unfasten guide bolts (1) and lift out brake caliper towards rear of vehicle.

*Installation note:*

Tightening torque [34 11 4AZ](#).

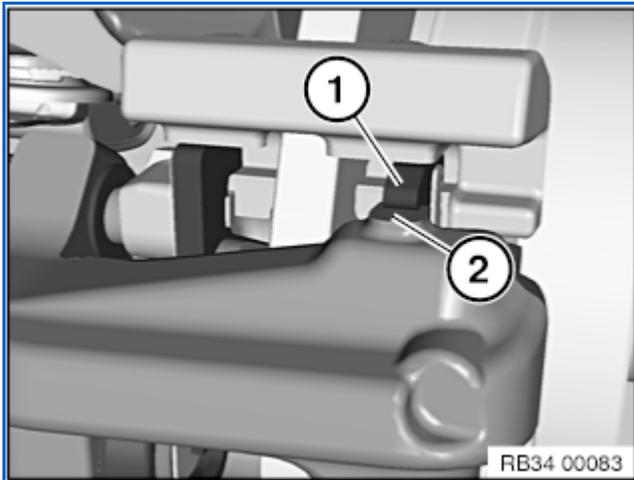
Clean guide screws only; do not grease.

Check threads.

Replace all guide screws which are not in perfect condition.

### Attention!

Tie brake calliper back and do not allow to hang from brake hose.

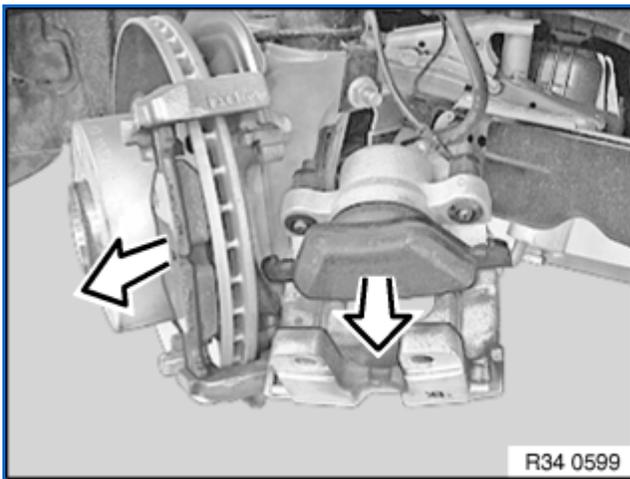


*Installation note:*

When putting on the brake caliper, it is absolutely necessary to make sure that the T-head (1) of the outer brake pad is seated correctly on the contact surface (2).

**Attention!**

With brake pads that are already partially worn, pay particular attention that the position of the outer brake pad in relation to the contact surface (2) is ensured!



Remove outer brake pad.

Inner brake pad is located with its spring in the piston.

**Attention!**

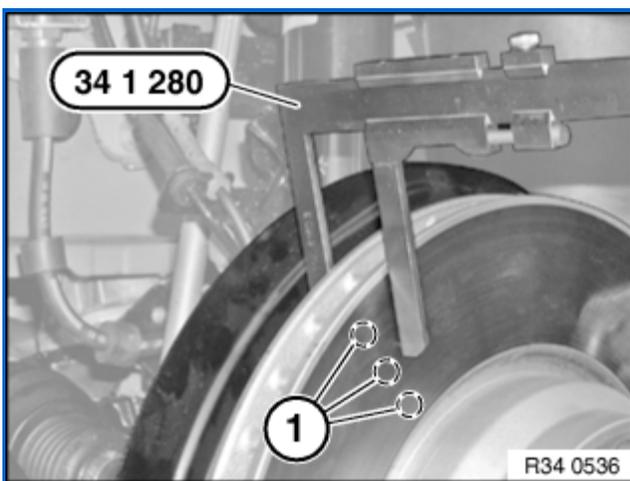
Mark any worn brake pads.

In the event of one-sided brake pad wear, do not change brake pads round.

Observe minimum thickness of brake pads.

Clean brake pads.

Do not grease backs of brake pads sleeve.



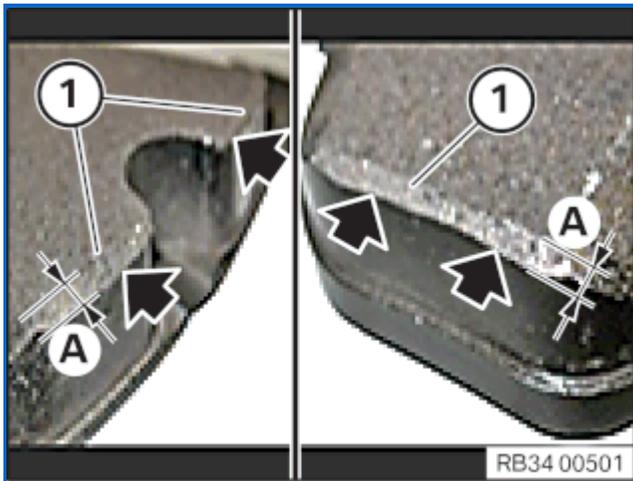
Check minimum brake disc thickness:

- Position special tool [34 1 280](#) at three measuring points in area (1) and measure.
- Compare measuring result and lowest value with [setpoint value](#).



**Attention!**

New brake pads may only be installed if the brake disc thickness is greater than the [minimum brake disc thickness](#).

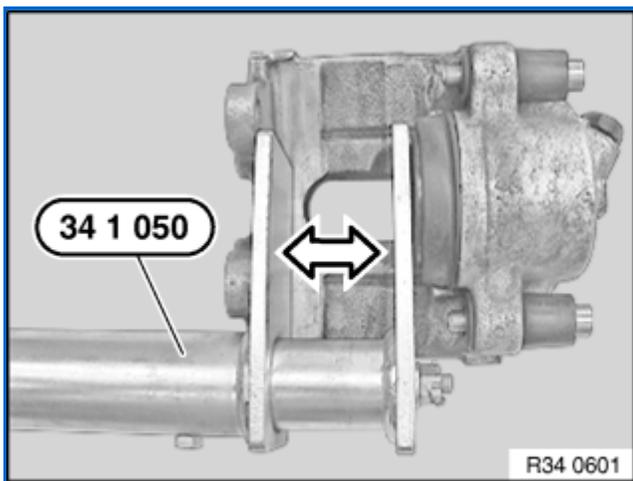


**Attention!**

If new brake pads are mounted on a brake disc, the following must be observed:

- Bevel edges in the area (1) slightly (dimension A must not exceed maximum 1 mm).

These procedures applies for all the following described brake systems.

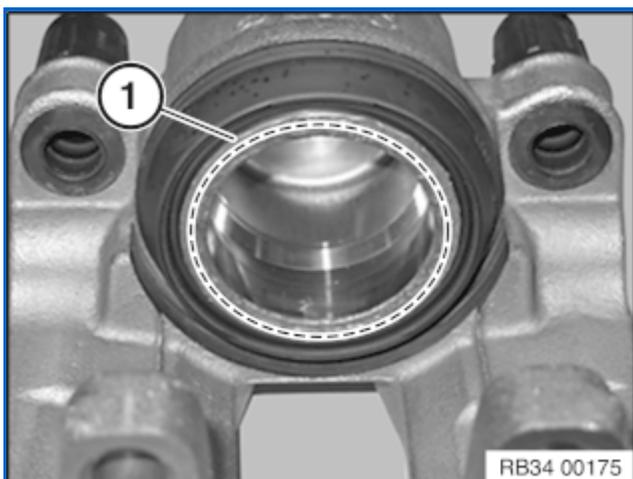


**Attention!**

When pressing down piston, note brake fluid level in expansion tank.

Overflowing brake fluid will damage the paintwork.

Turn piston back fully with special tool 34 1 050.



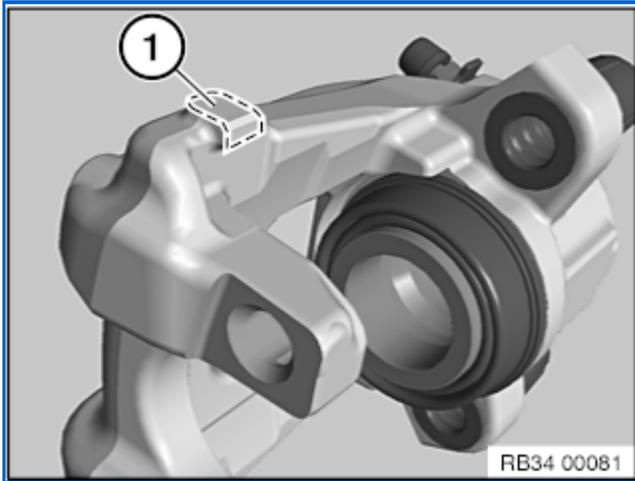
Check dust boot for damage and renew if necessary.

Clean contact surface (1) of brake piston with brake cleaner and apply a thin coating of brake pad paste.

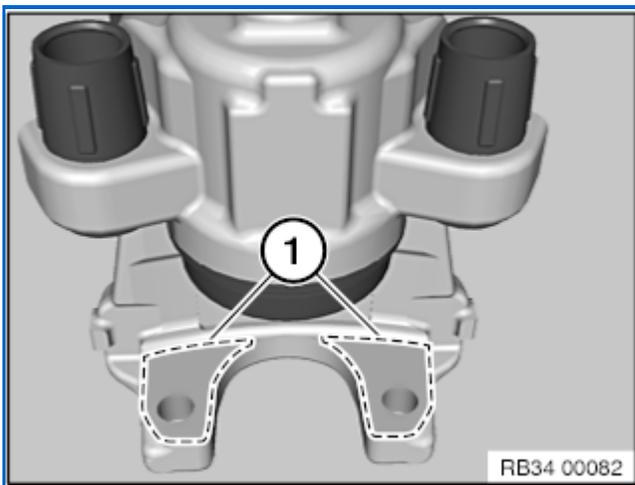
**Attention!**

Dust boot must not come into contact with brake pad paste as this may cause the dust boot to swell.

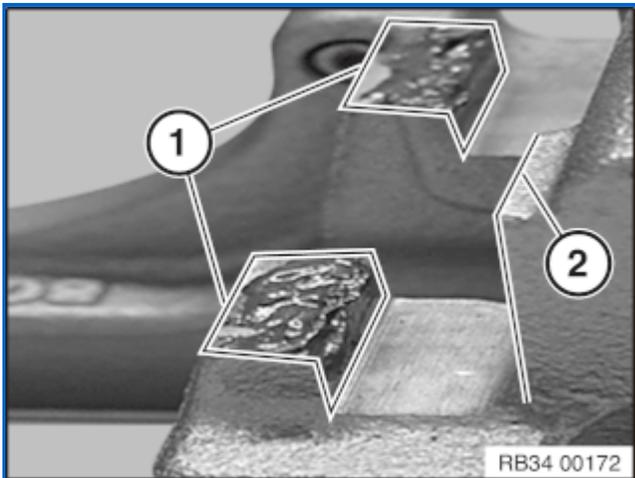
Clean contact surface (1) of T-head/brake caliper housing with brake cleaner and apply a thin coating of brake pad paste.



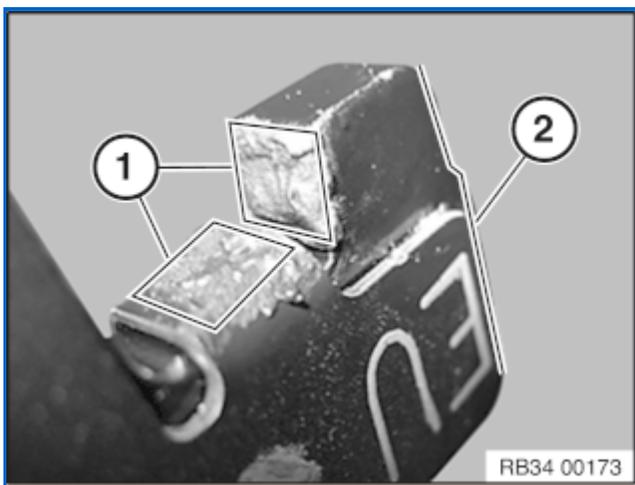
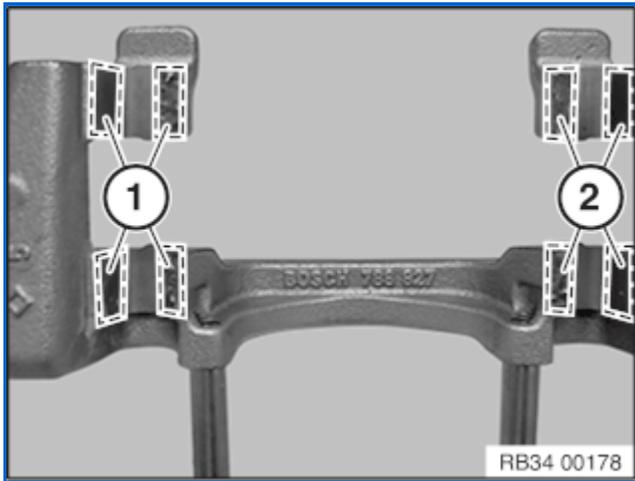
Clean contact surface (1) of brake pads with brake cleaner and apply a thin coating of brake pad paste.



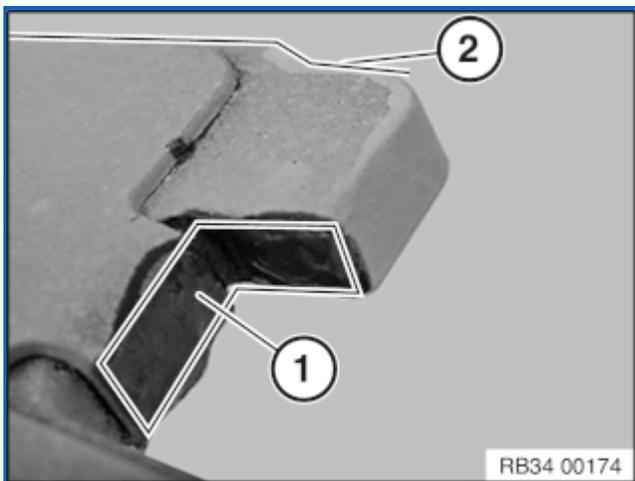
So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces (1) for the brake pads on the brake caliper mounting bracket. Clean guide surfaces (1 and 2) with brake cleaner and apply a thin coating of brake pad paste.



So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces (1 and 2) for the brake pads on the brake calliper mounting bracket. Clean guide surfaces (1 and 2) with brake cleaner and apply a thin coating of brake pad paste.



Apply a thin coating of brake pad paste to T-head of inner brake pad in area (1) and (2).



Apply a thin coating of brake pad paste to T-head of outer brake pad in area (1) and (2).



*Note:*

After completing work:

- When installing new brake pads at front and rear axles, brake fluid level must be brought up to "MAX" mark.

- Fully depress brake pedal several times so that brake pads contact brake discs.
- Read and comply with notes on braking in new brake discs / brake pads.
- When exchanging brake pads, reset CBS display in accordance with factory specification.

REP-REP-RAF3034-3411220BREMBO V.11 Removing and installing/replacing both front brake discs (Brembo)&comma; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming - data
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05	
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.) -
Mileage	0 km			

34 11 220

Removing and installing/replacing both front brake discs (Brembo)



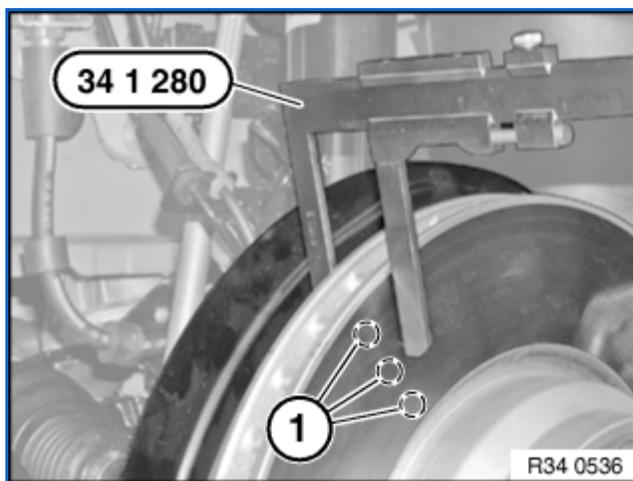
Special tools required:

- [34 1 280](#)



Necessary preliminary tasks:

- [Remove wheels.](#)
- Remove and clean [brake pads.](#)



Check minimum brake disc thickness:

- Position special tool [34 1 280](#) at three measuring points in area (1) and measure.
- Compare measuring result and lowest value with [setpoint value.](#)

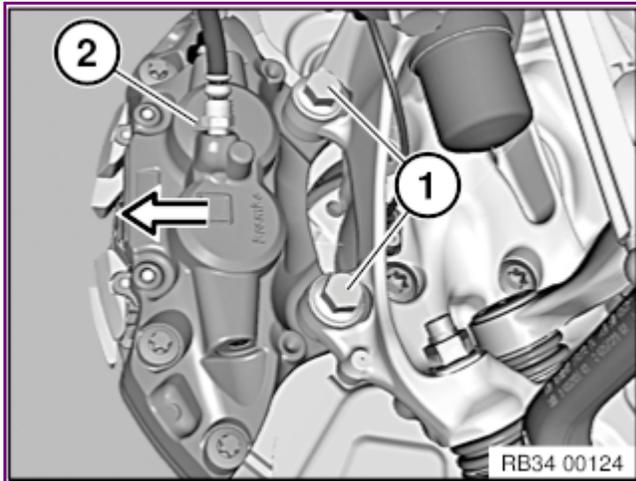
If the brake discs are replaced, you must also fit new brake pads.

Brake discs may only be replaced in pairs (on each axle).



**Important!**

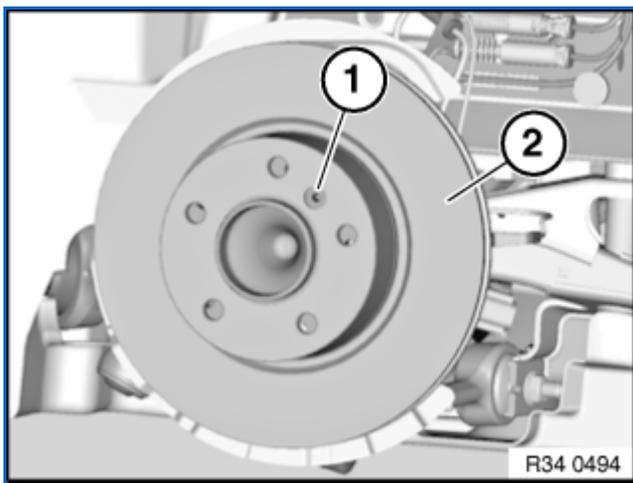
New brake pads may only be installed if the brake disc thickness is greater than the [minimum brake disc thickness.](#)



Release screws (1), remove brake calliper (2) towards rear and tie up.

*Installation note:*

Tightening torque [34 11 2AZ](#).



**Important!**

To release brake disc: Do not under any circumstances strike friction ring with a hammer or similar!

If necessary, carefully tap on base of brake disc chamber with a rubber mallet.

Clean contact surface of brake disc at wheel hub thoroughly and remove traces of corrosion.

Unevenness on contact surface may result in distortion of brake disc!

Release screw (1) and remove brake disc (2).

*Installation note:*

Replace screw.

Tightening torque [34 11 1AZ](#).



**After installation:**

- Read and comply with notes on [braking in new brake discs / brake pads](#).

REP-REP-RAF2034-3411220 V.11 Removing and installing/replacing both front brake discs  
VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

34 11 220

Removing and installing/replacing  
both front brake discs



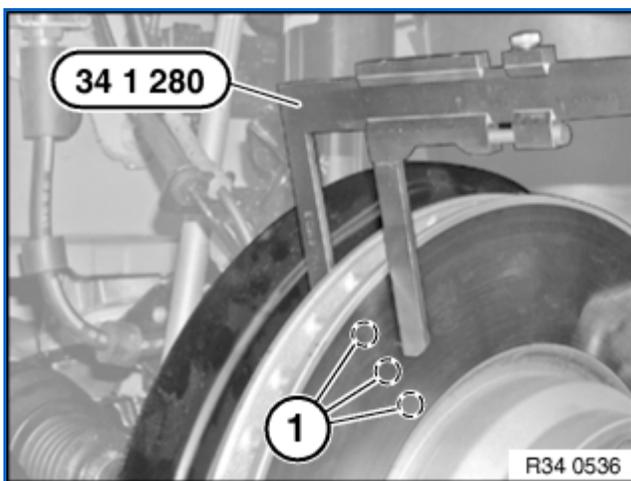
Special tools required:

- [34 1 280](#)



Necessary preliminary tasks:

- [Remove wheels.](#)
- Remove and clean [brake pads.](#)



Check minimum brake disc thickness:

- Position special tool [34 1 280](#) at three measuring points in area (1) and measure.
- Compare measuring result and lowest value with [setpoint value](#).

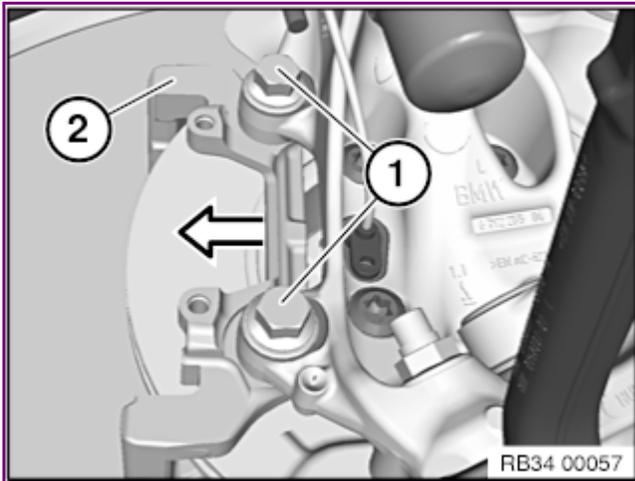
If the brake discs are replaced, you must also fit new brake pads.

Brake discs may only be replaced in pairs (on each axle).



**Important!**

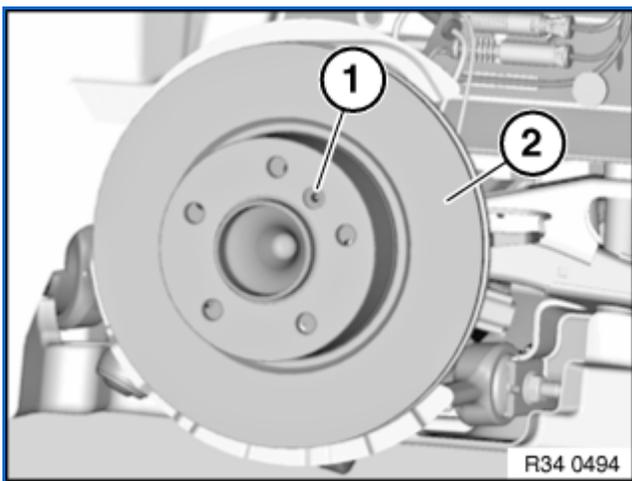
New brake pads may only be fitted if the brake disc thickness is greater than the [minimum brake disc thickness](#) (MIN TH).



Release screws (1) and remove brake anchor plate (2) to the rear.

*Installation note:*

Tightening torque [34 11 2AZ](#).



### Important!

To release brake disc: Do not under any circumstances strike friction ring with a hammer or similar!

If necessary, carefully tap on base of brake disc chamber with a rubber mallet.

Clean contact surface of brake disc at wheel hub thoroughly and remove traces of corrosion.

Unevenness on contact surface may result in distortion of brake disc!

Release screw (1) and remove brake disc (2).

*Installation note:*

Replace screw.

Tightening torque [34 11 1AZ](#).



### After installation:

- Read and comply with notes on [braking in new brake discs / brake pads](#).

REP-REP-RAF2034-3411020 V.13 Removing and installing/replacing left or right front brake caliper&comma; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

34 11 020

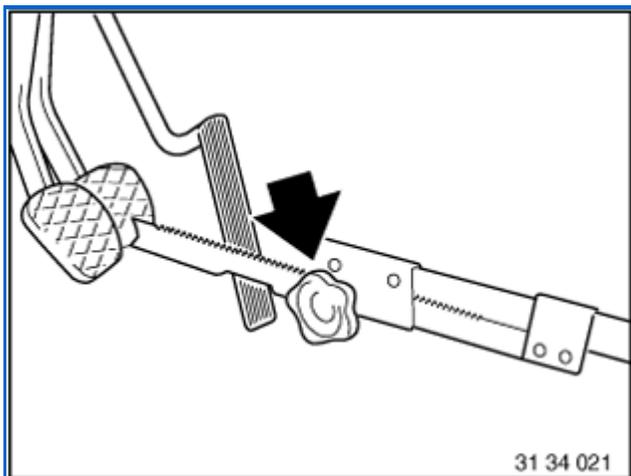
Removing and installing/replacing left or right front brake caliper



Necessary preliminary tasks:

- [Remove wheels.](#)
- Read and comply with [General Information.](#)

After completing work: [Bleed brake system.](#)



Press brake pedal down to floor and secure with pedal support.

*Note:*

The pedal support may only be released when the brake lines are reconnected.

This prevents brake fluid from emerging from the expansion tank and air from entering the system when the brake lines are opened.

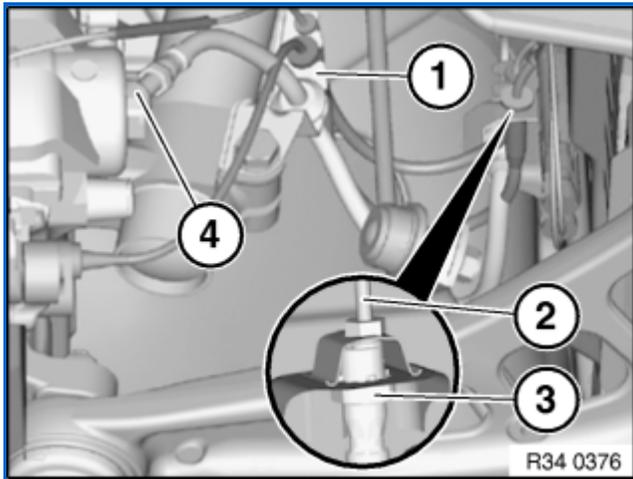
If necessary, pull brake hose out of holder (1).

**Attention!**

Grip brake hose at square head (3) to prevent connector from turning in retaining bracket.

Disconnect brake hose from brake line (2).

*Installation note:*



Tightening torque [34 32 1AZ](#).

Detach brake hose from brake caliper (4).

*Installation note:*

Tightening torque [34 32 2AZ](#).



### Attention!

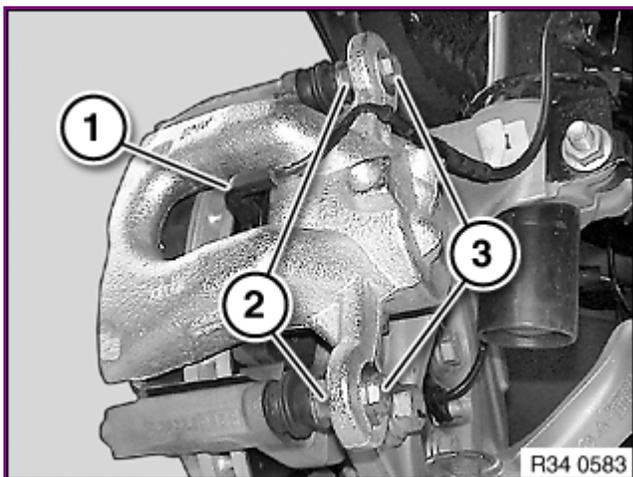
Never twist brake hose when installing it and avoid all contact with parts attached rigidly to the body.

*Note:*

First tighten brake hose on brake caliper.

Move wheels into straight-ahead position.

Insert brake hose in bracket and screw onto brake pipe.



Pull brake pad wear sensor (1) towards rear out of brake pad (left side only).

If necessary, replace brake pad wear sensor.

Unscrew guide bolts (3).

If necessary, grip at hexagon head (2).

Remove brake caliper by pulling upwards.

*Installation note:*

Replace guide bolts.

Tightening torque [34 11 4AZ](#).

REP-REP-RAF2034-3411552 V.1 Overhauling left or right front brake caliper (brake caliper removed)  
&comma; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

34 11 552

Overhauling left or right front brake caliper (brake caliper removed)



Necessary preliminary tasks:

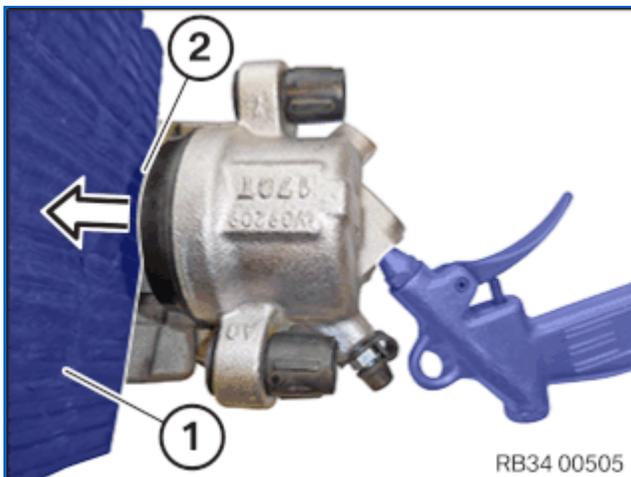
- Remove the [front brake caliper](#).



**Warning!**

In the following operation, large forces occur at the brake caliper piston.

Danger of injury!

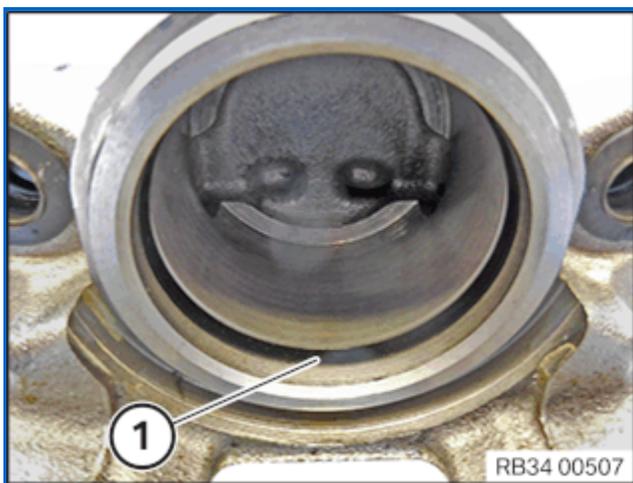
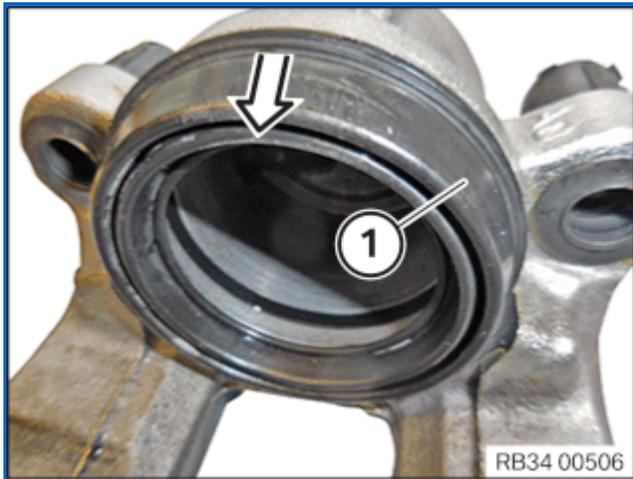


Carefully force piston out through connecting bore with compressed air.

To protect the piston, place a protective plate (e.g. hardwood or rubber plate) in the caliper recess.

**Do not grip piston with fingers - pinch hazard!**

Press off dust boot (1).



Carefully remove sealing ring (1).

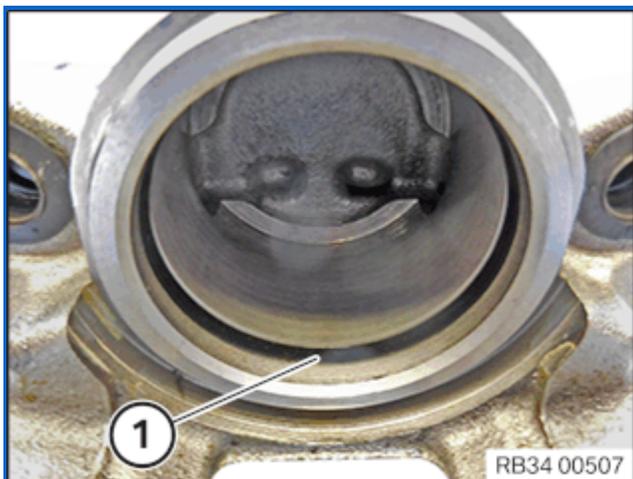
Clean cylinder bores and parts and dry with compressed air.

Thoroughly inspect cylinder bore, piston and flange surfaces for damage.

Material removing rework on cylinders and pistons is not permitted.



#### Installation:

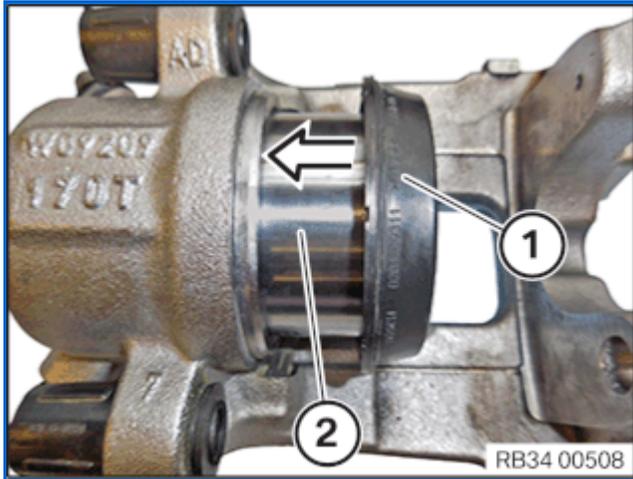


Insert sealing ring (1).

Apply a light coat of [ATE brake cylinder paste](#) to cylinder bore, piston and sealing ring,

Fit dust boot (1) in annular groove of piston (2).

**Attention!**



Do not twist brake piston.

Press piston into cylinder bore.

Evenly press dust boot (1) onto brake caliper housing up to limit position.

*Note:*

The area between the dust boot and the brake caliper housing must be kept dry. It must not come into contact with Ate brake cylinder paste or brake fluid so as to ensure that the dust boot is perfectly fitted.



**Required follow-up work:**

- Install [front brake caliper](#).

REP-REP-RAF2034-3411280 V.14 Removing and installing/replacing front left protective plate&comma; VIN: [REDACTED]

---

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

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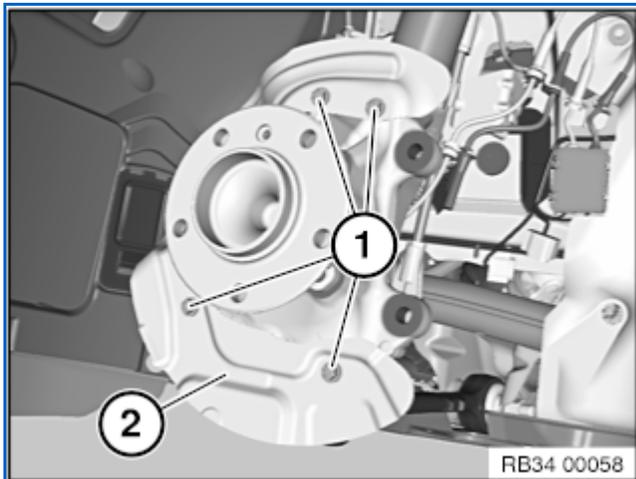
34 11 280

Removing and installing/replacing front left protective plate



Necessary preliminary work:

- Remove front [brake discs](#).



Release screws (1) and remove brake guard plate (2).

*Installation note:*

Tightening torque [34 11 3AZ](#).

REP-REP-RAF2034-3432881 V.13 Replacing front left or right brake hose; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

34 32 881

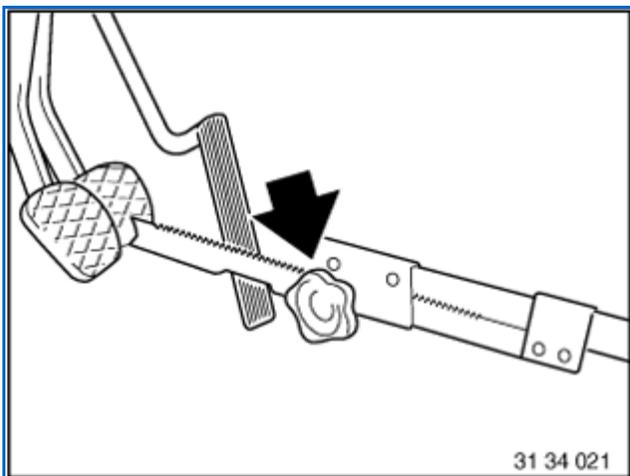
Replacing front left or right brake hose



*Note:*

- Read and comply with [General Information](#).

After completing repair work: [Bleed brake system](#).



Press brake pedal down to floor and secure with pedal support.

*Note:*

The pedal support may only be released when the brake lines are reconnected.

This prevents brake fluid from emerging from the expansion tank and air from entering the system when the brake lines are opened.

Pull out retaining clip (1) upwards.

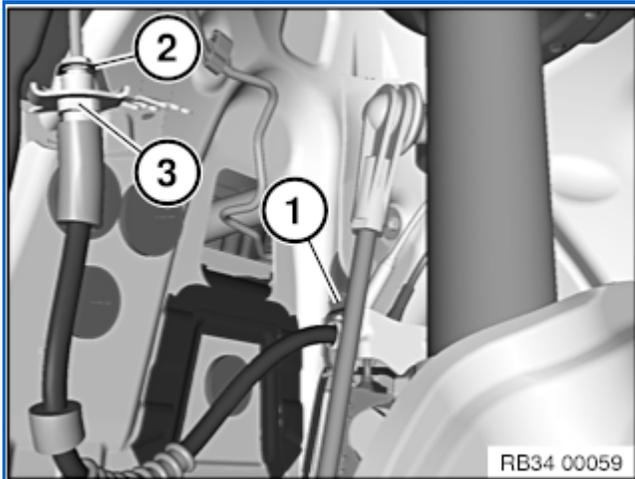
**Important!**

Grip brake hose at square head (3) to prevent connector from turning in retaining bracket.

Detach brake hose from brake line (2).

*Installation note:*

Tightening torque [34 32 1AZ](#).



Detach brake hose (1) from brake caliper.

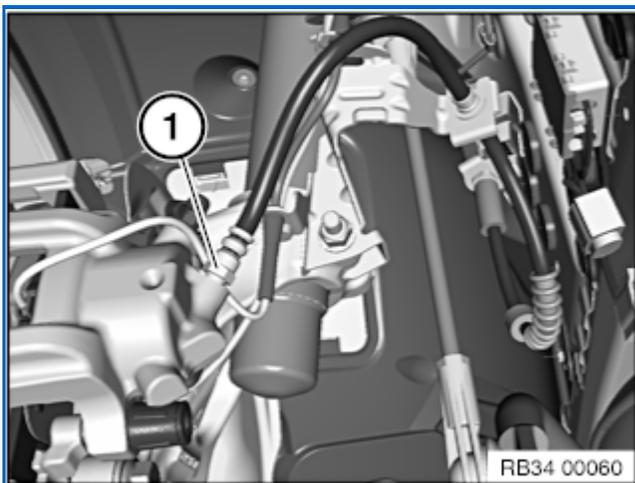
*Installation note:*

Tightening torque [34 32 2AZ](#).

**Important!**

Make sure that the brake hose is routed correctly!

Brake hose must run between body and anti-roll bar link (see graphic)!



**Important!**

First tighten brake hose on brake caliper.

Move wheels into straight-ahead position.

Insert brake hose into holder on spring strut side and attach with retaining clip.

Insert brake hose into holder on body side and screw onto brake line.

Never twist brake hose when installing it and avoid all contact with parts attached rigidly to the body.

AZD-AZD-AZDMUC3411-F2X V.10 Front Brake; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming	- data
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

**34 11 Front Brake**

	Type	Thread	Tightening specifications	Value
1AZ Brake disc to wheel hub	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36		Replace screws	16 Nm
2AZ Brake anchor plate to swivel bearing	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12x1.5	Replace screws	110 Nm
3AZ Guard plate to swivel bearing	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M6	Replace screws	12 Nm
4AZ Guide screw (socket head cap screw)	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36			28 Nm

REP-REP-RAF2034-3435003 V.11 Replacing a brake pad sensor (rear)&comma; VIN: XXXXXXXXXX

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	<span style="background-color: black; color: black;">XXXXXXXXXX</span>	Vehicle	3/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

34 35 003

Replacing a brake pad sensor (rear)



### Important!

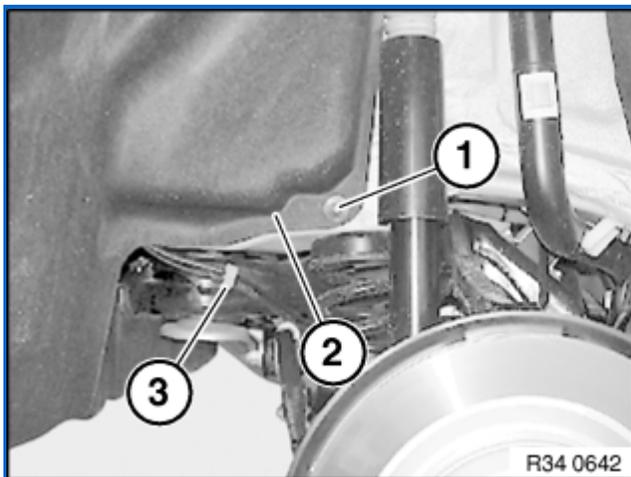
The brake pad wear sensor must be replaced once it has been removed (brake pad wear sensor loses its retention capability in the brake pad).

If a brake pad wear sensor that has already been ground has to be replaced even though the minimum brake pad thickness has not yet been reached, you must observe the following: The new sliding contact must be filed down with a file to the same length as the sanded sliding contact.



### Necessary preliminary tasks:

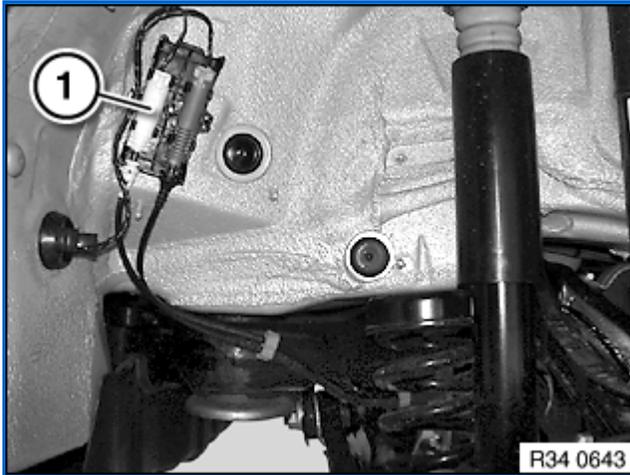
- Remove rear right wheel



Slacken nut (1).

Pull wheel arch trim (2) gently to one side.

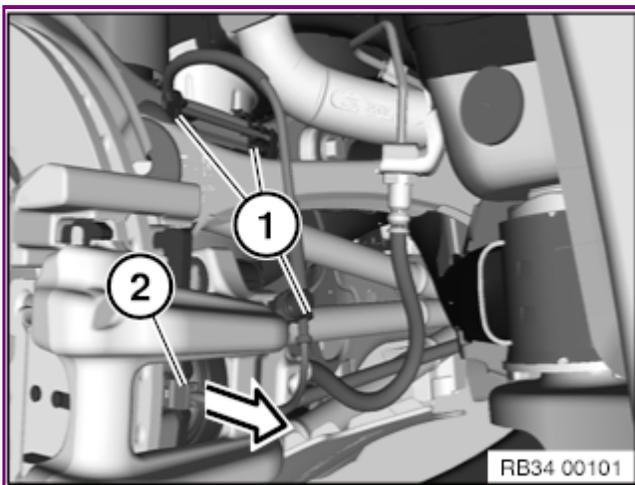
Disengage cable from holders (3).



Disconnect plug connection (1).

*Installation note:*

Ensure proper locking of the plug connector and proper seating of the cable in the brackets.



Disengage cable from holders (1).

Detach brake pad wear sensor (2) in direction of arrow from brake pad.

*Installation note:*

Make sure holders (1) and brake pad wear sensor (2) are correctly seated in brake caliper.

REP-REP-RAF2034-3421200BREMBO V.2 Removing and installing/replacing brake pads on both rear disc brakes (Brembo)&comma; VIN: [REDACTED]

---

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

---

34 21 200

Removing and installing/replacing brake pads on both rear disc brakes (Brembo)



Special tools required:

- [34 1 000](#)
- 34 1 050
- [34 1 280](#)
- [2 352 960](#)



Attention!

- Brake pad wear sensor: After removal it must be replaced (brake pad wear sensor loses its retention capability in the break pad).
- Retaining pins and expanding spring: for vehicles older than 48 months it is recommended to replace the retaining spring!

So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces for the brake pads on the brake caliper mounting bracket, but rather clean with brake cleaner BMW part number: 83 19 2 154 780 and thinly coat with brake pad paste BMW part number 83 19 2 158 851 (3 gr.) or 83 19 2 158 852 (100 gr.).

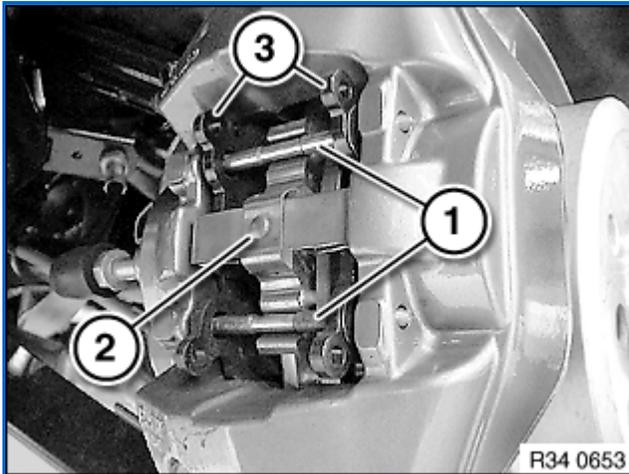
Spread brake pad paste onto the marked surfaces using a brush!

Observe [regulation on applying brake pad paste to brake pads and brake anchor plates!](#)



### Necessary preliminary tasks:

- Remove [wheels](#).
- Remove [brake pad wear sensor](#)



Drive out retaining pins (1).

Remove expanding spring (2).

Pull out brake pads (3) with special tool [34 1 000](#).

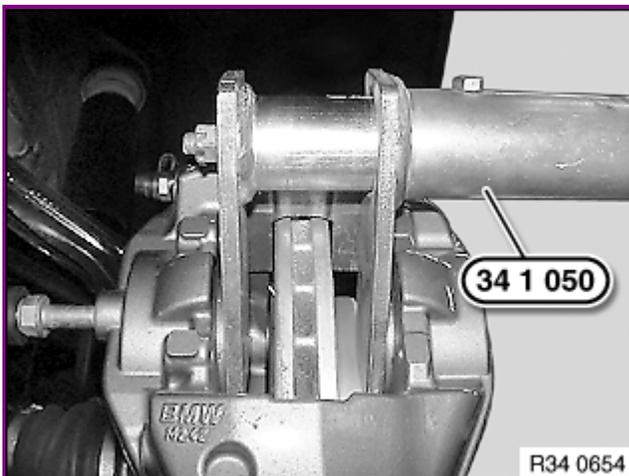
#### Attention!

Mark any worn brake pads.

In the event of one-sided brake pad wear, do not change brake pads round.

Clean brake pads.

Do not grease backs of brake pads sleeve.



#### Attention!

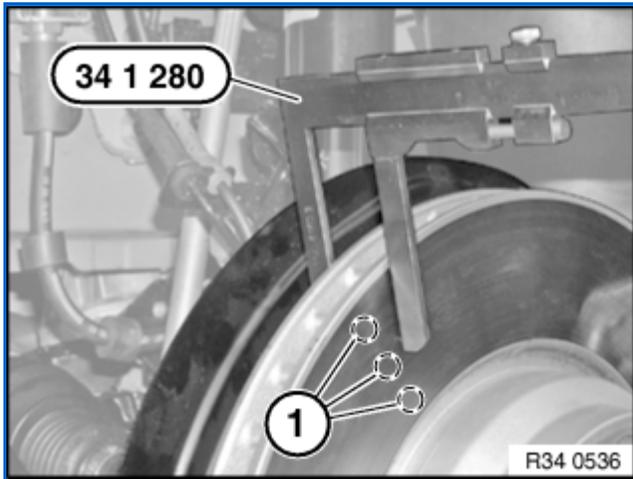
When pressing down piston, note brake fluid level in expansion tank.

Overflowing brake fluid will damage the paintwork.

Turn piston back fully with special tool [2 352 960](#).

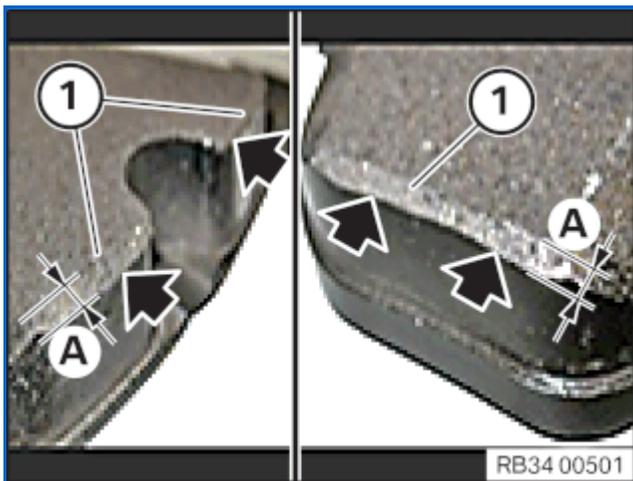
Check minimum brake disc thickness:

- Position special tool [34 1 280](#) at three measuring points in area (1) and measure.
- Compare measuring result and lowest value with [setpoint value](#).



### Attention!

New brake pads may only be installed if the brake disc thickness is greater than the [minimum brake disc thickness](#).

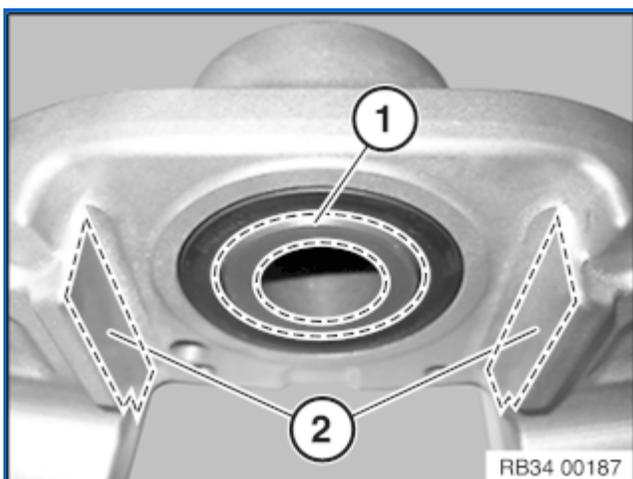


### Attention!

If new brake pads are mounted on a brake disc, the following must be observed:

- Bevel edges in the area (1) slightly (dimension A must not exceed maximum 1 mm).

These procedures applies for all the following described brake systems.



Check dust boot for damage and renew if necessary.

Clean contact surface (1) of brake piston with brake cleaner and apply a thin coating of brake pad paste.

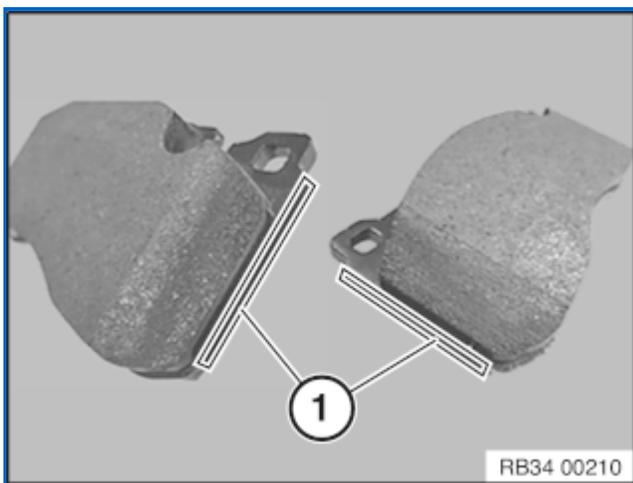
So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces (2) for the brake pads on the brake calliper mounting bracket.

Clean guide surface (2) with brake cleaner and apply a thin coating of brake pad paste.

Clean both inner and outer guide surfaces (2) and apply a thin coating of brake pad paste.



Lightly coat both sides of the contact surface in area (1 and 2) with brake pad paste.



Lightly coat the brake pad contact surface on both sides in area (1) with brake pad paste.



**Note:**

After completing work:

- Fully depress brake pedal several times so that brake pads contact brake discs.
- When installing new brake pads at front and rear axles, the brake fluid level must be brought up to the "maximum" mark.
- Read and comply with notes on [braking in new brake discs / brake pads](#).
- When exchanging brake pads, reset CBS display in accordance with factory specification.

REP-REP-RAF2034-3421200 V.12 Removing and installing/replacing both rear brake pads of disc brake; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

34 21 200

Removing and installing/replacing both rear brake pads of disc brake



Special tools required:

- 34 1 050
- [34 1 280](#)



Attention!

- Brake pad wear sensor: After removal it must be replaced (brake pad wear sensor loses its retention capability in the brake pad).
- Retaining pins and expanding spring: for vehicles older than 48 months it is recommended to replace the retaining spring!

So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces for the brake pads on the brake caliper mounting bracket, but rather clean with brake cleaner BMW TI. number 83 19 2 154 780 and apply a thin coating of brake pad paste BMW TI. number 83 19 2 158 851 (3 gr.) or 83 19 2 158 852 (100 gr.).

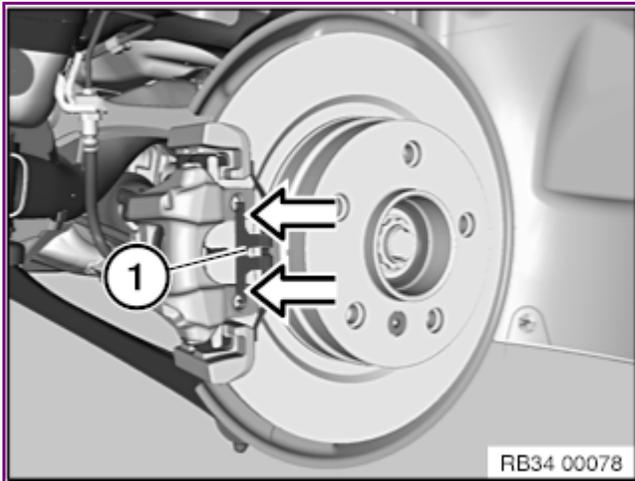
Spread brake pad paste onto the marked surfaces using a brush!

Observe [guideline for applying brake pad paste on brake pads and brake anchor plate!](#)

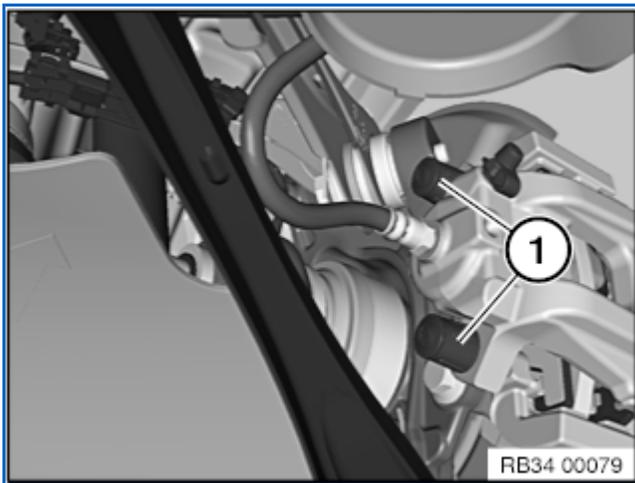


### Necessary preliminary tasks:

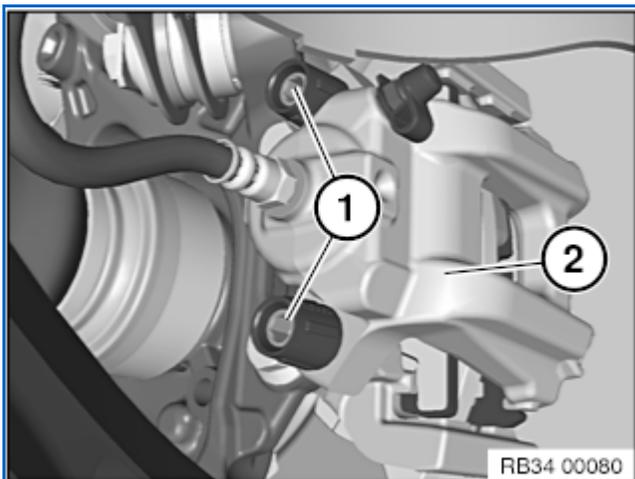
- [Remove wheels.](#)
- Remove [brake pad wear sensor.](#)



Lift out retaining spring (1).



Remove cover plug (1).



### Attention!

Tie brake calliper back and do not allow to hang from brake hose.

Unscrew guide bolts (1).

Remove brake caliper (2) by pulling forward.

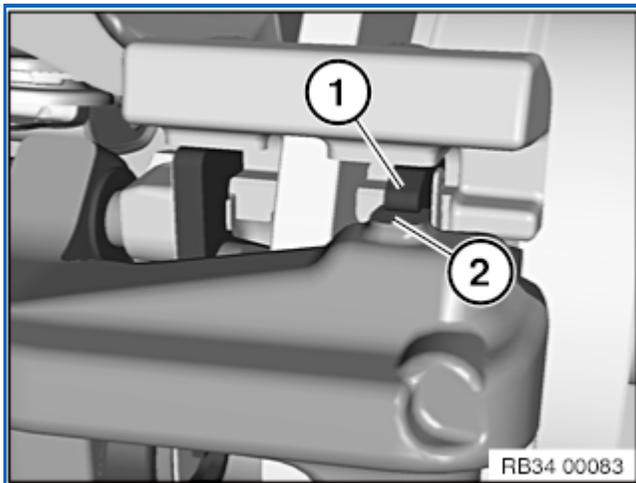
*Installation note:*

Tightening torque [34 21 4AZ](#).

Clean guide screws only; do not grease.

Check thread.

Replace all guide screws which are not in perfect condition.

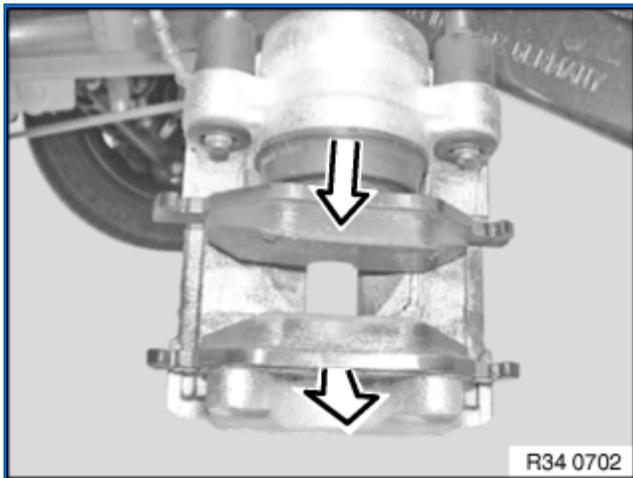


*Installation note:*

When putting on the brake caliper, it is absolutely necessary to make sure that the T-head (1) of the outer brake pad is seated correctly on the contact surface (2).

**Attention!**

With brake pads that are already partially worn, pay particular attention that the position of the outer brake pad in relation to the contact surface (2) is ensured!



Remove outer brake pad.

Inner brake pad is located with its spring in the piston.

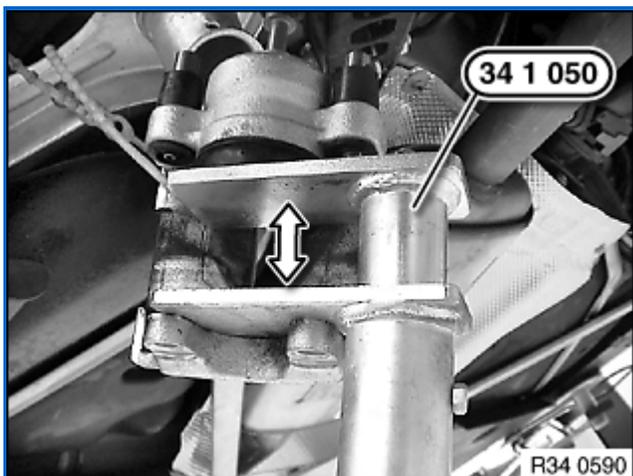
**Attention!**

Mark any worn brake pads.

In the event of one-sided brake pad wear, do not change brake pads round.

Clean brake pads.

Do not grease backs of brake pads sleeve.



**Attention!**

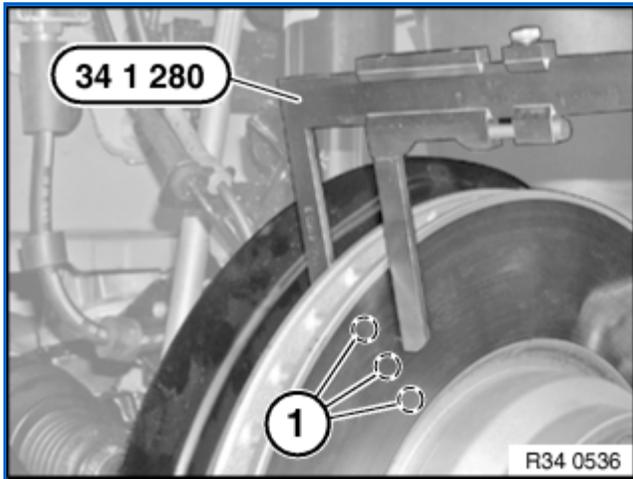
When pressing down piston, note brake fluid level in expansion tank.

Overflowing brake fluid will damage the paintwork.

Turn piston back fully with special tool 34 1 050.

Check minimum brake disc thickness:

- Position special tool [34 1 280](#) at three measuring points in area (1) and measure.

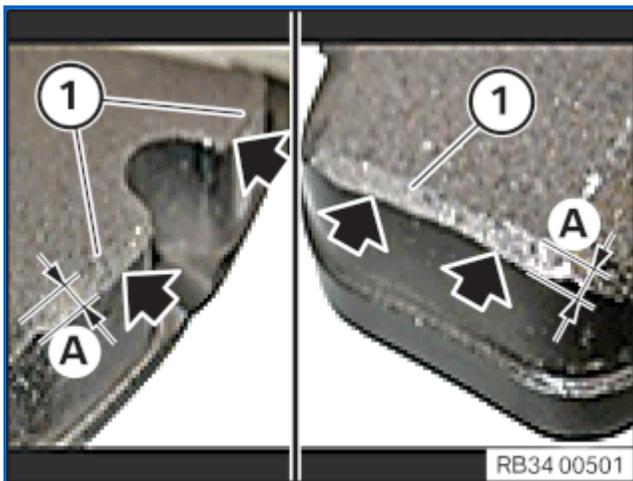


- Compare measuring result and lowest value with [setpoint value](#).



### Attention!

New brake pads may only be installed if the brake disc thickness is greater than the [minimum brake disc thickness](#).

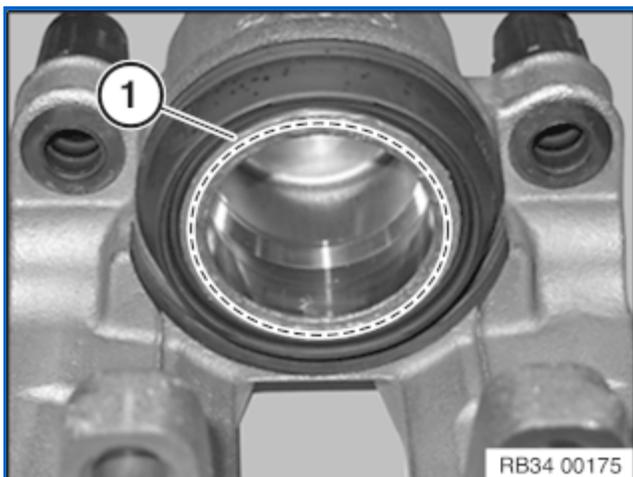


### Attention!

If new brake pads are mounted on a brake disc, the following must be observed:

- Bevel edges in the area (1) slightly (dimension A must not exceed maximum 1 mm).

These procedures applies for all the following described brake systems.

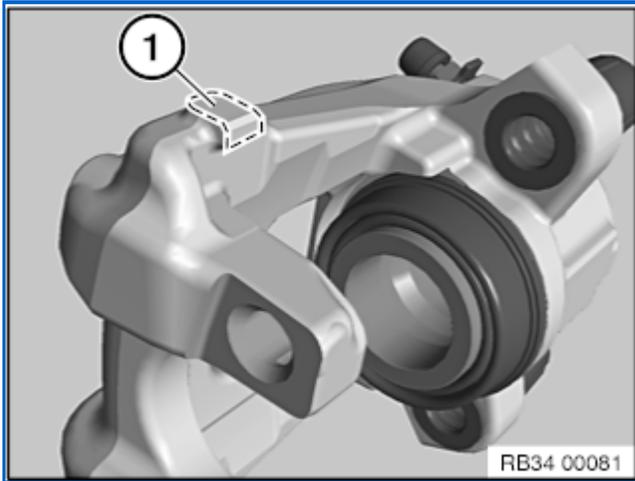


Check dust boot for damage and renew if necessary.

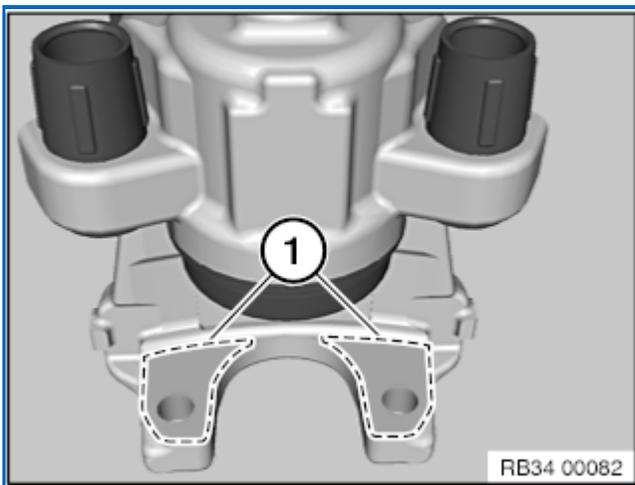
Clean contact surface (1) of brake piston with brake cleaner and apply a thin coating of brake pad paste.

### Attention!

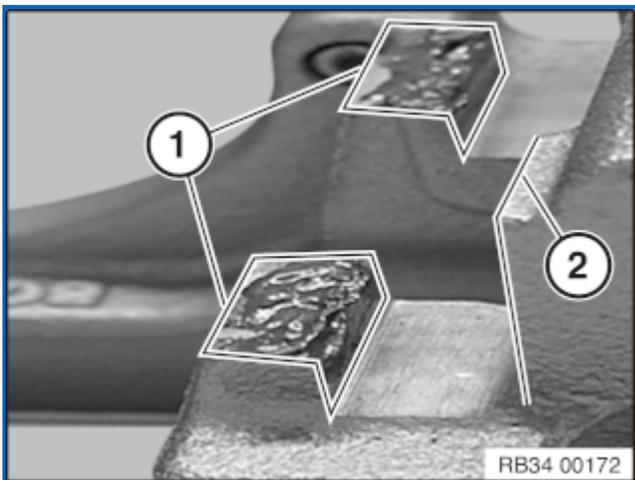
Dust boot must not come into contact with brake pad paste as this may cause the dust boot to swell.



Clean contact surfaces (1) of T-head/brake caliper housing with brake cleaner and apply a thin coating of brake pad paste.

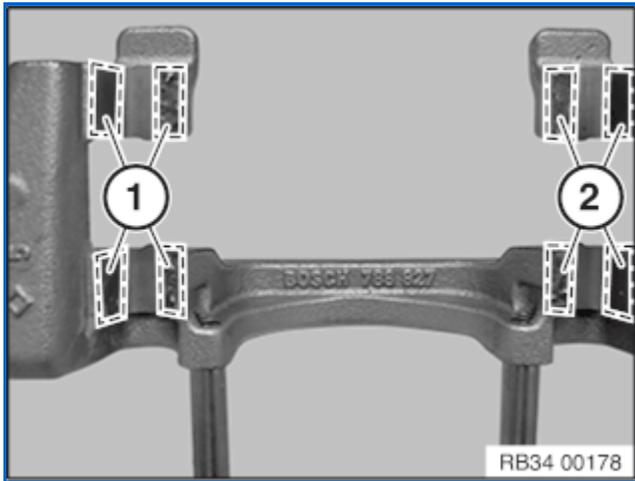


Clean contact surface (1) of brake caliper with brake cleaner and apply a thin coating of brake pad paste.

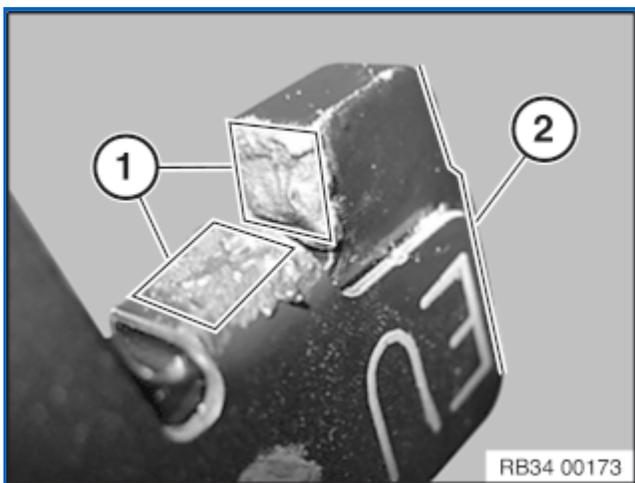


So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces (1) for the brake pads on the brake caliper mounting bracket. Clean guide surfaces (1 and 2) with brake cleaner and apply a thin coating of brake pad paste.

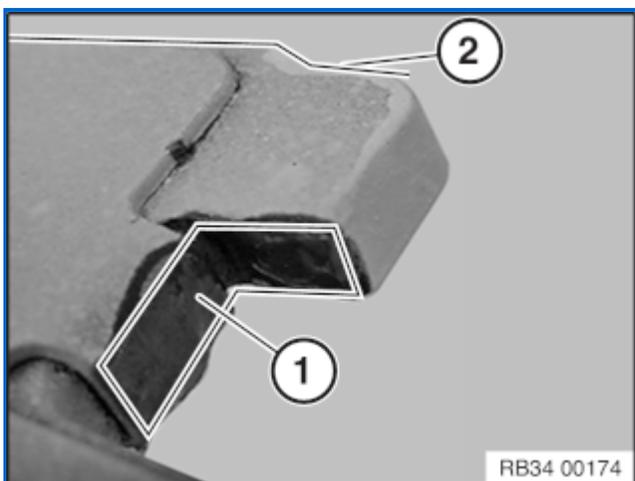
So as not to damage the surface coating, if possible do not mechanically clean the guide surfaces (1 and 2) for the brake calliper mounting bracket. Clean guide surfaces (1 and 2) with brake cleaner and apply a thin coating of brake pad paste.



Apply a thin coating of brake pad paste to T-head of inner brake pad in area (1) and (2).



Apply a thin coating of brake pad paste to T-head of outer brake pad in area (1) and (2).



**Note:**

After completing repair work:

- Fully depress brake pedal several times so that brake pads contact brake discs.
- When installing new brake pads at front and

rear axles, brake fluid level must be brought up to "MAX" marking.

- Read and comply with notes on braking in new brake discs / brake pads.
- When exchanging brake pads, reset CBS display in accordance with factory specification.

REP-REP-RAF2034-3421320 V.11 Removing and installing/renewing both brake discs  
VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

34 21 320

Removing and installing/renewing both brake discs



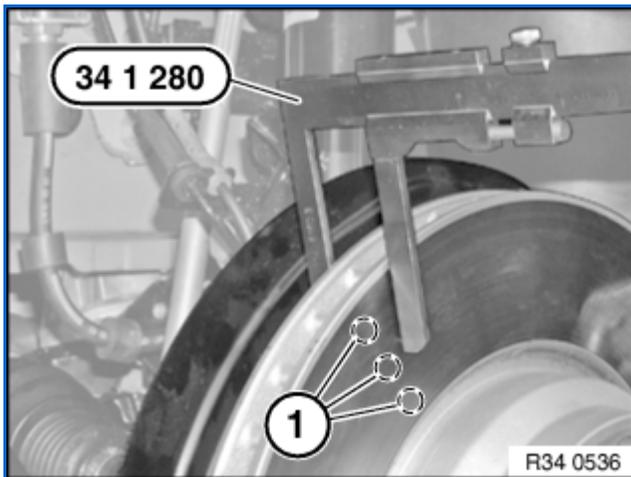
Special tools required:

- [34 1 280](#)



Necessary preliminary tasks:

- Remove and clean [brake pads](#).



Check minimum brake disc thickness:

- Position special tool [34 1 280](#) at three measuring points in area (1) and measure.
- Compare measuring result and lowest value with [setpoint value](#).

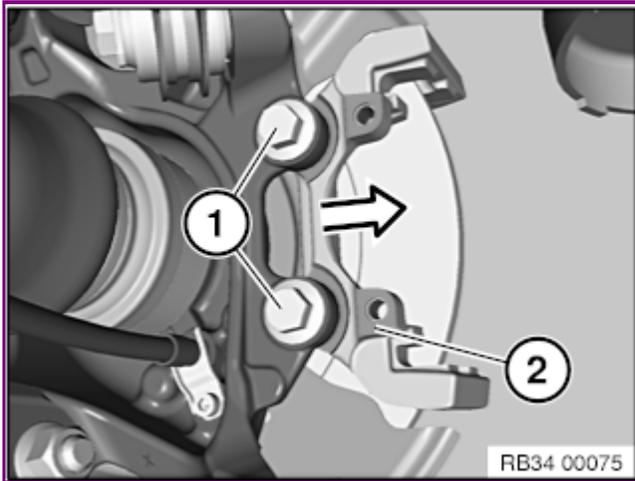
If the brake discs are replaced, you must also fit new brake pads.

Always replace brake discs in pairs.



**Important!**

New brake pads may only be fitted if the brake disc thickness is greater than the [minimum brake disc thickness](#) (MIN TH).

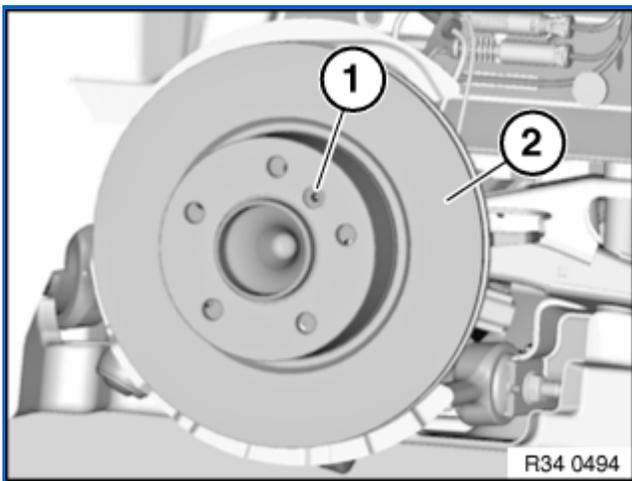


Release bolts (1) and detach brake anchor plate.

*Installation note:*

Replace screws.

Tightening torque [34 21 2AZ](#).



**Important!**

To release brake disc: Do not under any circumstances strike friction ring with a hammer or similar!

If necessary, carefully tap on base of brake disc chamber with a rubber mallet.

Clean contact surface of brake disc at wheel hub thoroughly and remove traces of corrosion.

Unevenness on contact surface may result in distortion of brake disc!

Release screw (1) and remove brake disc (2).

*Installation note:*

Replace screw.

Tightening torque [34 21 1AZ](#).



**After installation:**

- Adjusting [parking brake](#)
- Read and comply with notes on [braking in new brake discs / brake pads](#).

REP-REP-RAF2034-3421745 V.12 Removing and installing/replacing left or right rear brake caliper&comma; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

34 21 745

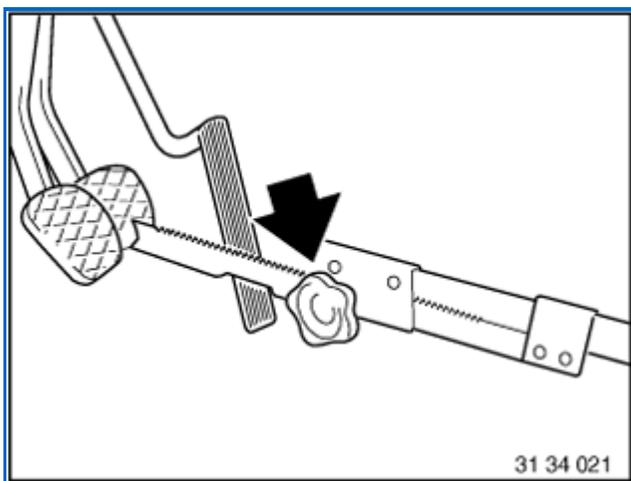
Removing and installing/replacing left or right rear brake caliper



**Necessary preliminary tasks:**

- Read and comply with [General Information](#).
- Remove [brake pads](#).

After completing repair work: [Bleed brake system](#).



Press brake pedal down to floor and secure with pedal support.

*Note:*

The pedal support may only be released when the brake lines are reconnected.

This prevents brake fluid from emerging from the expansion tank and air from entering the system when the brake lines are opened.

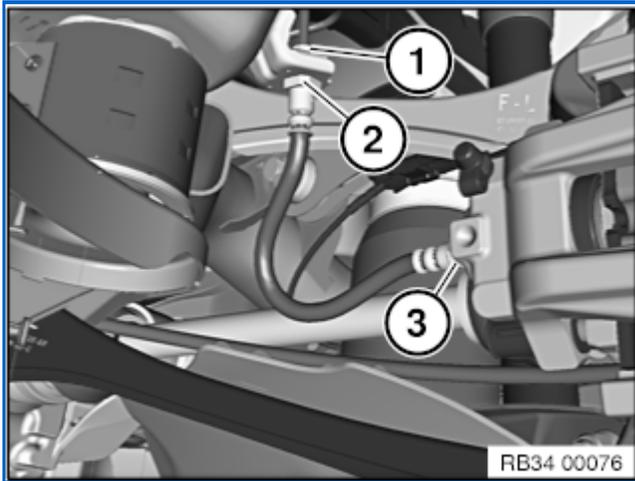
**Important!**

Grip brake hose at square head (2) so that connecting piece cannot rotate in retaining bracket.

Disconnect brake hose from brake line (1).

*Installation note:*

Tightening torque [34 32 1AZ](#).



Detach brake hose from brake caliper (3).

*Installation note:*

Tightening torque [34 32 3AZ](#).



**Important!**

Never twist brake hose when installing it and avoid all contact with parts attached rigidly to the body.

*Note:*

First tighten brake hose on brake caliper.

Insert brake hose in bracket and screw onto brake pipe.

REP-REP-RAF2034-3421812 V.1 Overhauling left or right rear brake caliper (brake caliper removed)  
&comma; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

34 21 812

Overhauling left or right rear brake caliper (brake caliper removed)



#### Necessary preliminary tasks:

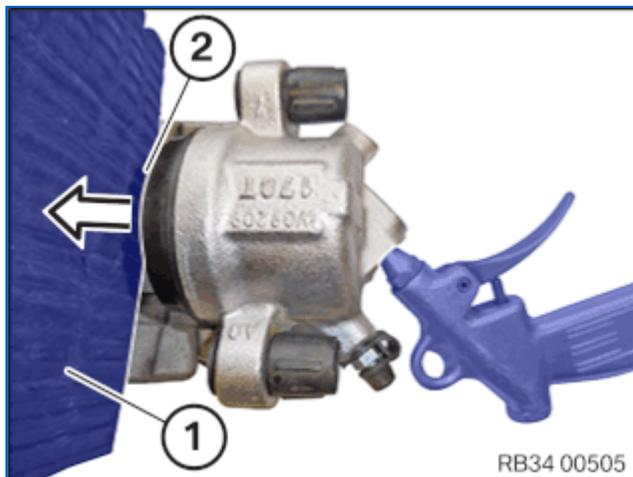
- Remove the rear [brake caliper](#).



#### Warning!

In the following operation, large forces occur at the brake caliper piston.

Danger of injury!

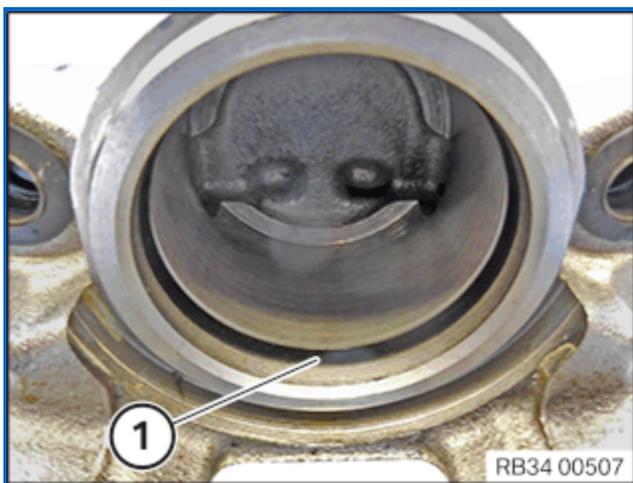
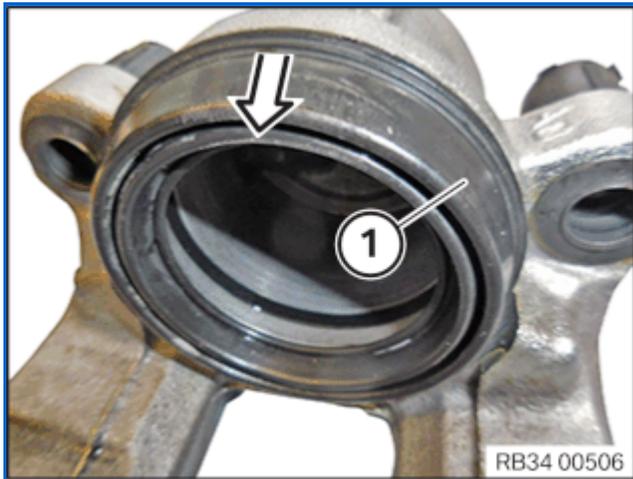


Carefully force piston out through connecting bore with compressed air.

To protect the piston, place a protective plate (e.g. hardwood or rubber plate) in the caliper recess.

**Do not grip piston with fingers - pinch hazard!**

Press off dust boot (1).



Carefully remove sealing ring (1).

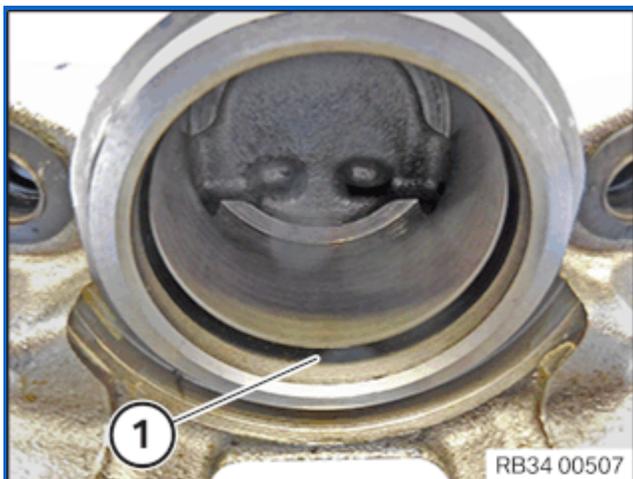
Clean cylinder bores and parts and dry with compressed air.

Thoroughly inspect cylinder bore, piston and flange surfaces for damage.

Material removing rework on cylinders and pistons is not permitted.



#### Installation:

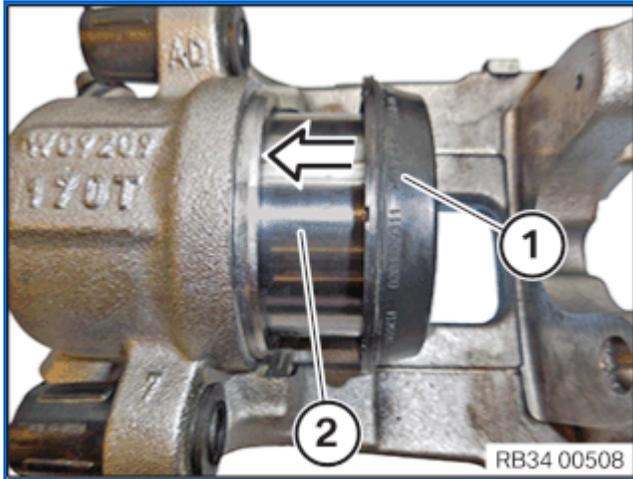


Insert sealing ring (1).

Apply a light coat of [ATE brake cylinder paste](#) to cylinder bore, piston and sealing ring,

Fit dust boot (1) in annular groove of piston (2).

**Attention!**



Do not twist brake piston.

Press piston into cylinder bore.

Evenly press dust boot (1) onto brake caliper housing up to limit position.

*Note:*

The area between the dust boot and the brake caliper housing must be kept dry. It must not come into contact with Ate brake cylinder paste or brake fluid so as to ensure that the dust boot is perfectly fitted.



**Required follow-up work:**

- Install the rear [brake caliper](#).

REP-REP-RAF2034-3421280 V.14 Removing and installing/replacing rear left (or right) protective plate&comma; VIN: [REDACTED]

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ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

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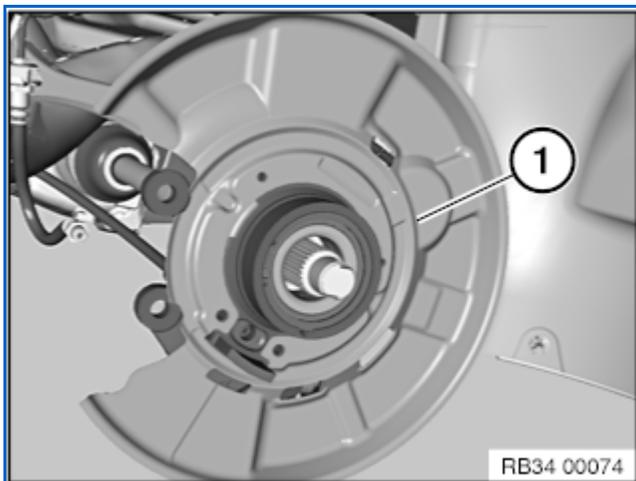
34 21 280

Removing and installing/replacing rear left (or right) protective plate



Necessary preliminary work:

- Removing the [retaining ring](#).



Removing the brake anchor plate (1).

*Installation note:*

If applicable, clean the contact surface on the wheel carrier.

REP-REP-RAF2034-3432980 V.12 Replacing rear left or right brake hose; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

34 32 980

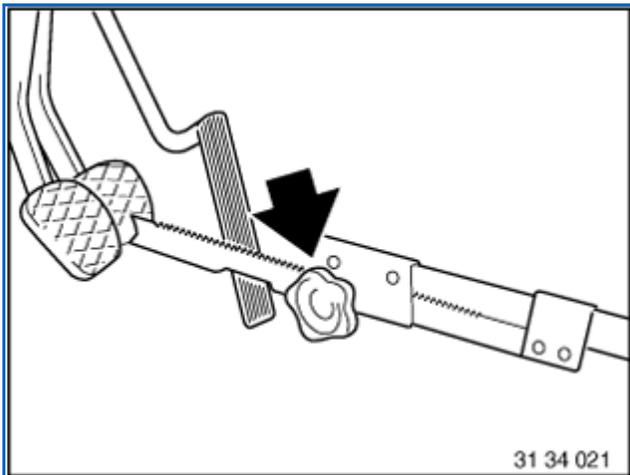
Replacing rear left or right brake hose



*Note:*

- Read and comply with [General Information](#).
- Remove [wheel](#).

After completing repair work: [Bleed brake system](#).



Press brake pedal down to floor and secure with pedal support.

*Note:*

The pedal support may only be released when the brake lines are reconnected.

This prevents brake fluid from emerging from the expansion tank and air from entering the system when the brake lines are opened.

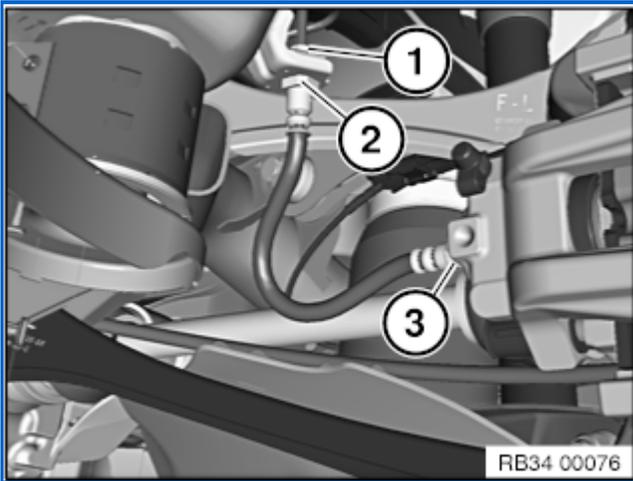
### Important!

Grip brake hose at square head (2) so that connecting piece cannot rotate in retaining bracket.

Never twist brake hose when installing it and avoid all contact with parts attached rigidly to the body.

Disconnect brake hose from brake line (1).

*Installation note:*



Tightening torque [34 32 1AZ](#).

Detach brake hose from brake caliper (3).

*Installation note:*

Tightening torque [34 32 3AZ](#).



*Installation note:*

First tighten brake hose on brake caliper.

Insert brake hose in bracket and screw onto brake pipe.

AZD-AZD-AZDMUC3421-F2X V.11 Rear Brake; VIN: [REDACTED]

ISTA system 4.03.21.18572  
version

Data version R4.03.21

Programming -  
data

VIN [REDACTED]

Vehicle 3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05

Int.lev.works -

Int.lev.(cur.) -

Int.lev.(tar.) -

Mileage 0 km

**34 21 Rear Brake**

	Type	Thread	Tightening specifications	Dimension
1AZ Brake disc to wheel hub	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36		Replace screws	16 Nm
2AZ Brake anchor plate to wheel carrier	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12x1.5	Replace screws.  Jointing torque Angle of rotation	30 Nm 90 °
3AZ Protective plate to wheel carrier	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M6	Replace screws	12 Nm
	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M8		15 Nm
4AZ Guide screw (socket head cap screw)	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36			28 Nm

REP-REP-RAF2034-3441006 V.12 Adjusting parking brake; VIN: [REDACTED]

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ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

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34 41 014

Adjusting parking brake

**Special tools required:**

- 32 1 030

**Perform inspection in the following manner:**

**When 1st ratchet is engaged, no braking force should be exerted.**

**The difference in wheel circumferential forces between the left and right wheels may deviate by max. 30 % from the greater value (measured on brake test stand).**

**In event of larger deviations of wheel circumferential force: carry out readjustment.**

**Braking with locked wheels must be possible with the parking brake.**

**The parking brake must be reset if the actuation stroke is greater than 10 teeth.**

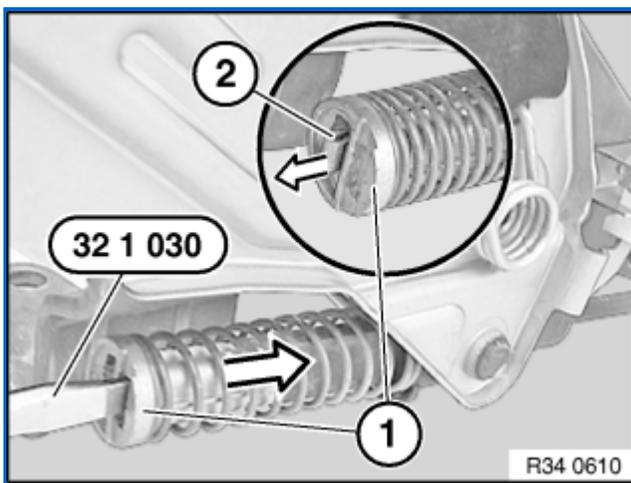
*Note:*

Accurate adjustment of the parking brake is only possible if the parking brake Bowden cables and all moving parts on the parking brake move easily and function correctly.

Basic setting of the parking brake is required:

- Parking brake shoes and add-on parts are replaced
- Brake discs are replaced
- In event of excessive actuation stroke (10 teeth)

- When replacing parking brake Bowden cables



### 1. Adjusting instructions for brake pads (basic setting)

Unclip gaiter for parking brake lever.

Lock adjustment unit (ASZE).

Actuate parking brake lever. Connect special tool 32 1 030. Press limit position (1) of adjusting spring back to such an extent that retaining hook (2) engages in limit position (1).



Completely unscrew one wheel stud on each rear wheel.

*Installation note:*

Tightening torque 36 10 1AZ.

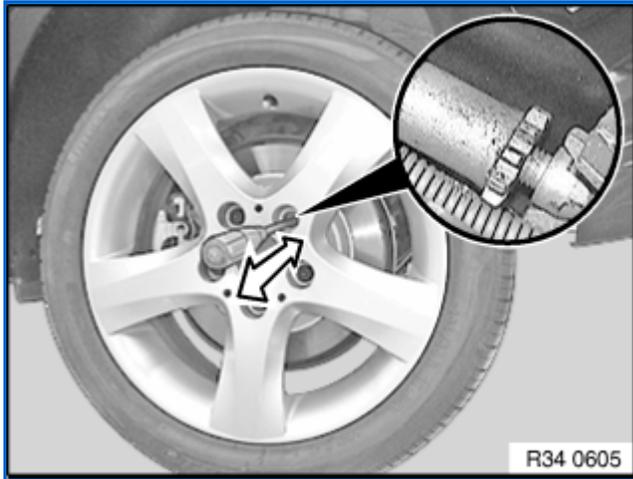
Turn wheel until adjustment screw is visible in threaded hole.

Turn adjusting screw with a screwdriver until wheel can not be turned anymore by hand.

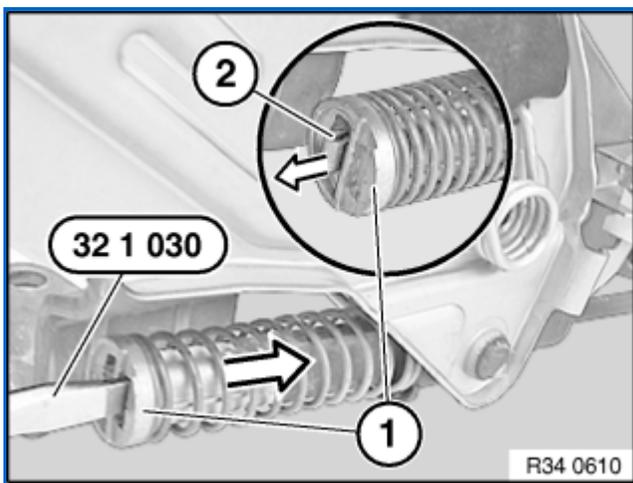
Then at adjusting screw:

- Duo-servo brake  $\varnothing$  185 8 release catches
- Duo-servo brake  $\varnothing$  160 9 release catches

**Important!**



Basic setting with less than 8 catches on the duo-servo brake may lead to the brake pads being damaged. A reduction in the number of catches on the duo-servo brake to shorten lever travel is not permitted.



Unlock adjustment unit (ASZE).

Lever out restraining hook (2) with a suitable screwdriver.

Restraining hook (2) must detach from limit position (1) of adjusting spring.



### Important!

Follow notes for Brake testing for test stand.

## 2. Adjusting instructions for parking brake Bowden cables

The parking brake lever must be applied 5 times with medium hand force.

### 2.1 On brake test stand

#### 0th tooth (parking brake released):

Vehicles with manual transmission:  
Shift lever in neutral position.

Vehicles with automatic transmission: Selector lever position "N".

- Without locking differential

≤150 N.

- With locking differential ≤ 200 N (possibly odd display).

<b>1st tooth:</b>	No increase in braking force with regard to 0th tooth. Indicator light can be lit.
<b>2nd tooth:</b>	Indicator lamp must be lit.
<b>3rd tooth:</b>	Increase in braking force.
<b>5th tooth:</b>	The brake force display must have reached ≥ 400 N.

Checking brake force differential at wheel:

Apply parking brake until a wheel circumferential force (brake force display) of min. 1000 N is reached.

Max. permitted brake force differential right/left ≤35 % (referred to greater brake value).

### 3. Bedding in the duo-servo parking brake

The following bedding-in instructions are applicable in case of insufficient braking effect or after replacing brake discs and/or brake pads.

#### 3.1 On brake test stand

Apply parking brake lever until wheel circumferential force at first wheel is 800 N.

Lock parking brake lever in next lower tooth.

**Important!**

Brake bedding-in time max. 2 minutes!

#### 3.2 When driving on road

(If possible on company grounds or on an unused road)

When driving at low speed (maximum 40 km/h) apply parking brake lever until a braking effect can be felt.

Pull parking brake lever into the next catch and continue driving for maximum approx. 400 metres (maximum 40 km/h).

A basic requirement is that parking brake is adjusted uniformly.

*Note:*

If necessary, repeat bedding-in procedure.

Allow brake to cool down sufficiently.

REP-REP-RAF2034-3441220 V.15 Removing and installing/replacing all parking brake shoes&comma; VIN: [REDACTED]

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ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

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34 41 220

Removing and installing/replacing all parking brake shoes



**Special tools required:**

- 32 1 030
- [34 4 000](#)
- [00 9 317](#)



**Necessary preliminary work:**

- [Remove](#) rear brake disk.

*Note:*

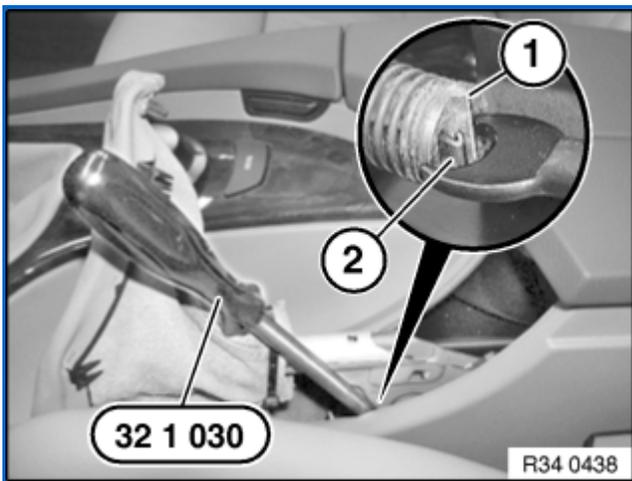
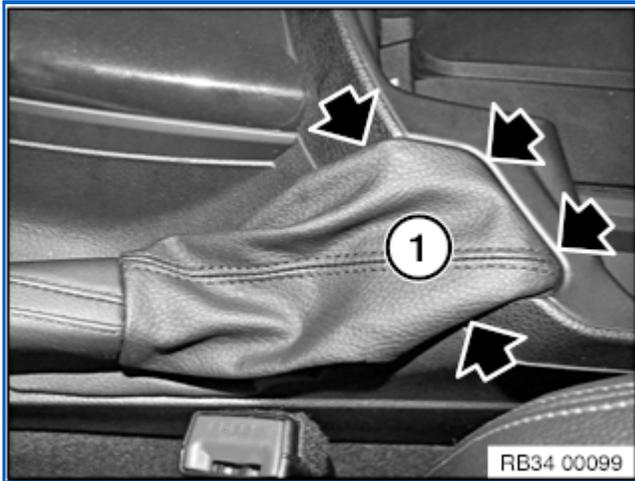
During replacement of the hand brake coverings, the following components must also be renewed:

- [Brake shoe expander](#)
- Adjusting screw
- Spring set

If applicable unclip the gaiter (1) with special tool [00 9 317](#) at top.

*Installation note:*

First insert the gaiter (1) on the bottom and then clip in on the top.



Lock adjustment unit (ASZE).

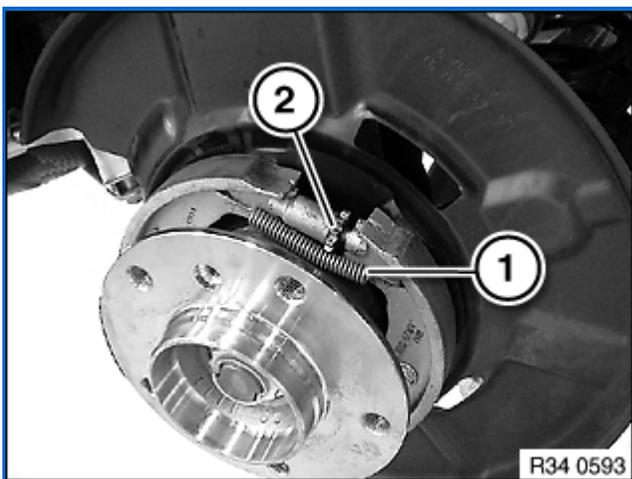
Actuate parking brake lever. Connect special tool 32 1 030. Press limit position (1) of adjusting spring back to such an extent that retaining hook (2) engages in limit position (1).

*Installation note:*

Unlock adjustment unit (ASZE).

Lever out restraining hook (2) with a suitable screwdriver.

Restraining hook (2) must detach from limit position (1) of adjusting spring.



Disconnect return spring (1) with brake spring pliers.

*Installation note:*

Return spring (1) must not be overelongated.

Check and if necessary replace return spring (1).

Pay attention to installation position of adjusting screw (2).

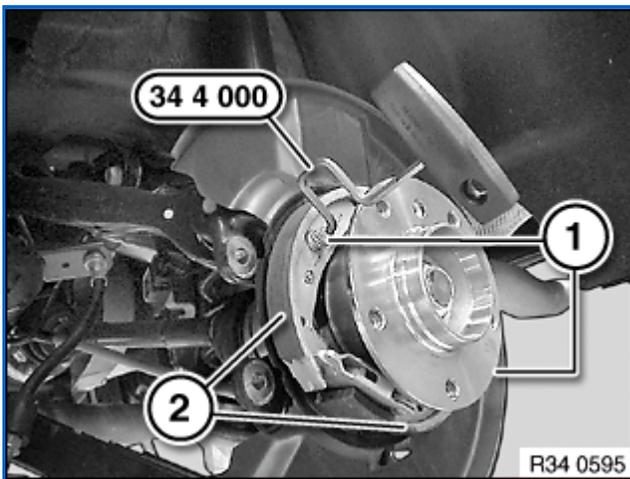
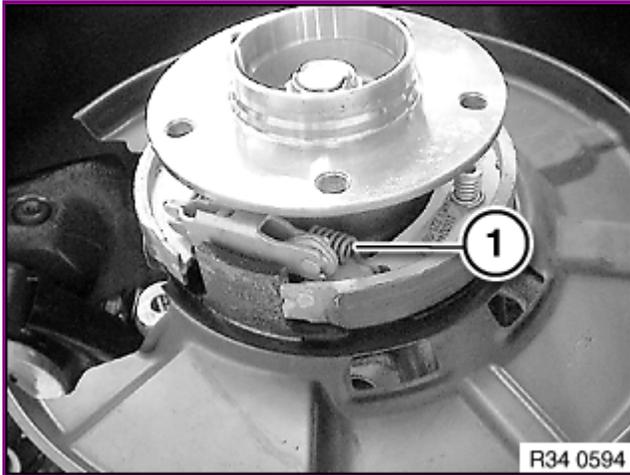
Apply a thin coat of [grease](#) to bush and screw threads

Disconnect return spring (1) with brake spring pliers.

*Installation note:*

Return spring (1) must not be overelongated.

Check and if necessary replace return spring (1).



Twist roll pins (1) 90° with special tool [34 4 000](#) and detach.

Remove brake pads (2).



After installation:

- Adjusting [parking brake](#)

REP-REP-RAF2034-3441250 V.14 Removing and installing/replacing brake shoe expander for parking brake shoe; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

34 41 250

Removing and installing/replacing brake shoe expander for parking brake shoe



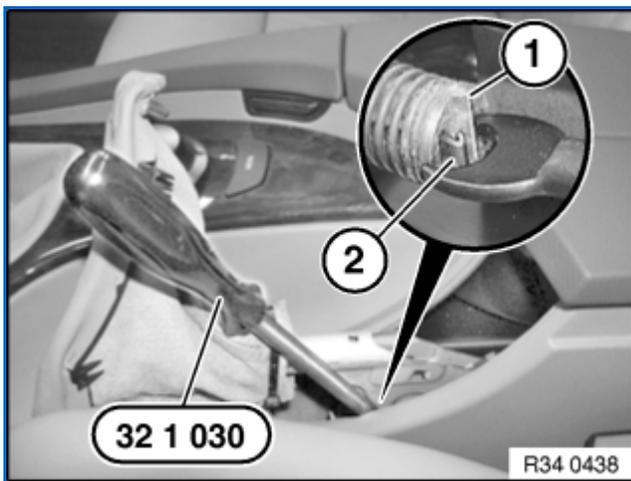
**Special tools required:**

- 32 1 030



**Necessary preliminary work:**

- Remove [parking brake shoes](#).



Lock adjustment unit (ASZE).

Actuate parking brake lever. Connect special tool 32 1 030. Press limit position (1) of adjusting spring back to such an extent that retaining hook (2) engages in limit position (1).

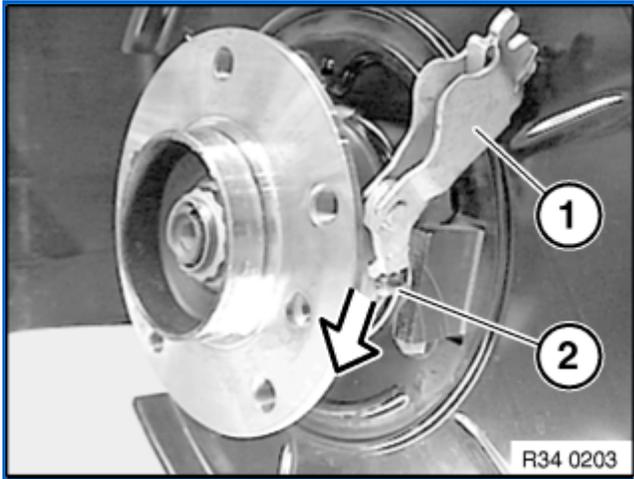
*Installation note:*

Unlock adjustment unit (ASZE).

Lever out restraining hook (2) with a suitable screwdriver.

Restraining hook (2) must detach from limit position (1) of adjusting spring.

Pull brake shoe expander (1) forward, disconnect parking brake Bowden cable (2) and remove brake shoe expander.



After installation:

- Adjust [parking brake](#).

REP-REP-RAF2034-3421131 V.14 Replace the retaining ring for the left (or right) brake pads&comma; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming data	-
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

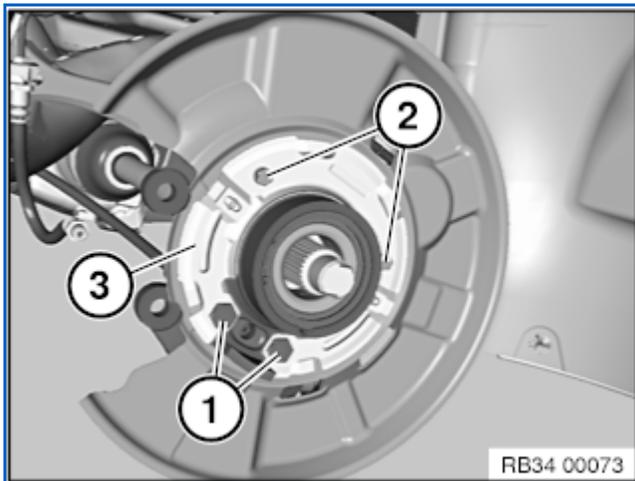
34 21 131

Replace the retaining ring for the left (or right) brake pads



Necessary preliminary tasks:

- Remove [brake shoe expander](#).
- Remove [wheel hub](#).



Release screws (2) and remove caliper carrier (3).

Release screws (1).

*Installation note:*

Tightening torque [34 21 3AZ](#).

AZD-AZD-AZDMUC3441-F2X V.10 Parking brake; VIN: XXXXXXXXXX

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming	- data
VIN	<span style="background-color: black; color: black;">XXXXXXXXXX</span>	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

**34 41 Parking brake**

	Type	Thread	Tightening specifications	Value
1AZ Handbrake lever to body	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36			19 Nm
2AZ Spring clip to wheel carrier	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M6		8 Nm
3AZ Support Duo-Servo to wheel carrier, rear	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M8		15 Nm

AZD-AZD-AZDMUC3432-F2X V.10 Brake Lines; VIN: [REDACTED]

ISTA system version	4.03.21.18572	Data version	R4.03.21	Programming	- data
VIN	[REDACTED]	Vehicle	3'/F30/SEDAN/335i/N55/AUTO/US/LL/2014/05		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

**34 32 Brake Lines**

	Type	Thread	Tightening specifications	Value
1AZ Brake line screw connection/ union screws	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36	M12x1/M10x1		17 Nm
2AZ Brake hose to brake caliper, front	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36			24 Nm
3AZ Brake hose to brake caliper, rear	F20 / F21 / F22 / F23 / F30 / F31 / F32 / F33 / F34 / F35 / F36			24 Nm