Retail Operator General Manager	Sales New Motorcycles	Sales Pre-Owned Motorcycles	Business Manager (F&I)	Service	Parts & Accessories	Administration
Date: July 2009 Bulletin # 34 001 09 (025)		Source: SI 22/2009 Name: Shawn McLean Title: Service & Technical Manager Phone: 201-307-4131				

BMW Motorrad USA

Service Information Bulletin

Notice of Recall 09V-202

Subject: **Air ingress into front brake system**

Model: K 1300 S (K40/11), K 1300 GT (K44/31)

Details: Vibration, particularly on a long ride at constant high engine rpm and on engine overrun at high rpm, can, under certain circumstances, cause foaming of the brake fluid in the front brake fluid reservoir. The possibility of this foaming causing air to enter into the front brake system cannot be excluded. Depending on the volume of air that enters the brake system in this way, the braking efficiency of the front brakes can diminish severely.

Motorcycles affected: In order to determine if a specific motorcycle is affected by this Recall Campaign, it will be necessary to verify all motorcycle VINs through a DCS Vehicle History Check. Based on the response of the system, either proceed with the repair or take no further action. Please note, affected VINs may not appear until 24-48 hours after the release of this bulletin.

NHTSA Statement: Under the National Traffic and Motor Vehicle Safety Act of 1966, as amended, if there has been a recall campaign, dealers must assure that all new vehicles and new items of replacement equipment are free of safety defects and comply with all applicable Federal Motor Vehicle Safety Standards at the time of delivery to the consumer. This means that dealers may not deliver new motor vehicles or new items of replacement equipment to consumers unless the safety defect or noncompliance has been remedied before delivery.

Production Solution: From May 20, 2009 onward, the models in question coming off the assembly line have been fitted with a screen insert in the front brake-fluid reservoir. see illustration below.
In addition, the Rider's Manuals of the K 1300 S and K 1300 GT models will soon have an addendum in the form of a loose-leaf insert describing the situation.

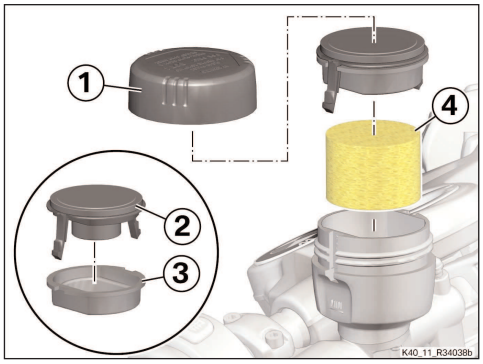


Illustration: Installation of the screen insert
Reservoir cap 1.
Suppressor weight with lock washer 2.
Diaphragm 3.
Screen insert 4.

Aftersales Solution:

For motorcycles affected by defect code 00 00 34 73 00:
Retrofit the screen insert into the front brake fluid reservoir. In addition, each customer must be issued a copy of the loose-leaf insert containing the addendum to the K 1300 S and K 1300 GT Rider's Manuals.

For motorcycles affected by defect code 00 34 64 00 00:
Issue each customer a copy of the loose-leaf insert containing the addendum to the Rider's Manual on the next visit to the workshop. These motorcycles were fitted with the screen insert before leaving the Berlin plant.

Note: The procedure in this bulletin is for retrofitting the K 1300 S which applies also to the K 1300 GT model.
Special points to be taken into consideration:
The screen insert can effectively prevent the brake fluid from foaming only if the brake fluid passes through the mesh of the insert. The fluid is not to be above the mesh insert. See Illustration below.

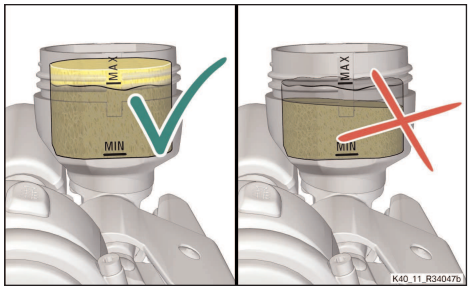


Illustration: Position of screen insert in the reservoir for brake fluid.

Additional Note: The screen insert must be replaced as part of every brake-fluid change, as well as each time the front brake pads are replaced. With immediate effect, the current RSD is no longer valid for work items 34 11 008 (replacing front brake pads) and 34 00 010 (changing brake fluid in entire system). This work must be undertaken as described in this SIB (**New procedure)**. The RSD (Repair & Service Data BMW Motorrad) data will be updated in the next edition.

Warranty: The repair described in this bulletin is covered under warranty regardless of time or mileage

Warranty Information:

Defect code	00 00 34 73 00	Retrofit screen insert for brake fluid reservoir and loose-leaf insert for Rider's Manual
FRU number	00 60 200	Retrofit screen insert for brake fluid reservoir and loose-leaf insert for Rider's Manual 5 FRUs
Part number	32 72 7 727 634	Screen insert for brake fluid reservoir
	01 49 7 708 622	Loose-leaf insert (screen insert) for Rider's Manual (K 1300 S, K 1300 GT)

Note: Warranty processing as described above applies to motorcycles without screen insert and without loose-leaf insert for the Rider's Manual.

Warranty processing as described below applies to motorcycles with screen insert but without loose-leaf insert for the Rider's Manual.

Warranty Information:

Defect code:	00 34 64 00 00	Retrofit loose-leaf insert for Rider's Manual
FRU number:	00 60 201	Retrofit loose-leaf insert for Rider's Manual, 3 FRUs
Part number:	01 49 7 708 622	Loose-leaf insert (screen insert) for Rider's Manual (K 1300 S, K 1300 GT)

Contact: Service and Technical Manager

New procedure: **0509 - K 1300 S**

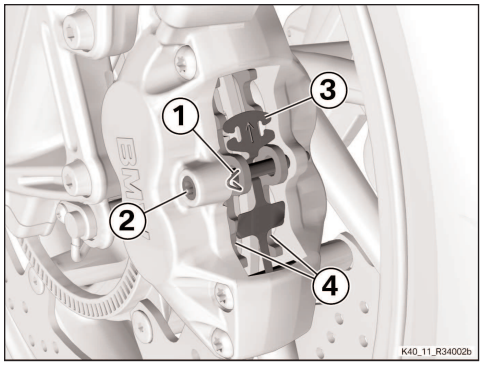
34 11 008 Replacing front brake pads

Without center stand generation I or without center stand generation II
Additional work: 46 52 510 Removing and installing the rear-wheel stand special tool.

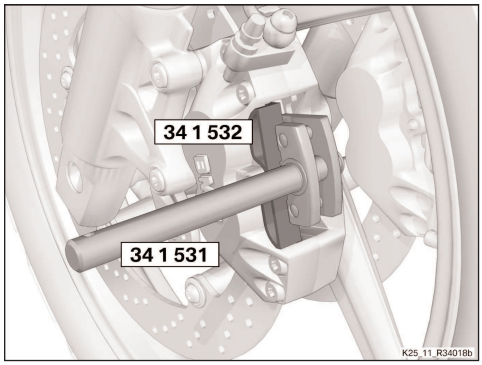
Replacing front brake pads

Removing front brake pads

Remove retainer 1.
Remove screw 2 and remove spring plate 3.
Remove brake pads 4.

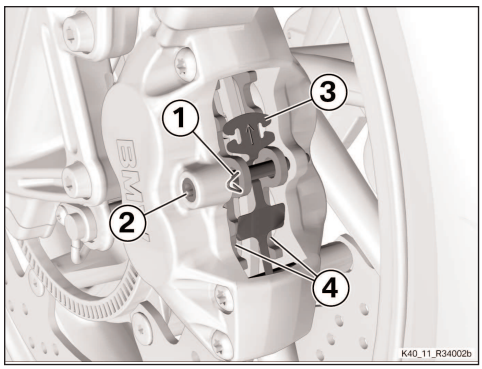


Install piston resetting device (34 1 531) and locator (34 1 532) in the left and right brake calipers.
Push back the brake pistons.



Installing front brake pads

Install brake pads 4.
Install spring plate 3, making sure that the arrow points in the direction of rotation.
Install screw 2.
Install retainer 1.
Operate the brake several time s until the brake pads are bedded.

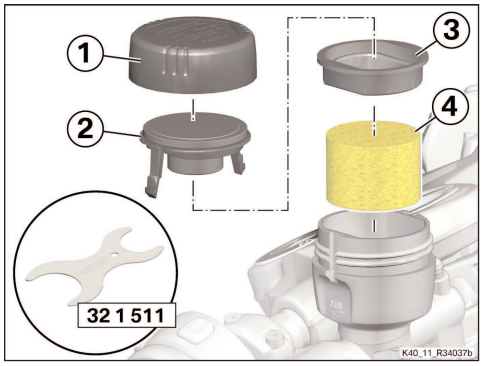


Replacing screen insert in reservoir for brake fluid

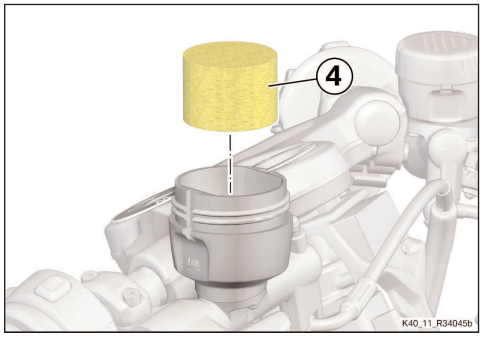
Attention: Brake fluid attacks paintwork, plastic and rubber parts.
Do not allow brake fluid to come into contact with painted plastic parts or rubber parts.

Warning: The ingress of air can have a detrimental effect on braking efficiency.
The screen insert must be replaced each time the brake fluid is changed and invariably each time the front brake pads are replaced.

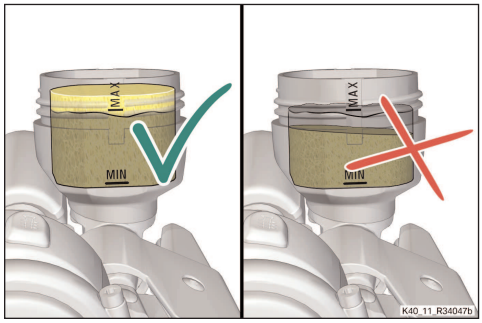
Using disengagement tool (32 1 511), press back the lugs on retainer 2.
Remove the following components:
Reservoir cap 1.
Suppressor weight with lock washer 2.
Diaphragm 3.
Screen insert 4.
Carefully clean components 1, 2 and 3.
Dispose of screen insert 4 in accordance with the applicable regulations.



Carefully install new screen insert 4.

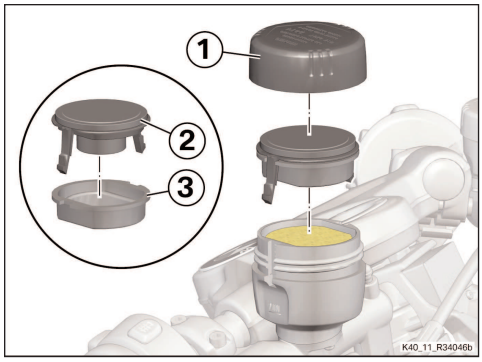


Check the brake-fluid level.
The surface of the brake fluid passes through the screen insert.



Attention: Component damage due to escaping brake fluid.
Carefully clean the sealing faces of both components before installing the diaphragm in the reservoir for brake fluid.

Place diaphragm 3 on lock washer with suppressor weight 2 and install together.
Install reservoir cap 1 and tighten firmly.



Final check of work performed

Check that the work as performed achieved the intended purpose.
All reservoirs and containers have been filled and that all fluids and lubricants are at their correct levels.
All threaded fasteners released beforehand have been correctly retightened.
The brake pads of the front and rear brakes are bedded against the brake discs.
The motorcycle is roadworthy.

0509 - K 1300 S

34 00 010 Change brake fluid in entire system

New procedure starts on next page

New procedure: **0509 - K 1300 S**

34 00 010 Change brake fluid in entire system

Without center stand generation I or without center stand generation II
Additional work: 46 52 510 Removing and installing the rear-wheel stand special tool.

Changing brake fluid, front, and bleeding brake system

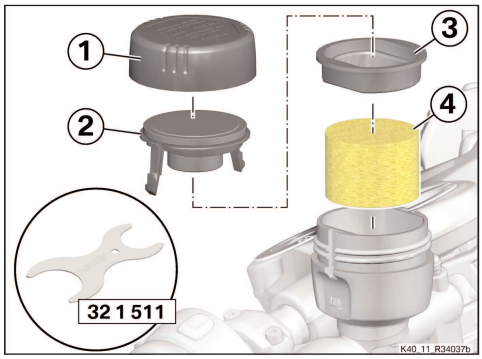
Warning: Air can be drawn into the system through the fluid replenishing hole if the fluid level in the reservoir is too low; the system has to be bled again if this happens.
During the fluid-change and bleeding procedure, make sure that the fluid replenishing hole is always below the level of the brake fluid.

Note: This description applies for brake filling and bleeding units with extraction of the brake fluid by partial vacuum. If other devices are used, comply with their manufacturers' instructions.

Attention: Brake fluid attacks paintwork, plastic and rubber parts.
Do not allow brake fluid to come into contact with painted plastic parts or rubber parts.

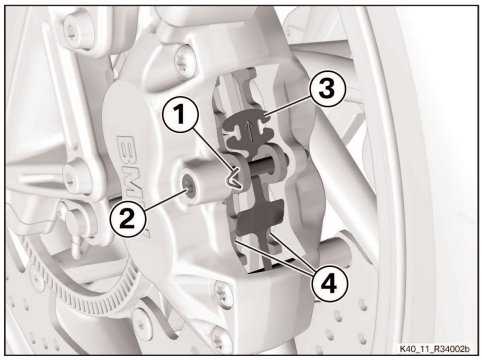
Warning: The ingress of air can have a detrimental effect on braking efficiency.
The screen insert must be replaced each time the brake fluid is changed and invariably each time the front brake pads are replaced.

Set the brake lever to maximum span.
Using disengagement tool (32 1 511), press back the lugs on retainer 2.
Remove the following components:
Reservoir cap 1
Suppressor weight with lock washer 2
Diaphragm 3
Screen insert 4
Draw off the old brake fluid and carefully clean the reservoir and components 1, 2 and 3.
Dispose of screen insert 4 in accordance with the applicable regulations.

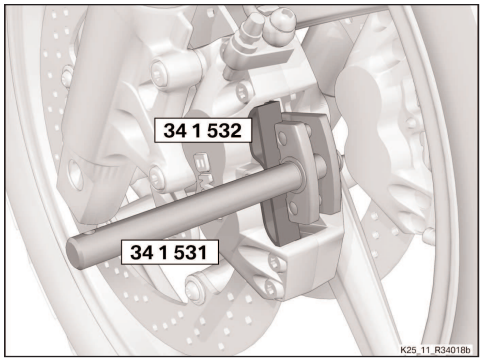


Removing front brake pads

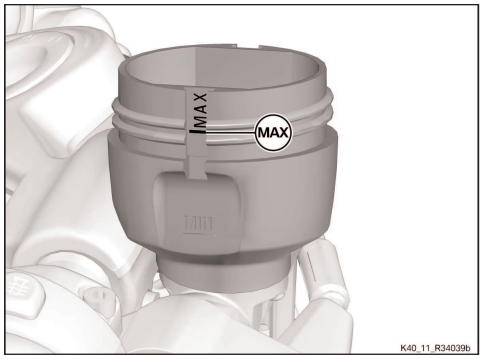
Remove retainer 1.
Remove screw 2 and remove spring plate 3.
Remove brake pads 4.



Install piston resetting device (34 1 531) and locator (34 1 532) in the left and right brake calipers.
Use the piston resetting device and locators to force the pistons in the left and right brake calipers all the way back and hold them in this position.
Draw off the excess brake fluid from the reservoir.

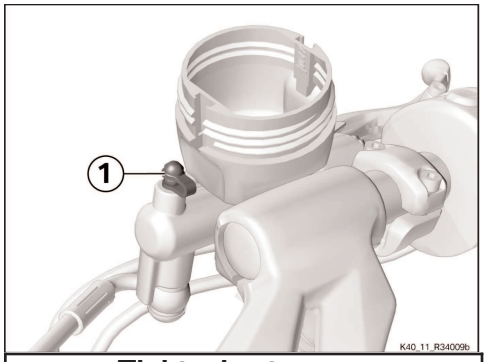


Turn the handlebars to a position in which the brake fluid reservoir is horizontal.
Top up with fresh brake fluid to the MAX mark.



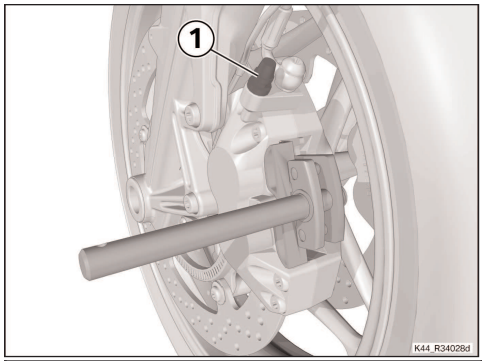
Fluids and lubricants
DOT4 brake fluid (81 22 0 142 156, 81 22 0 142 155)

Warning: Brake fluid is hygroscopic, which means that its boiling point drops once the container has been opened. Use only new brake fluid from freshly opened containers.



Tightening torques	
Bleed screw, handbrake fitting	
M5	2 Nm

Connect the brake bleeding device to bleed screw 1 in the handbrake cylinder.
Slightly open bleed screw 1.
Continue bleeding the brake system until the fresh brake fluid emerges clear and free from bubbles.
Close bleed screw 1.

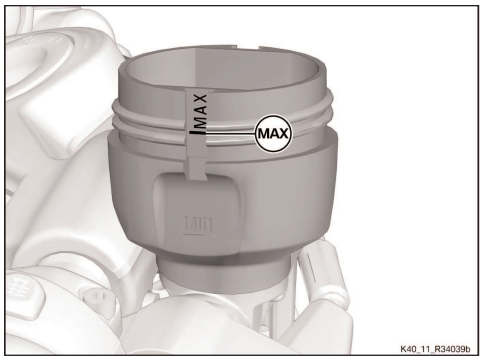


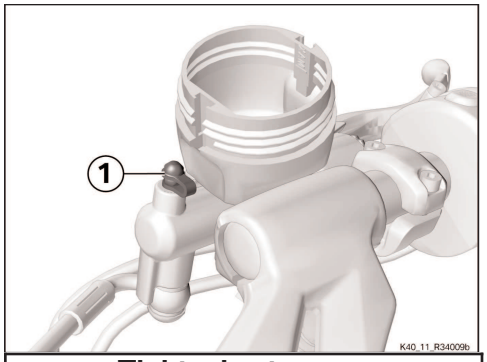
Tightening torques
Bleed screw, brake caliper, front
9 Nm

Connect the brake bleeding device to bleed screw 1 in the left brake caliper.
Slightly open bleed screw 1.
Continue bleeding the brake system until the fresh brake fluid emerges clear and free from bubbles.
Close bleed screw 1.
Repeat the fluid-change procedure for bleeding the brakes at the right brake caliper.
Turn the handlebars to a position in which air can rise to the equalizing bore.
Repeatedly pull front brake lever lightly to expel air from handbrake cylinder; release the lever at the end of each short pull so that it can snap back to its initial position.

Warning: On account of the vacuum extraction process, it is not possible to tell whether the brake fluid extracted from the system is free of bubbles. On conclusion of the process, bleed the system manually (without vacuum extraction) until you are sure that the brake fluid expelled from the system is free of bubbles.

Turn the handlebars to a position in which the brake fluid reservoir is horizontal.
Top up with fresh brake fluid to the MAX mark.

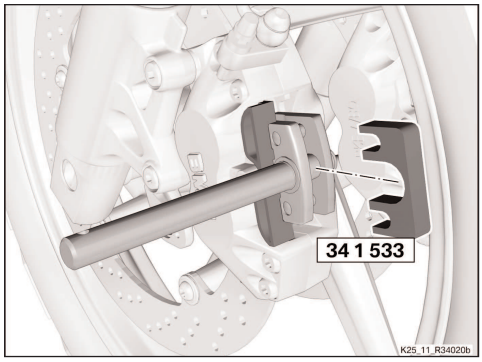




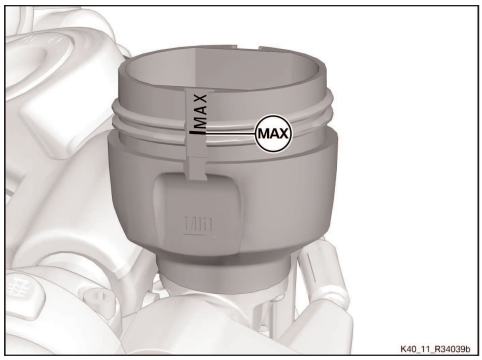
Tightening torques	
Bleed screw, handbrake fitting	
M5	2 Nm

Again connect the brake bleeding device to bleed screw 1 in the handbrake cylinder.
Slightly open bleed screw 1.
Continue bleeding the brake system until the fresh brake fluid emerges clear and free from bubbles.
Close bleed screw 1.

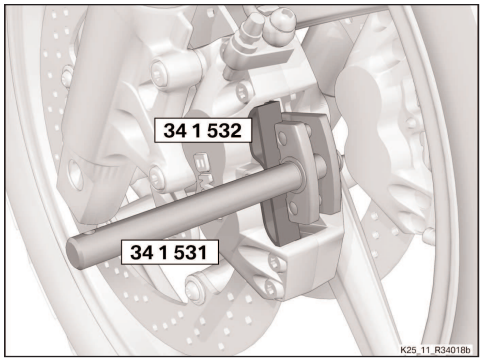
Install adapters 22 (34 1 533) in the piston resetting device on left and right and fully compress the piston resetting device.
Pull the handbrake lever until the brake pistons are in contact with the piston resetting device. This simulates the thickness of new brake pads and brake discs.



Turn the handlebars to a position in which the brake fluid reservoir is horizontal.
Top up with fresh brake fluid to the MAX mark.

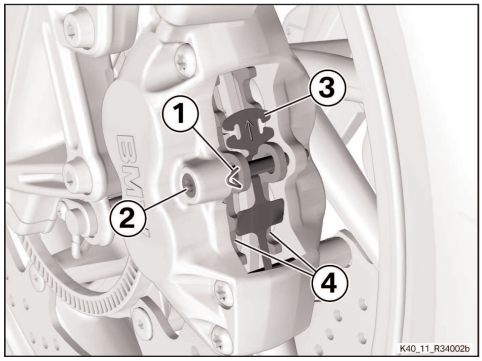


Expand piston resetting device (34 1 531) on left and right.
This forces back the brake pistons so that the brake pads can be installed.
Remove piston resetting device (34 1 531) and locators (34 1 532) left and right from brake calipers.



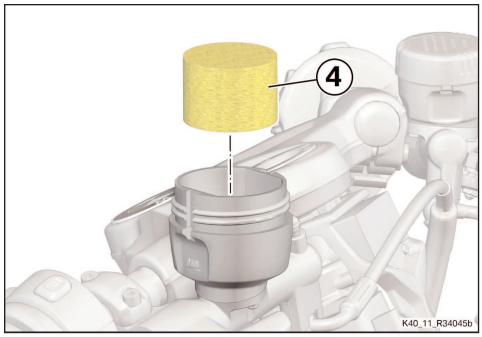
Installing front brake pads

Install brake pads 4.
Install spring plate 3, making sure that the arrow points in the direction of rotation.
Install screw 2.
Install retainer 1.
Operate the brake several times until the brake pads are bedded.

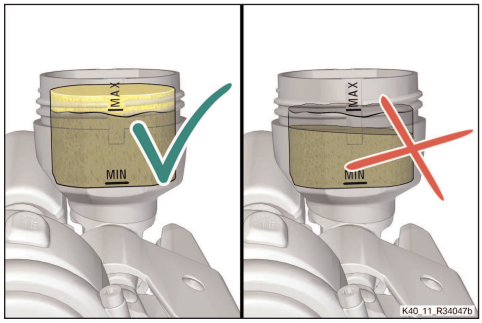


Replacing screen insert and installing cap of reservoir for brake fluid

Carefully install new screen insert 4.

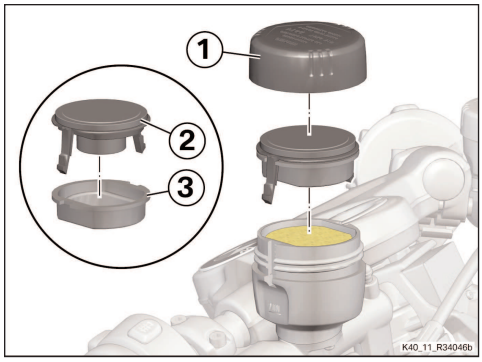


Check the brake-fluid level.
The surface of the brake fluid passes through the screen insert.



Attention: Component damage due to escaping brake fluid.
Carefully clean the sealing faces of both components before installing the diaphragm in the reservoir for brake fluid.

Place diaphragm 3 on lock washer with suppressor weight 2 and install together.
Install reservoir cap 1 and tighten firmly.



Test
Check brake pressure by operating the brakes.
Result
Low brake pressure
Measure
Repeat the brake bleeding procedure without removing the brake pads.

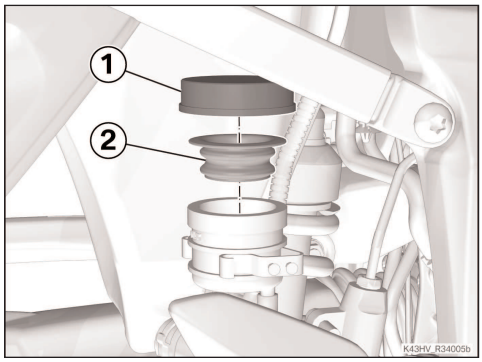
Changing brake fluid, rear, and bleeding brake system

Warning: Brake fluid is hygroscopic, which means that its boiling point drops once the container has been opened. Use only new brake fluid from freshly opened containers.

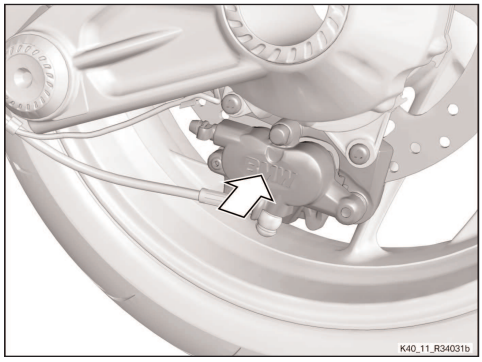
Note: This description applies for brake filling and bleeding units with extraction of the brake fluid by partial vacuum. If other devices are used, comply with their manufacturers' instructions.

Attention: Brake fluid attacks paintwork, plastic and rubber parts.
Do not allow brake fluid to come into contact with painted plastic parts or rubber parts.

Remove reservoir cap 1 with diaphragm 2.
Draw off the brake fluid from the reservoir.

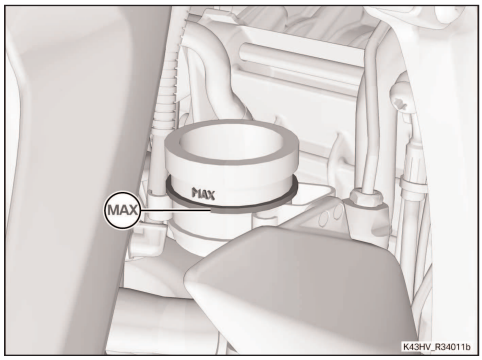


Press the brake caliper against the brake disc in order to force the pistons back.
Draw off the brake fluid from the reservoir.



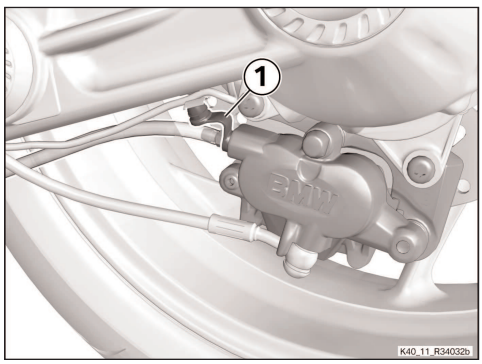
Warning: Brake fluid is hygroscopic, which means that its boiling point drops once the container has been opened. Use only new brake fluid from freshly opened containers.

Top up with fresh brake fluid to the MAX mark.



Warning: Air can be drawn into the system through the fluid replenishing hole if the fluid level in the reservoir is too low; the system has to be bled again if this happens.
During the fluid-change and bleeding procedure, make sure that the fluid replenishing hole is always below the level of the brake fluid.

Connect the brake bleeding device to bleed screw 1 in the brake caliper.
Slightly open the bleed screw.
Continue bleeding the brake system until fresh brake fluid emerges.

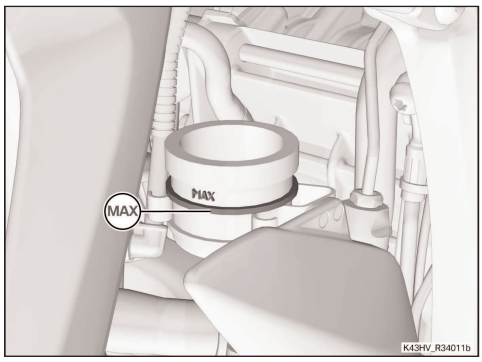


Warning: On account of the vacuum extraction process, it is not possible to tell whether the brake fluid extracted from the system is free of bubbles. On conclusion of the process, bleed the system manually (without vacuum extraction) until you are sure that the brake fluid expelled from the system is free of bubbles.

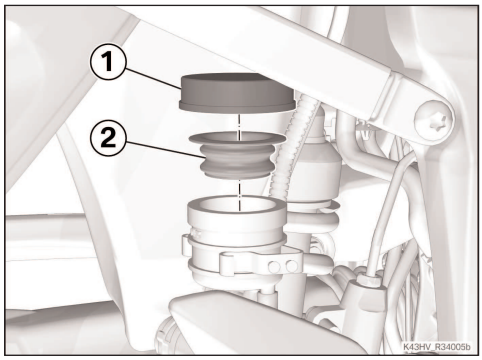
Close the bleed screw and remove the brake bleeding device.

Tightening torques
Rear brake caliper bleed screw
9 Nm

Top up with fresh brake fluid to the MAX mark.



Clean all components.
Install diaphragm 2 and cover 1.



Test

Check brake pressure by operating the brakes.

Result

Low brake pressure

Measure

Repeat the brake-bleeding process.

Final check of work performed

Check that the work as performed achieved the intended purpose.
All reservoirs and containers have been filled and that all fluids and lubricants are at their Correct levels.
All threaded fasteners released beforehand have been correctly retightened.
The brake pads of the front and rear brakes are bedded against the brake discs.
The motorcycle is roadworthy.