

34 11 220 Removing/installing front brake discs

+ 34 11 840

Equipment trim-level variant:
0645 - BMW Motorrad Integral ABS



Note

Increased lateral runout of the brake disc causes disc-thickness variation ("brake judder").

Preparatory work

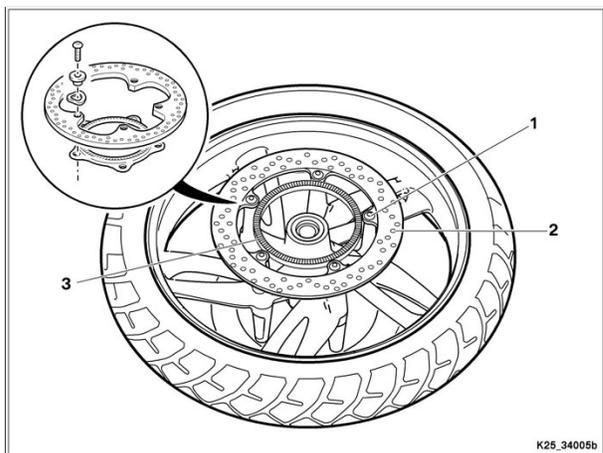
Removing both front brake calipers

Removing front wheel

Core activity

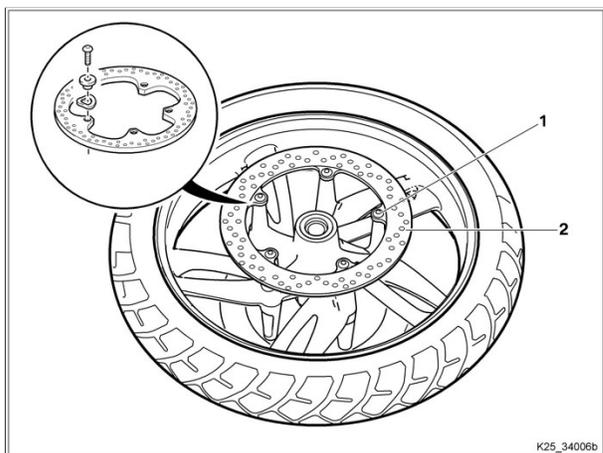
(-) Remove the front left brake disc

- Remove screws (1) complete with rollers and spring washers.
- Remove brake disc (2) and sensor ring (3).



(-) Remove the front right brake disc

- Remove screws (1) complete with rollers and spring washers.
- Remove brake disc (2).



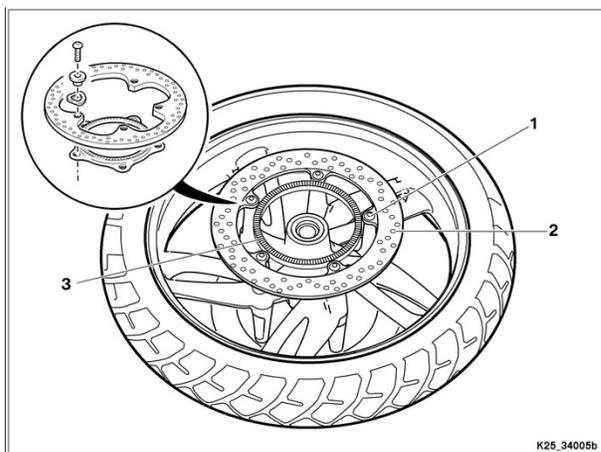
(-) Installing front left brake disc

- Clean the threads.



Note

When installing the brake disc, make sure that there is no dirt or residues of



thread-locking compound between the wheel and the brake disc. The mating faces must be smooth and clean.



Warning

ABS malfunctions on account of incorrect speed signals.

Segmentation differs between individual types of sensor ring; it is very important to ensure that the correct sensor ring is installed. Install only the sensor ring that matches the motorcycle's construction status.

- Lay sensor ring (3) on the wheel rim.
- Lay brake disc (2) on the wheel rim with the lettering to the outside.
- Install the brake disc with rollers, spring washers and screws (1).

Brake disc to front wheel

Raised-head screw for roller package, M8 x 20 - 10.9, Replace screw Micro-encapsulated	tighten by stages in diagonally opposite sequence	
	Initial torque, 12 Nm	
	Final torque, 24 Nm	
Raised-head screw for rivet package (retrofit solution), M8 x 25 -10.9, Replace screw Micro-encapsulated	tighten by stages in diagonally opposite sequence	
	Initial torque, 12 Nm	
	Final torque, 24 Nm	

(-) Retrofit the front left brake disc (rivet package)



Attention

Component damage.

Always retrofit the brake discs as a matched pair.

Install only shouldered brake discs.

- Clean the threads.



Note

When installing the brake disc, make sure that there is no dirt or residues of thread-locking compound between the wheel and the brake disc. The mating faces must be smooth and clean.

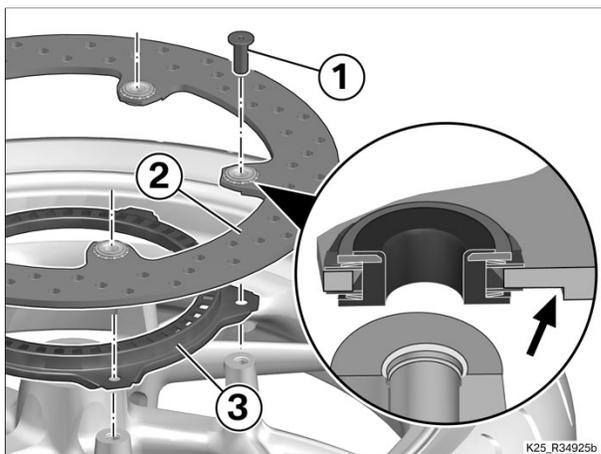


Warning

ABS malfunctions on account of incorrect speed signals.

Segmentation differs between individual types of sensor ring; it is very important to ensure that the correct sensor ring is installed. Install only the sensor ring that matches the motorcycle's construction status.

- Lay sensor ring (3) on the wheel rim.
- Lay brake disc (2) shouldered side down (arrow) on the wheel rim.
- Install screws (1).



Brake disc to front wheel

Raised-head screw for roller package, M8 x 20 - 10.9, Replace screw Micro-encapsulated	tighten by stages in diagonally opposite sequence	
	Initial torque, 12 Nm	
	Final torque, 24 Nm	
Raised-head screw for rivet package (retrofit solution), M8 x 25 -10.9, Replace screw Micro-encapsulated	tighten by stages in diagonally opposite sequence	
	Initial torque, 12 Nm	
	Final torque, 24 Nm	

(-) Installing front right brake disc

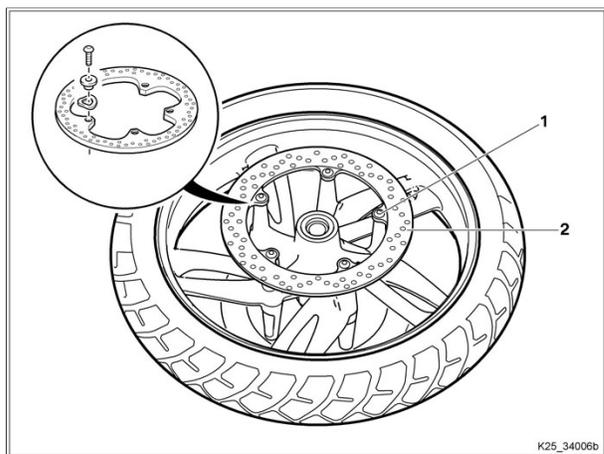
- Clean the threads.



Note

When installing the brake disc, make sure that there is no dirt or residues of thread-locking compound between the wheel and the brake disc. The mating faces must be smooth and clean.

- Lay brake disc (2) on the wheel rim with the lettering to the outside.
- Install the brake disc with rollers, spring washers and screws (1).



Brake disc to front wheel

Raised-head screw for roller package, M8 x 20 - 10.9, Replace screw Micro-encapsulated	tighten by stages in diagonally opposite sequence	
	Initial torque, 12 Nm	
	Final torque, 24 Nm	
Raised-head screw for rivet package (retrofit solution), M8 x 25 -10.9, Replace screw Micro-encapsulated	tighten by stages in diagonally opposite sequence	
	Initial torque, 12 Nm	
	Final torque, 24 Nm	

(-) Retrofitting front right brake disc (rivet package)



Attention

Component damage.
 Always retrofit the brake discs as a matched pair.
 Install only shouldered brake discs.

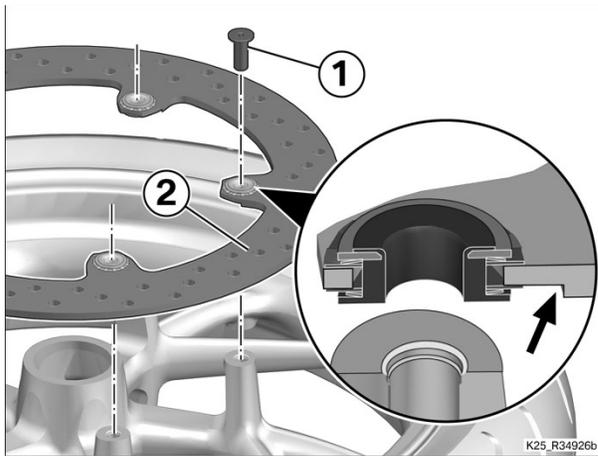
- Clean the threads.



Note

When installing the brake disc, make sure that there is no dirt or residues of thread-locking compound between the wheel and the brake disc. The mating faces must be smooth and clean.

- Lay brake disc (2) shouldered side down (arrow) on the wheel rim.

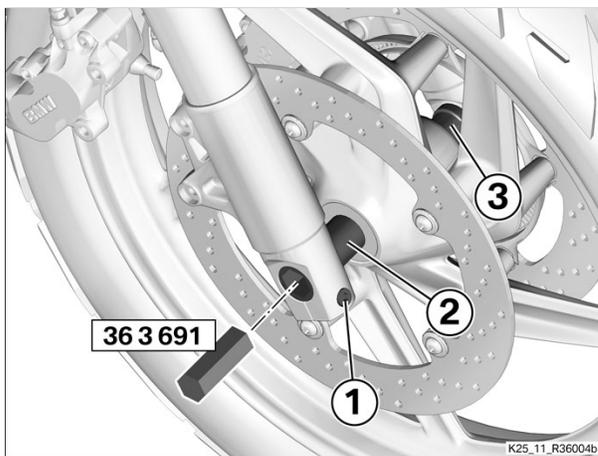


- Install screws (1).

Brake disc to front wheel		
Raised-head screw for roller package, M8 x 20 - 10.9, Replace screw Micro-encapsulated	tighten by stages in diagonally opposite sequence	
	Initial torque, 12 Nm	
	Final torque, 24 Nm	
Raised-head screw for rivet package (retrofit solution), M8 x 25 -10.9, Replace screw Micro-encapsulated	tighten by stages in diagonally opposite sequence	
	Initial torque, 12 Nm	
	Final torque, 24 Nm	

(-) Installing front wheel

- Seat spacing bushing (3) on the wheel hub at the left.
- Carefully roll the front wheel into position between the fork legs.
- Clean and lubricate quick-release axle (2).



 Fluids and lubricants		
Optimoly TA	High-temperature assembly grease	18 21 9 062 599

- Hand-tighten quick-release axle (2) with hexagon (No. 36 3 691).
- Remove the straps holding down the motorcycle at the rear.
- Firmly compress the front forks several times.
- Firmly tighten stub axle (2).

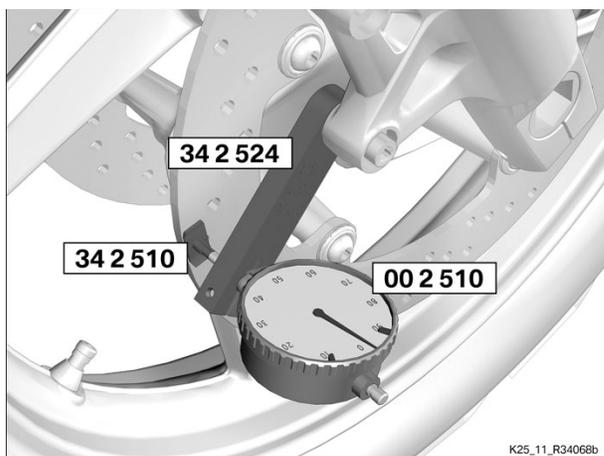
 Tightening torques		
Quick-release axle in axle holder		
M24 x 1.5	50 Nm	

- Tighten axle clamping screw (1).

 Tightening torques		
Clamp screw of quick-release axle		
M8 x 35	19 Nm	

(-) Measuring brake-disc runout

- Install dial gauge (No. 00 2 510) in dial-gauge holder (No. 34 2 524) and install measuring adapter (No. 34 2 510).
- Mount dial gauge holder on the brake caliper mount.
- Align dial gauge in such a way that the measuring adapter is in contact with the brake disc close to the outer circumference and the dial gauge is slightly preloaded.



Test

- Set the dial gauge to "0".
 - Slowly turn the wheel through at least one complete revolution and observe the dial gauge reading.
- » The sum of the positive and negative dial-gauge readings is the total runout.

 Technical data			
Brake disc lateral runout, front	At circumference	max 0.15 mm	

Result: Lateral runout is excessive.

Measure:

- Check positioning of the brake disc/wheel rim.
- Check the wheel rim for damage.
- If necessary, check the brake disc.

Finishing work

Securing both brake calipers

Bedding in brake pads

Final check of work performed