

Wheels with Central Locking

Wheels with central locking are perfectly normal in motor sport, but on normal roads they are not common.

Instead of the central lock nuts conventionally used in motor sport, the wheel has a central bolt, with which it is fastened to the wheel carrier. Its anti-rotation device consists of an element inserted into the wheel hub with spring-mounted locking bolt.

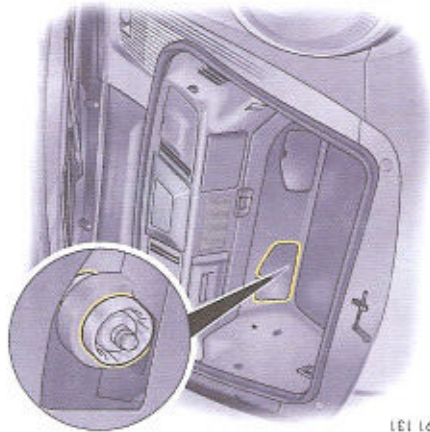
Central Bolts

The central bolt and the lock are safety-related components. Therefore, always check them for signs of damage.

- ▷ The conical surface, trapezoidal thread and internal toothing of the central bolt must not exhibit any scratches or cracks.
- ▷ Replace damaged central bolts.
- ▷ Only use the genuine Porsche central bolts allocated specifically to this vehicle model.
- ▷ The conical surface and trapezoidal thread on the central bolt must be free of any contamination.
- ▷ The central bolt must not contain any grease except on the trapezoidal thread.

Tightening torque

Tightening torque for central bolts: **370 ftb.** (500 Nm).



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Changing a Wheel

- ▷ Have the wheel changed at your authorized Porsche dealer.



Information

- ▷ The tools required for changing a wheel (e.g. jack, torque wrench, assembly aids) are not supplied as standard with the vehicle. Your authorized Porsche dealer will be pleased to advise you.

If a wheel has to be changed, the procedure described below must be adhered to exactly, as otherwise the wheel may become loosened, resulting in damage. In such an event Porsche will not be held liable.

For application of the required high tightening torques of the central bolt, a suitable, commercially-available 370 ftb./500 Nm torque wrench may be used.

WARNING

Uncontrolled Rolling Car

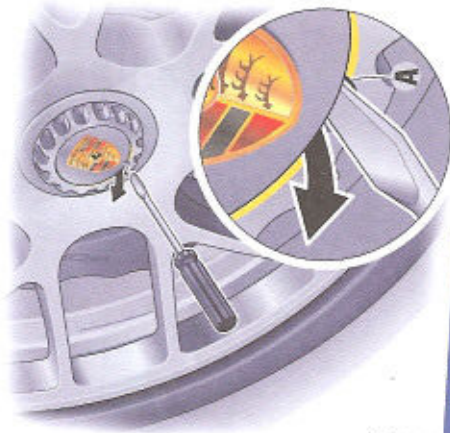
The car may slip off the jack.

- ▷ Due to the high assembly forces, there is a risk of the car rolling away when using a jack. Always use a lifting platform if there is one available.

NOTICE

Risk of damage to the central bolt.

- ▷ Do not use an impact wrench.
1. Fully apply the handbrake, engage 1st gear or move PDK selector lever to position **P**. Withdraw the ignition key.
 2. Carefully secure the car against rolling away **in both directions**, e.g. by placing wedges under the wheels on the opposite side. This is particularly important on slopes.
 3. Raise the car until the wheel lifts off the ground. Lift vehicle only at the specified jacking points.
- ▷ Please see the chapter "LIFTING THE VEHICLE WITH A LIFTING PLATFORM, GARAGE LIFT OR JACK" on Page 217.



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NOTICE

- △ Risk of damage due to scratches.
- △ Be careful when removing the wheel-hub cap.
- 4. Carefully lever out the wheel-hub cap using a small screwdriver.
To do this, insert the screwdriver in groove **A**. Apply a piece of adhesive tape to the screwdriver if necessary to avoid scratching the surface of the bolt.



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- △ The central bolt must always be opened using the original tool (stored in the luggage compartment).
- △ Always keep the wrench socket in the luggage compartment so that it is available in the event of a breakdown.
- 5. Insert the socket and **fit it as far as it will go**. This pushes back the safety lock in the central bolt.



Information

The socket locks in this position.

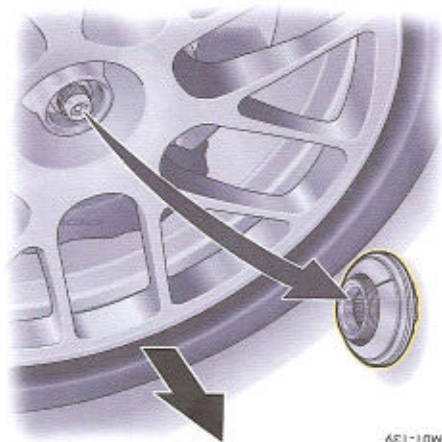


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- △ A very high torque is required to loosen the central bolt.
- △ Turn in the correct direction!
- △ Prevent the wheel from turning by getting a second person to brake using the brake pedal.

NOTICE

- △ Risk of damage to the safety lock.
- △ When loosening the central bolt, make sure that the tool remains **fully inserted** and cannot slide off.



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6. Unscrew the central bolt and set it down in such a way that no dirt can enter the cone area or the trapezoidal thread.

NOTICE

Risk of damage to brake discs or brake discs of the Porsche Ceramic Composite Brake (PCCB).

- ▷ Make sure not to tilt the wheel when removing.

7. Remove the wheel carefully.

Carry out a visual inspection of all parts before fitting the wheel.

The central bolt and the lock are safety components and must always be checked for damage.

- ▷ There must be no scratches or cracks on the cone area, trapezoidal thread or inner teeth of the bolt.
- ▷ The lock must not be removed from the wheel hub.
- ▷ Check the toothed locking pin for smooth operation. When the pin is pressed into its cartridge, it must return firmly to its original position without catching.
- ▷ The teeth on the locking pin must not be damaged.
- ▷ The affected parts must be replaced if they are damaged or if you suspect that they are not in perfect working order.
- ▷ Only brake discs that were approved for the central lock may be fitted.
- ▷ **The lock must be in the wheel hub.**
- ▷ All contact surfaces on the wheel, wheel hub and brake disc, and the trapezoidal thread in the wheel hub must show no signs of wear and must be free of sand, dust and chips.
- ▷ Apart from the threads on the central bolt and wheel hub, all parts must be free of grease. Apply some aluminum paste to the trapezoidal thread on the wheel hub if necessary.

NOTICE

Risk of damage to brake discs or brake discs of the Porsche Ceramic Composite Brake (PCCB).

- ▷ Make sure not to tilt the wheel when fitting.

8. Fit the wheel carefully.

NOTICE

The vehicle must not be standing on the wheel to be secured during fitting.

9. Insert the central bolt into the socket (until it engages), fit the central bolt at right angles to the wheel hub and screw it on without tilting.
10. Tighten the central bolt once to **at least 370 ftlb. (500 Nm)** using a suitable torque wrench and **then loosen again slightly** (by approx. 1/4 turn).
11. Tighten the central bolt to **370 ftlb. (500 Nm)**. Prevent the wheel from turning by getting a second person to press the brake pedal. If you do **not** have a suitable torque wrench in a breakdown situation, the emergency procedure for securing the central bolt must be performed. Please see the chapter "EMERGENCY PROCEDURE FOR SECURING CENTRAL BOLT" on Page 213.



12. Remove the socket and check that the locking pin A has already engaged automatically in the central bolt. The locking pin is then flush with the inner teeth of the central bolt.

If the locking pin is still in the rear position, the pin must be turned to the left and right using a square bar from the tool kit, for example, until it engages in the central bolt.

⚠ WARNING

Losing Wheel
When driving without locking pin, the central bolt can loosen and the wheel can fall off.
▶ Never drive without the locking pin being engaged.



13. Fit the wheel-hub cap in the central bolt so that the **position finger** is in the groove. Then press the cap into position. Apply a small amount of grease.

14. Now lower the vehicle.

NOTICE

Using wheel cleaning agents:
Wheel cleaning agents can bleach the anodised surface of the central bolt.

▶ Only use wheel cleaning agents approved by Porsche and use these sparingly and in accordance with instructions for use.

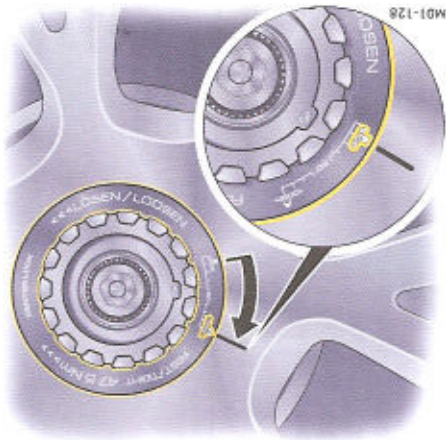
Emergency procedure for securing central bolt

If, in the event of a breakdown, no suitable torque wrench is available for tightening the central bolt to the high tightening torque, 370 ftlb. (500 Nm), the emergency procedure for securing the central bolt must be performed.

▶ The central bolt must always be fitted using the original tool (stored in the luggage compartment).

1. Tighten the central bolt with great force using a long lever and loosen again slightly (by approx. 1/4 turn).

Tighten the central bolt to precisely 74 ftlb. (100 Nm) using a torque wrench.



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- You will see the markings **A** and **■** on the central bolt.
2. Draw a guide line on the wheel at the marking **A**.



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3. Tighten the central bolt further using a long lever until the marking **■** covers the guide line. The bolt is then tightened securely.
4. Remove the socket and check that the locking pin **A** has already engaged automatically in the central bolt. The locking pin is then flush with the inner teeth of the central bolt. If the locking pin is still in the rear position, the pin must be turned to the left and right using a square bar from the tool kit, for example, until it engages in the central bolt.

⚠ WARNING Losing Wheel

- When driving without locking pin, the central bolt can loosen and the wheel can fall off.
- ▷ Never drive without the locking pin being engaged.

5. Fit the wheelHub cap in the central bolt so that the **position finger** is in the groove. Then press the cap into position. Apply a small amount of grease on the rubber ring of the cap beforehand if necessary.

6. **Now lower the vehicle.** Please see the chapter "CHANGING A WHEEL" on Page 207.

▷ **Have the central bolt loosened again immediately at your authorized Porsche dealer and then tighten it to the prescribed tightening torque of 370 ftlb. (500 Nm) using a suitable torque wrench.**

i Information

- ▷ The Tire Pressure Monitoring (TPM) settings on the on-board computer must be updated after the wheel change. Please see the chapter "TPM TIRE PRESSURE MONITORING" on Page 121.

Wheel cleaning agents

NOTICE

- Using wheel cleaning agents: Wheel cleaning agents can bleach the anodised surface of the central bolt.
- ▷ Only use wheel cleaning agents approved by Porsche and use these sparingly and in accordance with instructions for use.