



How to change front ball  
joint on **MERCEDES-**  
**BENZ W124 Estate (S124)**  
– replacement guide

### SIMILAR VIDEO TUTORIAL



This video shows the replacement procedure of a similar car part on another vehicle

#### **ⓘ Important!**

This replacement procedure can be used for:

MERCEDES-BENZ W124 Estate (S124) 200 2.0 (124.080), MERCEDES-BENZ W124 Estate (S124) 200 TE 2.0 (124.081), MERCEDES-BENZ W124 Estate (S124) 200 TE 2.0, MERCEDES-BENZ W124 Estate (S124) 230 TE Cat (124.083), MERCEDES-BENZ W124 Estate (S124) 230 TE 2.3 (124.083), MERCEDES-BENZ W124 Estate (S124) 300 TE 3.0 4-matic (124.290), MERCEDES-BENZ W124 Estate (S124) 300 TE 3.0 (124.090), MERCEDES-BENZ W124 Estate (S124) 200 D 2.0 (124.180), MERCEDES-BENZ W124 Estate (S124) 250 D 2.5 (124.185), MERCEDES-BENZ W124 Estate (S124) 300 D 3.0 (124.190), MERCEDES-BENZ W124 Estate (S124) 300 Turbo diesel 3.0 4-matic (124.393), MERCEDES-BENZ W124 Estate (S124) 300 TE-24 3.0 (124.091), MERCEDES-BENZ W124 Estate (S124) 260 TE 2.6 FGST., MERCEDES-BENZ W124 Estate (S124) 260 TE FGST. 2.6, MERCEDES-BENZ W124 Estate (S124) 220 TE 2.2 (124.082), (+ 7)

The steps may slightly vary depending on the car design.

This tutorial was created based on the replacement procedure for a similar car part on: MERCEDES-BENZ 190 (W201) 2.0 (201.023)

**REPLACEMENT: BALL JOINT – MERCEDES-BENZ W124  
ESTATE (S124). TOOLS YOU MIGHT NEED:**



- Wire brush
- WD-40 spray
- All-purpose cleaning spray
- Ceramic grease
- Torque wrench
- Combination spanner #13
- Combination spanner #19
- Combination spanner #22
- Drive socket # 13
- Drive socket # 19
- Drive socket # 22
- Wheel impact socket #17
- Ratchet wrench
- Tap wrench
- Hammer
- Flat chisel
- Crow bar
- Flat screwdriver
- Ball joint puller set
- Water pump pliers
- Strut spring compressor
- Hydraulic transmission jack
- Wheel chock

**Buy tools**

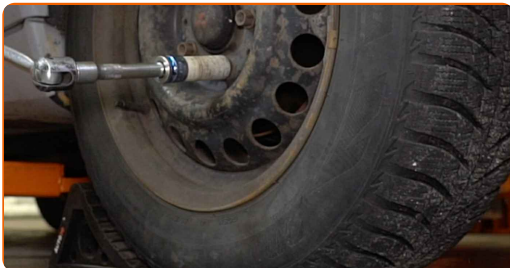
Replacement: ball joint – MERCEDES-BENZ W124 Estate (S124). Tip from AUTODOC:

- The replacement procedure is identical for the left and right ball joints.
- All work should be done with the engine stopped.

## REPLACEMENT: BALL JOINT – MERCEDES-BENZ W124 ESTATE (S124). USE THE FOLLOWING PROCEDURE:

**1** Secure the wheels with chocks.

**2** Loosen the wheel bolts. Use wheel impact socket #17. Use a tap wrench.



**3** Raise the car.

### AUTODOC recommends:

- If you are using a jack, make sure it rests on a flat surface without any unevenness.
- Be sure to additionally secure the car with jack stands.

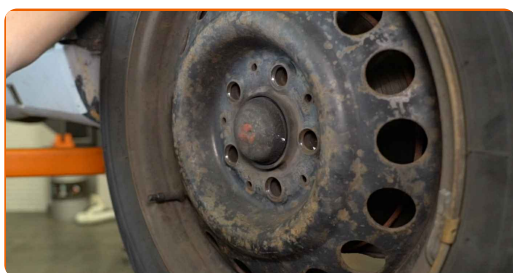
**4** Unscrew the wheel bolts.



Replacement: ball joint – MERCEDES-BENZ W124 Estate (S124). Tip:

- To avoid injury, hold up the wheel when unscrewing the bolts.

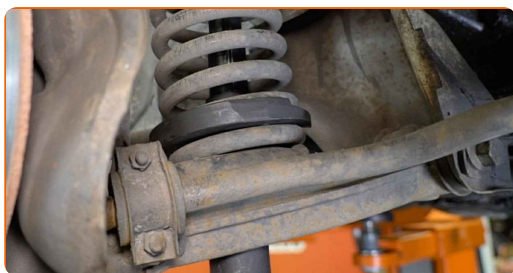
**5** Remove the wheel.



**6** Support the control arm. Use a hydraulic transmission jack.



**7** Install the coil spring compressor on the coil spring.



AUTODOC recommends:

- Use adapters and jaws of the appropriate size.
- The spring coils should be securely fixed with the coil spring compressor.
- Use high quality coil spring compressors.

8

Compress the spring.



Replacement: ball joint – MERCEDES-BENZ W124 Estate (S124). AUTODOC recommends:

- Be careful. The compressed spring is powerful and can cause injury if it comes loose.

9

Clean the fasteners of the stabilizer bush brackets. Use a wire brush. Use WD-40 spray.

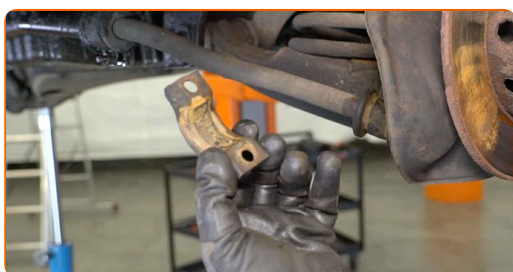


- 10 Unscrew the fasteners of the stabilizer bush brackets. Use a combination spanner #13. Use a drive socket #13. Use a ratchet wrench.

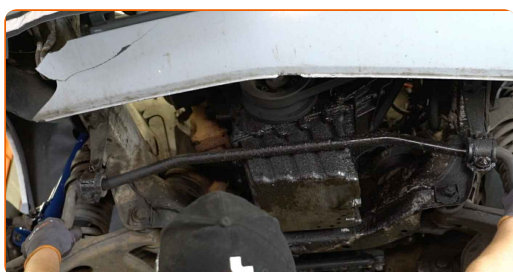


- 11 Remove the fastening bolts.

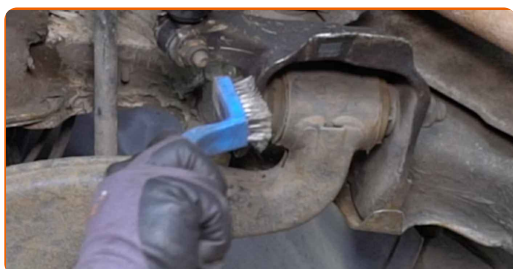
- 12 Remove the stabilizer bush brackets.



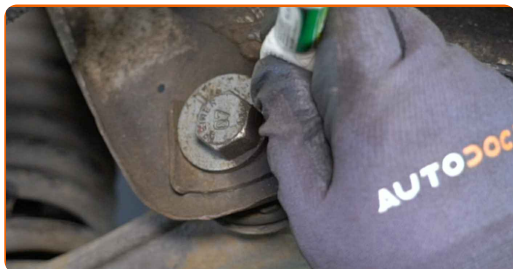
- 13 Detach the anti-roll bar from the suspension arms.



- 14 Clean all joints of the arm. Use a wire brush. Use WD-40 spray.



**15** Make marks on the camber bolts.



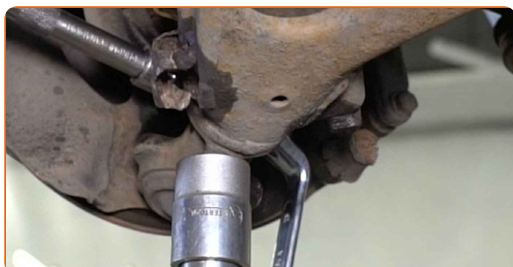
**16** Unscrew the front fastener of the control arm. Use a combination spanner #22. Use a drive socket #22. Use a ratchet wrench.



**17** Unscrew the rear fastener of the control arm. Use a combination spanner #22. Use a drive socket #22. Use a ratchet wrench.

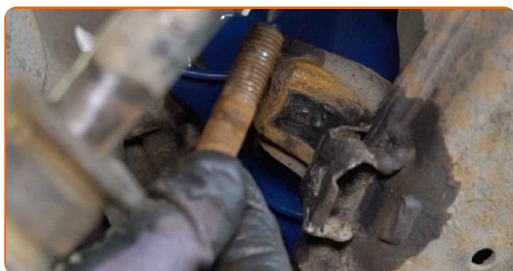


**18** Unscrew the fastener connecting the ball joint to the steering knuckle. Use a combination spanner #19. Use a drive socket #19. Use a ratchet wrench.

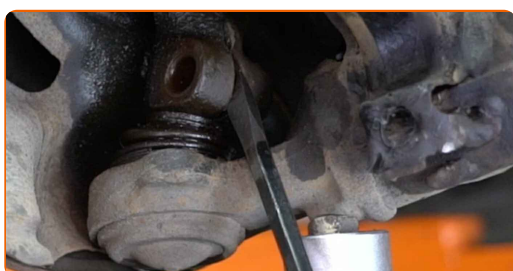




**19** Remove the fastening bolt.

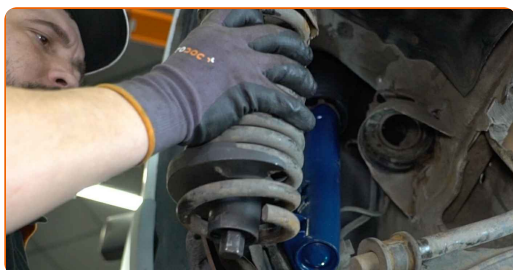


**20** Disconnect the ball joint from the steering knuckle. Use a flat metal-working chisel. Use a hammer. Use a crowbar.



**21** Remove the support from under the control arm.

**22** Remove the coil spring together with the coil spring compressor.



Replacement: ball joint – MERCEDES-BENZ W124 Estate (S124). AUTODOC experts recommend:

- While the spring is compressed, do not do any operations on it.

**23** Clean the ball joint. Use all-purpose cleaning spray.



**24** Remove the retaining ring from the ball joint boot. Use a flat screwdriver.



**25** Remove the ball joint boot. Use a flat screwdriver.



**26** Dismantle the ball joint. Use a ball joint puller set.



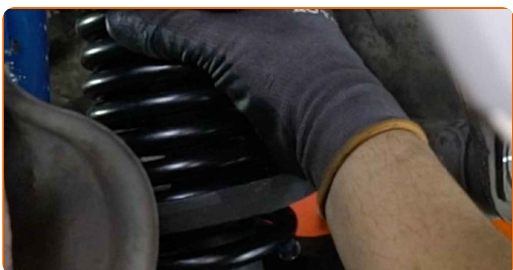
**27** Clean the ball joint mounting seat. Use a wire brush. Use all-purpose cleaning spray.



**28** Install a new ball joint. Use a ball joint puller set.



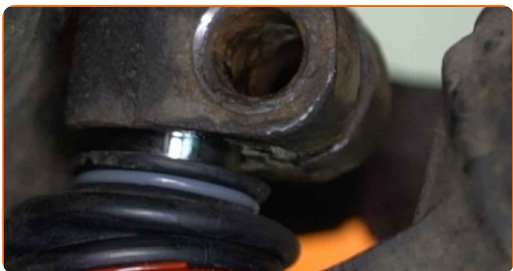
**29** Install the spring together with the compressor.



**AUTODOC recommends:**

- Make sure that the coil spring is correctly positioned in its mounting seats.

**30** Connect the ball joint to the steering knuckle.



**31** Support the control arm. Use a hydraulic transmission jack.

**32** Install the fastening bolt.



**33** Tighten the fastener connecting the ball joint to the steering knuckle. Use a combination spanner #19. Use a drive socket #19. Use a torque wrench. Tighten it to 75 Nm torque.



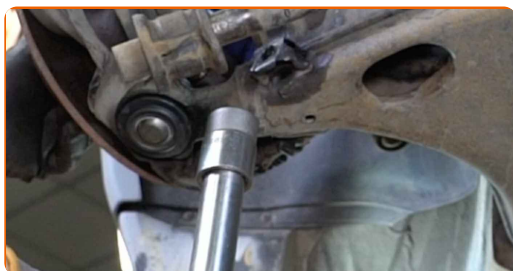
**34** Decompress the spring.



**35** Remove the coil spring compressor.



**36** For tightening the fasteners correctly, you have to jack up the suspension components to their working position.



**37** Adjust the position of the camber bolts according to the marks.

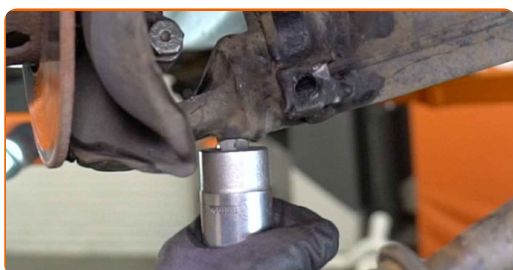
**38** Tighten the front fastener of the arm. Use a combination spanner #22. Use a drive socket #22. Use a torque wrench. Tighten it to 120 Nm torque.



**39** Tighten the rear fastener of the control arm. Use a combination spanner #22. Use a drive socket #22. Use a torque wrench. Tighten it to 120 Nm torque.



**40** Remove the support from under the control arm.



**AUTODOC recommends:**

- Replacement: ball joint – MERCEDES-BENZ W124 Estate (S124). Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

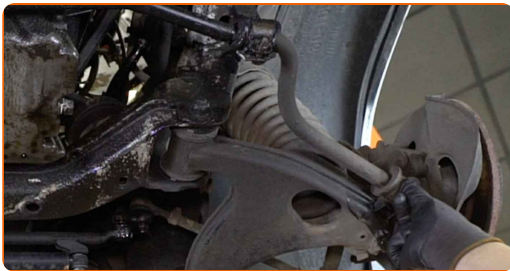
**41**

Clean the mounting seats of the stabilizer bushes. Use a wire brush. Use all-purpose cleaning spray.



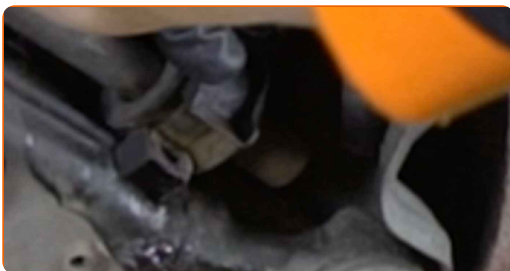
**42**

Attach the anti-roll bar to the suspension arms. Use a crowbar.



**43**

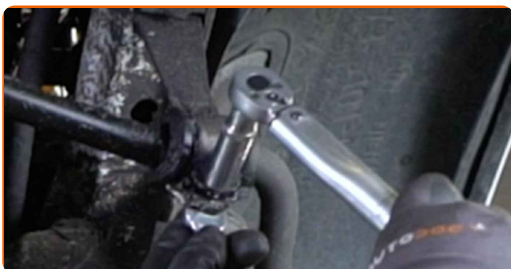
Install the stabilizer bush brackets. Use water pump pliers.



**44**

Install the fastening bolts.

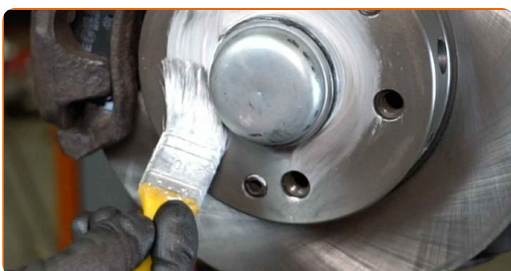
- 45 Tighten the fasteners on the anti-roll bar bush brackets. Use a combination spanner #13. Use a drive socket #13. Use a torque wrench. Tighten it to 20 Nm torque.



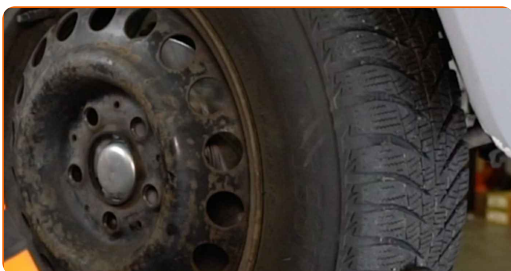
- 46 Clean the wheel rim mounting seat. Use a wire brush. Use all-purpose cleaning spray.



- 47 Treat the surface where the brake disc contacts the wheel rim. Use ceramic grease.



- 48 Install the wheel.



AUTODOC recommends:

- To avoid injury, hold up the wheel when screwing in the fastening bolts.

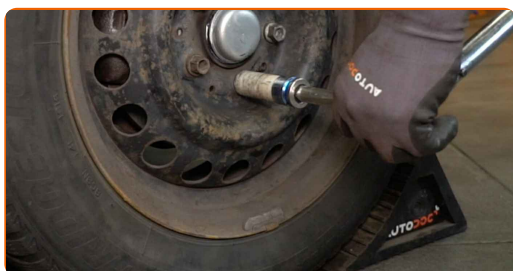
49

Screw in the wheel bolts. Use wheel impact socket #17. Use a ratchet wrench.



50

Lower the car and working in a cross order, tighten the wheel bolts. Use wheel impact socket #17. Use a torque wrench. Tighten it to 110 Nm torque.



51

Remove the jacks and chocks.



**WELL DONE!** 

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**BALL JOINT: A WIDE SELECTION**

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