

## 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:

BMW 5 Touring (E39) 520i 2.0, BMW 5 Touring (E39) 523i 2.5, BMW 5 Touring (E39) 540i 4.4, BMW 5 Touring (E39) 528i 2.8, BMW 5 Touring (E39) 530d 3.0, BMW 5 Touring (E39) 525tds 2.5, BMW 5 Touring (E39) 520d 2.0, BMW 5 Touring (E39) 525d 2.5, BMW 5 Touring (E39) 520i 2.2, BMW 5 Touring (E39) 525i 2.5, BMW 5 Touring (E39) 530i 3.0

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: BMW 5 Saloon (E39) 520i 2.0

## REPLACEMENT: TRACK ROD END – BMW 5 TOURING (E39). LIST OF THE TOOLS YOU'LL NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Combination spanner #18
- Combination spanner #23
- Combination spanner #24
- Drive socket # 18
- Wheel impact socket #17
- Torque wrench
- Vernier caliper
- Ball joint puller
- Hydraulic transmission jack
- Wheel chock

**Buy tools**

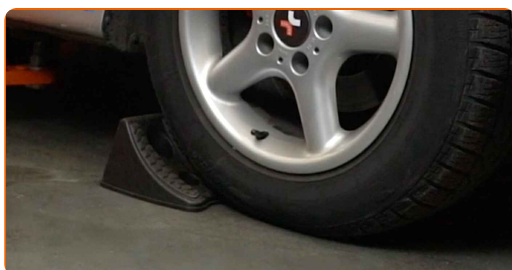
## Replacement: track rod end – BMW 5 Touring (E39). Professionals recommend:

- Replace tie rod ends in pairs.
- The replacement procedure is identical for the right and left tie rod ends.
- Please note: all work on the car – BMW 5 Touring (E39) – should be done with the engine switched off.

## CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

1

Secure the wheels with chocks.



2

Loosen the wheel mounting bolts. Use wheel impact socket #17.



3

Raise the front of the car and secure on supports.

4

Unscrew the wheel bolts.

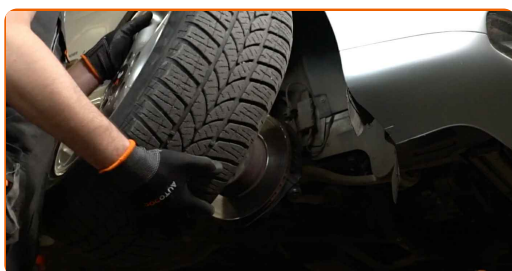


Replacement: track rod end – BMW 5 Touring (E39). AUTODOC recommends:

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

5

Remove the wheel.

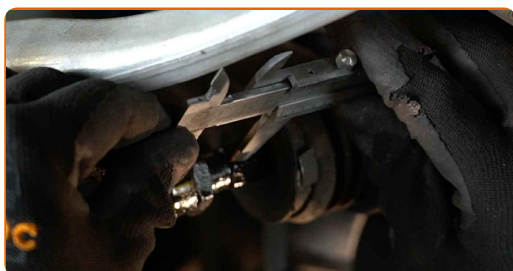


6

Clean the fastener connecting the tie rod end to the steering knuckle. Use a wire brush. Use WD-40 spray.



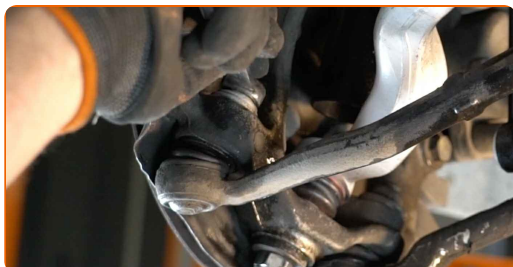
- 7 When deinstalling, mark or measure the precise position of the ball joint on the track rod, or count the number of turns in order to prevent misalignment afterward. Use a vernier caliper.



- 8 Loosen the lock nut securing the tie rod end to the tie rod. Use a combination spanner #23. Use a combination spanner #24.



- 9 Unscrew the end fastening nut to the steering knuckle. Use a combination spanner #18.

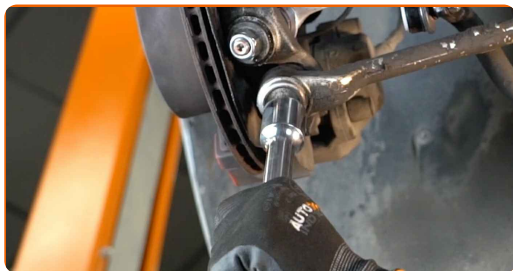


- 10 Disconnect the tie rod end from the steering knuckle. Use a ball joint puller.



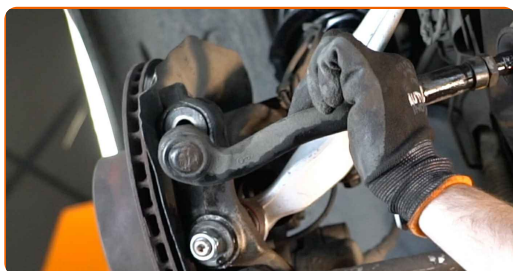
11

Support the arm. Use a hydraulic transmission jack.



12

Disconnect the tie rod end from the steering knuckle.



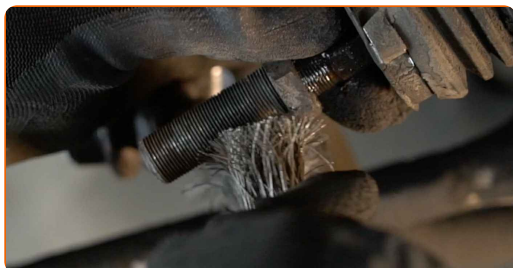
13

Screw the end out of the tie rod. Use a combination spanner #24. Use a combination spanner #24.



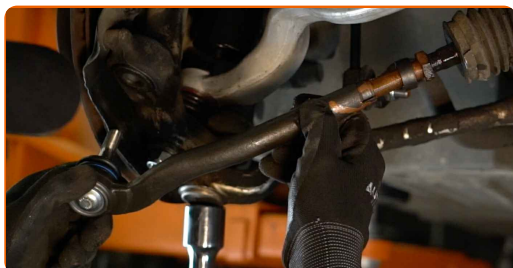
14

Clean the mounting seats of the tie rod end. Use a wire brush. Use WD-40 spray.



15

Screw on a new tie rod end.



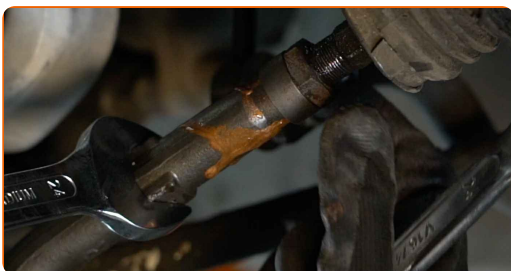


Replacement: track rod end – BMW 5 Touring (E39). AUTODOC experts recommend:

- While installing the steering rod end remember to make the same number of turns or to leave the same length of thread showing as per your measurements.

16

Screw on the tie rod end jam nut. Use a combination spanner #24 (2 pieces).



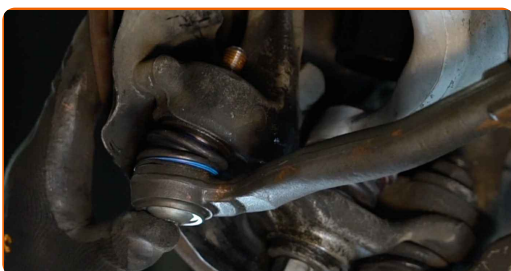
17

When deinstalling, mark or measure the precise position of the ball joint on the track rod, or count the number of turns in order to prevent misalignment afterward. Use a vernier caliper.

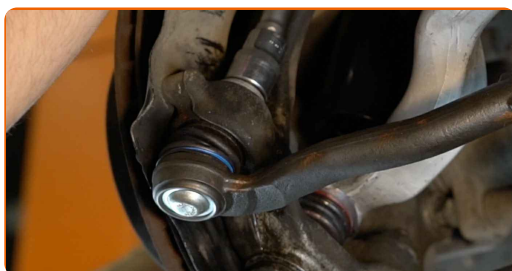


18

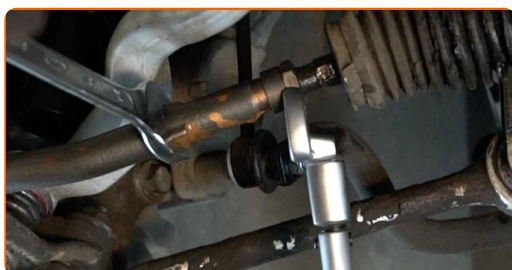
Connect the tie rod end to the steering knuckle.



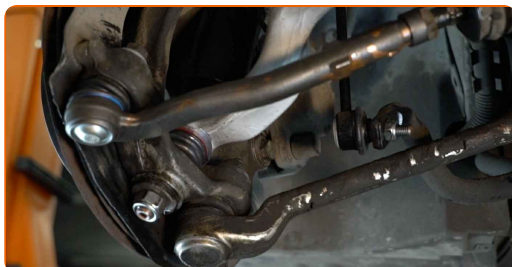
- 19** Tighten the fastening nut connecting the tie rod end to the steering knuckle. Use a drive socket #18. Use a torque wrench. Tighten it to 65 nm torque.



- 20** Tighten the tie rod end locknut. Use a combination spanner #24 (2 pieces). Use a torque wrench. Tighten it to 51 nm torque.



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



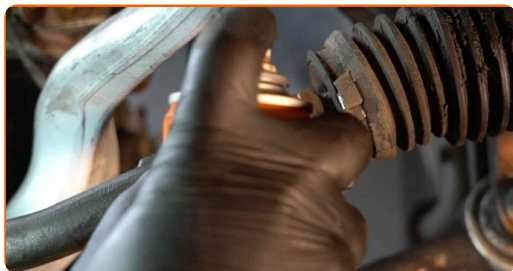
### AUTODOC recommends:

- Replacement: track rod end – BMW 5 Touring (E39). Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.



22

Treat the fastener connecting the tie rod end to the steering knuckle. Use copper grease.



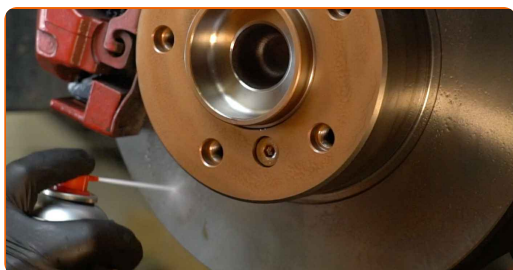
23

Treat the surface where the brake disc contacts the wheel rim. Use copper grease.



24

Clean the brake disc surface. Use a brake cleaner.



Replacement: track rod end – BMW 5 Touring (E39). Tip from AUTODOC:

- After applying the spray, wait a few minutes.

25

Install the wheel.

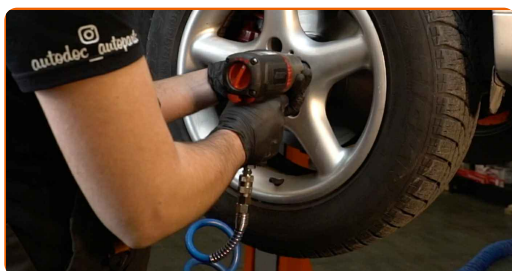


### AUTODOC recommends:

- Important! Hold the wheel while screwing in the fastening bolts. BMW 5 Touring (E39)

26

Screw in the wheel bolts. Use wheel impact socket #17.



27

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 120 nm torque.



### Replacement: track rod end – BMW 5 Touring (E39). Tip from AUTODOC:

- Check and adjust wheel alignment if necessary.