# **+** AUTODOC CLUB

How to change track rod end on **BMW E60** – replacement guide







#### **VIDEO TUTORIAL**



### (i) Important!

This replacement procedure can be used for:

BMW 7 (E65, E66, E67) 730d 3.0, BMW 5 Saloon (E60) 525i 2.5, BMW 7 (E65, E66, E67) 735i / Li 3.6, BMW 7 (E65, E66, E67) 745i / Li 4.4, BMW 7 (E65, E66, E67) 740d 3.9, BMW 7 (E65, E66, E67) 760i / Li 6.0, BMW 5 Saloon (E60) 520i 2.2, BMW 5 Saloon (E60) 530i 3.0, BMW 5 Saloon (E60) 530d 3.0, BMW 5 Saloon (E60) 545i 4.4, BMW 5 Touring (E61) 525i 2.5, BMW 5 Touring (E61) 545i 4.4, BMW 5 Touring (E61) 530d 3.0, BMW 6 Coupe (E63) 645Ci 4.4, BMW 6 Convertible (E64) 645Ci 4.4, (+ 44)

The steps may slightly vary depending on the car design.

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## REPLACEMENT: TRACK ROD END – BMW E60. TOOLS YOU'LL NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Combination spanner #23
- Combination spanner #24
- Drive socket # 21
- Wheel impact socket #17

- Ratchet wrench
- Torque wrench
- Adjustable wrench
- Hammer
- Vernier caliper
- Crow bar
- Wheel chock

**BUY TOOLS** 

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#### Replacement: track rod end – BMW E60. Professionals recommend:

- Replace tie rod ends in pairs.
- The replacement procedure is identical for the right and left tie rod ends.
- All work should be done with the engine stopped.

## REPLACEMENT: TRACK ROD END – BMW E60. USE THE FOLLOWING PROCEDURE:

Secure the wheels with chocks.

3



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



Raise the front of the car and secure on supports.



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4 Unscrew the wheel bolts.



#### Replacement: track rod end – BMW E60. AUTODOC recommends:

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

Remove the wheel.



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



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



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Pry off the clamp ring on the tie rod end. Use a crowbar. Use a hammer.



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.



Unscrew the end fastening nut to the steering knuckle. Use a drive socket #21. Use a ratchet wrench.



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Disconnect the tie rod end from the steering knuckle.



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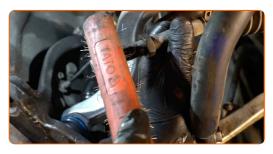




Screw the end out of the tie rod. Use a combination spanner #23. Use an adjustable wrench.



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



Screw on a new tie rod end.



## Replacement: track rod end – BMW E60. 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.

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Push the clamp ring back into place on the tie rod end.



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.



Connect the tie rod end to the steering knuckle.



Screw on the fastening nut that connects the tie rod end to the steering knuckle. Use a drive socket #21. Use a ratchet wrench.



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Tighten the tie rod end locknut. Use a combination spanner #23. Use a combination spanner #24. Use a torque wrench. Tighten it to 51 nm torque.



Tighten the fastening nut connecting the tie rod end to the steering knuckle. Use a drive socket #21. Use a torque wrench. Tighten it to 165 nm torque.



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



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



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Clean the brake disk surface. Use a brake cleaner.



#### AUTODOC recommends:

 Replacement: track rod end – BMW E60. After applying the spray, wait a few minutes.

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Install the wheel.



## Replacement: track rod end – BMW E60. Tip:

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

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



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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 E60. Tip from AUTODOC experts:

• Check and adjust wheel alignment if necessary.

Remove the jacks and chocks.





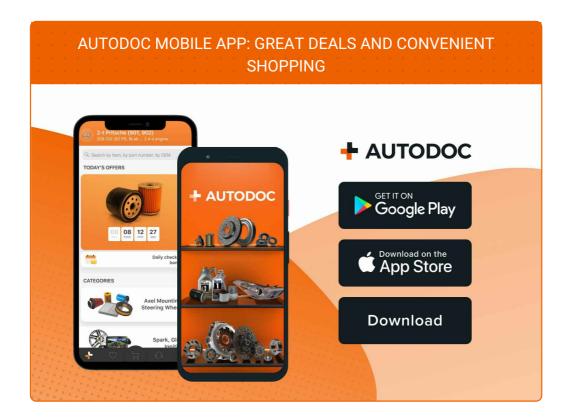
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