





## SIMILAR VIDEO TUTORIAL



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

## (i) Important!

This replacement procedure can be used for:
BMW 1 Hatchback (E87) 116i 1.6, BMW 1 Hatchback (E87) 116i 2.0, BMW 1
Hatchback (E87) 118i 2.0, BMW 1 Hatchback (E87) 120i 2.0, BMW 1 Hatchback (E87) 130i 3.0, BMW 1 Hatchback (E87) 116d 2.0, BMW 1 Hatchback (E87) 118d 2.0, BMW 1 Hatchback (E87) 120d 2.0, BMW 1 Hatchback (E87) 123d 2.0

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 3 Saloon (E90) 318i 2.0

CLUB.AUTODOC.CO.UK 1–10







# REPLACEMENT: TRACK ROD END – BMW 1 HATCHBACK (E87). TOOLS YOU NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Combination spanner #21
- Drive socket # 16
- Torx bit T40

- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Flat Screwdriver
- Vernier caliper
- Hammer
- Wheel chock

**Buy tools** 

CLUB.AUTODOC.CO.UK 2-10







## Replacement: track rod end – BMW 1 Hatchback (E87). AUTODOC experts recommend:

- Replace tie rod ends in pairs.
- The replacement procedure is identical for the right and left tie rod ends.
- During the installation process, use only new bolts and nuts.
- Please note: all work on the car BMW 1 Hatchback (E87) 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.

CLUB.AUTODOC.CO.UK 3-10







4 Unscrew the wheel bolts.



### AUTODOC recommends:

- Warning! To avoid injury, hold the wheel while unscrewing the fastening bolts.
   BMW 1 Hatchback (E87)
- Remove the wheel.



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



CLUB.AUTODOC.CO.UK 4–10







Unscrew the end fastening nut to the steering knuckle. Use a combination spanner #21. Use Torx T40. Use a ratchet wrench.



Unscrew the rod end fastening. Use a drive socket #16. Use a ratchet wrench.



- Disconnect the tie rod end from the steering knuckle. Use a hammer.
- Spread the ears for the pinch bolt on the tie rod end. Use a flat screwdriver. Use a hammer.



Screw the end out of the tie rod.



CLUB.AUTODOC.CO.UK 5-10







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 1 Hatchback (E87). Tip from AUTODOC experts:

- 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.
- Connect the tie rod end to the steering knuckle.

15



CLUB.AUTODOC.CO.UK 6-10







Tighten the fastening nut connecting the tie rod end to the steering knuckle. Use a combination spanner #21. Use Torx T40. Use a torque wrench. Tighten it to 165 nm torque.



#### **AUTODOC** recommends:

- Important! Be sure to use new fasteners.
- Treat the fastener connecting the tie rod end to the steering knuckle. Use copper grease.



18

Tighten the rod end fastening. Use a drive socket #16. Use a torque wrench. Tighten it to 40 nm torque.



CLUB.AUTODOC.CO.UK 7-10







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



Clean the brake disk surface. Use a brake cleaner.



#### **AUTODOC** recommends:

 Replacement: track rod end – BMW 1 Hatchback (E87). After applying the spray, wait a few minutes.

21

Install the wheel.



#### AUTODOC recommends:

 Warning! To avoid injury, hold the wheel while screwing in the fastening bolts on the car. BMW 1 Hatchback (E87)

CLUB.AUTODOC.CO.UK 8-10







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



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 1 Hatchback (E87). AUTODOC experts recommend:

· Check and adjust wheel alignment if necessary.

Remove the jacks and chocks.





**VIEW MORE TUTORIALS** 

CLUB.AUTODOC.CO.UK 9-10