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How to change front lower arm 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) 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, BMW 5 Saloon (E60) 525d 2.5, (+ 64)

The steps may slightly vary depending on the car design.

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## REPLACEMENT: FRONT LOWER ARM – BMW E60. TOOLS YOU MIGHT NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Combination spanner #9
- Combination spanner #10
- Combination spanner #16
- Combination spanner #18
- Drive socket # 10
- Drive socket # 16

- Drive socket # 18
- Drive socket # 21
- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Flat chisel
- Hammer
- Ball joint puller
- Hydraulic transmission jack
- Wheel chock

**BUY TOOLS** 

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#### Replacement: front lower arm – BMW E60. AUTODOC recommends:

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

# REPLACEMENT: FRONT LOWER ARM – BMW E60. RECOMMENDED SEQUENCE OF STEPS:

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Secure the wheels with chocks.



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: front lower arm – BMW E60. Tip:

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



6 Clean the stabiliser link fasteners. Use a wire brush. Use WD-40 spray.



Unscrew the fastener connecting the stabilizer link to the shock strut. Use a drive socket #16. Use a ratchet wrench.



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



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



Disconnect the tie rod end from the steering knuckle.



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Clean the fasteners of the headlight levelling sensor. Use a wire brush. Use WD-40 spray.



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Unscrew the fasteners of the headlight levelling sensor. Use a combination spanner #9. Use a combination spanner #10.



Disconnect the headlight levelling sensor.



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



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Unscrew the ball joint fastening to the steering knuckle. Use a drive socket #21. Use a ratchet wrench.



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Unscrew the front arm fastener. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.



Disconnect the ball joint from the steering knuckle. Use a ball joint puller.



Unscrew the rear fastener connecting the control arm to the subframe. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.



Unscrew the lower fastener connecting the shock strut to the steering knuckle. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.



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20 Prop up the steering knuckle. Use a hydraulic transmission jack.



Remove the fastening bolt.



Unscrew the fastener of the stabiliser link bracket. Use a drive socket #16. Use a ratchet wrench.



Release the lower fastener connecting the shock strut to the steering knuckle. Use a flat metal-working chisel. Use a hammer.



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Lower the hydraulic transmission jack by 10-15 cm.



#### AUTODOC recommends:

- Replacement: front lower arm BMW E60. Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.
- Disconnect the lower arm from the steering knuckle.



Remove the fastening bolt.



Remove the arm.



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Clean the mounting seats and the thread of the suspension arm. Use a wire brush. Use WD-40 spray.



29 Install a new arm.

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#### Replacement: front lower arm – BMW E60. AUTODOC experts recommend:

- During the installation process, use only new bolts and nuts.
- Do not damage the ball joint cover.

Connect the lower arm to the steering knuckle.



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Raise the hydraulic transmission jack by 10-15 cm.



Treat the shock strut mounting seat on the steering knuckle. Use a wire brush. Use WD-40 spray.



Screw in the fastener of the stabiliser link bracket. Use a drive socket #16. Use a ratchet wrench.



Install the fastening bolt.



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Screw in the fastener that connects the shock strut to the steering knuckle. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.



Install the fastening bolt.

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Screw the front arm fastener. Use a combination spanner #18.



Remove the support from under the steering knuckle.



#### **AUTODOC** recommends:

 Lower the hydraulic transmission jack smoothly, without jerks, to avoid damaging assemblies and mechanisms.

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



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.



- Connect the ball joint to the steering knuckle.
- Screw the fasteners of the ball joint. Use a drive socket #21. Use a ratchet wrench.



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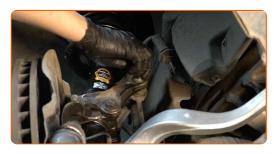




Clean the mounting seats of the stabiliser link. Use a wire brush. Use WD-40 spray.



Tighten the stabiliser link fastener. Use a combination spanner #16.



Reconnect the headlight levelling sensor.

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Screw in the fasteners of the headlight levelling sensor. Use a combination spanner #9. Use a combination spanner #10.



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Tighten the fastener connecting the stabilizer link to the shock strut. Use a drive socket #16. Use a torque wrench. Tighten it to 65 Nm torque.



Tighten the fastener of the stabiliser link bracket. Use a drive socket #16. Use a torque wrench. Tighten it to 65 Nm torque.



Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a drive socket #18. Use a torque wrench. Tighten it to 81 Nm torque.



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Tighten the fasteners of the headlight levelling sensor. Use a drive socket #10. Use a torque wrench. Tighten it to 7 Nm torque.



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Tighten the ball joint fastener. Use a drive socket #21. Use a torque wrench. Tighten it to 165 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.



Prop up the steering knuckle. Use a hydraulic transmission jack.



Tighten the front fastener connecting the control arm to the subframe. Use a combination spanner #18. Use a drive socket #18. Use a torque wrench. Tighten it to 100 Nm torque.+90°



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#### **AUTODOC** recommends:

• Important! Be sure to use new fasteners.

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Tighten the rear fastener connecting the control arm to the subframe. Use a combination spanner #18. Use a drive socket #18. Use a torque wrench. Tighten it to 100 Nm torque.+90°



#### **AUTODOC** recommends:

• Important! Be sure to use new fasteners.

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Remove the support from under the steering knuckle.



#### **AUTODOC** recommends:

• BMW E60 – Do not lower the transmission jack sharply to avoid damaging components and mechanisms of the car.

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Treat all joints of the arm. Use copper grease.



Clean the wheel rim mounting seat. Use a wire brush.



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



Clean the brake disk surface. Use a brake cleaner.



Replacement: front lower arm – BMW E60. Tip from AUTODOC experts:

• After applying the spray, wait a few minutes.

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62 Install the wheel.



#### **AUTODOC** recommends:

• Important! Hold the wheel while screwing in the fastening bolts. BMW E60

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.



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Remove the jacks and chocks.







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