



How to change front
wheel bearing on **BMW 6**
Coupe (E63) –
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:

BMW 6 Coupe (E63) 645Ci 4.4, BMW 6 Coupe (E63) 630i 3.0, BMW 6 Coupe (E63) 650i 4.8, BMW 6 Coupe (E63) 635d 3.0, BMW 6 Coupe (E63) 630i 3.0 (N52B30A, N52B30B, N52B30BF)

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 (E60) 525d 2.5

REPLACEMENT: WHEEL BEARING – BMW 6 COUPE (E63). TOOLS YOU NEED:



- Wire brush
- WD-40 spray
- All-purpose cleaning spray
- Brake cleaner
- Copper grease
- Combination spanner #9
- Combination spanner #18
- Drive socket # 10
- Drive socket # 16
- Drive socket # 18
- Drive socket # 21
- HEX bit no.H6.
- Shock absorber socket
- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Tap wrench
- Impact screwdriver
- Crow bar
- Hydraulic transmission jack
- Wheel chock

Buy tools

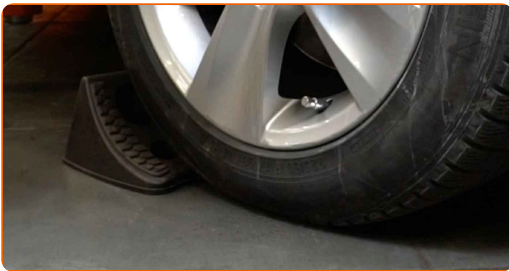
Replacement: wheel bearing – BMW 6 Coupe (E63). Tip from AUTODOC:

- Do not re-use the bearing assembly of your BMW 6 Coupe (E63) car.
- The wheel hub bearing replacement procedure is identical for both wheels on the same axle.
- All work should be done with the engine stopped.

**REPLACEMENT: WHEEL BEARING – BMW 6 COUPE (E63).
RECOMMENDED SEQUENCE OF STEPS:**

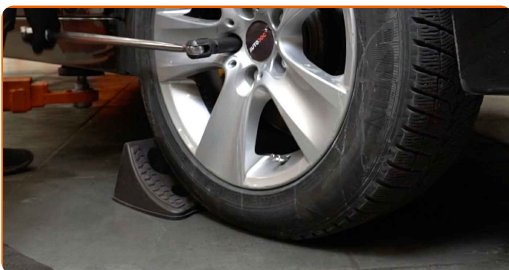
1

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.



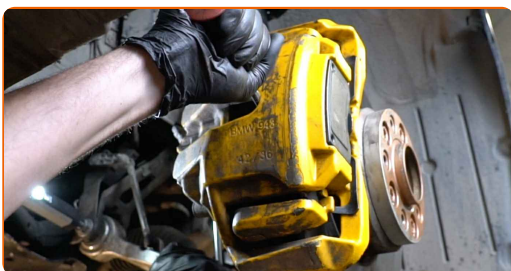
Replacement: wheel bearing – BMW 6 Coupe (E63). Tip from AUTODOC:

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

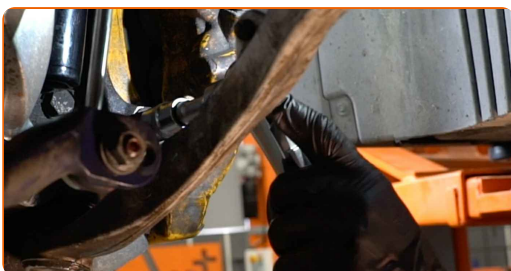
5 Remove the wheel.



6 Spread the brake pads. Use a crowbar.



7 Unscrew the caliper bracket fastening. Use a drive socket #18. Use a tap wrench.



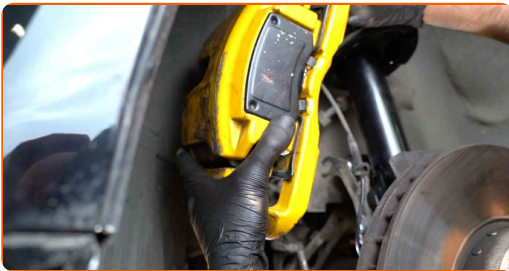
8

Disconnect the brake hose. Use a crowbar.



9

Remove the brake caliper together with its bracket.



AUTODOC recommends:

- Tie the caliper to the suspension or to the body with a wire without disconnecting from the brake hose to prevent depressurization of the brake system.
- Make sure that the brake caliper is not hanging on the brake hose.
- Don't press the brake pedal after the brake caliper has been removed. As a result, the piston can fall out from the brake cylinder, and brake fluid leakage and depressurization of the system may occur.

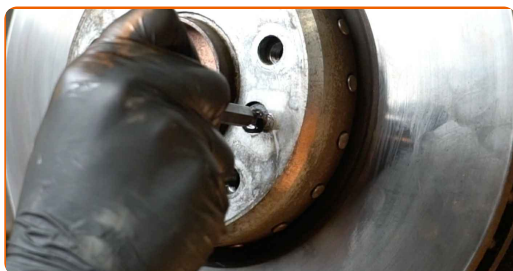
10

Clean the brake disc fasteners. Use a wire brush. Use WD-40 spray.



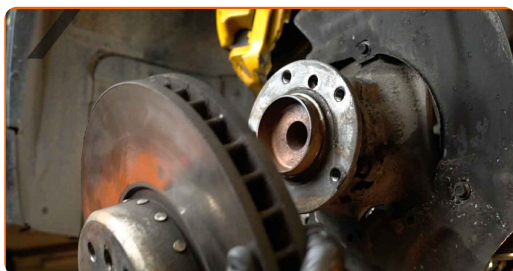
11

Unscrew the brake disc fastening. Use HEX No.H6. Use an impact screwdriver.



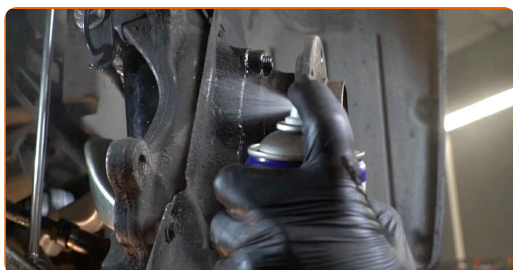
12

Remove the brake disc.



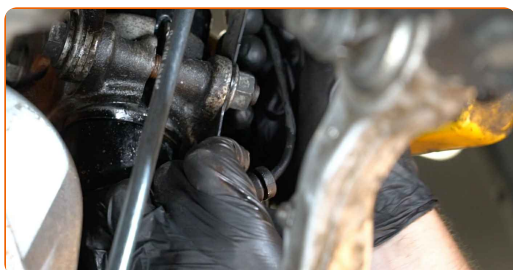
13

Clean the wheel hub fastener. Use a wire brush. Use WD-40 spray.

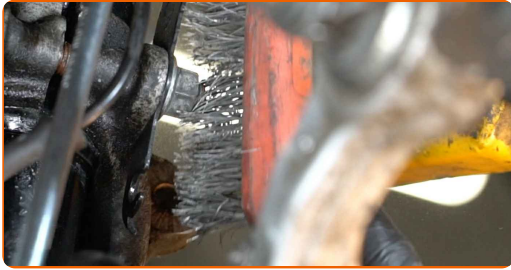


14

Disconnect the ABS sensor wiring.



15 Clean the fasteners connecting the shock strut to the steering knuckle. Use a wire brush. Use WD-40 spray.

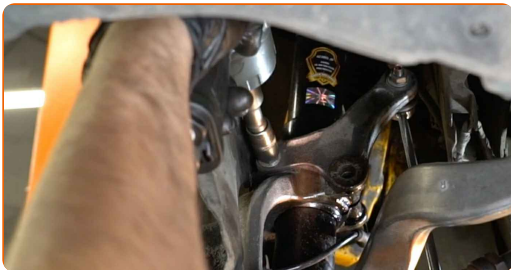


16 Prop up the steering knuckle. Use a hydraulic transmission jack.

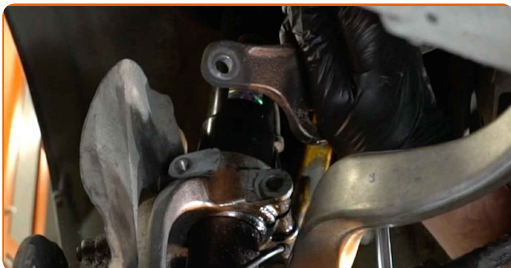
17 Unscrew the lower fastener connecting the shock strut to the steering knuckle. Use a drive socket #18. Use a ratchet wrench.



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



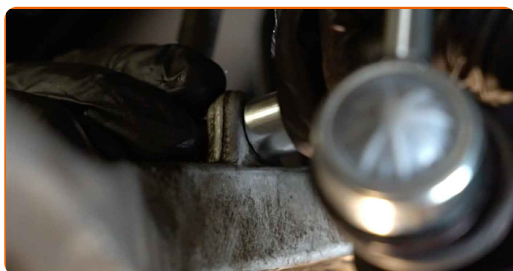
19 Remove the fastening bolt.



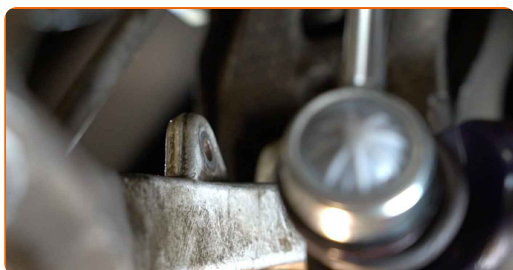
20 Clean all joints of the arm. Use a wire brush. Use WD-40 spray.



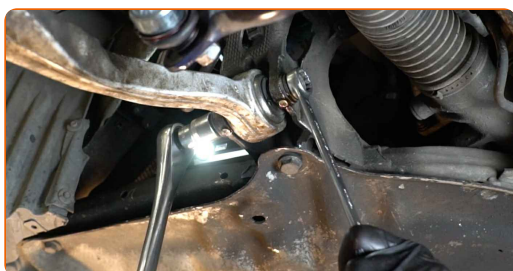
21 Unscrew the fasteners of the headlight levelling sensor. Use a drive socket #10. Use a ratchet wrench.



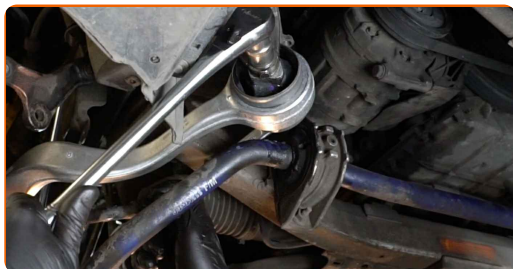
22 Disconnect the headlight levelling sensor.



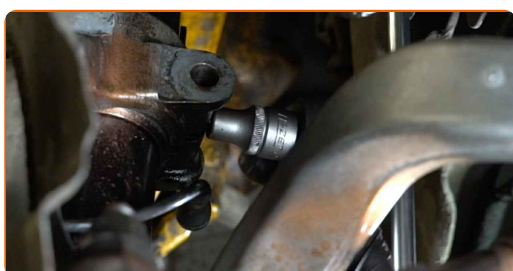
23 Unscrew the rear fastener connecting the control arm to the subframe. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.



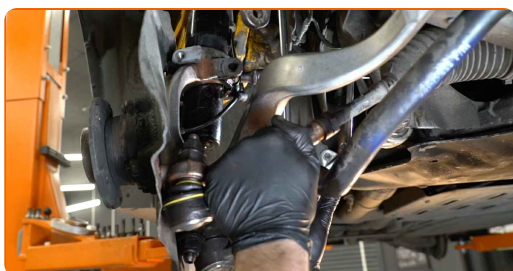
24 Unscrew the front arm fastener. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.



25 Release the lower fastener connecting the shock strut to the steering knuckle. Use a special drive socket to remove the shock absorber. Use a ratchet wrench.



26 Lower the hydraulic transmission jack by 10-15 cm.



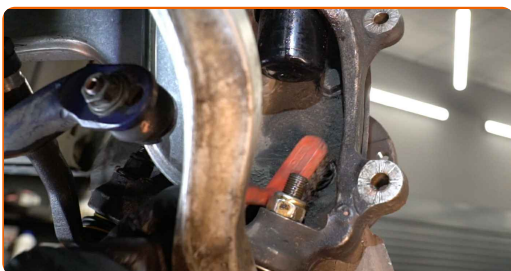
AUTODOC recommends:

- Replacement: wheel bearing – BMW 6 Coupe (E63). Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

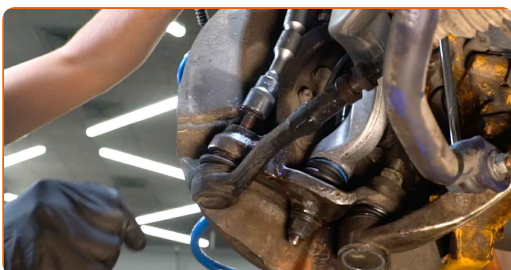
27 Disconnect the steering knuckle from the shock absorber strut.



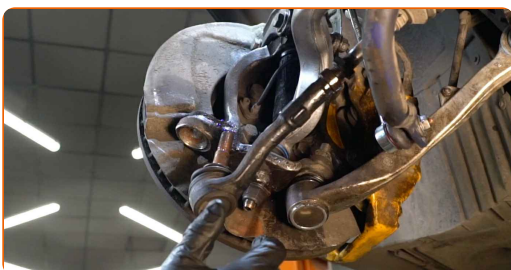
28 Clean the wheel hub fastener. Use a wire brush. Use WD-40 spray.



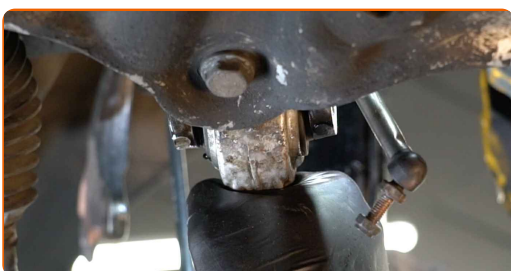
29 Unscrew the end fastening nut to the steering knuckle. Use a drive socket #21. Use a ratchet wrench.



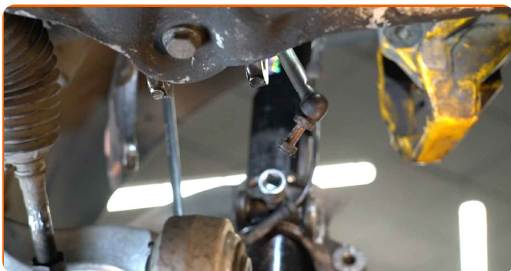
30 Disconnect the tie rod end from the steering knuckle.



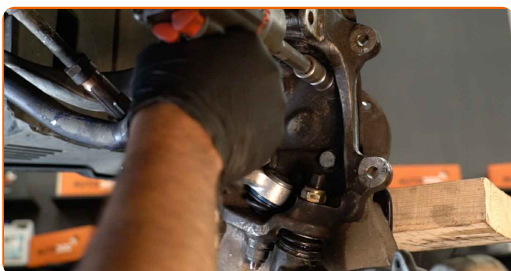
31 Remove the rear fastener of the control arm.



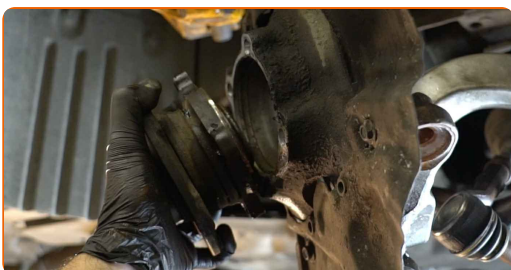
32 Remove the arm.



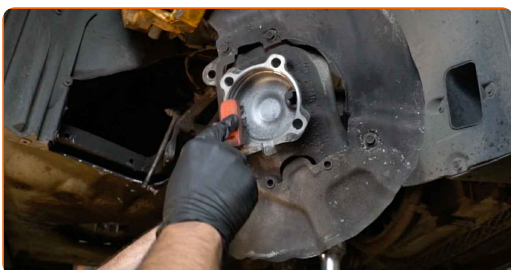
33 Unscrew the wheel hub axle nut. Use a drive socket #18. Use a ratchet wrench.



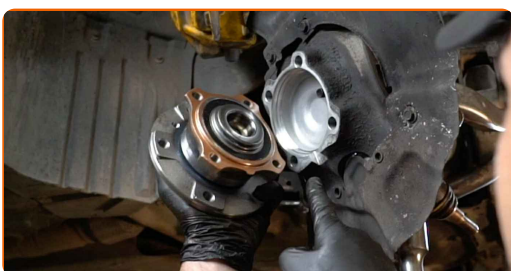
34 Remove the hub and the bearing together, since they are a sealed unit.



35 Clean the hub bearing mounting seat. Use a wire brush. Use all-purpose cleaning spray.



36 Install the new wheel hub with a bearing.



37

Tighten the hub. Use a drive socket #18. Use a torque wrench. Tighten it to 110 Nm torque.

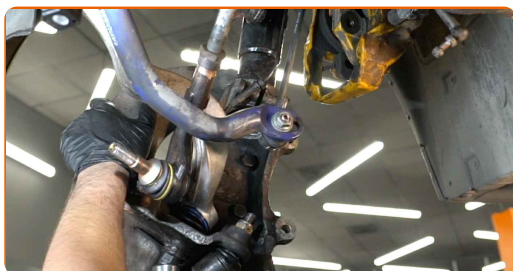


AUTODOC recommends:

- The wheel bearing unit must not tilt on the axle pin.

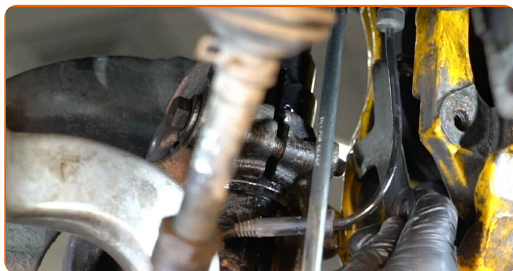
38

Fix the shock absorber strut on the steering knuckle.



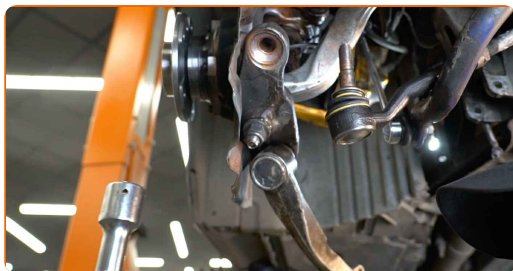
39

Install the fastening bolt.



40

Remove the support from under the steering knuckle.

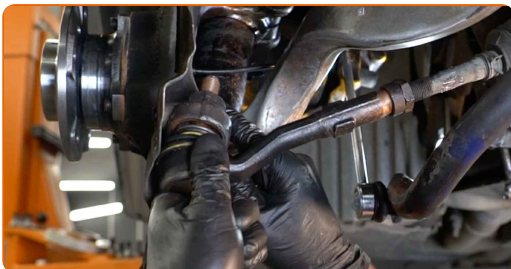


Replacement: wheel bearing – BMW 6 Coupe (E63). AUTODOC experts recommend:

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

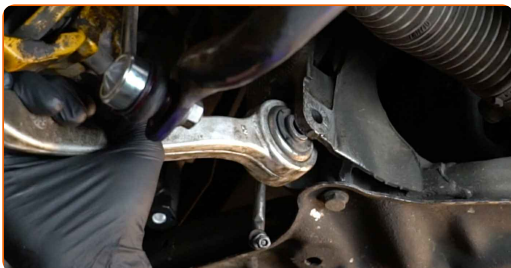
41

Connect the tie rod end to the steering knuckle.



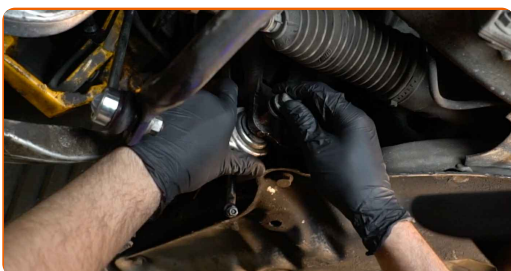
42

Reinstall the control arm.

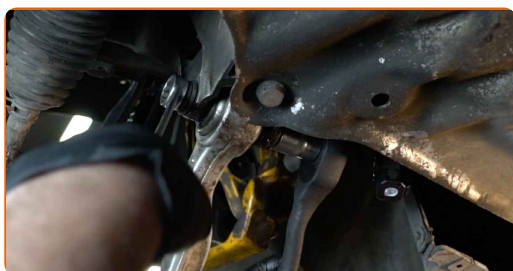


43

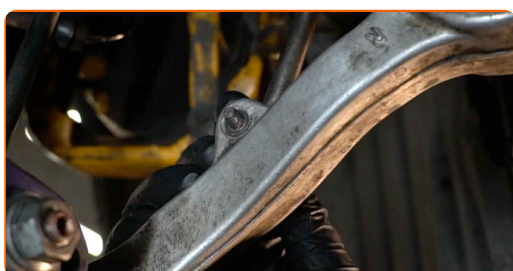
Install the rear fastener of the arm.



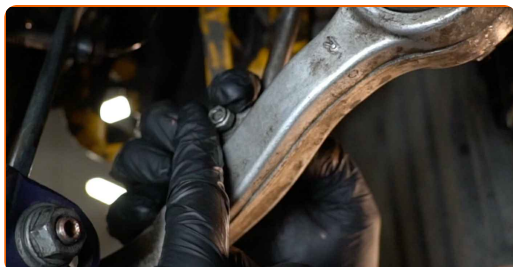
- 44** Screw the rear fastener connecting the control arm to the subframe. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.



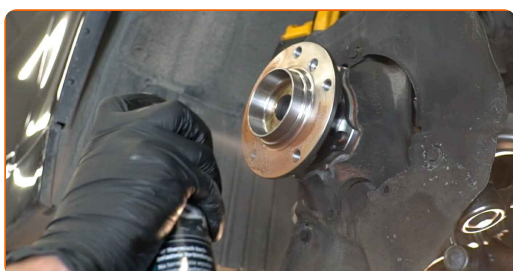
- 45** Reconnect the headlight levelling sensor.



- 46** Screw in the fasteners of the headlight levelling sensor. Use a combination spanner #9. Use a drive socket #10. Use a ratchet wrench.



- 47** Treat the hub where it contacts the brake disk. Use copper grease.



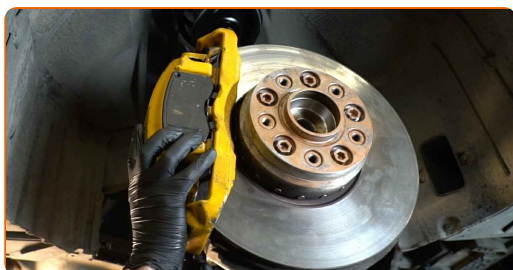
48 Install the brake caliper bracket.



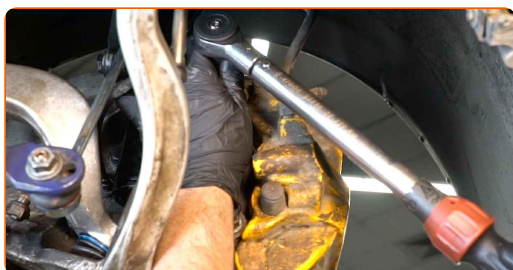
49 Tighten the brake disc fastening. Use HEX No.H6. Use a torque wrench. Tighten it to 16 Nm torque.



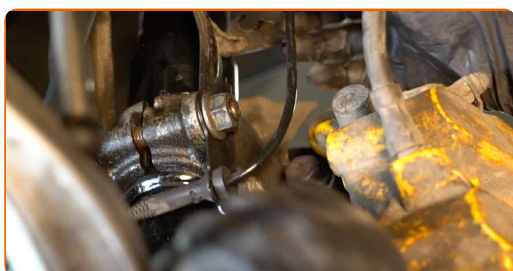
50 Install the brake caliper together with its bracket.



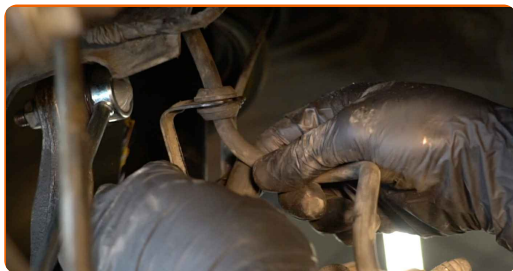
51 Tighten the brake caliper bracket. Use a drive socket #18. Use a torque wrench. Tighten it to 110 Nm torque.



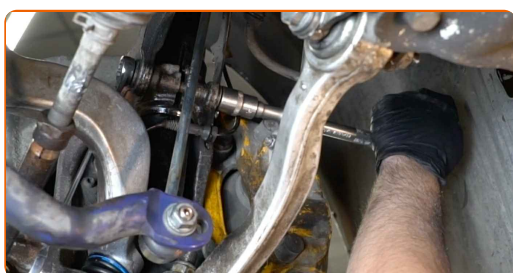
52 Connect the ABS sensor wiring.



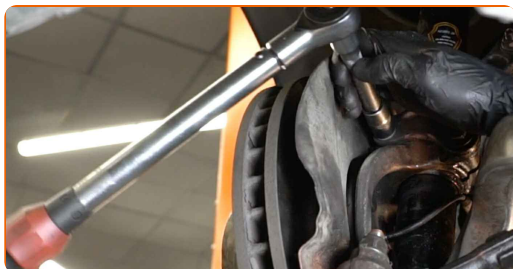
53 Attach the brake hose.



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



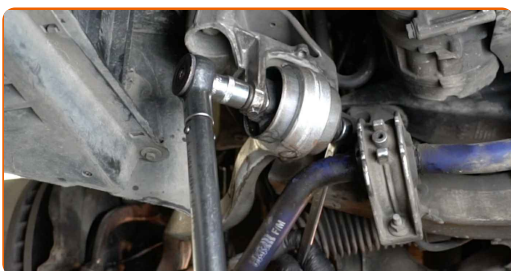
55 Tighten the fastener of the stabiliser link bracket. Use a drive socket #16. Use a torque wrench. Tighten it to 65 Nm torque.



56 Support the arm. Use a hydraulic transmission jack.



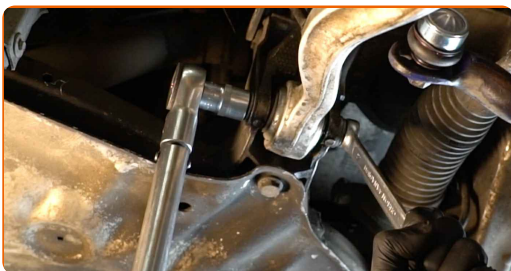
- 57** Tighten the front fastener connecting the control arm to the subframe. Use a combination spanner #18. Use a drive socket #18. Use a torque wrench. Tighten it to 100 Nm torque.+90°



AUTODOC recommends:

- Important! Be sure to use new fasteners.

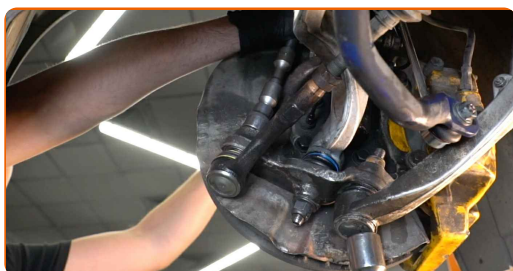
- 58** Tighten the rear fastener connecting the arm to the body subframe. Use a combination spanner #18. Use a drive socket #18. Use a torque wrench. Tighten it to 100 Nm torque.+90°



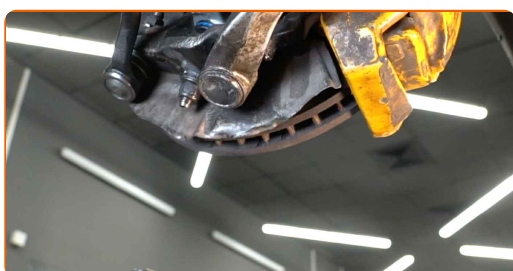
AUTODOC recommends:

- Important! Be sure to use new fasteners.

- 59** 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.



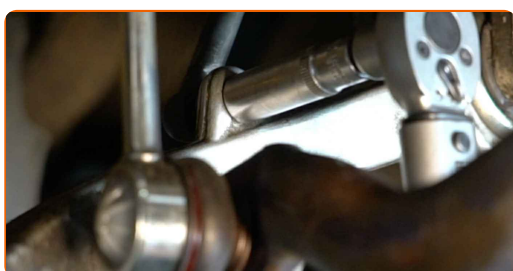
- 60** Remove the support from under the arm.



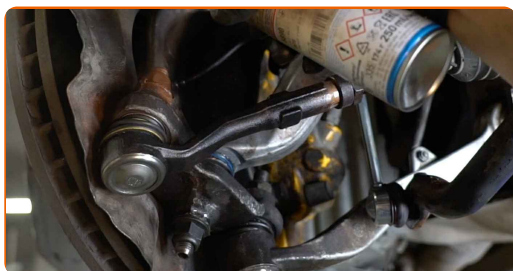
AUTODOC recommends:

- BMW 6 Coupe (E63) – Do not lower the transmission jack sharply to avoid damaging components and mechanisms of the car.

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



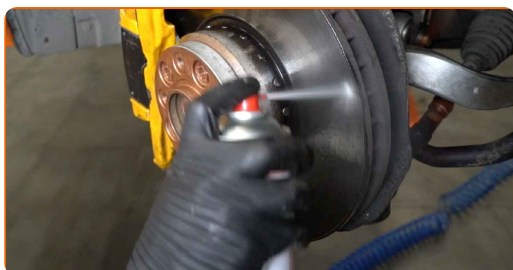
62 Treat all joints of the arm. Treat the shock strut fasteners. Use copper grease.



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



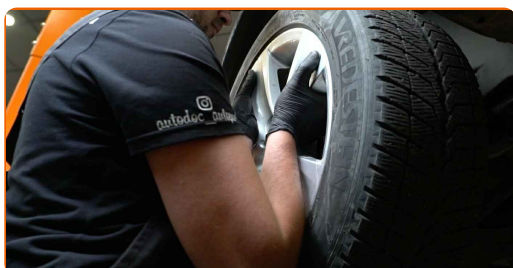
64 Clean the brake disk surface. Use a brake cleaner.



Replacement: wheel bearing – BMW 6 Coupe (E63). Professionals recommend:

- After applying the spray, wait a few minutes.

65 Install the wheel.



Replacement: wheel bearing – BMW 6 Coupe (E63). Tip:

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

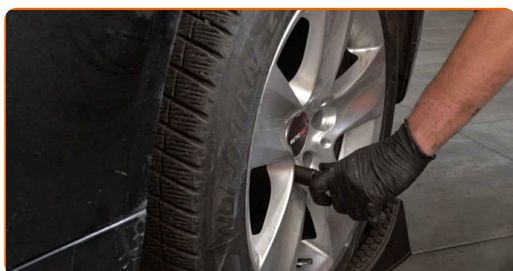
66

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



67

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.

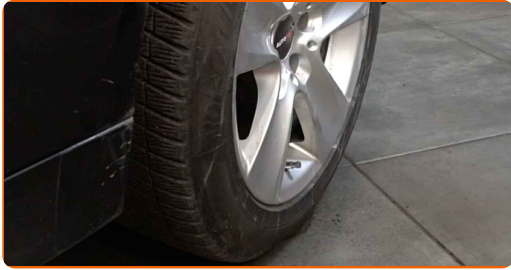


AUTODOC recommends:

- BMW 6 Coupe (E63) – Without starting the engine, press the brake pedal several times until it feels firm.

68

Remove the jacks and chocks.



WELL DONE! 

VIEW MORE TUTORIALS

AUTODOC – TOP QUALITY AND AFFORDABLE CAR PARTS ONLINE

AUTODOC MOBILE APP: GREAT DEALS AND CONVENIENT SHOPPING



+ AUTODOC

GET IT ON
Google Play

 Download on the
App Store

Download

A GREAT SELECTION OF SPARE PARTS FOR YOUR CAR

WHEEL BEARING: A WIDE SELECTION

DISCLAIMER:

The document contains only general recommendations that may be useful for you when you perform repair or replacement work. AUTODOC shall not be liable for any loss, injury, damage of property occurring in the repair or replacement process due to incorrect use or misinterpretation of the provided information.

AUTODOC shall not be liable for any possible mistakes and uncertainties in this guide. The information provided is for information purposes only and cannot replace advice from specialists.

AUTODOC shall not be liable for incorrect or hazardous usage of equipment, tools and car parts. AUTODOC strongly recommends to be careful and observe the safety rules when performing repair or replacement works. Remember: usage of low quality auto parts does not guarantee you the appropriate level of road safety.

© Copyright 2023 – All the contents of this website, in particular texts, photographs and graphics, are protected by copyright. All rights, including reproduction, publication, editing and translation rights, are reserved by AUTODOC SE.