



How to change front coil
springs on **BMW X5 E53** –
replacement guide

VIDEO TUTORIAL



Important!

This replacement procedure can be used for:
BMW X5 (E53) 3.0 d, BMW X5 (E53) 4.4 i

The steps may slightly vary depending on the car design.

REPLACEMENT: COIL SPRINGS – BMW X5 E53. TOOLS YOU'LL NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Combination spanner #19
- Combination spanner #22
- Drive socket # 10
- Drive socket # 13
- Drive socket # 22
- HEX bit no.H5.
- HEX bit no.H7.
- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Flat Screwdriver
- Hydraulic strut spring compressor
- Fender cover
- Wheel chock

BUY TOOLS

Replacement: coil springs – BMW X5 E53. AUTODOC recommends:

- Both coil springs of the front suspension should be replaced simultaneously.
- The replacement procedure is identical for the left and right coil springs of the front suspension.
- All work should be done with the engine stopped.

REPLACEMENT: COIL SPRINGS – BMW X5 E53. RECOMMENDED SEQUENCE OF STEPS:

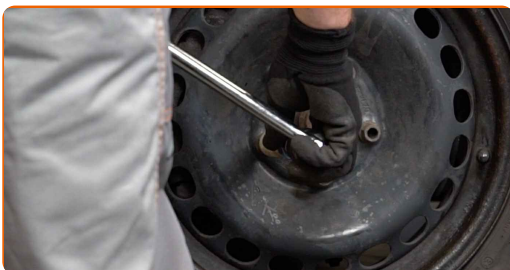
1

Secure the wheels with chocks.



2

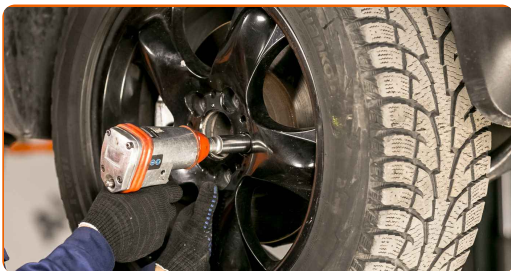
Loosen the wheel mounting bolts. Use wheel impact socket #17.



3

Raise the front of the car and secure on supports.

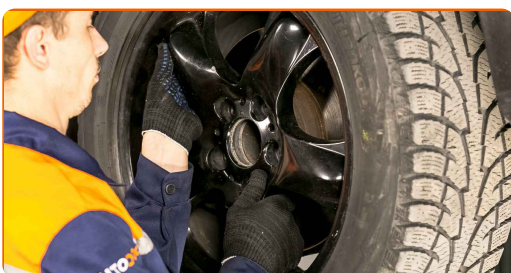
4 Unscrew the wheel bolts.



Replacement: coil springs – BMW X5 E53. Tip:

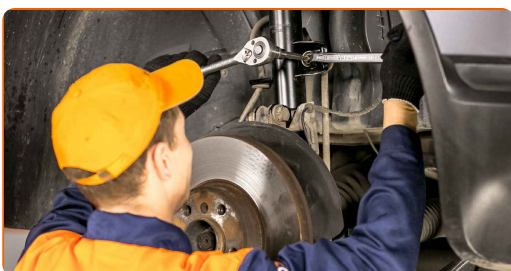
- To avoid injury, hold up the wheel when unscrewing the bolts.

5 Remove the wheel.



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

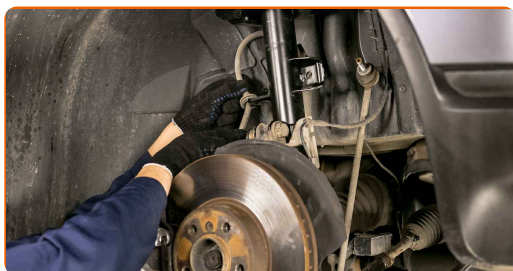
7 Unscrew the fastener connecting the stabilizer link to the shock strut. Use a combination spanner #19. Use HEX No.H5. Use a ratchet wrench.



8 Remove the stabilizer rod.

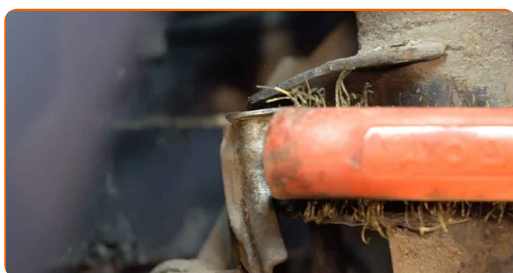
9

Detach the brake hose from the shock strut. Use a flat screwdriver.



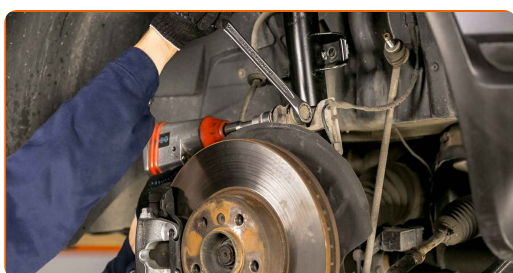
10

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



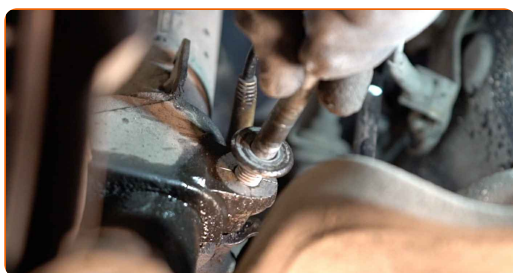
11

Unscrew the lower fastener connecting the shock strut to the steering knuckle. Use a combination spanner #22. Use a drive socket #22. Use a ratchet wrench.



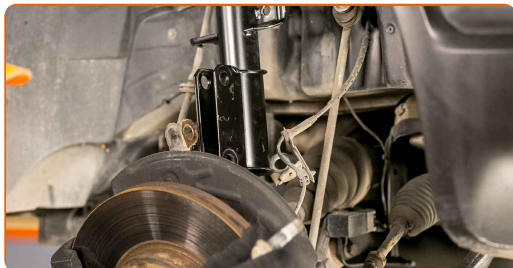
12

Remove the fastening bolt.



13 Disconnect the ABS sensor wiring.

14 Remove the fastening bolt.



15 Disconnect the steering knuckle from the shock absorber strut.



Replacement: coil springs – BMW X5 E53. AUTODOC experts recommend:

- Make sure that the steering knuckle is supported.

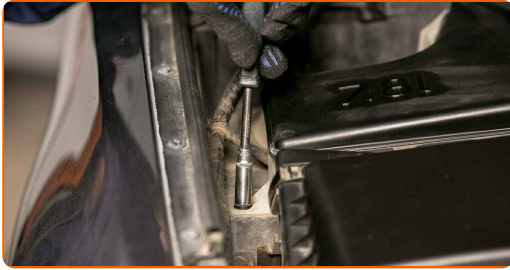
16 Lower the car.

17 Open the bonnet.



18 Use a fender protection cover to prevent damaging paintwork and plastic parts of the car.

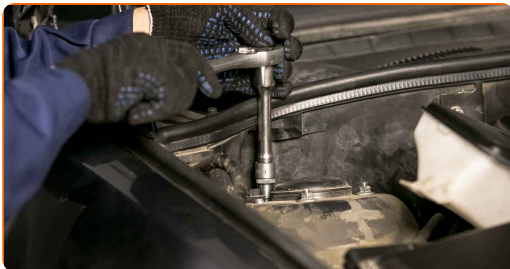
19 Unscrew the bolts and remove the windshield washer tank. Use a drive socket #10. Use a ratchet wrench.



20 Clean the fasteners of the shock strut upper mount. Use a wire brush. Use WD-40 spray.



21 Unscrew the top fastening of the shock strut mount. Use a drive socket #13. Use a ratchet wrench.

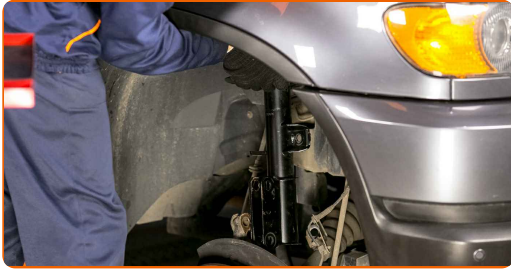


Replacement: coil springs – BMW X5 E53. Tip from AUTODOC:

- To avoid injuries, hold the shock strut when undoing the fastening bolts.

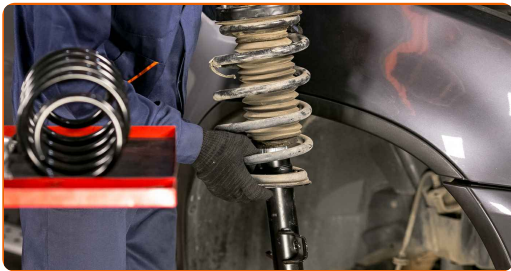
22

Remove the suspension strut.



23

Set the shock absorber strut on the spring compressor tool.

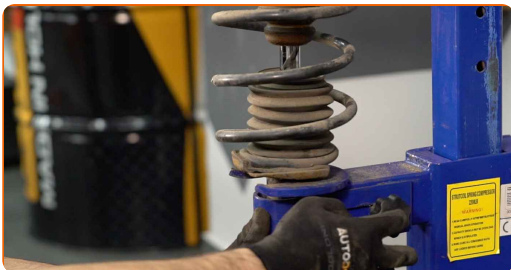


Replacement: coil springs – BMW X5 E53. Professionals recommend:

- Note that when using a spring compressor, spring coils need to be securely gripped, compressing the spring on the opposite sides.
- Ensure the correct position of the spring in the retainer.
- Make sure that the spring coils tightly entered the lock handles.

24

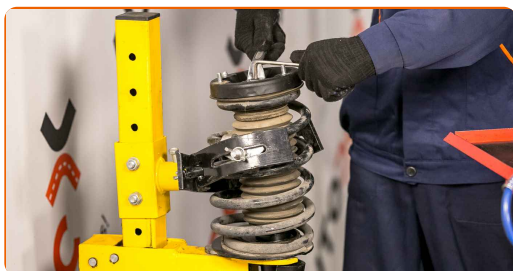
Compress the spring.



25 Treat the shock strut rod. Use a wire brush. Use WD-40 spray.

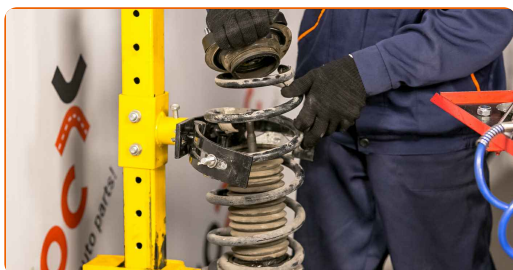


26 Remove the strut piston rod nut. Use a combination spanner #22. Use HEX No.H7.

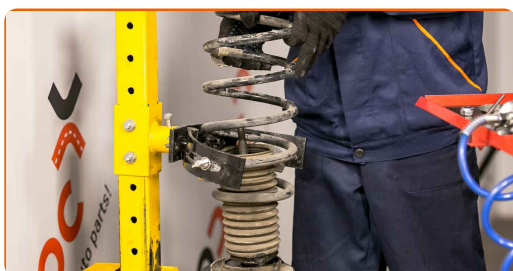


27 Release the coil spring.

28 Remove the top strut mount.



29 Remove the spring.



30

Remove the shock absorber dust cap and the bump stop.



AUTODOC recommends:

- Replacement: coil springs – BMW X5 E53. Carefully inspect the mount, the boot, and the bump stop of the shock absorber. Replace if necessary.

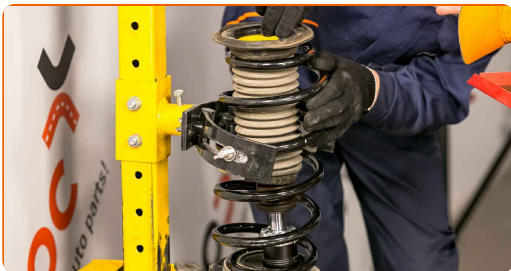
31

Install the spring on the shock absorber.



32

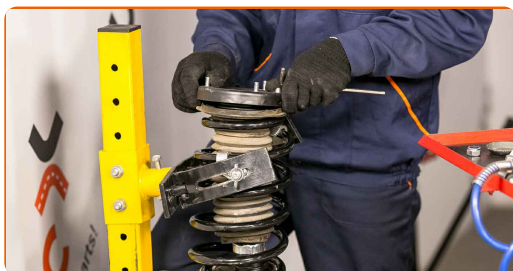
Install the boot and a bump stop onto the shock absorber.



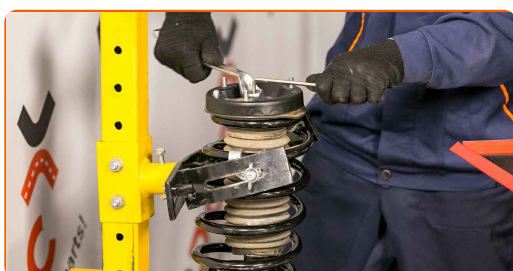
33

Compress the spring.

34 Install the upper strut mount and the strut mount bearing.



35 Tighten the shock strut piston rod nut. Use a combination spanner #22. Use HEX No.H7. Use a torque wrench. Tighten it to 60 Nm torque.

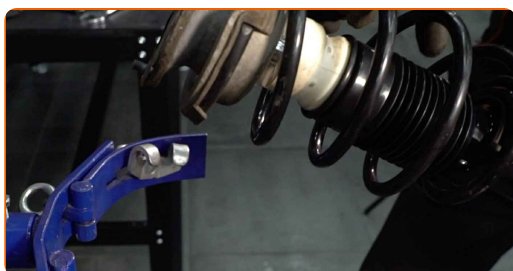


Replacement: coil springs – BMW X5 E53. Tip from AUTODOC experts:

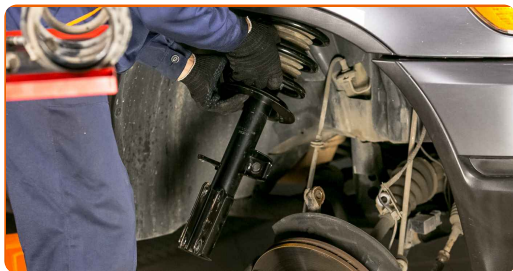
- Check to make sure the spring is positioned correctly. Avoid its misalignment.

36 Decompress the spring.

37 Remove the assembled shock strut.



38 Install the shock strut into the wheel arch.

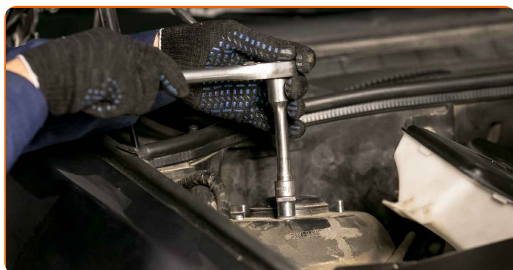


39 Screw the top fastening of the shock strut mount.

AUTODOC recommends:

- Important! Hold the suspension strut while screwing in the fastening bolts. BMW X5 E53

40 Tighten the upper fastener of the shock absorber strut mount. Use a drive socket #13. Use a torque wrench. Tighten it to 34 Nm torque.



41.1 Install the windshield washer tank and tighten the bolts.



41.2 Use a drive socket #10. Use a ratchet wrench.



42 Remove the fender protection cover.

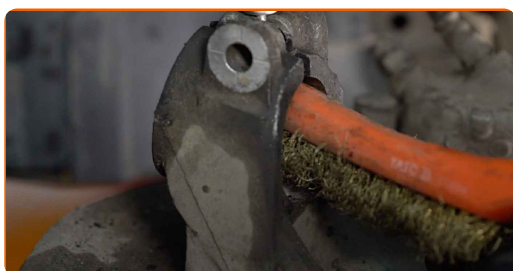
43 Close the hood.



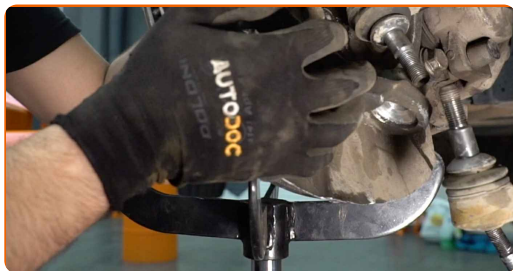
44 Raise the front of the car and secure on supports.



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



46 Fix the shock absorber strut on the steering knuckle.



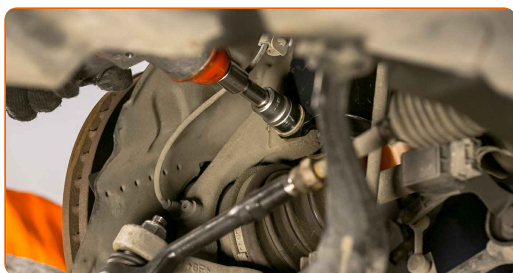
47 Install the fastening bolt.



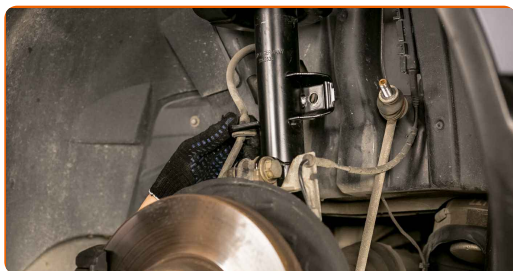
48 Connect the ABS sensor wiring.

49 Install the fastening bolt.

50 Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a combination spanner #22. Use a drive socket #22. Use a torque wrench. Tighten it to 250 Nm torque.



51 Fasten the brake hose on the strut.

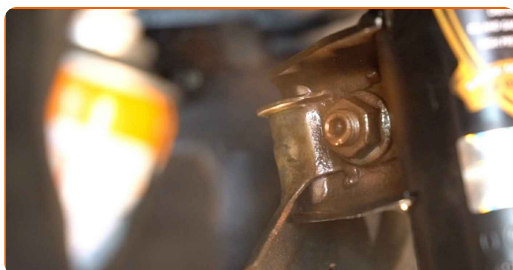


52 Install the transverse stabilizer link.

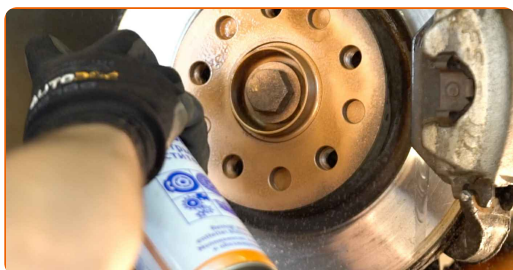
53 Tighten the fastener connecting the stabilizer link to the shock strut. Use a combination spanner #19. Use HEX No.H5. Use a torque wrench. Tighten it to 65 Nm torque.



54 Treat the shock strut fasteners. Use copper grease.



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



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

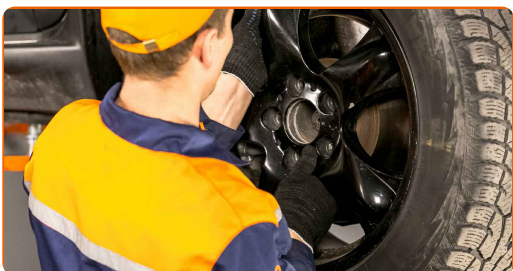


Replacement: coil springs – BMW X5 E53. AUTODOC recommends:

- After applying the spray, wait a few minutes.

57

Install the wheel.

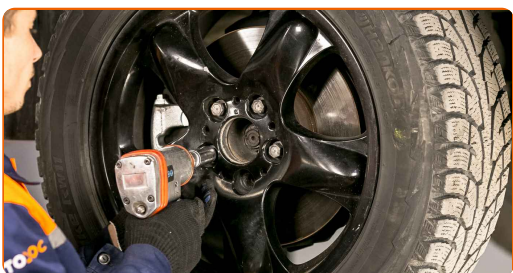


AUTODOC recommends:

- Warning! To avoid injury, hold the wheel while screwing in the fastening bolts on the car. BMW X5 E53

58

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



59

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 140 nm torque.



60

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

BUY SPARE PARTS FOR BMW

COIL SPRINGS: A WIDE SELECTION

CHOOSE CAR PARTS FOR BMW X5 E53

COIL SPRINGS FOR BMW: BUY NOW

COIL SPRINGS FOR BMW X5 E53: THE BEST DEALS & OFFERS

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 GmbH.