



How to change front coil
springs on **Lexus RX**
XU30 – replacement
guide

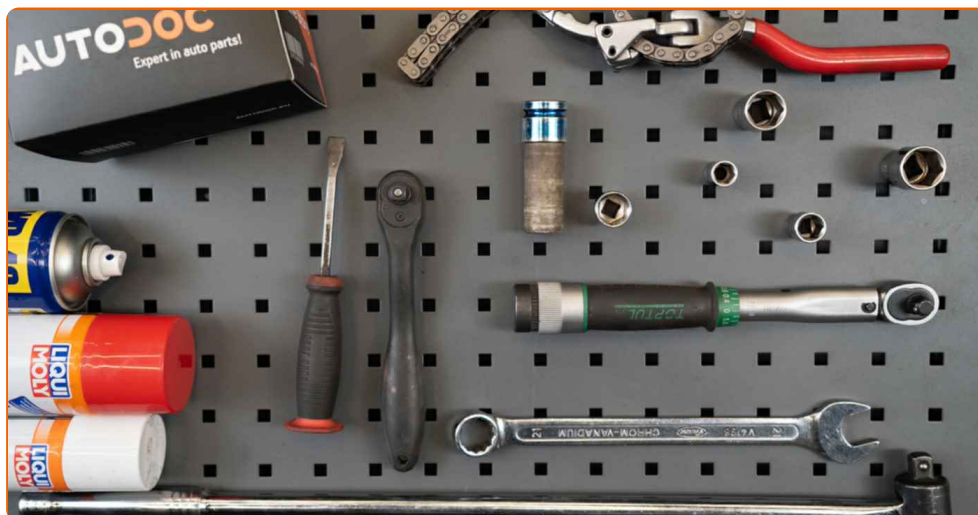
VIDEO TUTORIAL

** Important!**

This replacement procedure can be used for:
LEXUS RX II (XU30) 3.3 400h AWD

The steps may slightly vary depending on the car design.

REPLACEMENT: COIL SPRINGS – LEXUS RX XU30. LIST OF THE TOOLS YOU'LL NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Combination spanner #21
- Drive socket # 12
- Drive socket # 14
- Drive socket # 17
- Drive socket # 19
- Drive socket # 21
- Wheel impact socket #21
- Ratchet wrench
- Torque wrench
- Tap wrench
- Crow bar
- Chain wrench
- Hydraulic strut spring compressor
- Hydraulic transmission jack
- Fender cover
- Wheel chock

BUY TOOLS

Replacement: coil springs – Lexus RX XU30. AUTODOC experts recommend:

- 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 – LEXUS RX XU30. USE THE FOLLOWING PROCEDURE:

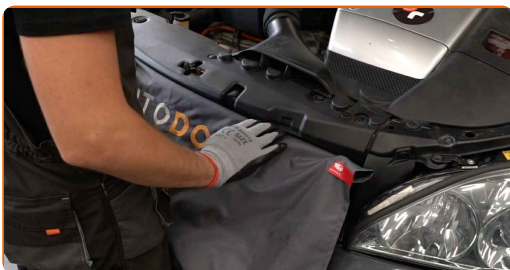
1

Open the bonnet.



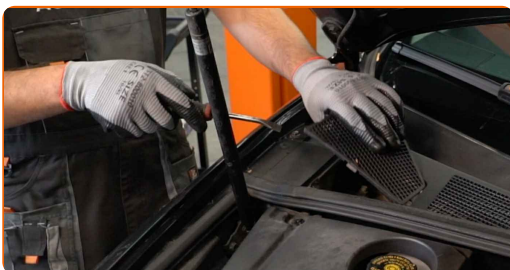
2

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



3

Remove the suspension strut mount cap. Use a crowbar.



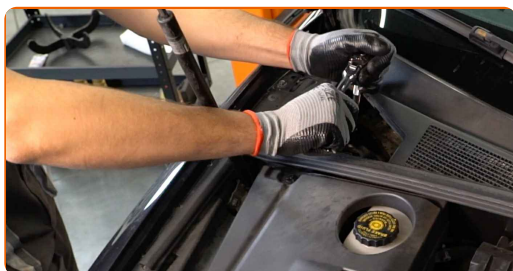
4

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



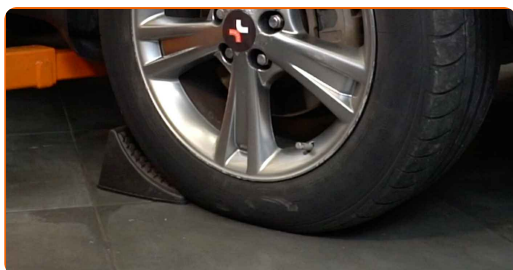
5

Loosen the upper fastener of the shock strut mount. Use a drive socket #14. Use a ratchet wrench.



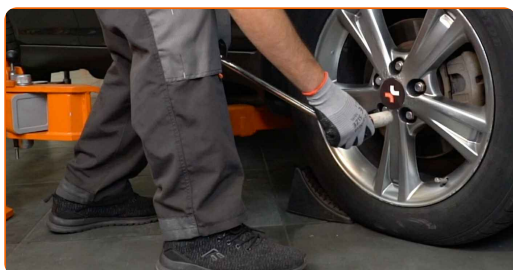
6

Secure the wheels with chocks.



7

Loosen the wheel mounting bolts. Use wheel impact socket #21.



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



9 Unscrew the wheel bolts.



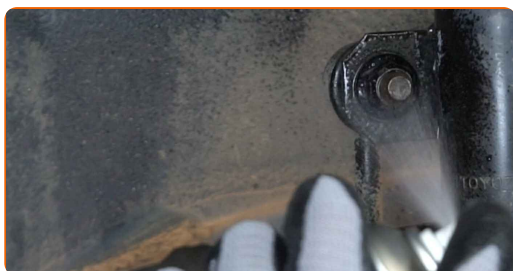
Replacement: coil springs – Lexus RX XU30. Tip:

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

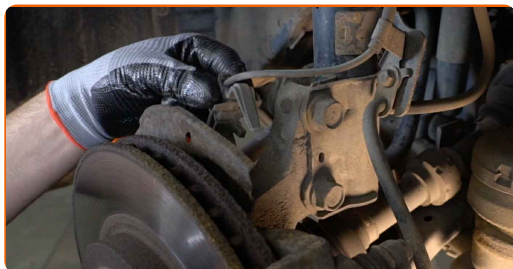
10 Remove the wheel.



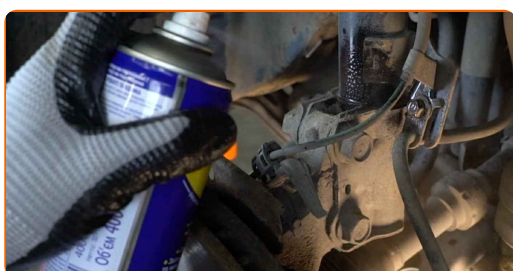
11 Clean the stabiliser link fasteners. Use a wire brush. Use WD-40 spray.



12 Detach the fastener connecting the ABS sensor cable to the shock strut.



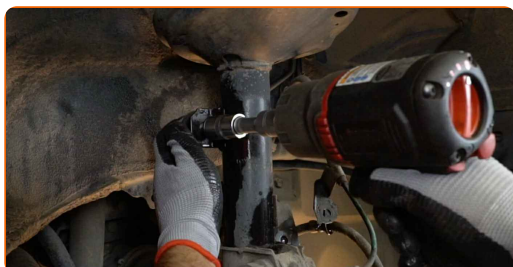
13 Clean the fasteners of the ABS sensor and of the brake hose which connect them to the shock strut. Use a wire brush. Use WD-40 spray.



14 Disconnect the brake hose holder from the shock absorber strut. Unscrew the ABS sensor fastener. Use a drive socket #12. Use a ratchet wrench.



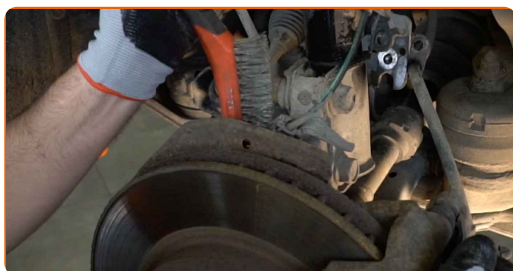
15 Unscrew the fastener connecting the stabilizer link to the shock strut. Use a drive socket #17. Use a ratchet wrench.



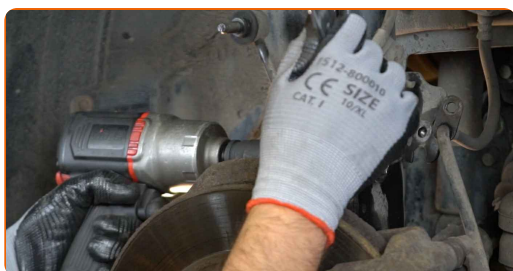
16 Remove the stabilizer rod.



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



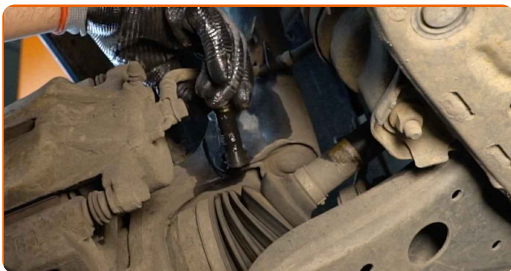
18 Unscrew the lower fastener connecting the shock strut to the steering knuckle. Use a combination spanner #21. Use a drive socket #21. Use a tap wrench.



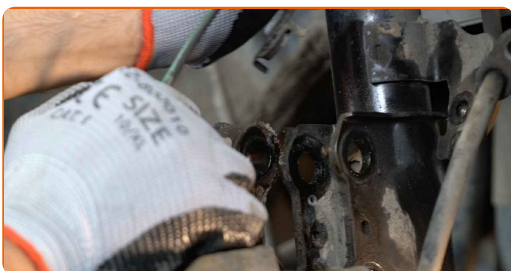
19 Prop up the steering knuckle. Use a hydraulic transmission jack.



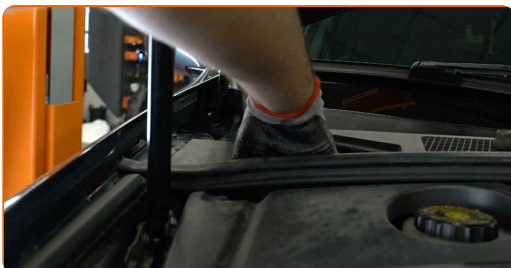
20 Remove the fastening bolts.



21 Disconnect the steering knuckle from the shock absorber strut.



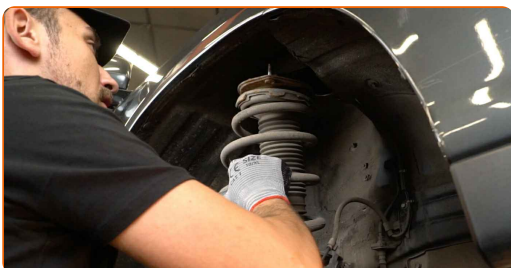
22 Unscrew the top fastening of the shock strut mount.



AUTODOC recommends:

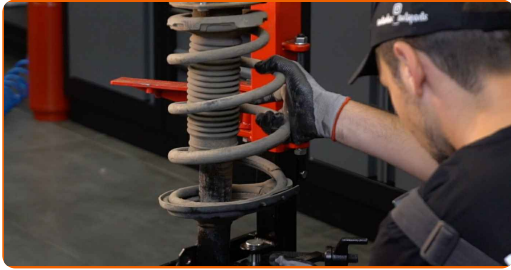
- Important! Hold the suspension strut while unscrewing the fastening bolts. Lexus RX XU30

23 Remove the suspension strut.



24

Set the shock absorber strut on the spring compressor tool.



Replacement: coil springs – Lexus RX XU30. Tip from AUTODOC experts:

- 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.

25

Compress the spring.



26

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



27

Remove the strut piston rod nut. Use a chain wrench. Use a drive socket #19. Use a ratchet wrench.



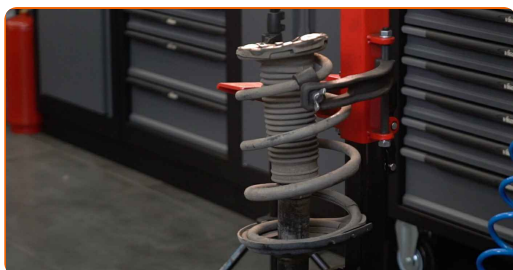
28

Remove the top strut mount. Use a crowbar.



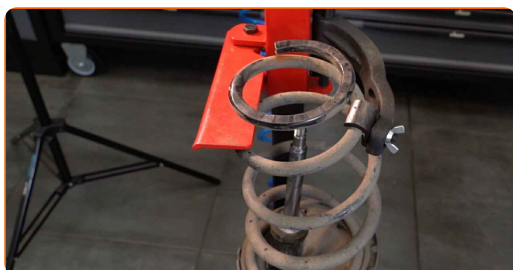
29

Release the coil spring.



30

Remove the shock absorber dust cap and the bump stop.



AUTODOC recommends:

- Replacement: coil springs – Lexus RX XU30. Carefully inspect the mount, the boot, and the bump stop of the shock absorber. Replace if necessary.

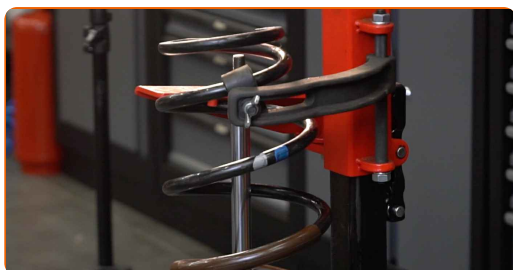
31 Remove the spring.



32 Install the spring on the shock absorber.



33 Compress the spring.



34 Install the mount, the boot and the bump stop on the shock absorber.



35 Tighten the shock strut piston rod nut. Use a chain wrench. Use a drive socket #21. Use a torque wrench. Tighten it to 60 Nm torque.

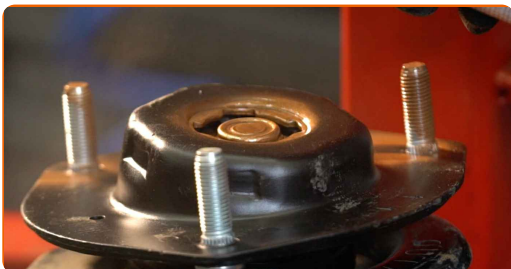


Replacement: coil springs – Lexus RX XU30. Tip from AUTODOC:

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

36

Treat the shock strut rod. Use copper grease.



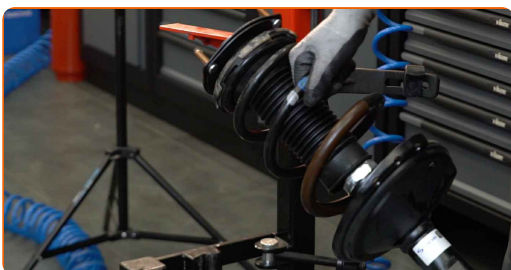
37

Decompress the spring.



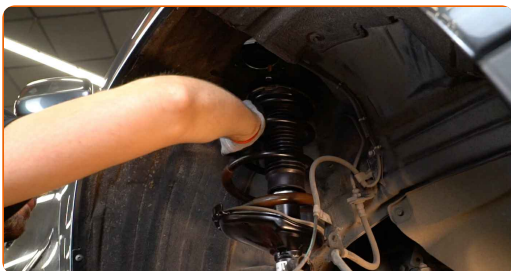
38

Remove the assembled shock strut.



39

Install the shock strut into the wheel arch.



40

Screw the top fastening of the shock strut mount. Do not tighten it.

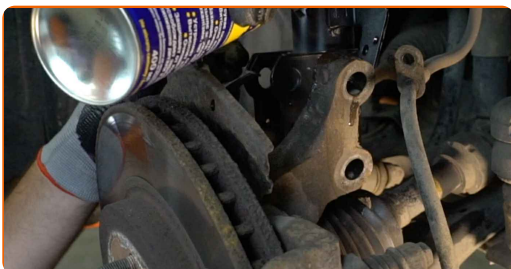


AUTODOC recommends:

- Lexus RX XU30 – To avoid injury, hold the suspension strut while screwing in the fastening bolts.

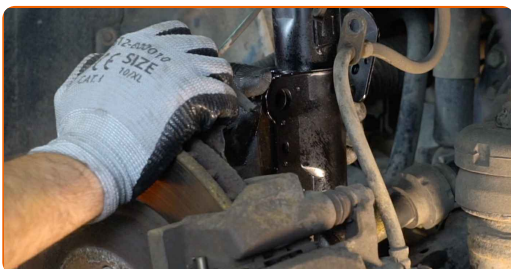
41

Clean the mounting seats of the shock strut. Use a wire brush. Use WD-40 spray.



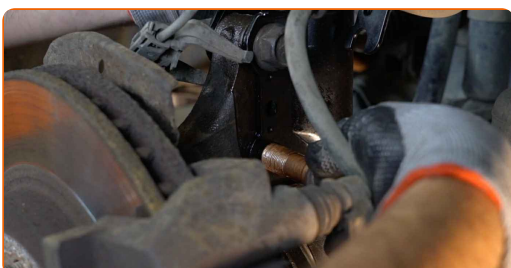
42

Fix the shock absorber strut on the steering knuckle.

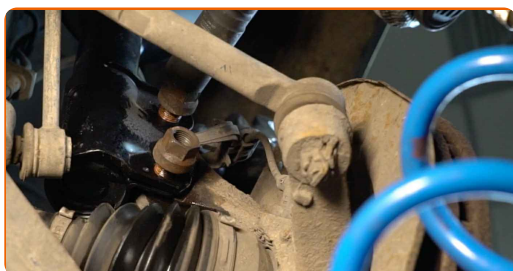


43

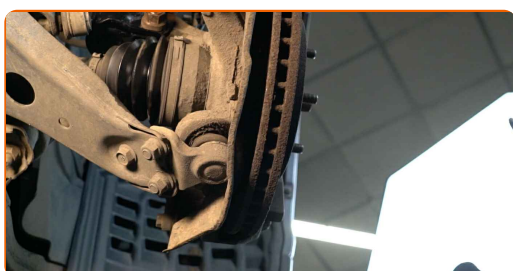
Install the fastening bolts.



- 44** Screw in the fastener that connects the shock strut to the steering knuckle. Use a combination spanner #21. Use a drive socket #21.



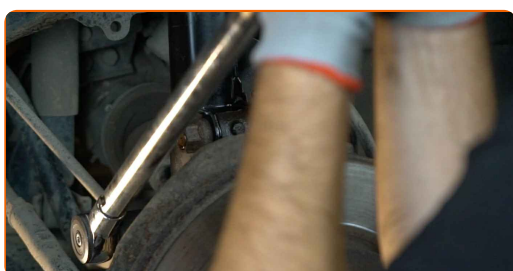
- 45** Remove the support from under the steering knuckle.



AUTODOC recommends:

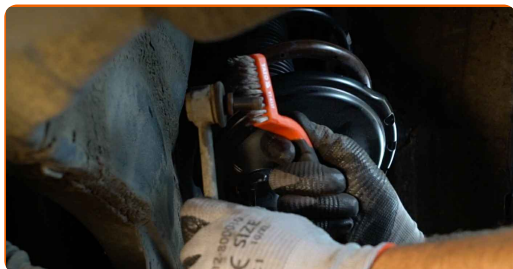
- Replacement: coil springs – Lexus RX XU30. Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

- 46** Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a drive socket #21. Use a torque wrench. Tighten it to 230 Nm torque.



47

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

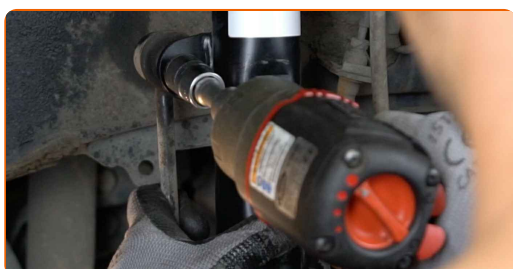


48

Install the transverse stabilizer link.

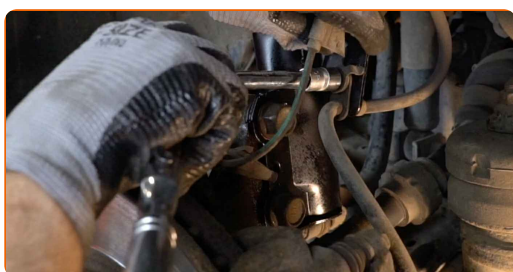
49

Tighten the fastener connecting the stabilizer link to the shock strut. Use a drive socket #17. Use a torque wrench. Tighten it to 74 Nm torque.



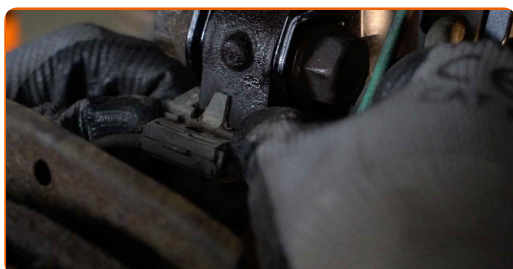
50

Tighten the brake hose fastener. Screw in the ABS sensor fastener. Use a drive socket #12. Use a ratchet wrench.

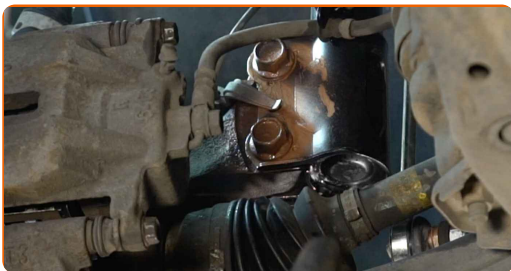


51

Connect the fastener of the ABS sensor cable to the shock absorber strut.



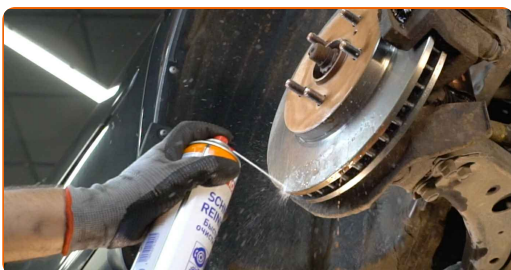
52 Treat the shock strut fasteners. Use copper grease.



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



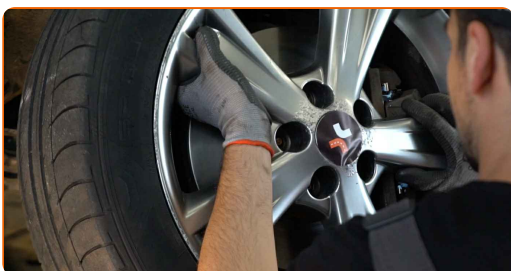
54 Clean the brake disk surface. Use a brake cleaner.



AUTODOC recommends:

- After applying the spray, wait a few minutes.

55 Install the wheel.



Replacement: coil springs – Lexus RX XU30. Professionals recommend:

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

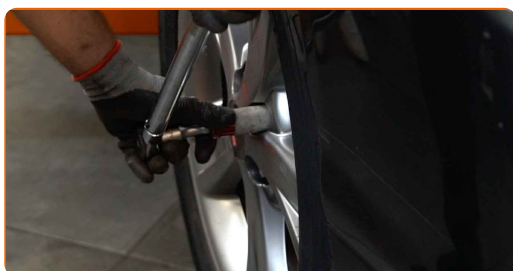
56

Screw in the wheel bolts. Use wheel impact socket #21.



57

Lower the car and working in a cross order, tighten the wheel bolts. Use wheel impact socket #21. Use a torque wrench. Tighten it to 103 nm torque.

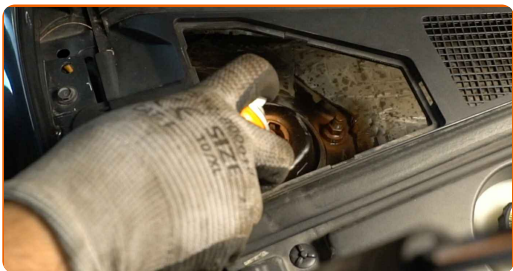


58

Tighten the upper fastener of the shock absorber strut mount. Use a drive socket #14. Use a torque wrench. Tighten it to 55 Nm torque.



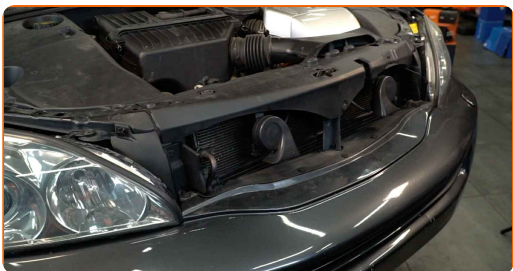
59 Treat the fasteners of the shock strut mount. Use copper grease.



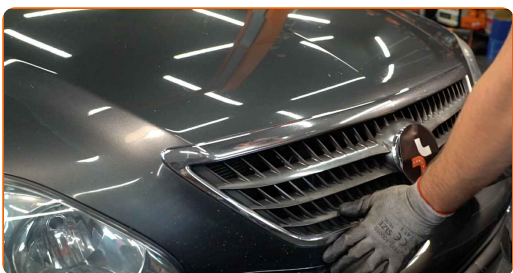
60 Install the suspension strut mount cap.



61 Remove the fender protection cover.

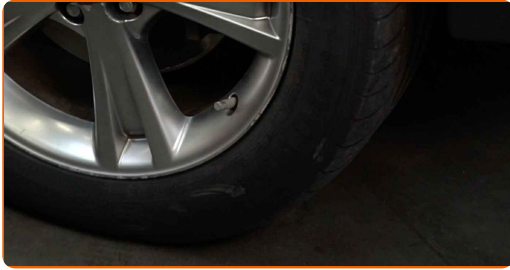


62 Close the hood.



63

Remove the jacks and chocks.



WELL DONE! 

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