How to replace a front shock strut on TOYOTA LAND CRUISER PRADO J120 (KDJ120, KDJ125)

VIDEO TUTORIAL

ⓘ Important!

This replacement procedure can be used for:
TOYOTA LAND CRUISER PRADO (_J12_) 3.0 D-4D (KDJ120, KDJ125)

The steps may slightly vary depending on the car design.

REQUIRED TOOLS:

- Wire brush
- WD-40 spray
- Copper grease
- Combination spanner #14
- Combination spanner #17
- Combination spanner #19
- Drive socket # 12
- Drive socket # 14
- Drive socket # 16
- Drive socket # 17
- Drive socket # 19
- HEX bit No.H6.
- Wheel impact socket #21
- Torque wrench
- Tap wrench
- Hammer
- Pin punch
- Adjustable wrench
- Crow bar
- Hydraulic strut spring compressor
- Hydraulic transmission jack
- Wheel chock

AUTODOC recommends:

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

CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

1

Secure the wheels with chocks.

2

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

3

Raise the front of the car and secure on supports.

4

Unscrew the wheel bolts.

AUTODOC recommends:

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

5

Remove the wheel.

6

Undo the fasteners of the oil pan lower cover. Use a drive socket #12.

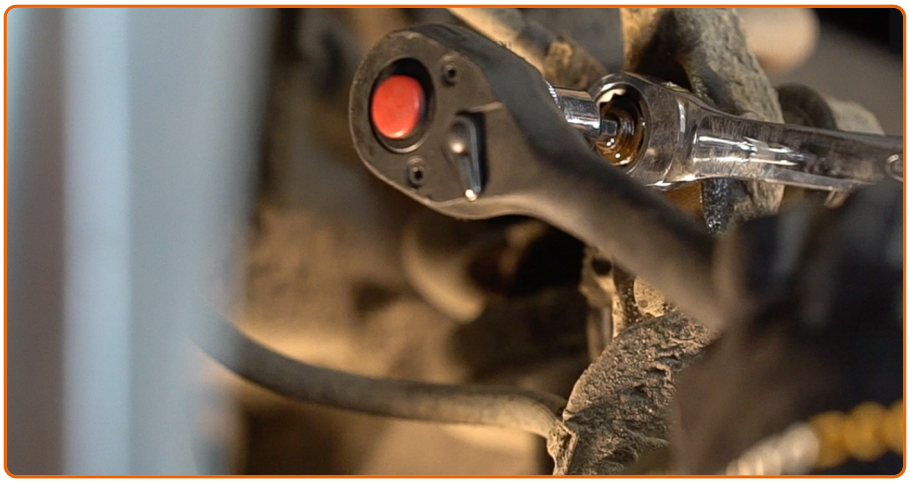
7

Remove the oil pan cover.

8

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

9



Unscrew the fasteners connecting the stabilizer link to the steering knuckle. Use a drive socket #17. Use HEX No.H6. Use a combination spanner #17.

10

Unscrew the fasteners of the stabilizer bush brackets. Use a drive socket #14.

11

Remove the stabiliser bar.

AUTODOC recommends:

- Make sure that the stabiliser bar is supported.

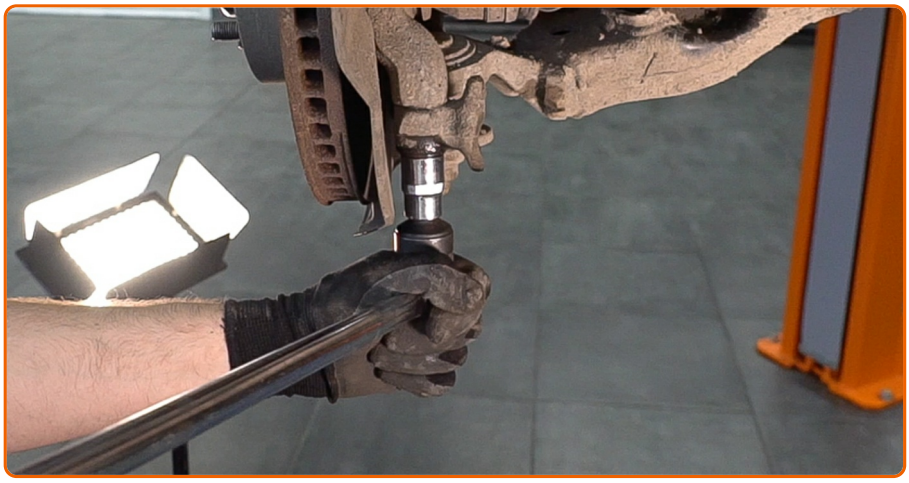
12

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

13

Unscrew the lower fastener of the shock absorber strut. Use a drive socket #19.

14



Unscrew the ball joint fastening to the steering knuckle. Use a drive socket #19. Use a tap wrench.

15

Remove the fastening bolt. Use a pin punch. Use a hammer.

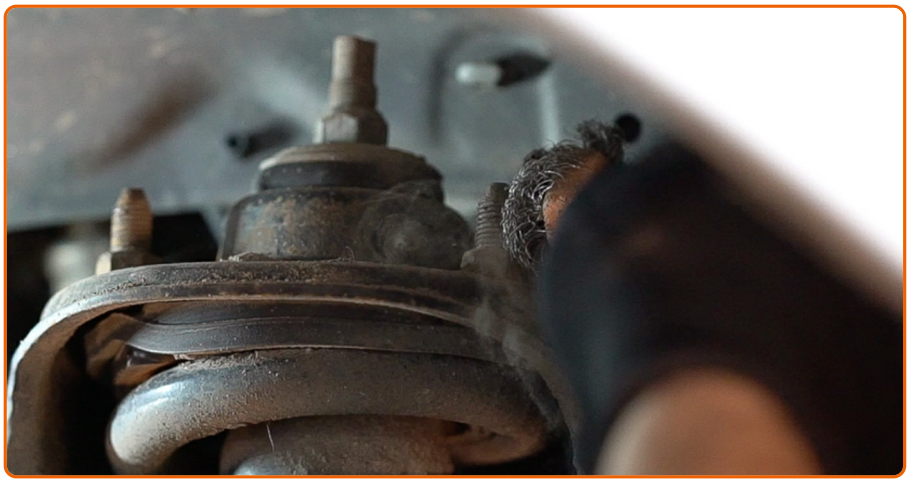
16

Disconnect the lower arm from the steering knuckle.

17.1

Clean the shock strut fasteners.

17.2



Use a wire brush. Use WD-40 spray.

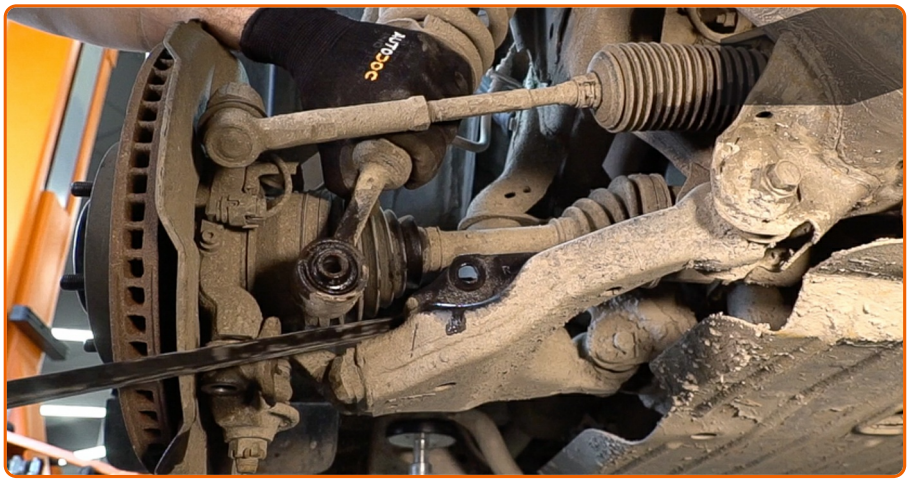
18

Unscrew the upper fastening of the shock absorber strut. Use a combination spanner #14.

19

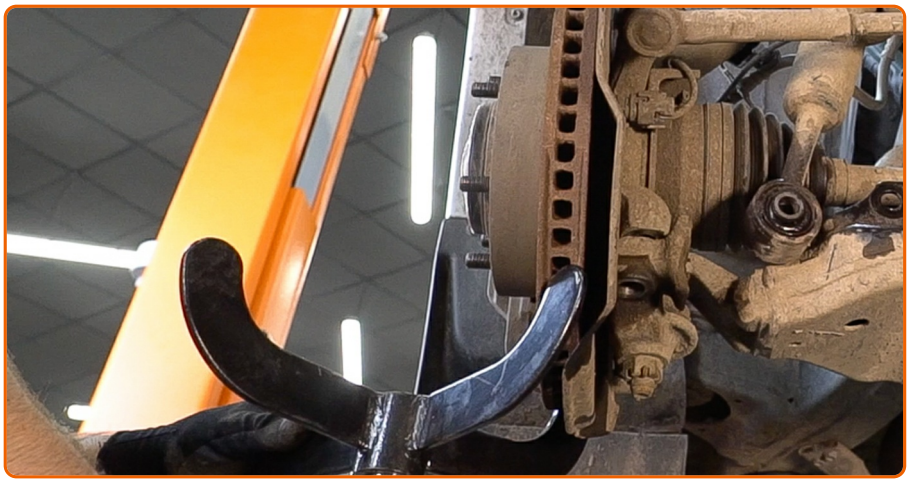
Remove the fastening bolt.

20



Detach the bottom part of the shock strut. Use a crowbar.

21



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

22

Pull down the suspension control arm. Remove the suspension strut. Use a crowbar.

23

Set the shock absorber strut on the spring compressor tool.

AUTODOC recommends:

- 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

Clean the shock absorber rod. Use a wire brush. Use WD-40 spray.

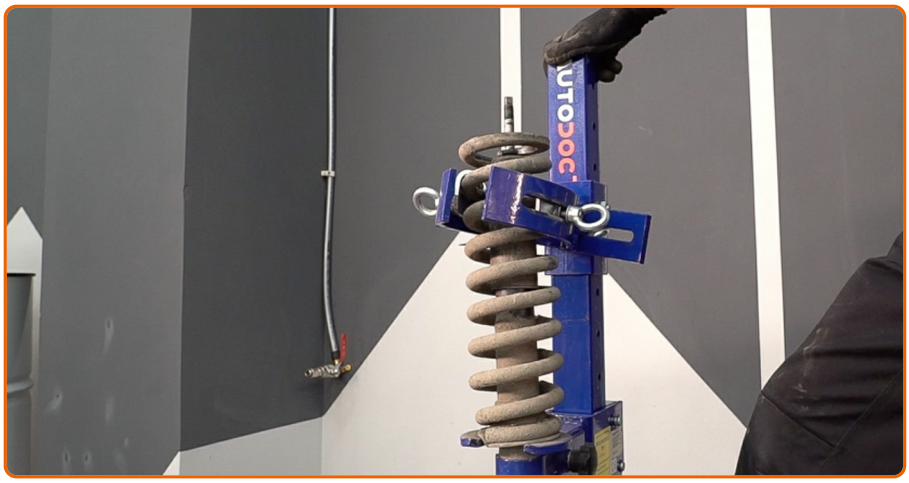
26

Remove the strut piston rod nut. Use a combination spanner #17. Use an adjustable wrench.

27

Remove the top strut mount. Use a crowbar.

28



Release the coil spring.

29

Remove the spring.

30

Remove the old shock absorber from the hydraulic coil spring compressor.

AUTODOC recommends:

- Before installing a new shock absorber you should pump it manually 3-5 times.

31

Install the new shock absorber on the hydraulic coil spring compressor.

32

Install the spring on 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 #17. Use an adjustable wrench. Use a torque wrench. Tighten it to 60 Nm torque.

AUTODOC recommends:

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

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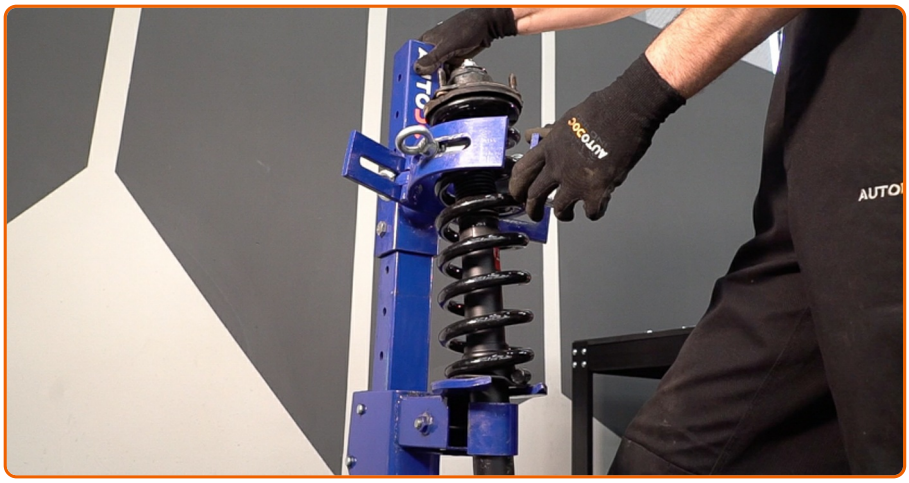
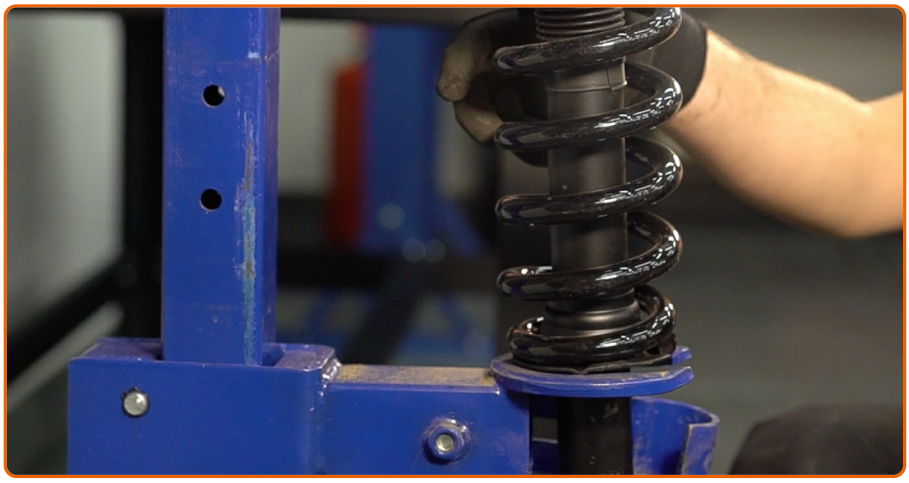


Decompress the spring.

37

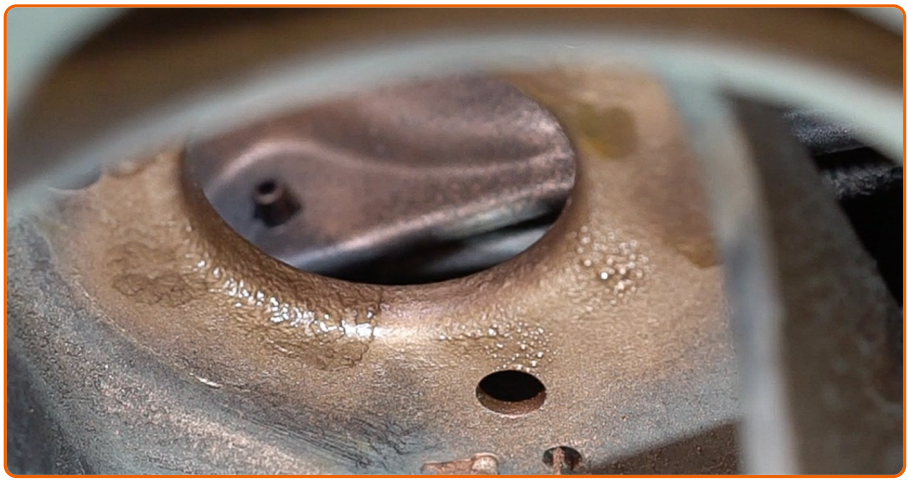


Remove the assembled shock strut.

38

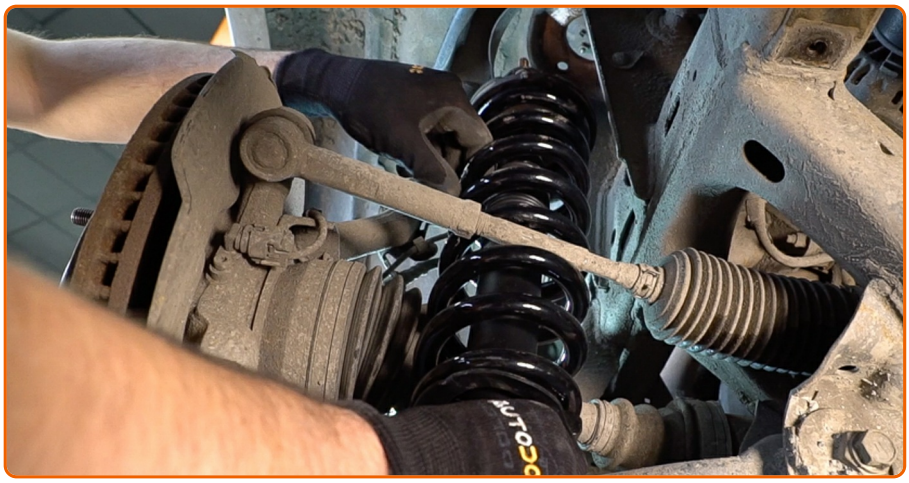
Clean the mounting seats of the shock strut. Use a wire brush.

39



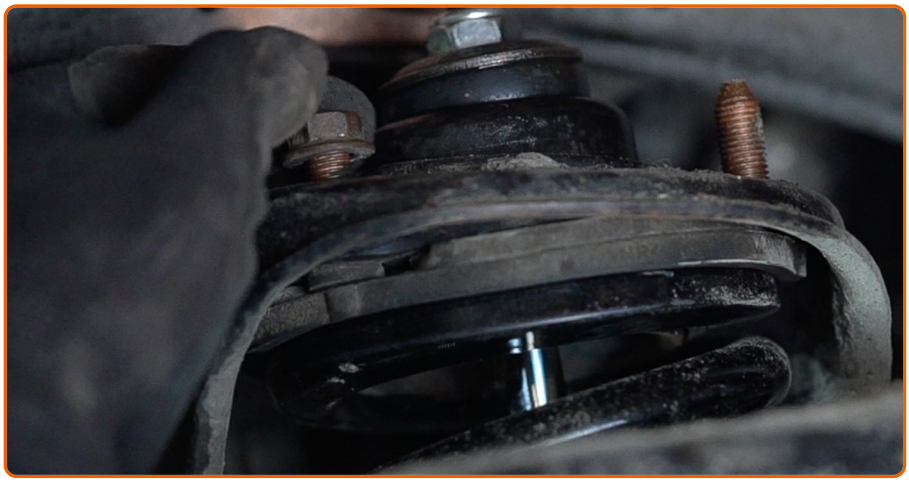
Treat the mounting seats of the shock strut. Use copper grease.

40



Install the shock strut into the wheel arch.

41



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

42

Clean the ball joint mounting seat. Use WD-40 spray.

43

Connect the lower arm to the steering knuckle.

44

Remove the support from under the steering knuckle.

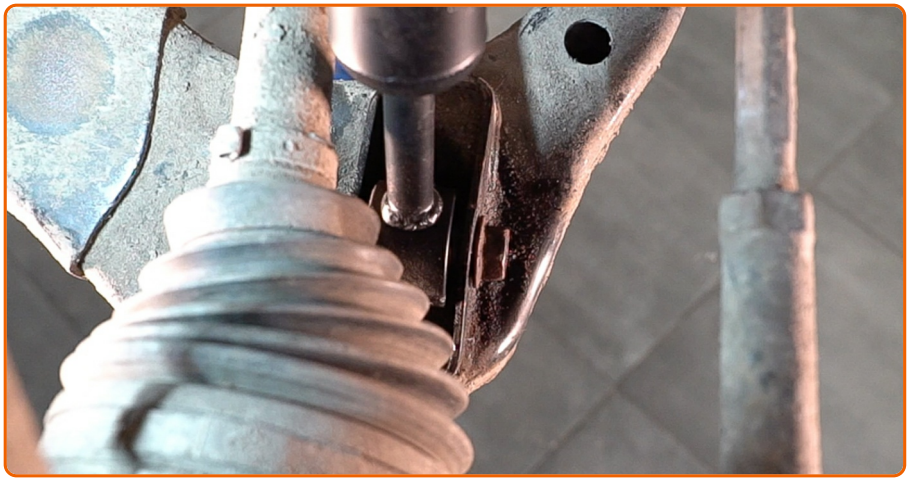
AUTODOC recommends:

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

45

Attach the bottom part of the shock strut. Use a crowbar. Use a pin punch.

46



Install the fastening bolt.

47

Support the arm. Use a hydraulic transmission jack.

48

Install the fastening bolt. Use a drive socket #19.

49

Screw in the lower fastener of the shock strut. Use a drive socket #19. Use a combination spanner #19.

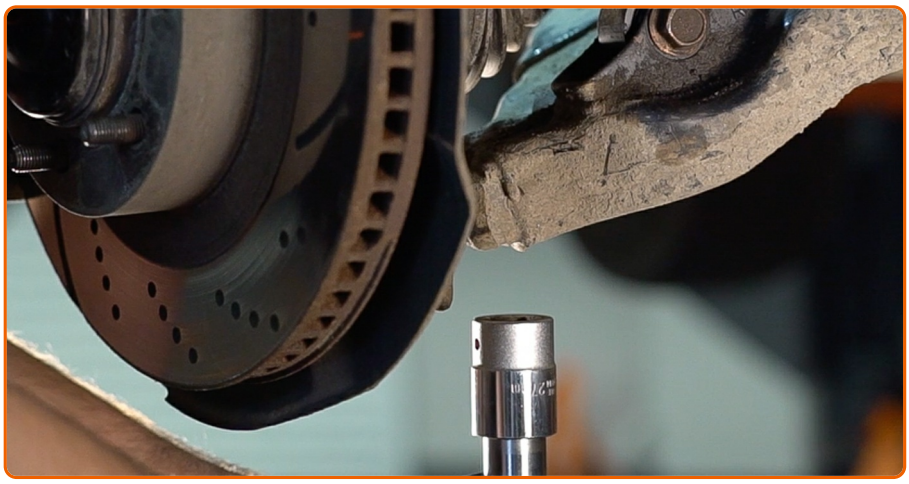
50

Screw the fastener connecting the ball joint to the steering knuckle. Use a drive socket #19. Use a torque wrench. Tighten it to 75 Nm torque.

51

Tighten the lower fastening of the shock absorber. Use a combination spanner #19. Use a drive socket #19. Use a torque wrench. Tighten it to 85 Nm torque.

52

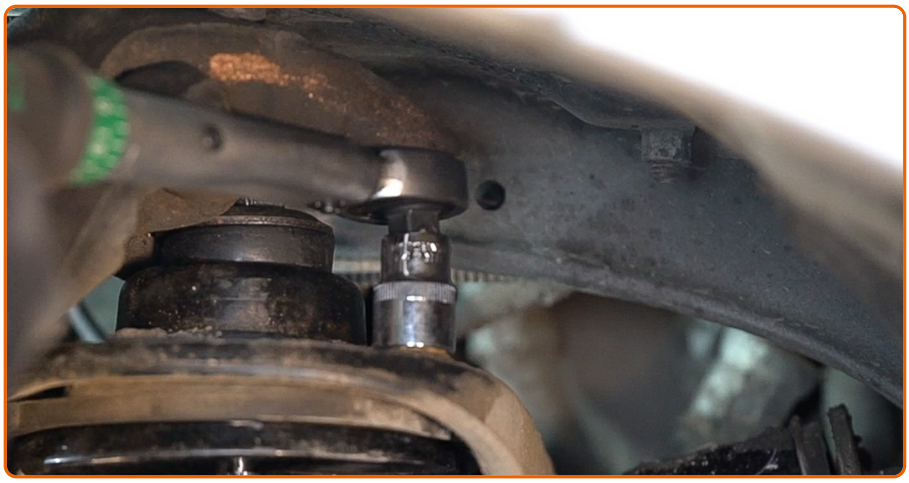


Remove the support from under the arm.

AUTODOC recommends:

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

53



Tighten the shock strut top mount. Use a drive socket #14. Use a torque wrench. Tighten it to 65 Nm torque.

54

Clean the mounting seats of the stabilizer bushes. Use a wire brush. Use WD-40 spray.

55

Install the stabiliser bar.

56

Screw the fasteners of the stabilizer bush brackets. Use a drive socket #14. Use a torque wrench. Tighten it to 60 Nm torque.

57

Tighten the fasteners connecting the stabilizer link to the steering knuckle. Use a combination spanner #17. Use a drive socket #17. Use HEX No.H6. Use a torque wrench. Tighten it to 65 Nm torque.

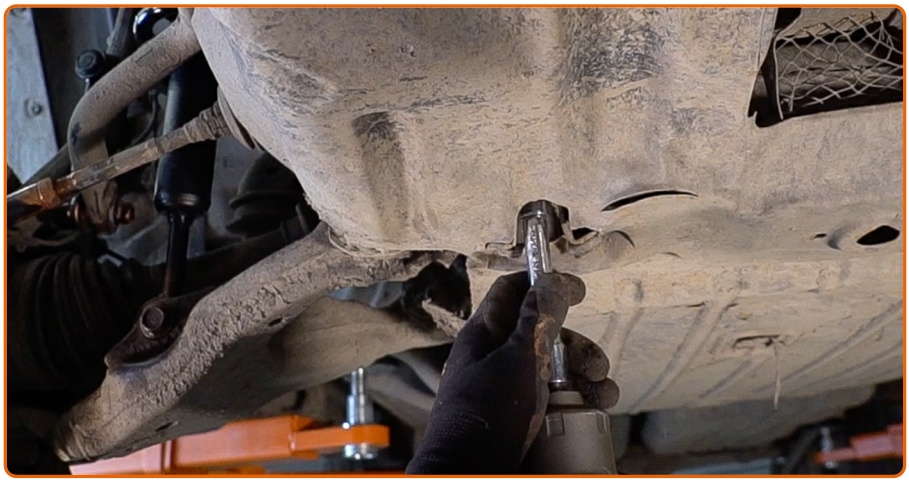
58

Treat the shock strut fasteners. Use copper grease.

59

Reinstall the oil pan lower cover.

60



Tighten the fasteners of the oil pan lower cover. Use a drive socket #12.

61

Clean the wheel rim mounting seat. Use a wire brush. Treat the contacting surface. Use copper grease.

62

Install the wheel.

AUTODOC recommends:

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

63

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

64

Lower the car and working in a cross order, tighten the wheel bolts. Use a torque wrench. Tighten it to 120 Nm torque.

65

Remove the jacks and chocks.

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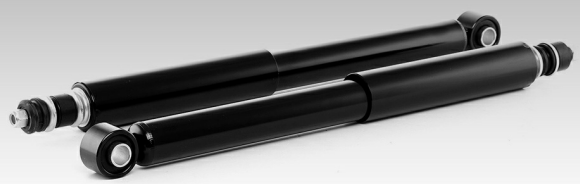

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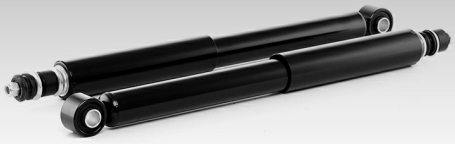

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