How to change front suspension strut on **Nissan X Trail T30** – replacement guide



### **VIDEO TUTORIAL**



(i) Important!

This replacement procedure can be used for: NISSAN X-TRAIL (T30) 2.0 4x4, NISSAN X-TRAIL (T30) 2.2 Di 4x4, NISSAN X-TRAIL (T30) 2.5 4x4, NISSAN X-TRAIL (T30) 2.2 dCi 4x4, NISSAN X-TRAIL (T30) 2.0, NISSAN X-TRAIL (T30) 2.2 dCi, NISSAN X-TRAIL (T30) 2.2 DCi, NISSAN X-TRAIL (T30) 2.2 DCi FWD

The steps may slightly vary depending on the car design.



### REPLACEMENT: SUSPENSION STRUT – NISSAN X TRAIL T30. TOOLS YOU NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Ceramic grease
- Copper grease
- Torque wrench
- Combination spanner #14
- Combination spanner #17
- Drive socket # 17
- Drive socket # 19

- 17-mm strut nut socket
- D10-mm strut nut socket
- Wheel impact socket #21
- Ratchet wrench
- Hammer
- Hydraulic strut spring compressor
- Crow bar
- Hydraulic transmission jack
- Fender cover
- Wheel chock

**BUY TOOLS** 





- 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.
- Please note: all work on the car Nissan X Trail T30 should be done with the engine switched off.

### CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:



Open the bonnet.



2

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





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



4

Loosen the suspension strut rod nut. Don't unscrew it completely. Use a drive socket #17. Use a ratchet wrench.



5

Loosen the upper fasteners of the suspension strut. Use a combination spanner #14.



### Replacement: suspension strut – Nissan X Trail T30. AUTODOC recommends:

 Do not completely unscrew the upper fasteners as they may hold also other suspension components.

Secure the wheels with chocks.

6



7

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



#### 8

Raise the car.



### Replacement: suspension strut – Nissan X Trail T30. Tip:

- If you are using a jack, make sure it rests on a flat surface without any unevenness.
- Be sure to additionally secure the car with jack stands.



Unscrew the wheel bolts.





### AUTODOC recommends:

• Warning! To avoid injury, hold the wheel while unscrewing the fastening bolts. Nissan X Trail T30

10

Remove the wheel.



11

Remove the fastener attaching the brake hose to the shock strut. Use a crowbar. Use a hammer.



12

Detach the brake hose from the shock strut.



13

Disconnect the ABS sensor wiring.





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



15

Unscrew the fasteners connecting the suspension strut to the steering knuckle. Use a combination spanner #17. Use a drive socket #19. Use a ratchet wrench.



16

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



17

Remove the fastening bolts.





Disconnect the steering knuckle from the shock absorber strut. Use a crowbar.



19

Unscrew the upper fasteners of the shock strut.



### AUTODOC recommends:

 Important! Hold the suspension strut while unscrewing the fastening bolts. Nissan X Trail T30

20

Remove the suspension strut.



21

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



22

Set the suspension 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.

23

Compress the spring.



24

Remove the strut piston rod nut. Use a drive socket #17. Use a ratchet wrench.





25

Remove the top strut mount.



26

Remove the shock absorber dust cap and the bump stop.



### AUTODOC recommends:

 Replacement: suspension strut – Nissan X Trail T30. Carefully inspect the mount, the boot, and the bump stop of the shock absorber. Replace if necessary.

27

Release the coil spring.



28

Remove the spring.





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



30

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



### AUTODOC recommends:

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

31

Install the spring on the shock absorber.



32

Compress the spring.





Install the dust sleeve and the bump stop on the new shock absorber.



34

Install the upper strut mount and the strut mount bearing.



# Replacement: suspension strut – Nissan X Trail T30. AUTODOC experts recommend:

• Make sure that the suspension strut is installed in the correct position, according to the markings.

35

Tighten the shock strut piston rod nut. Use a 17-mm strut nut socket. Use a D10-mm strut nut socket. Use a torque wrench. Tighten it to 60 nm torque.



### AUTODOC recommends:

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



36

Decompress the spring.



37

Treat the shock strut rod. Use copper grease.



38

Remove the assembled shock strut.



39

Install the shock strut into the wheel arch.



40

Secure the upper fasteners of the shock strut. Do not tighten it. Use a combination spanner #14.



### AUTODOC recommends:

- Nissan X Trail T30 To avoid injury, hold the suspension strut while screwing in the fastening bolts.
- 41

Fix the shock absorber strut on the steering knuckle.





Install the fastening bolts.



43

Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a combination spanner #17. Use a drive socket #19. Use a torque wrench. Tighten it to 140 Nm torque.



44

Connect the ABS sensor wiring.





45

Attach the brake hose to the suspension strut.



46

Install the brake hose retaining clip. Use a hammer.



47

Treat the shock strut fasteners. Use copper grease.



**48** 

Remove the support from under the steering knuckle.

### AUTODOC recommends:

 Replacement: suspension strut – Nissan X Trail T30. Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.



49

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



50

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



51

Clean the brake disk surface. Use a brake cleaner.



### AUTODOC recommends:

• After applying the spray, wait a few minutes.



Install the wheel.





- Warning! To avoid injury, hold the wheel while screwing in the fastening bolts on the car. Nissan X Trail T30
- 53

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



54

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 118 Nm torque.



55

Remove the jacks and chocks.



**(O)** 



Tighten the upper fasteners of the shock strut. Use a drive socket #14. Use a torque wrench. Tighten it to 45 Nm torque.



57

Treat the shock strut fasteners. Use copper grease.



58

Remove the fender protection cover.



59

Close the hood.





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