



How to change a front suspension spring on the
FORD Transit Mk6 Minibus (V347, V348) –
replacement guide

SIMILAR VIDEO TUTORIAL



This video shows the replacement procedure of a similar car part on another vehicle

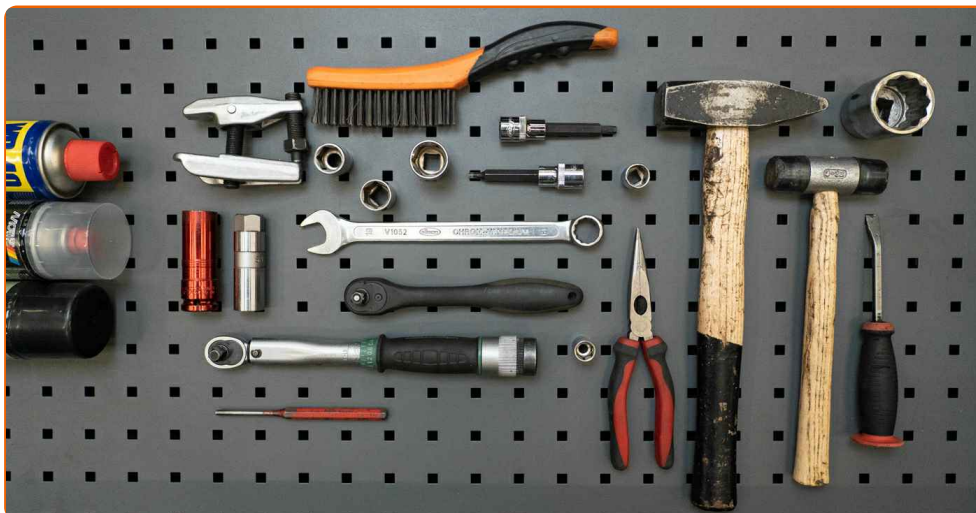
Important!

This replacement procedure can be used for:
FORD TRANSIT Bus 2.2 TDCi, FORD TRANSIT Bus 2.4 TDCi, FORD TRANSIT Bus 2.4 TDCi 4x4, FORD TRANSIT Bus 3.2 TDCi

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: FORD TRANSIT MK-7 Box 2.2 TDCi

**REPLACEMENT: COIL SPRINGS – FORD TRANSIT MK6
MINIBUS (V347, V348). TOOLS YOU'LL NEED:**



- Wire brush
- WD-40 spray
- All-purpose cleaning spray
- Ceramic grease
- Torque wrench
- 19 mm combination spanner
- 13 mm socket
- 15 mm socket
- 18 mm socket
- 19 mm socket
- 24 mm socket
- 36 mm socket
- 18 mm strut nut socket
- H5 hex bit
- H6 hex extension bar
- 21 mm wheel impact socket
- Ratchet wrench or power tool for removal/installation of threaded fasteners
- Tommy bar
- Mounting lever
- Long nose pliers
- Telescoping magnetic pick-up tool
- Pin punch
- Hammer
- Rubber mallet
- Ball joint separator
- Stationary spring compressor
- Transmission jack or a second vehicle jack
- Car lift or jack with jack stands, and wheel chocks

Buy tools

Replacement: coil springs – FORD Transit Mk6 Minibus (V347, V348).
 AUTODOC recommends:

- The struts, coil springs, and strut mounts of the front suspension should be replaced in pairs.
- The replacement procedure is identical for the right and left struts, coil springs, and strut mounts of the front suspension, with the exception of the steps for accessing the fasteners of the left and right strut mounts.
- Please note: all work on the car – FORD Transit Mk6 Minibus (V347, V348) – should be done with the engine switched off.

CARRY OUT THE REPLACEMENT STEPS AS FOLLOWS:

1 Open the car door.



2 Open the glove box.



3 Press down on the glove box retaining tabs to detach it.



4 Remove the glove box.



5 Fold back the insulation that covers the strut mount fasteners.



6 Clean the fasteners of the top strut mount. Use a wire brush. Use WD-40 spray.



7

Loosen the strut mount fasteners. Use a 13 mm socket. Use a ratchet wrench.

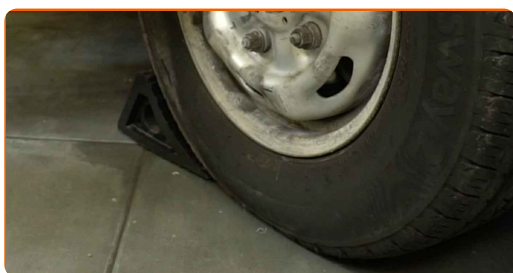


Warning!

- Do not unscrew the nuts completely.

8

Secure the wheels with chocks.



9

Remove the wheel centre cap.

10

Loosen the wheel nuts. Use a 21 mm wheel impact socket. Use a tommy bar.



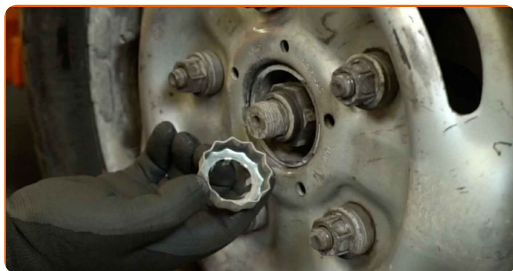
11

Remove the cotter pin that secures the axle fastener. Use a mounting lever. Use long nose pliers.



12

Remove the castle cover from the axle nut.



13

Clean the axle nut. Use a wire brush. Use WD-40 spray.



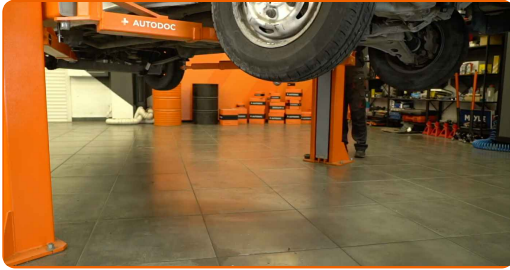
14

Loosen the axle nut. Use a 36 mm socket. Use a tommy bar.



15

Raise the vehicle.



Replacement: coil springs – FORD Transit Mk6 Minibus (V347, V348).
AUTODOC experts recommend:

- If you are using a jack, make sure the car is parked on a hard, flat surface.
- Make sure to additionally secure the car with jack stands.

16

Unscrew the wheel nuts.



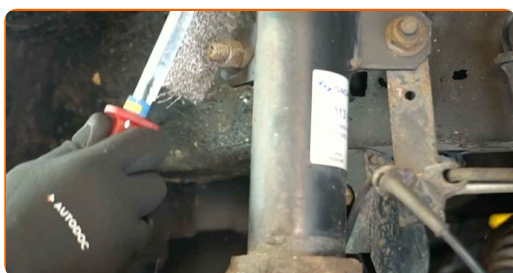
Replacement: coil springs – FORD Transit Mk6 Minibus (V347, V348). Tip:

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

17 Remove the wheel.

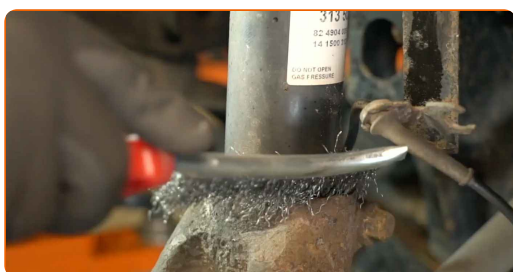


18 Clean the fastener that connects the anti-roll bar link to the suspension strut. Use a wire brush. Use WD-40 spray.



19 Clean the fastener of the ABS sensor cable bracket. Use a wire brush. Use WD-40 spray.

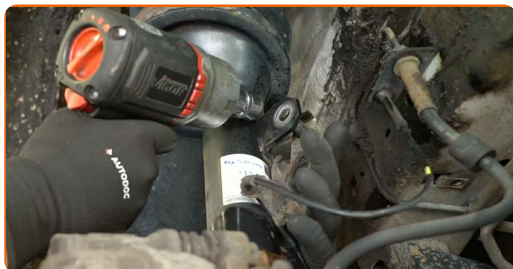
20 Clean the fastener connecting the suspension strut to the steering knuckle. Use a wire brush. Use WD-40 spray.



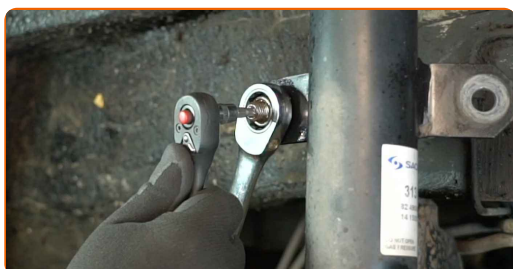
21 Unscrew the fastener of the ABS sensor cable bracket. Use an 18 mm socket. Use a ratchet wrench.



22 Detach the ABS sensor cable bracket from the suspension strut.



23 Unscrew the fastener connecting the anti-roll bar link to the suspension strut. Use a 19 mm combination spanner. Use an H5 hex bit. Use a ratchet wrench.



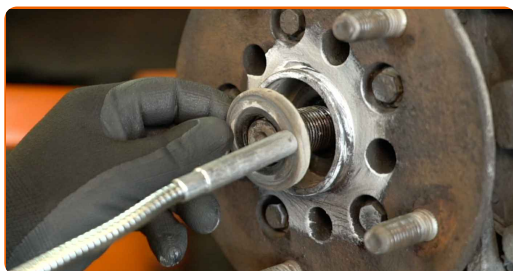
24 Disconnect the anti-roll bar link from the suspension strut.



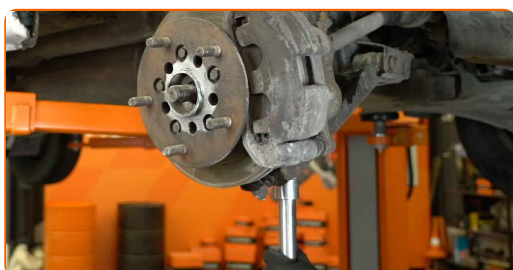
25 Unscrew the axle nut. Use a 36 mm socket. Use a ratchet wrench.



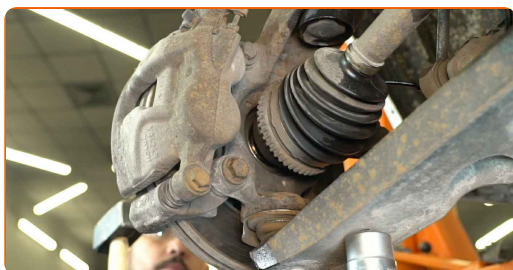
26 Remove the axle washer. Use a telescoping magnetic pick-up tool.



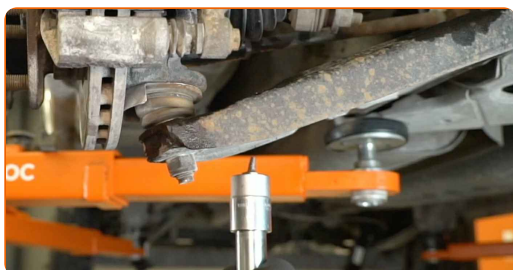
27 Support the suspension arm. Use a transmission jack or one more vehicle jack.



28 Detach the CV axle from the steering knuckle. Use a pin punch. Use a hammer.



29 Remove the support from under the suspension arm.

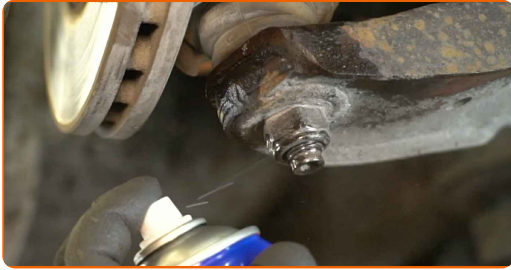


AUTODOC recommendation:

- Lower the transmission or vehicle jack smoothly without jerking it to avoid damaging the vehicle assemblies and mechanisms.

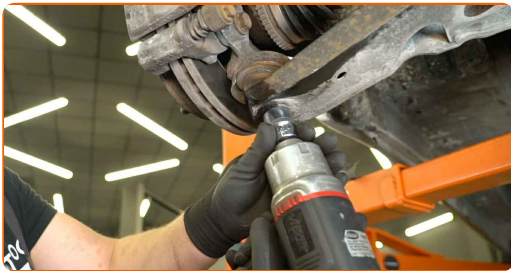
30

Clean the fastener that connects the ball joint to the suspension arm. Use a wire brush. Use WD-40 spray.



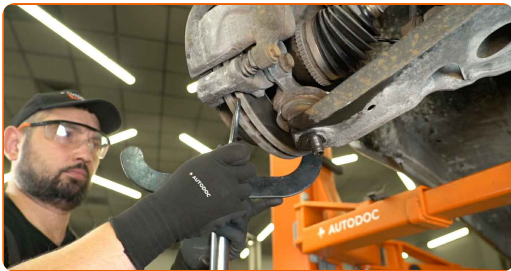
31

Unscrew the fastener connecting the ball joint to the suspension arm. Use a 24 mm socket. Use a ratchet wrench.



32

Support the steering knuckle. Use a transmission jack or one more vehicle jack.



33

Disconnect the ball joint from the suspension arm. Use a ball joint separator. Use a mounting lever.



34

Remove the support from under the steering knuckle.

35

Release the ball joint from the suspension arm by pulling down the suspension arm with the mounting lever.

- 36 After releasing the ball joint, move the steering knuckle a little to the side and carefully return the suspension arm to its original position.
- 37 Support the steering knuckle again.
- 38 Remove the CV axle from the steering knuckle.
- 39 Tie the CV axle to the car body with a wire.

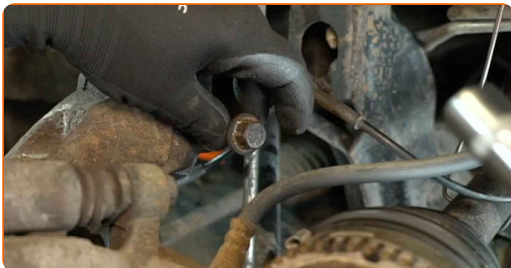
Replacement: coil springs – FORD Transit Mk6 Minibus (V347, V348). Tip from AUTODOC:

- Make sure that the CV axle is not hanging down.

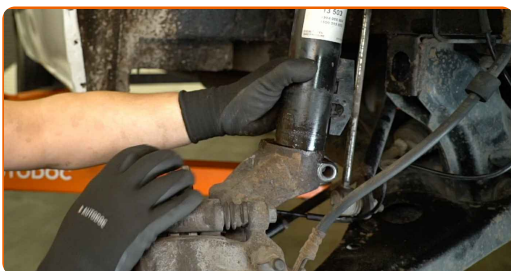
- 40 Unscrew the lower fastener of the suspension strut. Use a 15 mm socket. Use a ratchet wrench.



- 41 Remove the fastening bolt.



- 42 Disconnect the steering knuckle from the suspension strut. Use a rubber mallet. Use a transmission jack or one more vehicle jack.

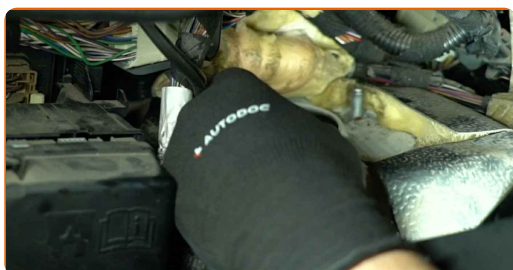


Warning!

- Make sure that the steering knuckle is not hanging loose on the brake hose or electric cable.

43

Unscrew the fasteners of the suspension strut mount.

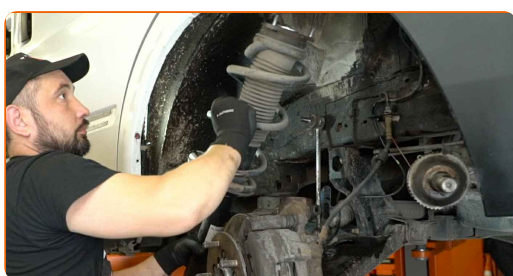


Replacement: coil springs – FORD Transit Mk6 Minibus (V347, V348).
Professionals recommend:

- To avoid injuries, hold the strut when undoing the fasteners.

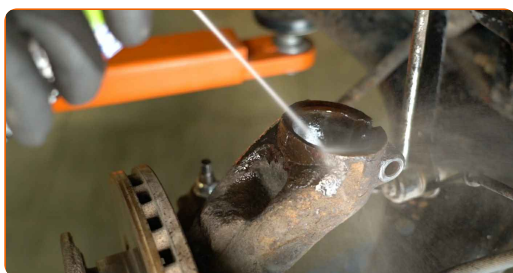
44

Remove the suspension strut assembly.

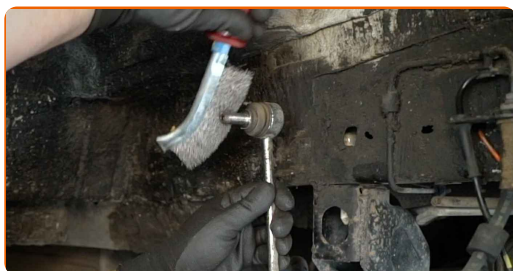


45

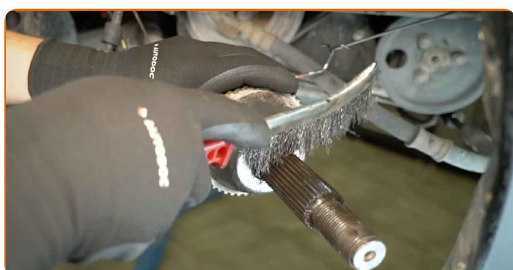
Clean the mounting seats of the suspension strut. Use a wire brush. Use an all-purpose cleaning spray.



46 Clean the fastener on the anti-roll bar link. Use a wire brush. Use an all-purpose cleaning spray.



47 Clean the splines of the CV axle joint. Use a wire brush. Use an all-purpose cleaning spray.



48 Depending on what part you are replacing, you may have to disassemble the suspension strut. But if you use all new components, then you will not need to disassemble the old strut. In this case, a stationary spring compressor will only be required to assemble a new strut if its parts were purchased separately.

49 Set the suspension strut assembly on the stationary spring compressor.



Replacement: coil springs – FORD Transit Mk6 Minibus (V347, V348). Tip from AUTODOC experts:

- When using a stationary spring compressor, the spring coils must be securely clamped, compressing the spring from both ends.
- Make sure the spring is in the correct position.
- Make sure that the compressor jaws are tightly engaged onto the coils.

50

Compress the spring.



51

Clean the top part of the strut piston rod. Use a wire brush. Use WD-40 spray.

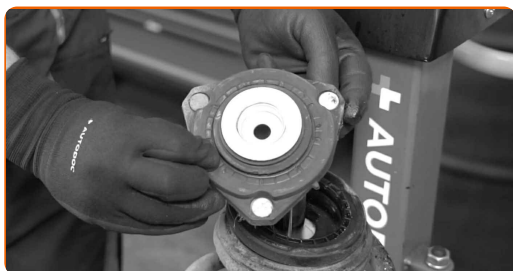


52

Unscrew the strut piston rod nut. Use an 18 mm strut nut socket. Use an H6 hex extension bar. Use a ratchet wrench.



53 Remove the top strut mount.



54 Release the spring.



55 Remove the mount bearing and the bump stop.



56 Remove the spring.

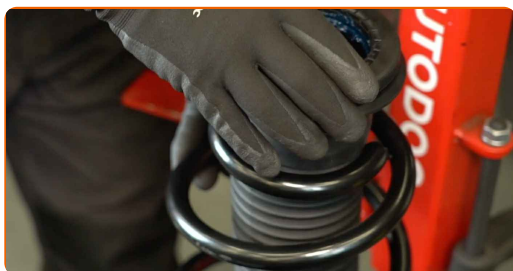


57 Remove the dust boot.

58 Install a new spring on the strut.



59 Install a dust boot, bump stop, and mount bearing.



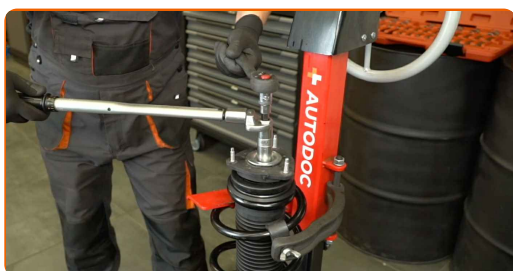
60 Compress the spring.



61 Install a top strut mount.



62 Install and tighten the strut piston rod nut. Use an 18 mm strut nut socket. Use an H6 hex extension bar. Use a torque wrench. Tightening torque: 70 N·m.



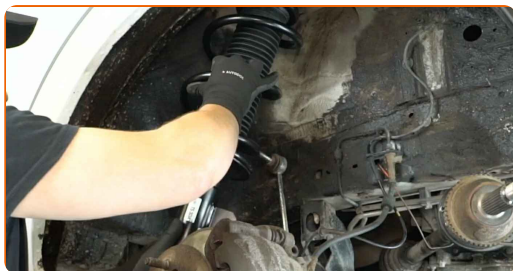
63 Release the spring.



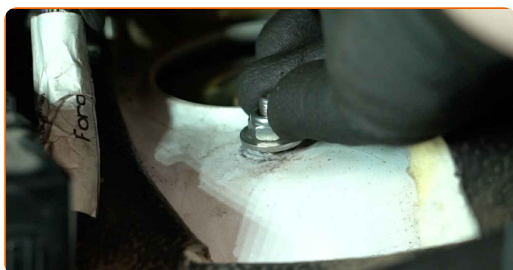
64 Remove the strut assembly from the spring compressor.



65 Install the strut assembly into the wheel arch.



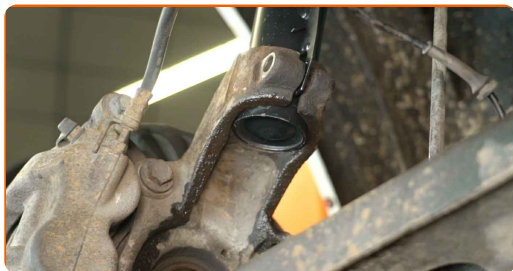
66 Screw on the strut mount fasteners. Do not tighten them.



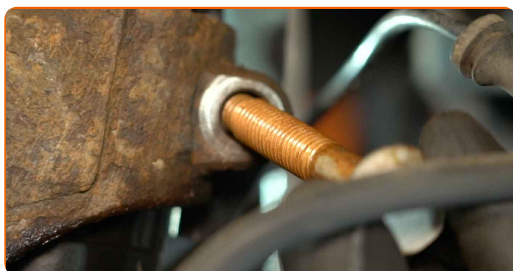
Caution!

- To avoid injuries, hold the strut when screwing the fastening nuts on.

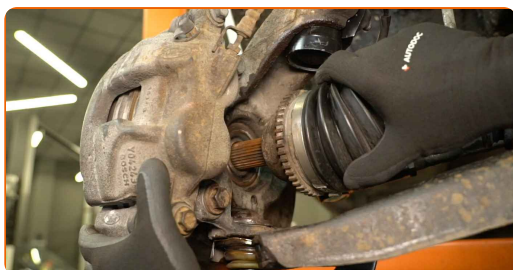
67 Secure the strut on the steering knuckle. Use a transmission jack or one more vehicle jack.



68 Install and screw in the fastening bolt.



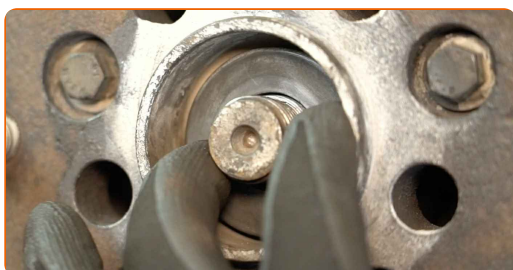
69 Install the CV axle.



Warning!

- When reassembling, use a new axle nut kit: a washer, a nut, a castle cover, and a cotter pin.

70 Install the axle washer.



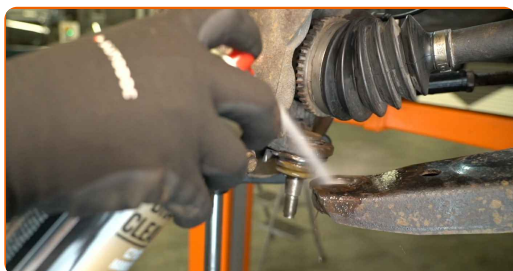
71

Screw on the axle nut. Use a 36 mm socket. Use a ratchet wrench.



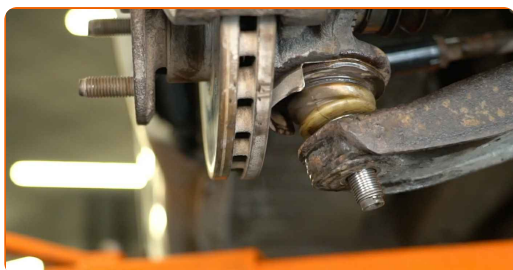
72

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



73

Attach the ball joint to the suspension arm and screw on the fastening nut. Use a mounting lever.

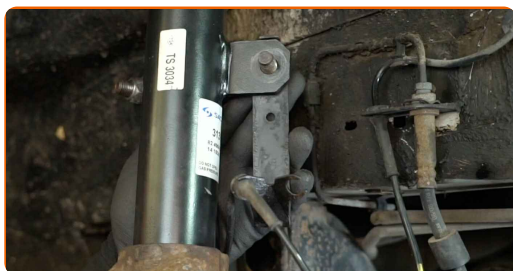


74

Install the anti-roll bar link and screw on the fastening nut.



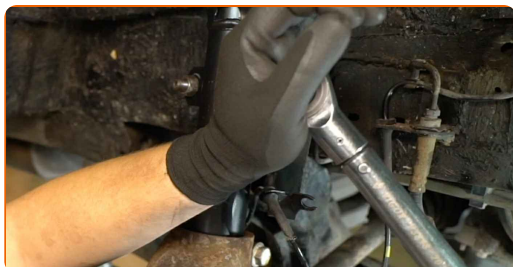
75 Install the ABS sensor cable bracket and screw on the fastening nut.



76 Tighten the fastener connecting the anti-roll bar link to the suspension strut. Use a 19 mm socket. Use a torque wrench. Tightening torque: 55 N·m.

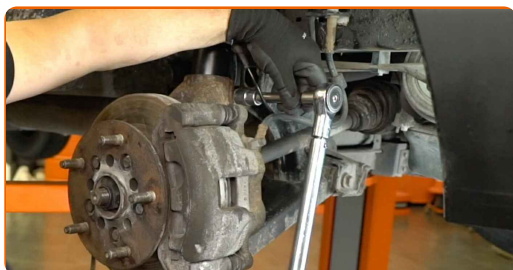


77 Tighten the fastener of the ABS sensor cable bracket. Use an 18 mm socket. Use a torque wrench. Tightening torque: 45 N·m.



78 Jack up the steering knuckle.

79 Tighten the lower fastener of the suspension strut. Use an 18 mm socket. Use a torque wrench. Tightening torque: 100 N·m + 180°.

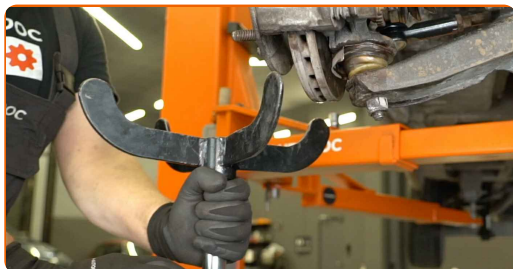


Important!

- Make sure to use new fasteners.

80

Remove the support from under the steering knuckle.

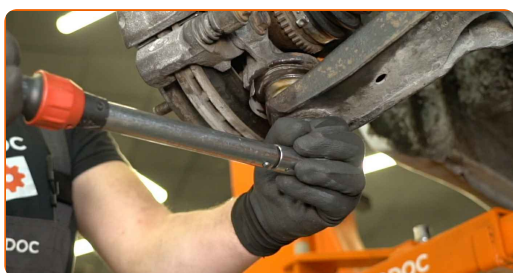


**Replacement: coil springs – FORD Transit Mk6 Minibus (V347, V348).
AUTODOC recommends:**

- Lower the transmission or vehicle jack smoothly without jerking it to avoid damaging the vehicle assemblies and mechanisms.

81

Tighten the fastener that connects the suspension arm to the ball joint. Use a 24 mm socket. Use a torque wrench. Tightening torque: 150 N·m.



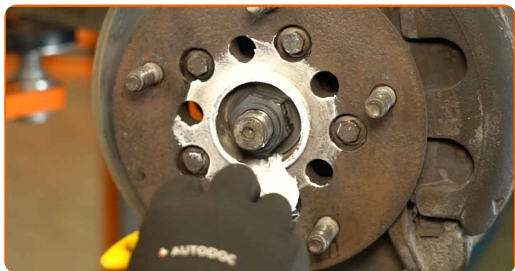
82

Clean the wheel rim mounting seat. Use a wire brush. Use an all-purpose cleaning spray.



83

Treat the wheel hub surface that contacts the wheel rim. Use ceramic grease.



84

Install the wheel.



Caution!

- To avoid injury, hold up the wheel when screwing on the fastening nuts.

85

Screw on the wheel nuts. Use a 21 mm wheel impact socket. Use a ratchet wrench.



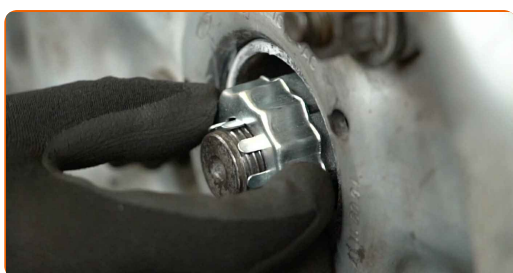
- 86** Lower the car and tighten the wheel nuts in a criss-cross pattern. Use a 21 mm wheel impact socket. Use a torque wrench. Tightening torque: 200 N·m.



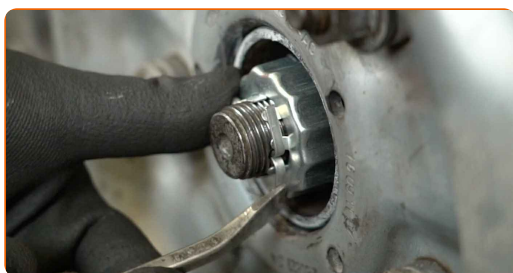
- 87** Tighten the axle nut. Use a 36 mm socket. Use a torque wrench. Tightening torque: 320 N·m.



- 88** Install the castle cover on the axle nut.



- 89** Install the cotter pin. Use a mounting lever.



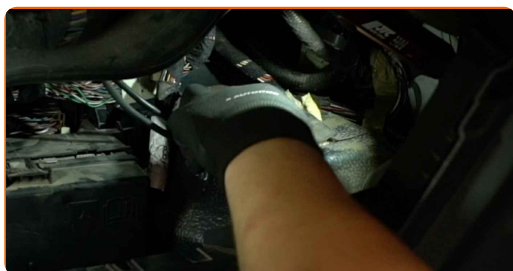
- 90** Install the wheel centre cap.

- 91** Remove the jack, jack stands, and wheel chocks.

92 Tighten the strut mount fasteners. Use a 13 mm socket. Use a torque wrench. Tightening torque: 30 N·m.



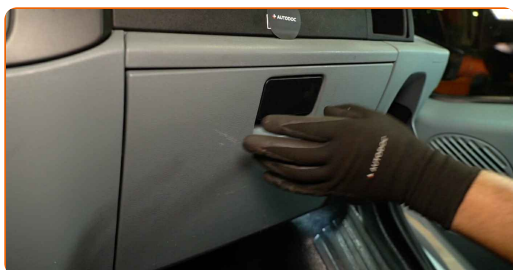
93 Put the insulation that covers the strut mount fasteners back in place.



94 Install the glove box by pressing down on its retaining tabs.



95 Close the glove box.



96

Close the car door.



WELL DONE! 

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