VIDEO TUTORIAL

ⓘ Important!

This replacement procedure can be used for:
BMW 1 (E81) 130 i, BMW 1 (E87) 130 i, BMW 1 Convertible (E88) 125 i, BMW 1 Coupe (E82) 125 i, BMW 3 (E90) 330 i, BMW 3 Convertible (E93) 330 i, BMW 3 Coupe (E92) 330 i, BMW 5 (E60) 530 i, BMW 5 Touring (E61) 530 i, BMW 6 (E63) 630 i, BMW 6 Convertible (E64) 630 i, BMW X3 (E83) 3.0 si, BMW X3 (E83) xDrive 30 i

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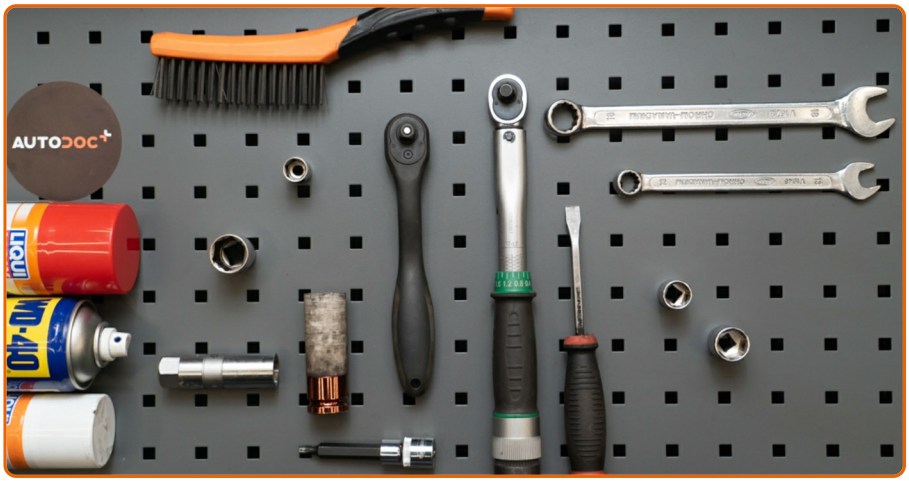
The steps may slightly vary depending on the car design.

REPLACEMENT: STRUT MOUNT – BMW E82. TOOLS YOU'LL NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Combination spanner #13
- Combination spanner #18
- HEX bit no.H6.
- Drive socket # 13
- Drive socket # 15
- Drive socket # 18
- Drive socket # 21
- Wheel impact socket #17
- Shock absorber socket
- Ratchet wrench
- Torque wrench
- Tap wrench
- Crow bar
- Hydraulic strut spring compressor
- Hydraulic transmission jack
- Fender cover
- Wheel chock

Replacement: strut mount – BMW E82. AUTODOC experts recommend:

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

REPLACEMENT: STRUT MOUNT – BMW E82. RECOMMENDED SEQUENCE OF STEPS:

1

Open the bonnet.

2

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

3

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

4

Loosen the upper fastener of the shock strut mount. Use a combination spanner #13.

5

Secure the wheels with chocks.

6

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

7

Raise the front of the car and secure on supports.

8

Unscrew the wheel bolts.

Replacement: strut mount – BMW E82. Tip:

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

9

Remove the wheel.

10

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

11

Unscrew the fastener connecting the stabilizer link to the shock strut. Use a combination spanner #18. Use a drive socket #15. Use a ratchet wrench.

12

Remove the stabilizer rod.

13

Disconnect the ABS sensor wiring.

14

Detach the ABS sensor connector.

15

Spread the brake pads. Use a crowbar.

16

Clean the brake caliper bracket fasteners. Use a wire brush. Use WD-40 spray.

17

Unscrew the caliper bracket fastening. Use a drive socket #18. Use a tap wrench.

18

Remove the brake caliper together with its bracket.

Replacement: strut mount – BMW E82. AUTODOC recommends:

- Tie the caliper to the suspension or to the body with a wire without disconnecting from the brake hose to prevent depressurization of the brake system.
- Make sure that the brake caliper is not hanging on the brake hose.
- Don't press the brake pedal after the brake caliper has been removed. As a result, the piston can fall out from the brake cylinder, and brake fluid leakage and depressurization of the system may occur.

19

Clean the fastener connecting the tie rod end to the steering knuckle. Use a wire brush. Use WD-40 spray.

20

Unscrew the end fastening nut to the steering knuckle. Use a drive socket #21. Use a ratchet wrench.

21

Disconnect the tie rod end from the steering knuckle.

22

Clean all joints of the arm. Use a wire brush. Use WD-40 spray.

23

Unscrew the rear fastener connecting the control arm to the subframe. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.

24

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

25

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

26

Unscrew the front arm fastener. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.

27

Remove the fastening bolts.

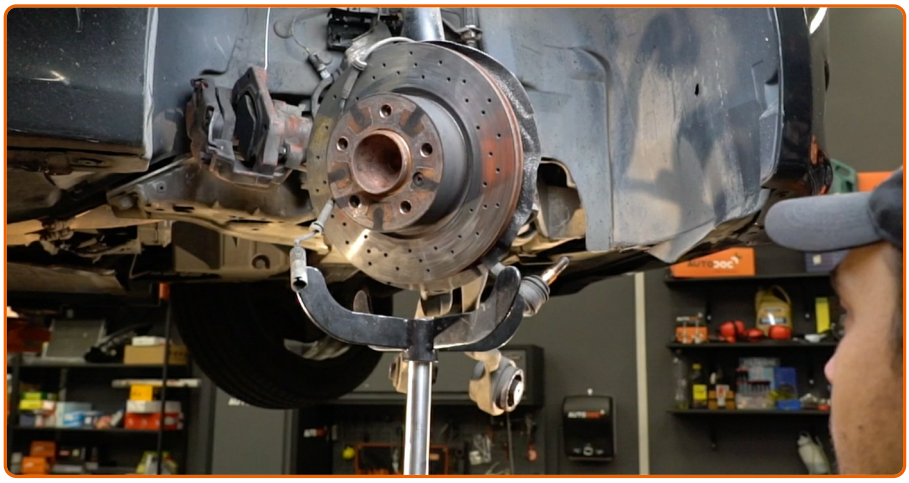
28

Remove the control arms. Use a crowbar.

29

Remove the fastening bolt.

30

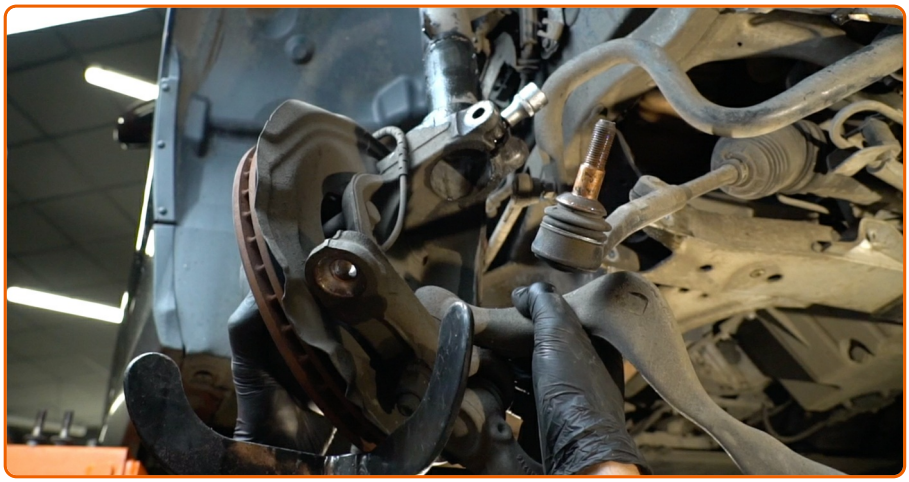


Prop up the steering knuckle. Use a hydraulic transmission jack.

31

Release the lower fastener connecting the shock strut to the steering knuckle. Use a special drive socket to remove the shock absorber. Use a ratchet wrench.

32



Lower the hydraulic transmission jack by 10-15 cm.

AUTODOC recommends:

- Replacement: strut mount – BMW E82. Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

33

Disconnect the steering knuckle from the shock absorber strut.

34

Unscrew the top fastening of the shock strut mount.

Replacement: strut mount – BMW E82. Tip from AUTODOC:

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

35

Remove the suspension strut.

36

Set the shock absorber strut on the spring compressor tool.

Replacement: strut mount – BMW E82. 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.

37

Compress the spring.

38

Remove the shock strut mount cap. Use a crowbar.

39

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

40

Remove the strut piston rod nut. Use a drive socket #21. Use HEX No.H6. Use a ratchet wrench.

41

Remove the top strut mount.

Replacement: strut mount – BMW E82. Professionals recommend:

- Examine the shock absorber dust cap and the bump stop. Replace them if necessary.

42

Install the upper strut mount and the strut mount bearing.

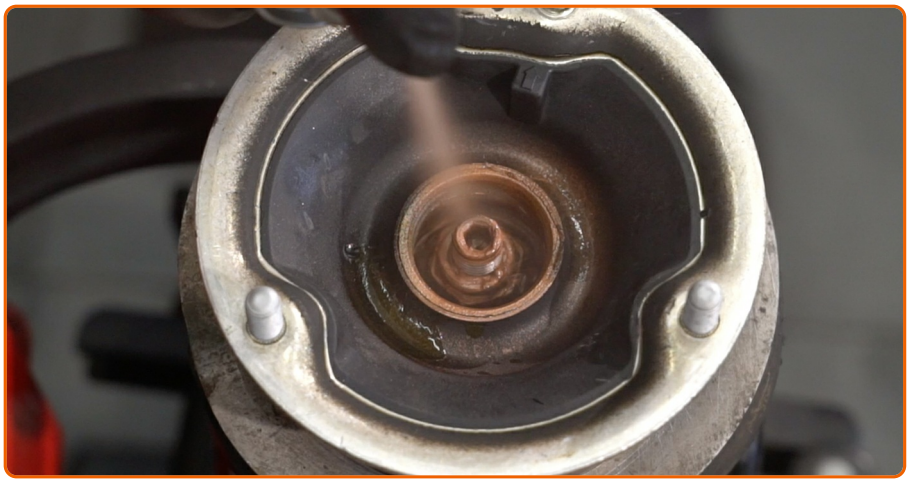
43

Tighten the shock strut piston rod nut. Use a drive socket #21. Use HEX No.H6. Use a torque wrench. Tighten it to 60 Nm torque.

Replacement: strut mount – BMW E82. AUTODOC recommends:

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

44



Treat the shock strut rod. Use copper grease.

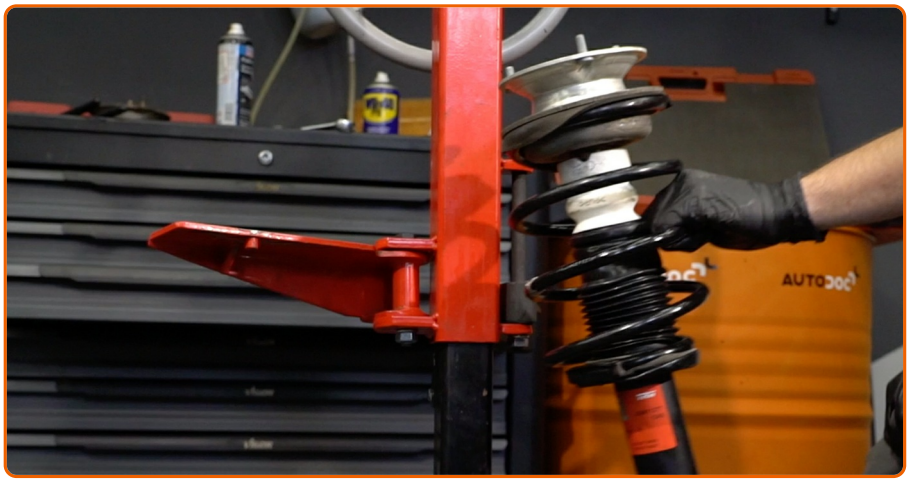
45

Install the shock strut mount cap.

46

Decompress the spring.

47



Remove the assembled shock strut.

48

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

49

Install the shock strut into the wheel arch.

50

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

AUTODOC recommends:

- Important! Hold the suspension strut while screwing in the fastening bolts. BMW E82

51

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

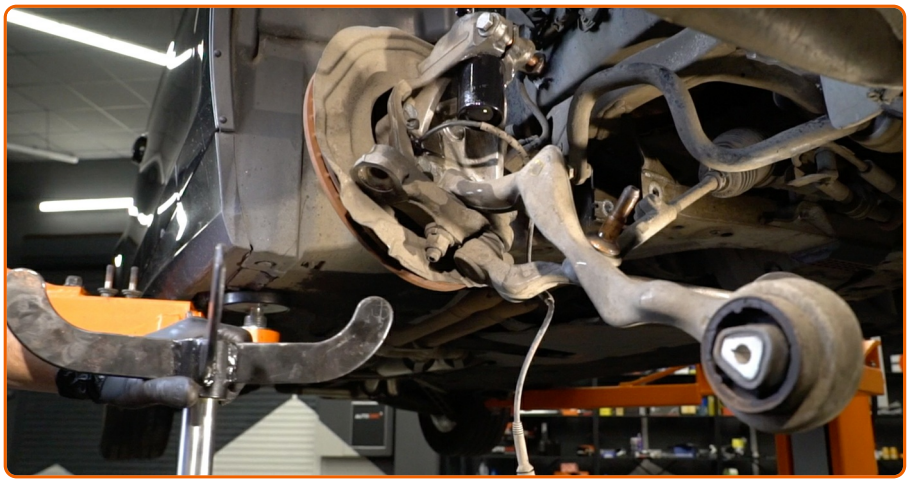
52

Fix the shock absorber strut on the steering knuckle.

53

Install the fastening bolt.

54



Remove the support from under the steering knuckle.

AUTODOC recommends:

- BMW E82 – Do not lower the transmission jack sharply to avoid damaging components and mechanisms of the car.

55

Clean the mounting seats and the thread of the suspension arm. Use a wire brush. Use WD-40 spray.

56

Install the control arms.

57

Install the fastening bolts.

58

Clean the mounting seats of the tie rod end. Use a wire brush. Use WD-40 spray.

59

Connect the tie rod end to the steering knuckle.

60

Screw on the fastening nut that connects the tie rod end to the steering knuckle. Use a drive socket #21. Use a ratchet wrench.

61

Install the brake caliper together with its bracket.

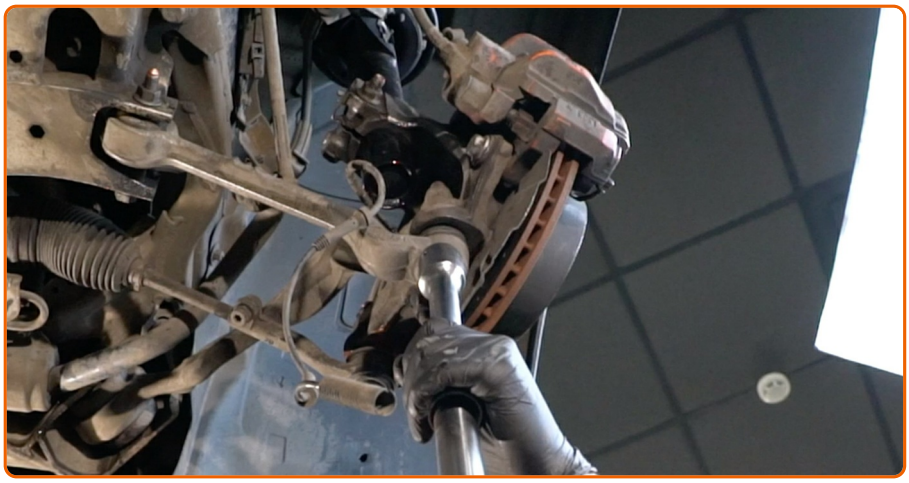
62

Tighten the brake caliper bracket. Use a drive socket #18. Use a torque wrench. Tighten it to 105 Nm torque.

63

Screw in the fastener that connects the shock strut to the steering knuckle. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.

64



Support the arm. Use a hydraulic transmission jack.

65

Tighten the rear fastener of the control arm. Use a combination spanner #18. Use a drive socket #18. Use a torque wrench. Tighten it to 89 Nm torque.

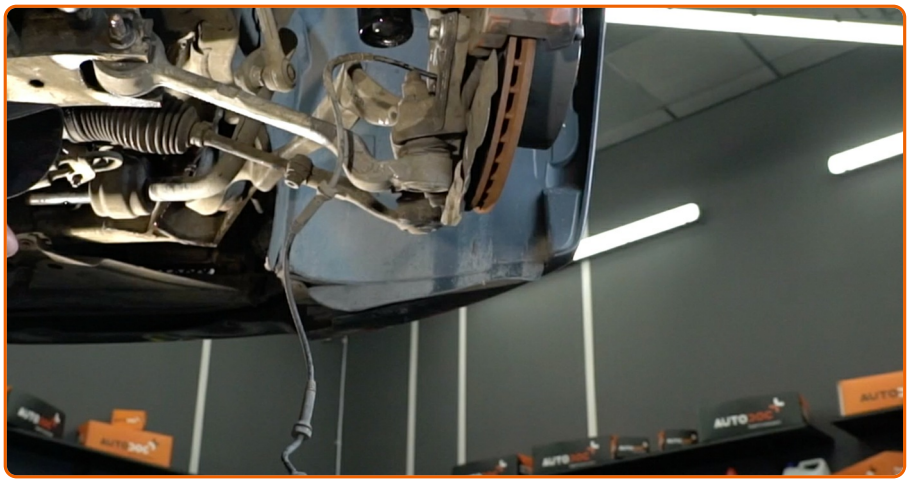
66

Tighten the front fastener connecting the control arm to the subframe. Use a combination spanner #18. Use a drive socket #18. Use a torque wrench. Tighten it to 89 Nm torque.

67

Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a combination spanner #18. Use a drive socket #18. Use a torque wrench. Tighten it to 82 Nm torque.

68



Remove the support from under the arm.

Replacement: strut mount – BMW E82. AUTODOC experts recommend:

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

69

Tighten the fastening nut connecting the tie rod end to the steering knuckle. Use a drive socket #21. Use a torque wrench. Tighten it to 90 nm torque.

70

Attach the ABS sensor connector.

71

Connect the ABS sensor wiring.

72

Install the transverse stabilizer link.

73

Tighten the fastener connecting the stabilizer link to the shock strut. Use a combination spanner #18. Use a drive socket #15. Use a torque wrench. Tighten it to 65 Nm torque.

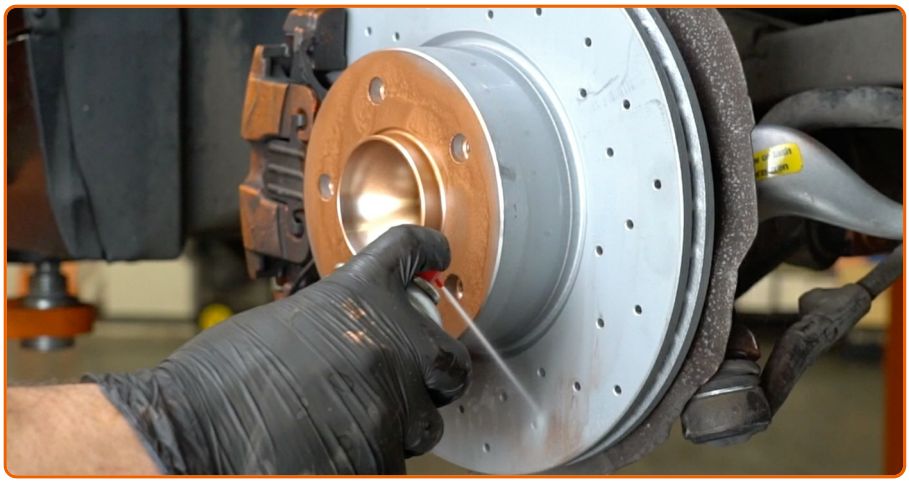
74

Treat all joints of the arm. Treat the shock strut fasteners. Use copper grease.

75

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

76



Clean the brake disk surface. Use a brake cleaner.

AUTODOC recommends:

- Replacement: strut mount – BMW E82. After applying the spray, wait a few minutes.

77

Install the wheel.

Replacement: strut mount – BMW E82. Tip from AUTODOC experts:

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

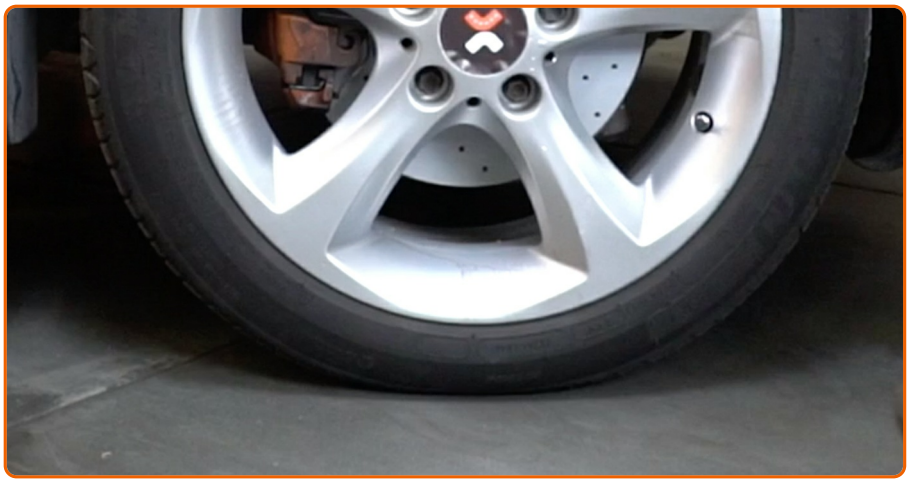
78

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

79

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 120 nm torque.

80



Remove the jacks and chocks.

81

Tighten the upper fastener of the shock absorber strut mount. Use a drive socket #13. Use a torque wrench. Tighten it to 41 Nm torque.

82

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

83

Remove the fender protection cover.

84

Close the hood.

AUTODOC recommends:

- BMW E82 – Press the brake pedal several times with the engine shut down until you feel the resistance built up.

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YES NO

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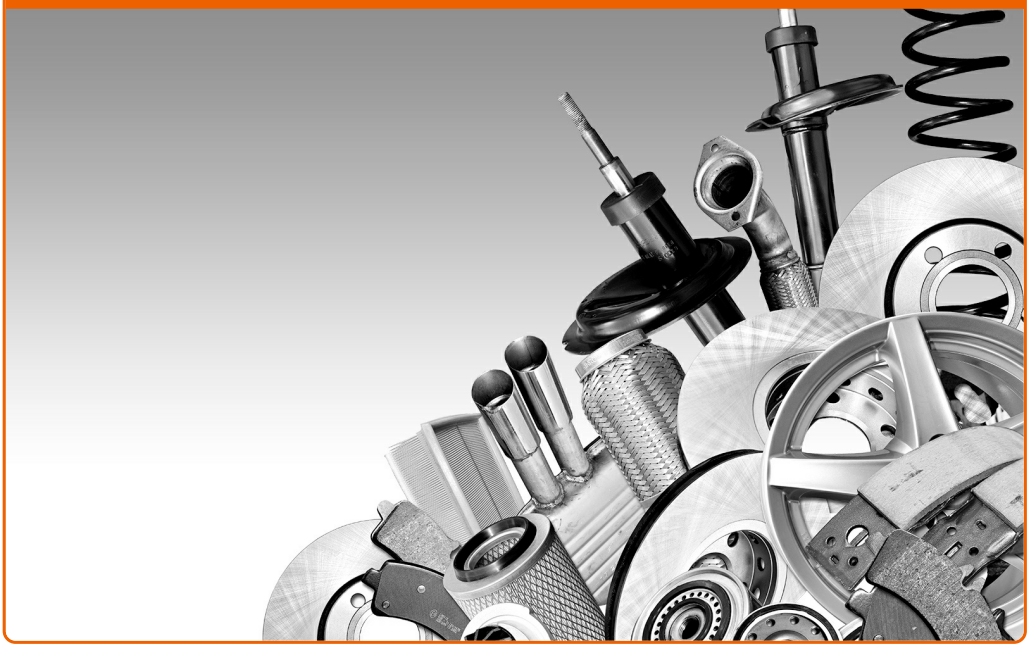

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