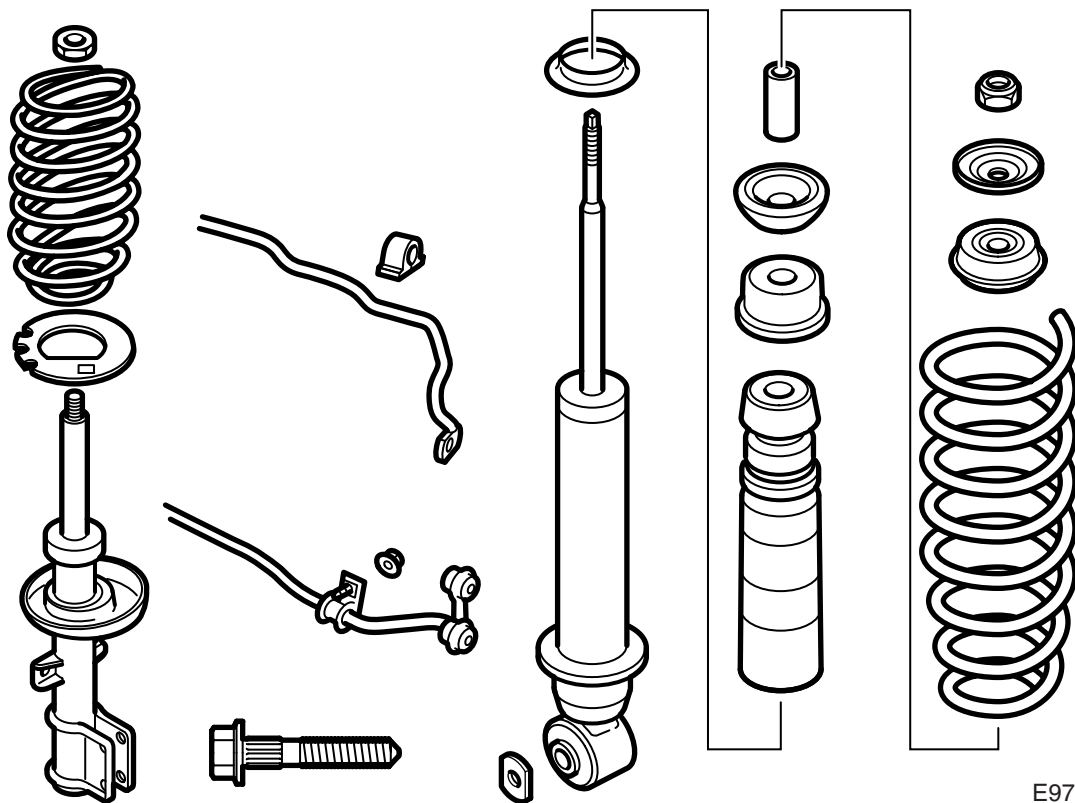




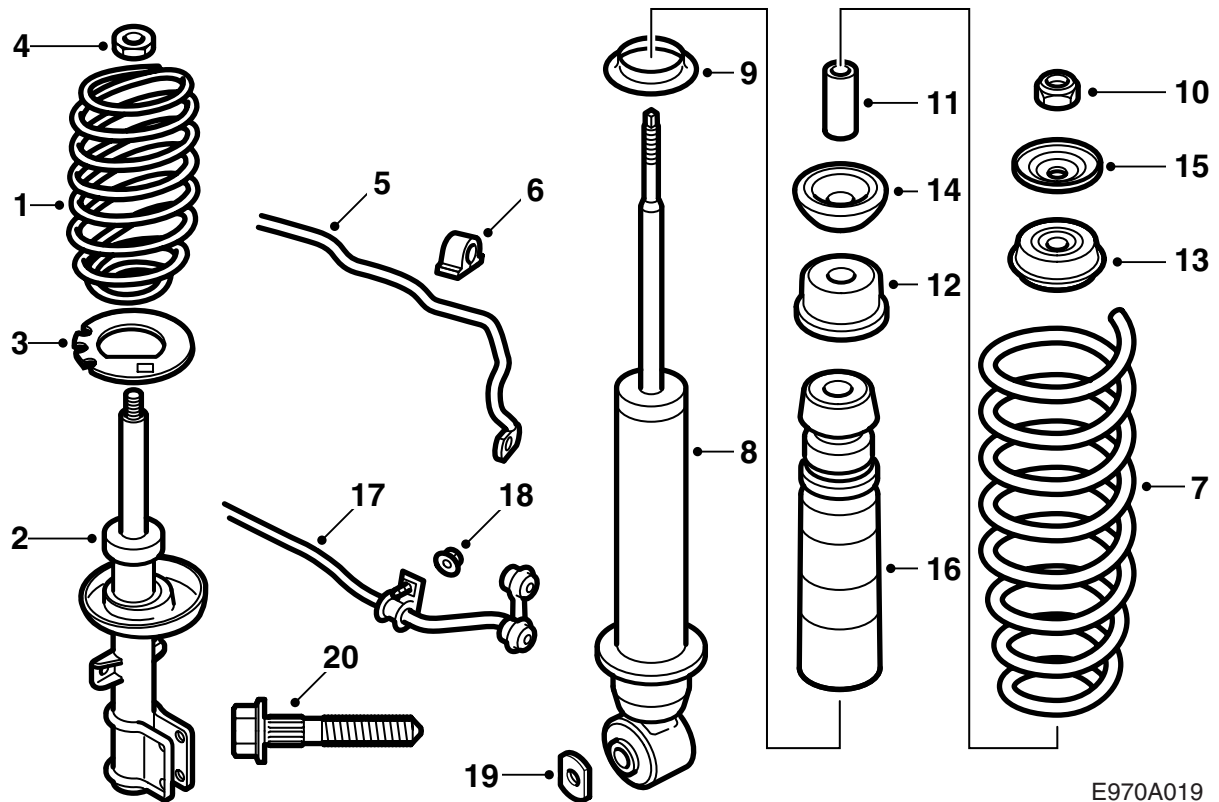
**MONTERINGSANVISNING · INSTALLATION INSTRUCTIONS
MONTAGEANLEITUNG · INSTRUCTIONS DE MONTAGE**

**Saab 9-5 M02-
Sports chassis**

Accessories Part No.	Group	Date	Instruction Part No.	Replaces
32 025 657 32 025 658 32 025 659 32 025 660 32 025 661 32 025 662 400 130 811 400 130 829 400 130 837 400 130 845	9:76-04	May 05	52 38 597	52 38 597 Sep 04

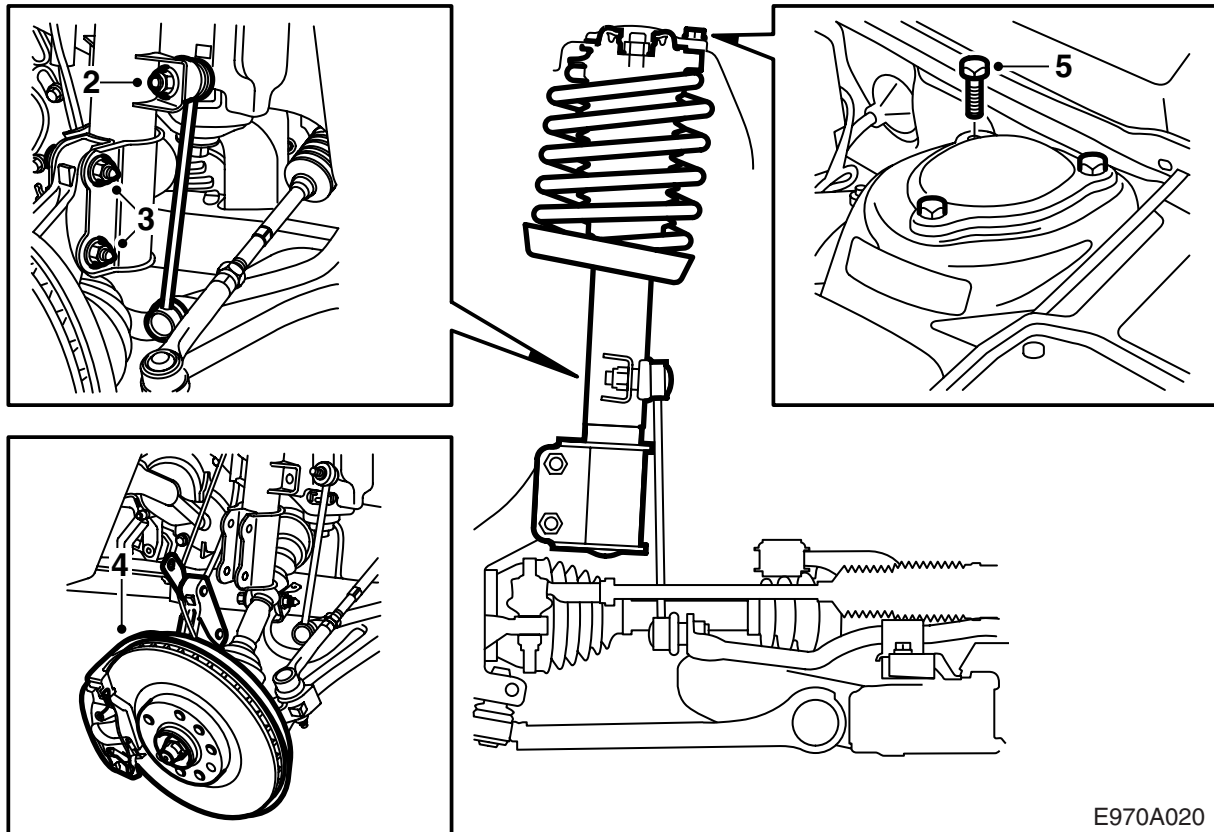


E970A018



E970A019

- 1 Spring, front (x2)
- 2 Spring strut, front (x2)
- 3 Zinc spacer (x2)
- 4 Lock nut, front (x2)
- 5 Anti-roll bar, front (-M05)
- 6 Bearing bushing (x2) (-M05)
- 7 Spring, rear (x2)
- 8 Shock absorber, rear (x2)
- 9 Spacer ring (x2)
- 10 Lock nut, rear (x2)
- 11 Sleeve (x2)
- 12 Washer (x2)
- 13 Bushing (x2)
- 14 Bushing (x2)
- 15 Washer (x2)
- 16 Bump stop with dust cover (x2)
- 17 Anti-roll bar, rear (-M05)
- 18 Flange nut (x2) (-M05)
- 19 Washer (x2)
- 20 Screw (x4)



E970A020

Front

The description concerns one side, but both sides should be changed.

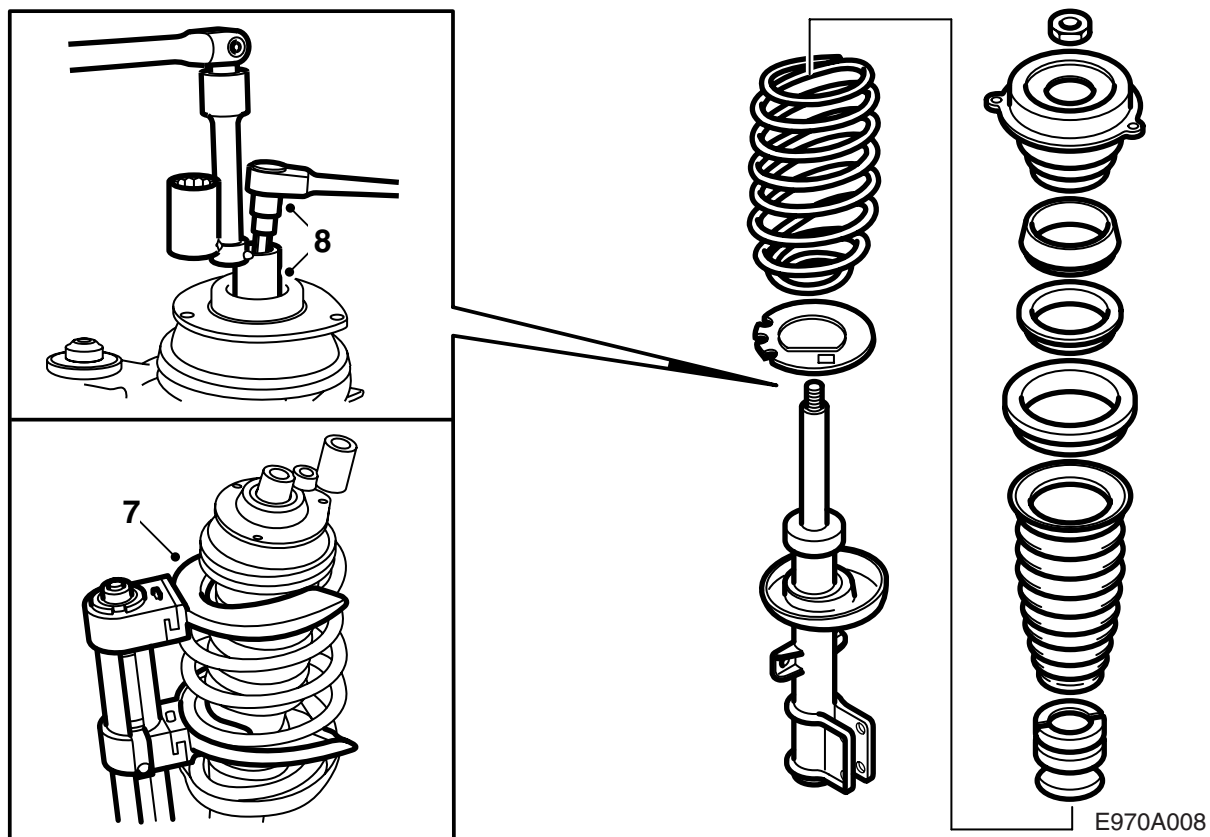
- 1 Lift the car and remove the front wheels.
- 2 Unscrew the nut to the anti-roll bar link. To avoid pushing the gaiter out of the groove, use a narrow 17 mm open-ended spanner as a back stop.
- 3 Undo the bolts securing the steering swivel member to the spring strut by holding the bolts and removing the nuts. Tap out the bolts with a plastic mallet.

Important

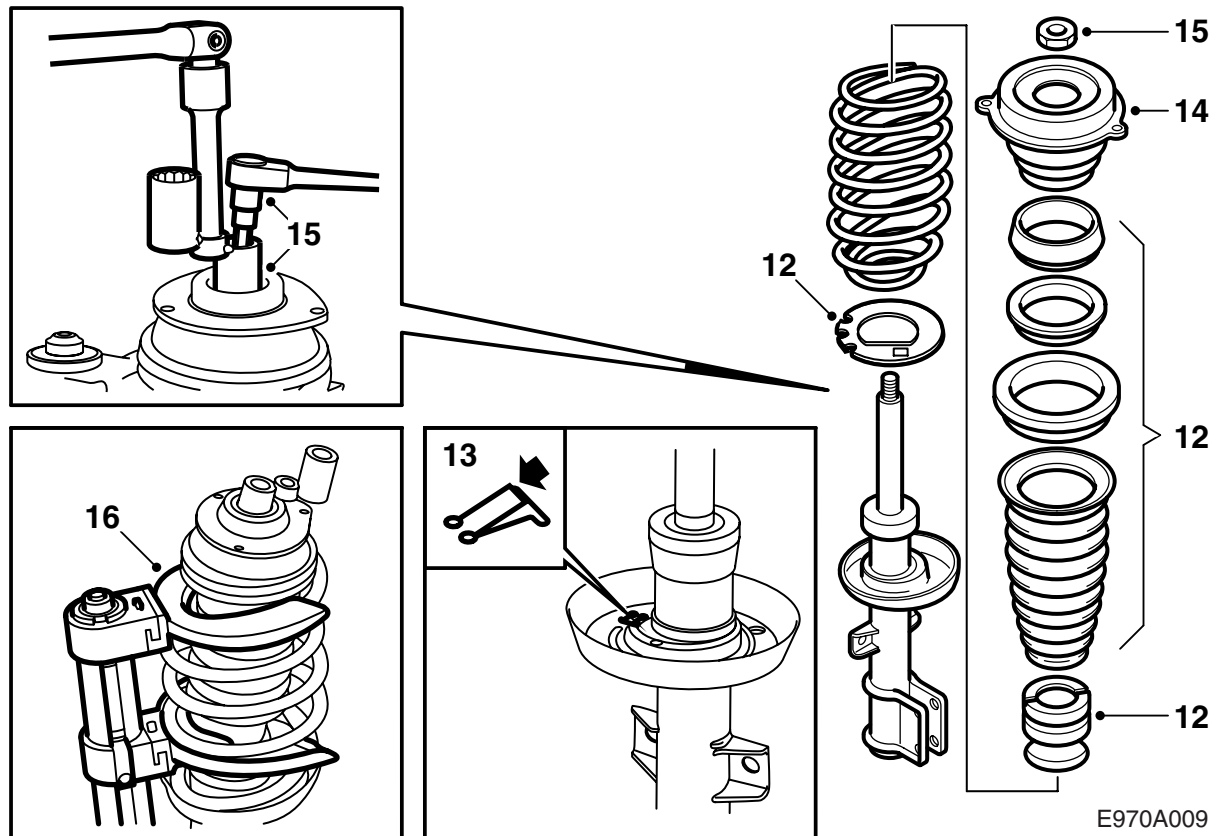
The bolts have splines and must not be turned.

Remove the ABS sensor cable from the bracket. Bend aside the bracket and the brake hose.

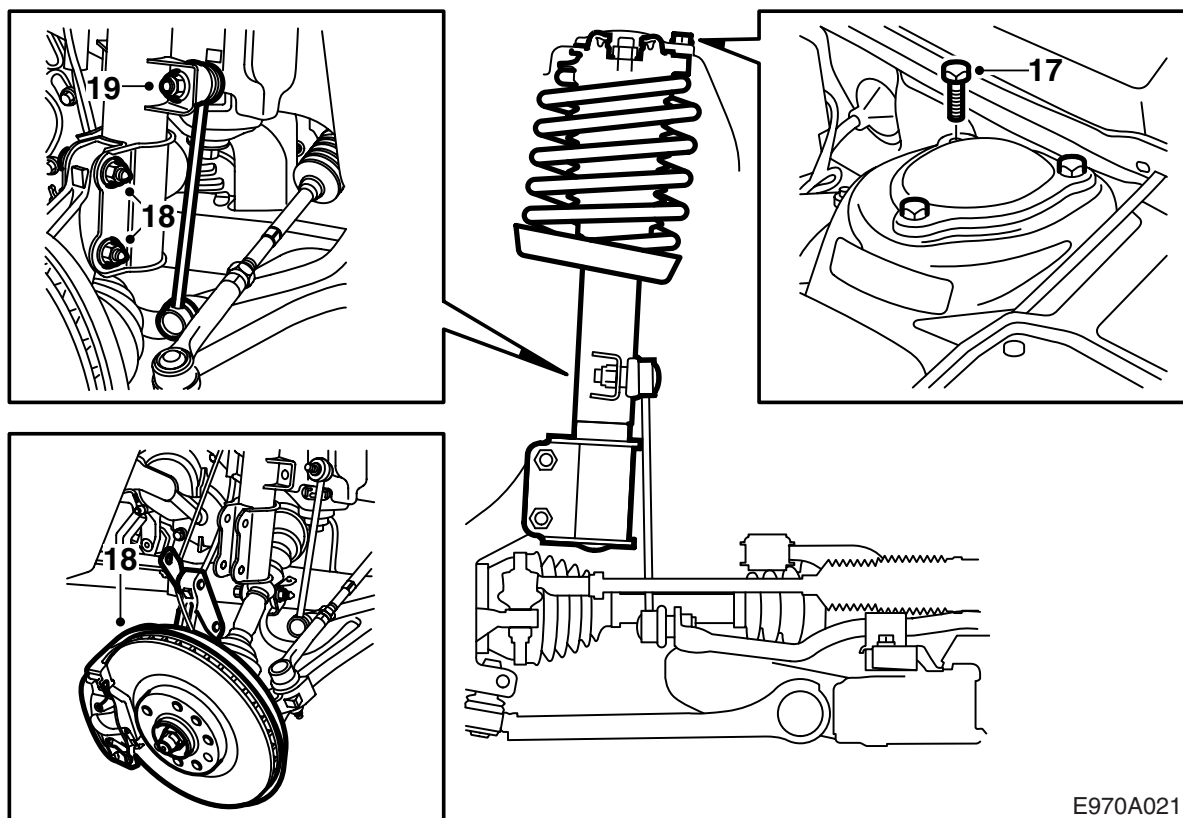
- 4 Carefully lower the steering swivel member, making sure not to part the inboard universal joint.
- 5 Remove the spring strut's three bolts in the upper mounting.
- 6 Remove the spring strut.



- 7 Compress the spring with tool 88 18 791 and holder 88 18 817.
- 8 Grasp the piston rod and dismantle the nut with tool 89 96 613.
- 9 Remove the bearing and upper spring seat.
- 10 Remove the spring, the bellows and the bump stop.
Release the spring compressor.
- 11 Compress the new spring with tool 88 18 791 and holder 88 18 817.



- 12 Fit the new zinc spacer, the bump stop with the spring seat and the bellows on the new spring strut, and mount the spring.
- 13 Make sure that the spring's lower end lies against the stop lug in the lower spring seat.
- 14 Mount the upper bearing.
- 15 Tighten the nut.
Tightening torque 75 Nm (55 lbf ft).
- 16 Release the spring compressor.



E970A021

- 17 Position the spring strut in its correct position and tighten the three bolts in the upper attachment. The smallest hole acts as a guide hole.

The bolts should be tightened alternately.

Tightening torque 18 Nm (13 lbf ft).

- 18 Raise the steering swivel member towards the spring strut and tighten the bolts securing the steering swivel member to the spring strut.

Important

The bolts must be replaced with new ones if removed. Use the bolts in the kit, fitting them with their heads pointing towards the front of the car.

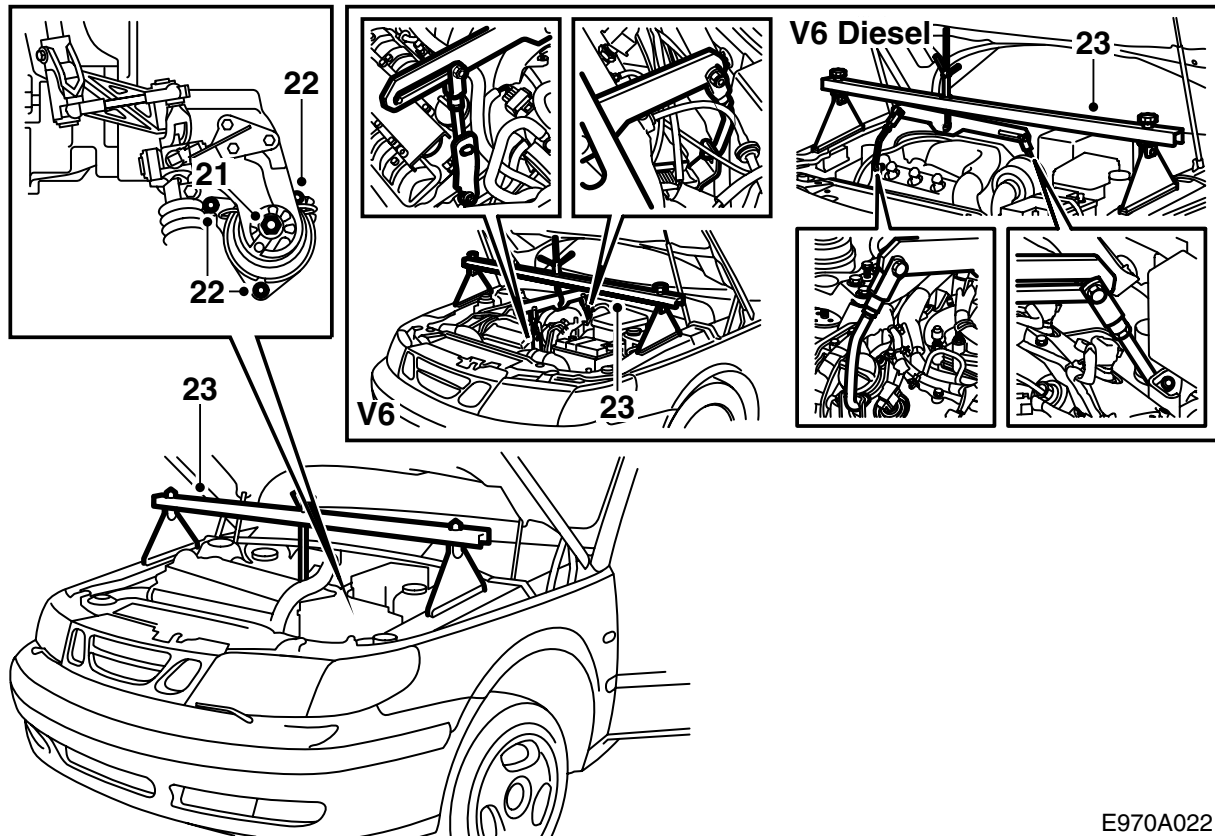
**Tightening torque 100 Nm + 90°
(75 lbf ft + 90°).**

- 19 Tighten the nut to the anti-roll bar link.

Tightening torque 95 Nm (70 lbf ft)

-M05: Continue with step 20.

M06-: Continue with step 43.



E970A022

20 **4-cyl:** Remove the cover from over the intake manifold.

V6 petrol: Remove the engine cover and undo the two upper bolts at the exhaust pipe flange a couple of turns. Leave the exhaust pipe suspended loosely from the flange.

V6 diesel: Remove the intake manifold and upper engine cover.

21 Dismantle the nut to the rear engine mounting.

22 Remove the three bolts that hold the rear engine in place by using a 10 mm socket, a joint and a long extension with a $\frac{3}{8}$ " fastener.

Let the bolts remain in place.

23 **4-cyl:** Position the lifting beam 83 93 850 on the wings and hook on the engine's rear lifting eye.

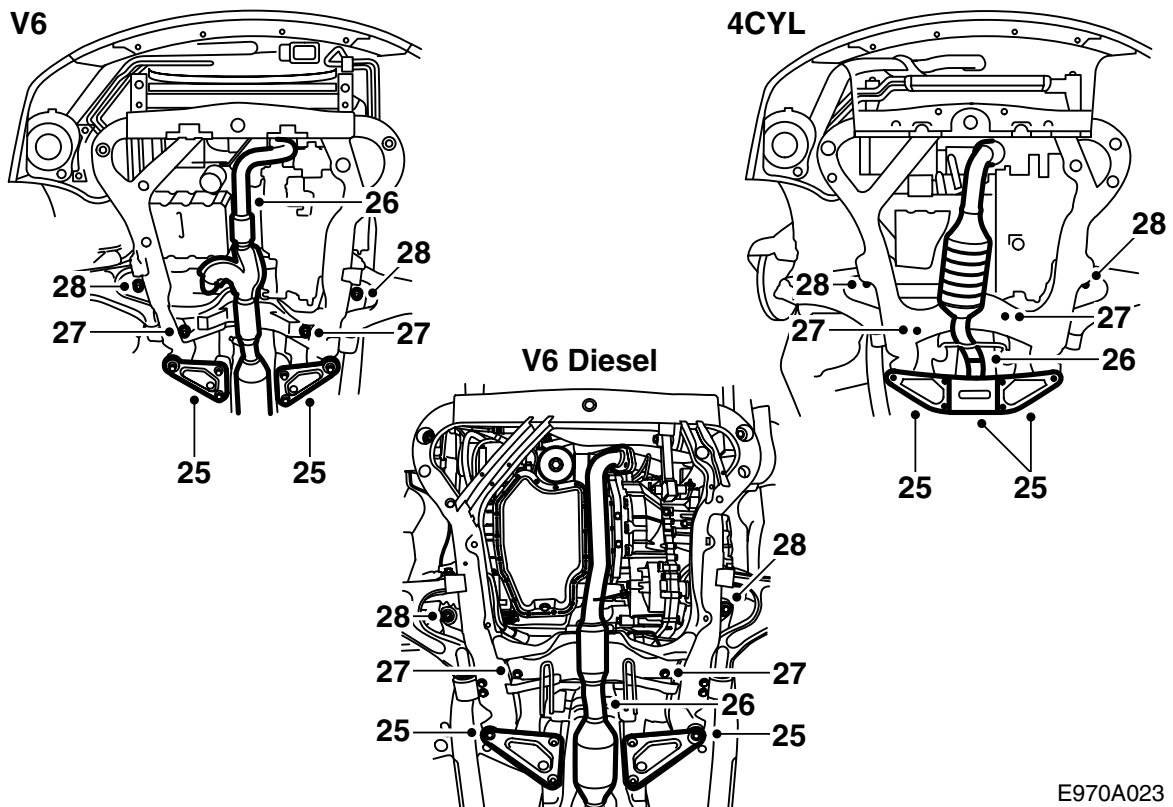
V6 petrol: Fit lifting eyes, one to the rear cylinder head and one to the front cylinder head (remove one of the bolts first). Fit tool 83 95 287 and position lifting beam 83 93 850.

V6 diesel: Fit tool 83 95 287 and position lifting beam 83 93 850.

Important

Place protection under the feet of the lifting bar to avoid damage to the paintwork.

Take up the weight of the engine and gearbox.



E970A023

- 24 Raise the car.
- 25 Remove the reinforcement on the subframe rear attachment.
- 26 **4-cyl:** Undo the joint in the exhaust pipe between the catalytic converter and silencer.

V6 petrol: Undo the joint in the exhaust pipe between the catalytic converter and silencer and lower approx. 100 mm. Secure with strap 83 95 212 to ensure that no flexible sections are damaged.

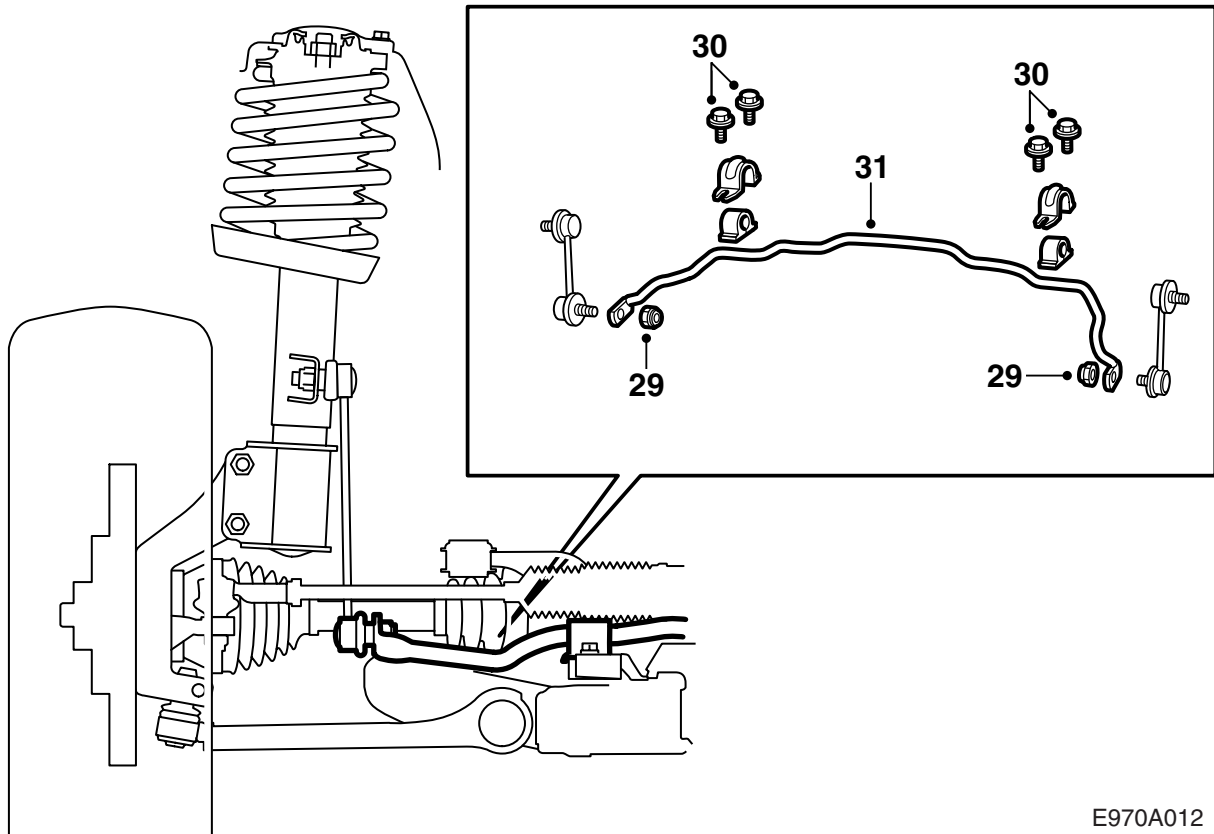
Note

Be careful of the oxygen sensor cable and flexible sections. Do not lower the exhaust pipe further than required.

Disconnect the exhaust pipe from the rear exhaust manifold.

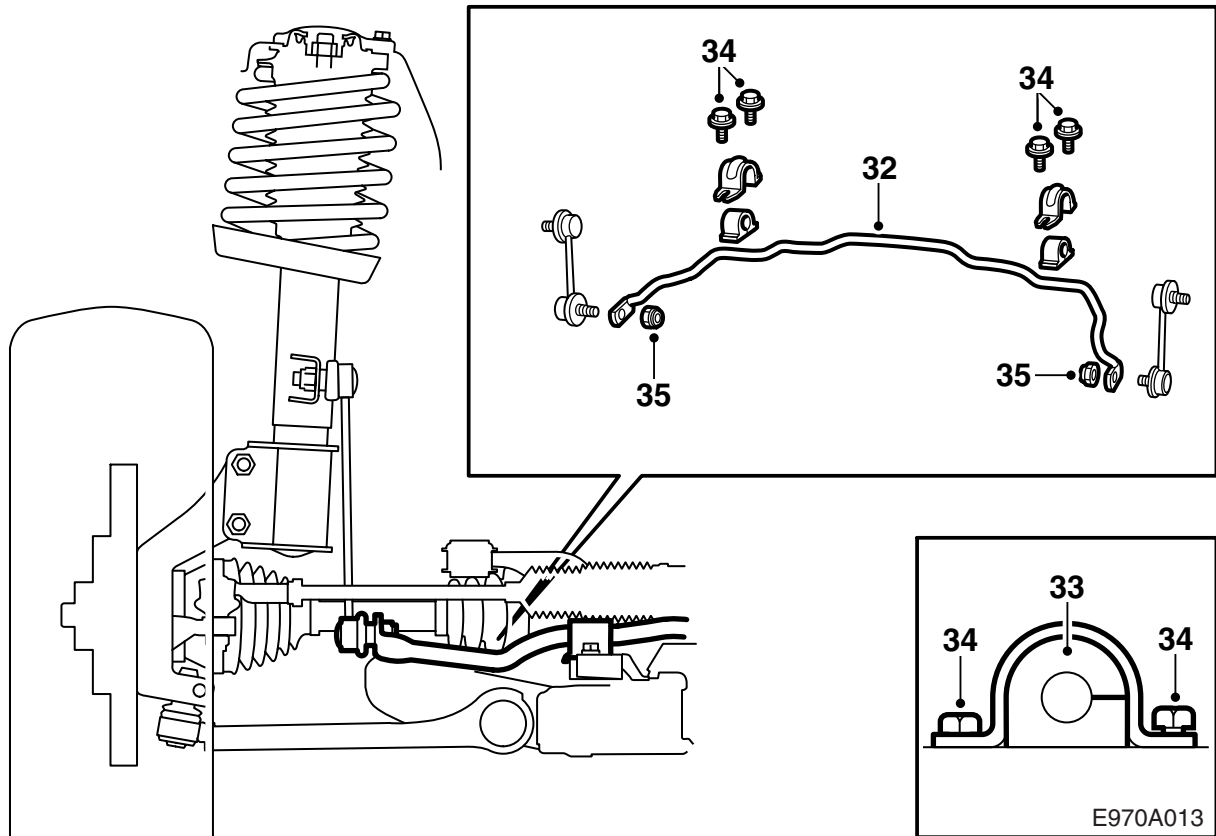
V6 diesel: Remove the lower engine cover. Remove, if fitted, the xenon headlight level sensor from the bracket and move it to one side. Remove the side lining from both wheel housings and remove the centre section of the exhaust pipe.

- 27 Remove both retaining bolts to the steering gear.
- V6 diesel:** To access the nuts, the subframe must be lowered slightly.
- 28 Remove the bolts to the subframe centre attachment and lower the rear end of the subframe.

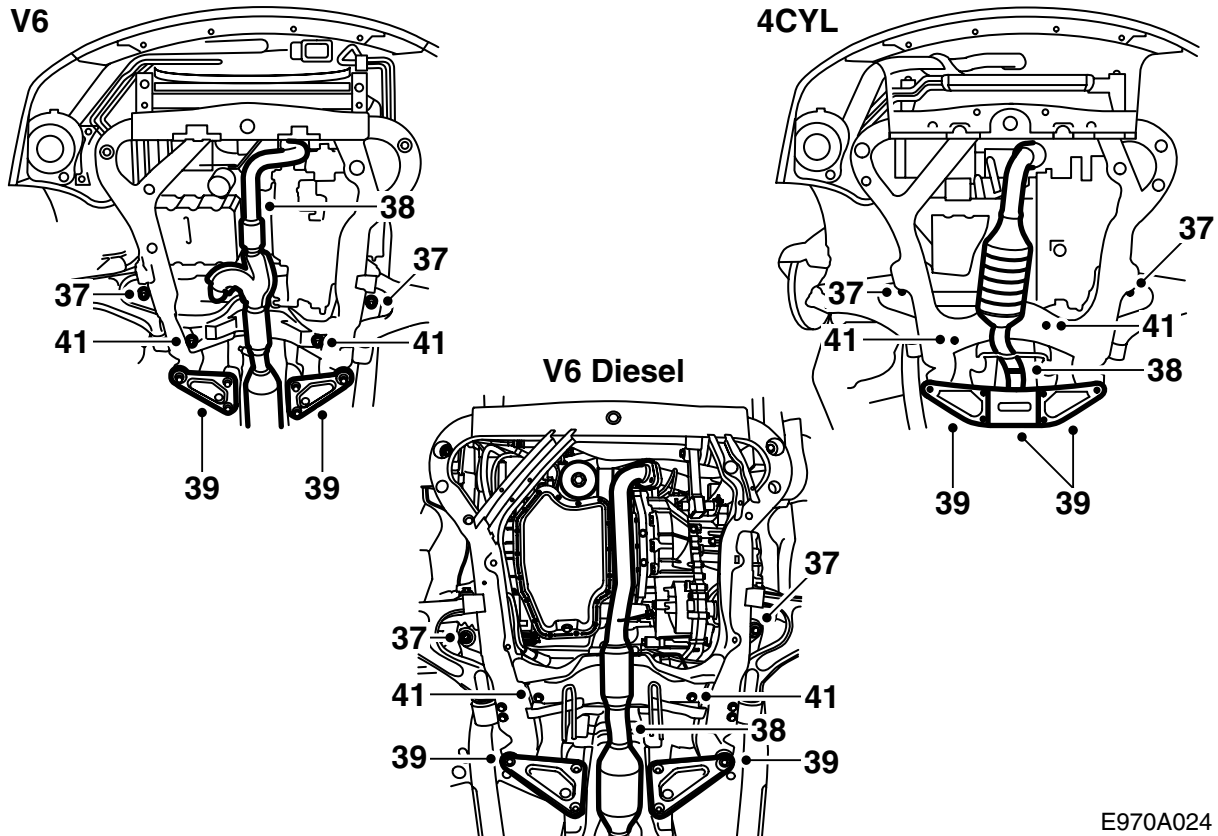


E970A012

- 29 Remove the anti-roll bar from the links. (To avoid pushing the gaiter out of the groove, use a narrow 17 mm open-ended spanner as a back stop).
- 30 Remove the screws to the anti-roll bar mounting in the subframe.
- 31 Remove the anti-roll bar through the wheel housing on the passenger side.



- 32 Lift in the new anti-roll bar through the wheel housing on the passenger side. Refer to the illustration to see which way round the anti-roll bar should be fitted. Make sure it does not catch on any hoses or cables in the engine bay.
- 33 Lubricate the new bushings with Molycote 33 (part no. (16) 30 20 476) and fit them with the opening to the rear.
- 34 Tighten the anti-roll bar retaining bolts in the subframe.
Tightening torque 25 Nm (20 lbf ft).
- 35 Tighten the anti-roll bar nuts to the links. To avoid pushing the gaiter out of the groove, use a narrow 17 mm open-ended spanner as a back stop.
Tightening torque 90 Nm (65 lbf ft)



E970A024

- 36 **V6 diesel:** Fit the steering gear.
 37 Lift the subframe and tighten the centre mountings.

- 42 **V6 diesel:** Fit the side lining to both wheel housings. Fit, if applicable, the xenon headlight level sensor. Fit the lower engine cover.

Important

The bolts have a captive washer and 20 mm head.

**Tightening torque 100 Nm + 45°
 (75 lbf ft + 45°).**

Thread the rear bolts.

- 38 **4-cyl:** Tighten the exhaust pipe joint between the catalytic converter and silencer.

V6 petrol: Fit the exhaust pipe to the rear exhaust manifold.

Tightening torque 40 Nm (30 lbf ft).

Fit the exhaust pipe to the catalytic converter and silencer.

V6 diesel: Fit the centre section of the exhaust pipe.

- 39 Mount the subframe rear attachment together with the reinforcement.

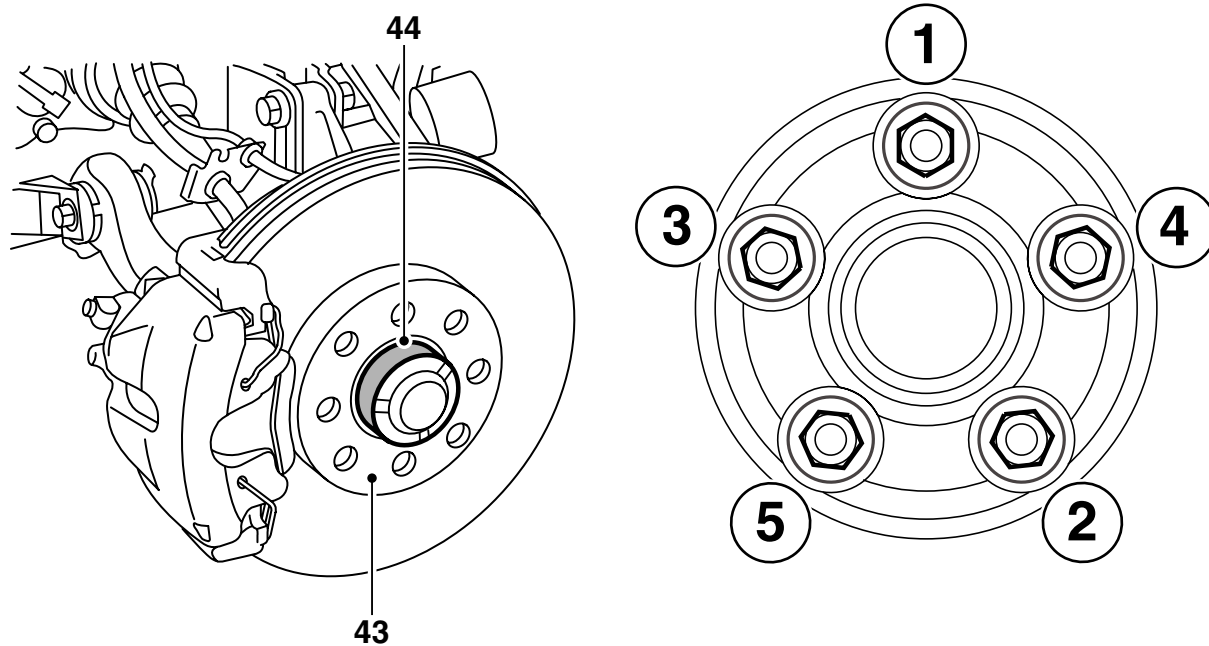
**Tightening torque 100 Nm + 45°
 (75 lbf ft + 45°).**

- 40 Tighten the reinforcement to the subframe.

Tightening torque 65 Nm (50 lbf ft).

- 41 Tighten the steering gear retaining bolts.

Tightening torque 95 Nm (70 lbf ft)



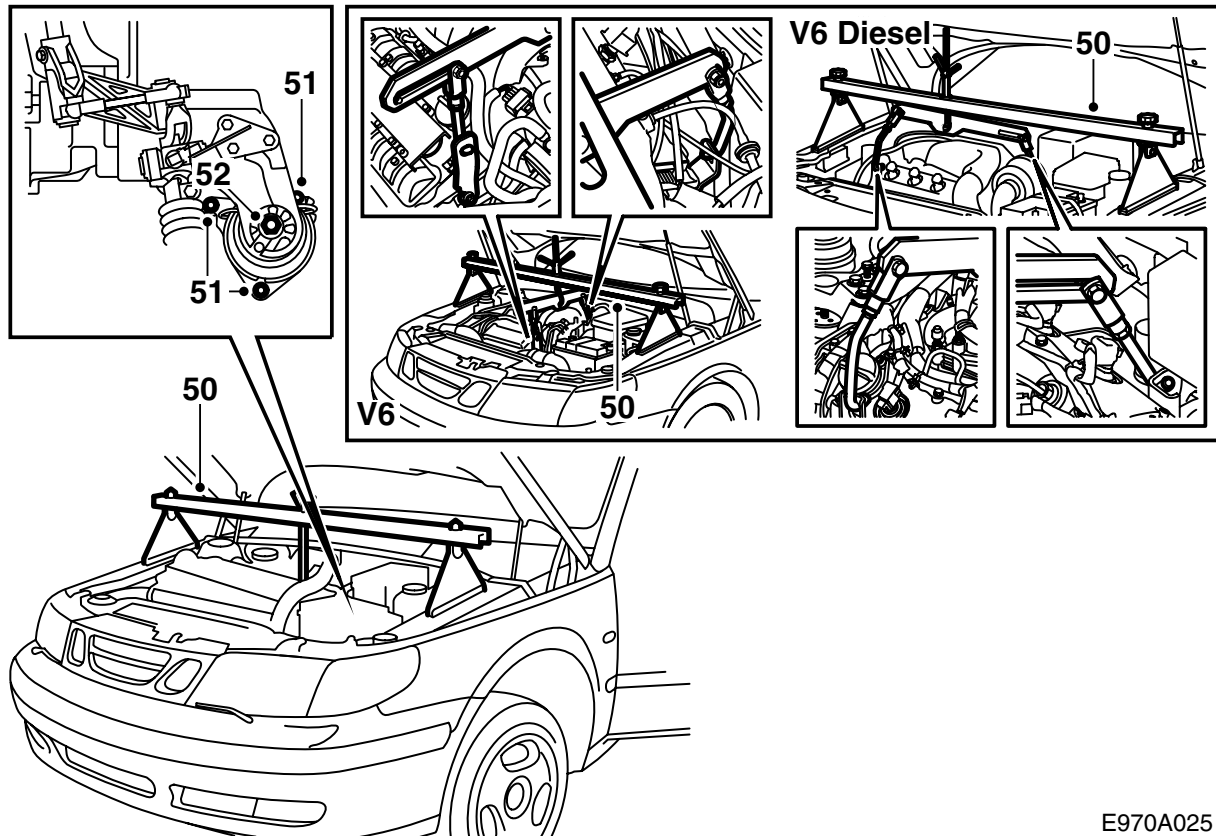
E970A032

- 43 Clean all dirt and rust from the contact surfaces of the wheel and brake disc.
- 44 Apply white high-pressure grease (part no. 30 06 442) to the hub.

Important

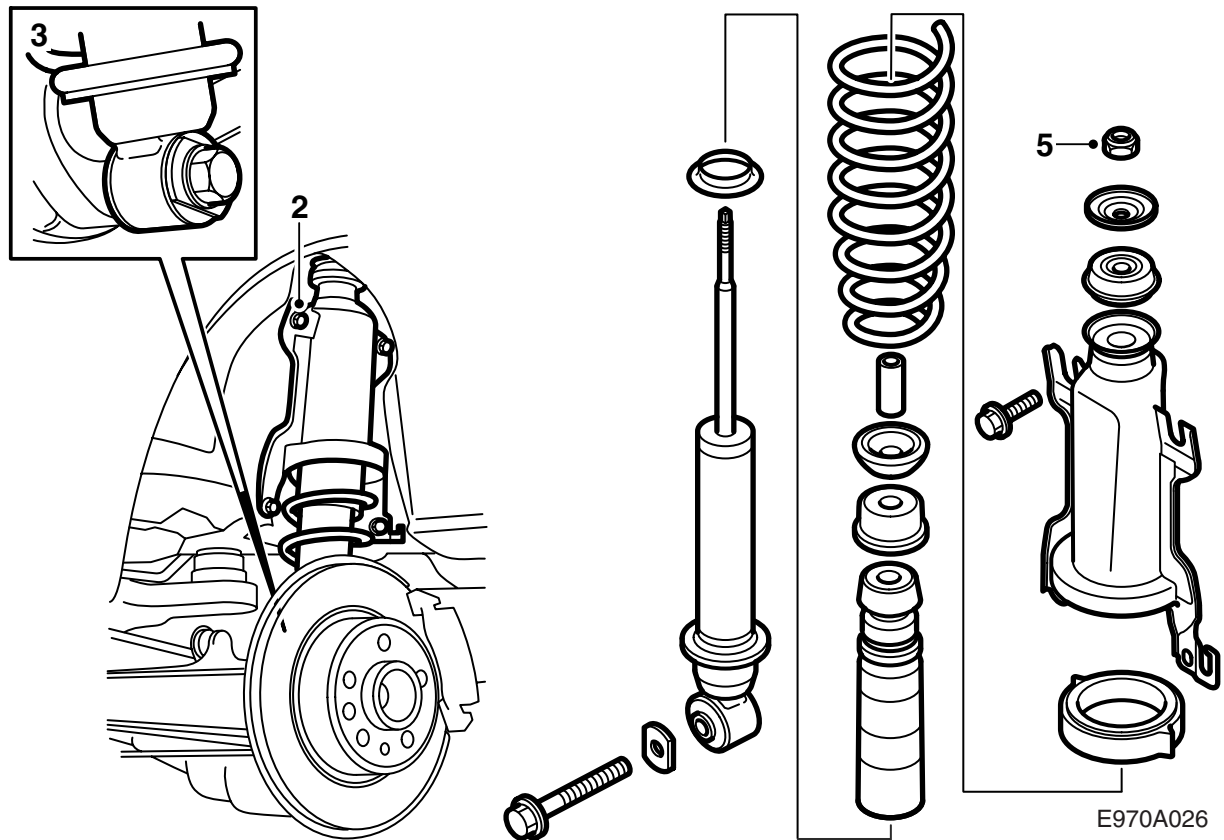
Make sure that no grease gets onto the contact surfaces of the wheel and brake disc.

-
- 45 **Aluminium wheels:** Oil the bolt threads and the conical surface of the bolts.
- 46 Position the wheel, fit the bolts and tighten these in sequence by hand to centre the wheel.
- 47 Tighten the bolts alternately twice. Regarding tightening torques, see the section Rear, step 21.
- 48 **-M05:** Lower the car and continue with step 49.
M06-: Lower the car.



E970A025

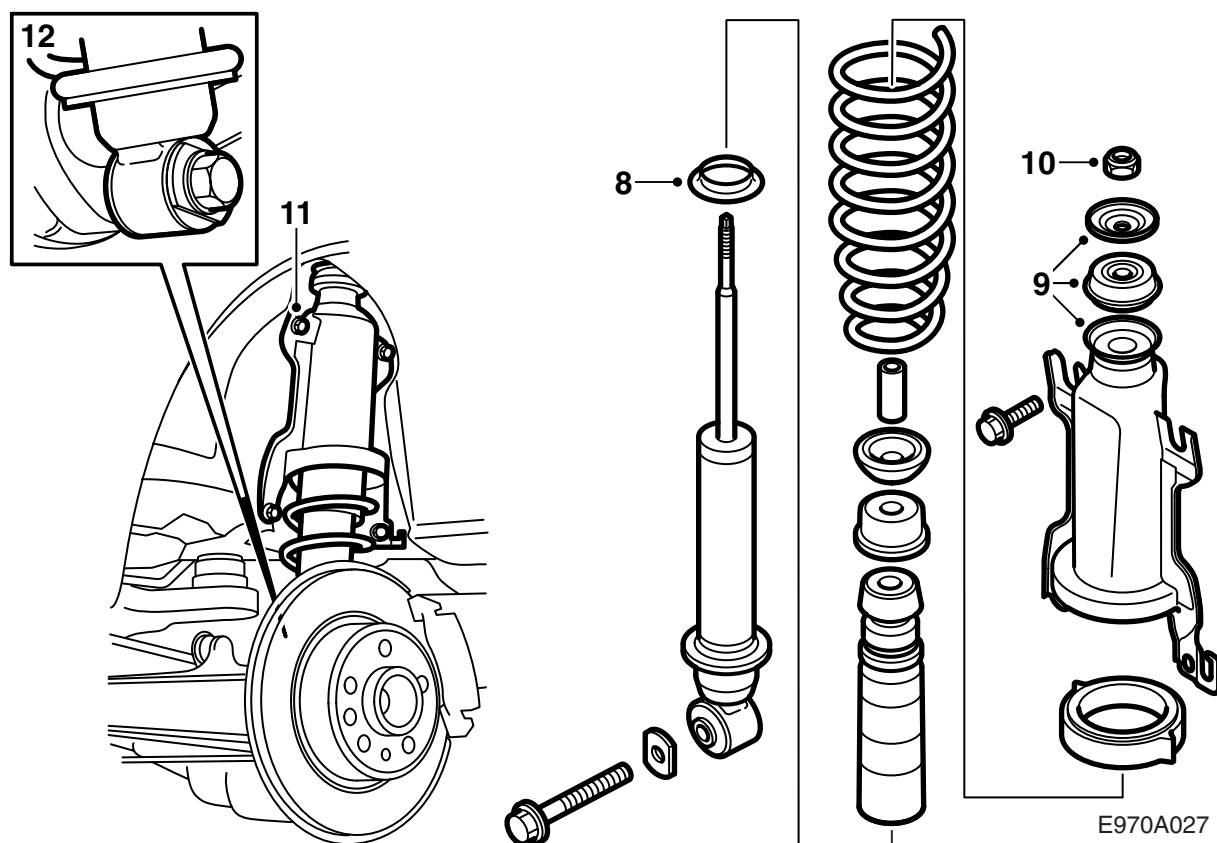
- 49 Lower the engine onto the rear engine mounting.
- 50 Remove the lifting beam.
V6 petrol: Remove the lifting tool and lifting eyes from the engine.
- 51 Tighten the rear engine pad to the subframe.
Tightening torque 25 Nm (20 lbf ft).
- 52 Tighten the rear engine pad to the engine mounting.
Tightening torque 50 Nm (35 lbf ft).
- 53 **4-cyl:** Fit the cover over the intake manifold.
V6 petrol: Tighten the two upper bolts at the exhaust pipe flange.
Tightening torque 25 Nm (18 lbf ft).
 Mount the engine cover.
V6 diesel: Fit the upper engine cover and intake manifold.



Rear

The description concerns one side, but both sides should be changed.

- 1 Lift the car and remove the rear wheels.
- 2 Dismantle the spring bracket's lower screws and slacken the upper.
- 3 Dismantle the shock absorber's lower retaining bolt.
- 4 Lift out the spring assembly with damper.
- 5 Undo the damper lock nut without removing it completely (grip the piston rod).
- 6 Press down the spring bracket to relieve the damper and remove the centre nut, washer and rubber bush. Use spring compressor 88 18 791 if necessary.
- 7 Remove the shock absorber and spring.



- 8 Place the new bottom spacer ring (zinc spacer) on the new damper and continue with the new spring, the new bump stop with dust cover, the washer, the sleeve, the rubber bushing (with the colour marking face up) and the spring bracket.

Important

Make sure that the end of the spring goes in its recess in the upper spacer ring.

- 9 Compress the spring bracket to unload the shock absorber and then put on the rubber bushing (with the colour marking pointing upwards) and the washer. Screw on the new lock nut a few rotations (if necessary, use the spring compressor).
- 10 Tighten the shock absorber lock nut (hold the piston rod).

Tightening torque 20 Nm (15 lbf ft).

- 11 Fit the spring assembly in place. The spring bracket should be slidden upwards, and the screws tightened.

Important

Do not forget the protective washer on the rear lower bolt on the right-hand side.

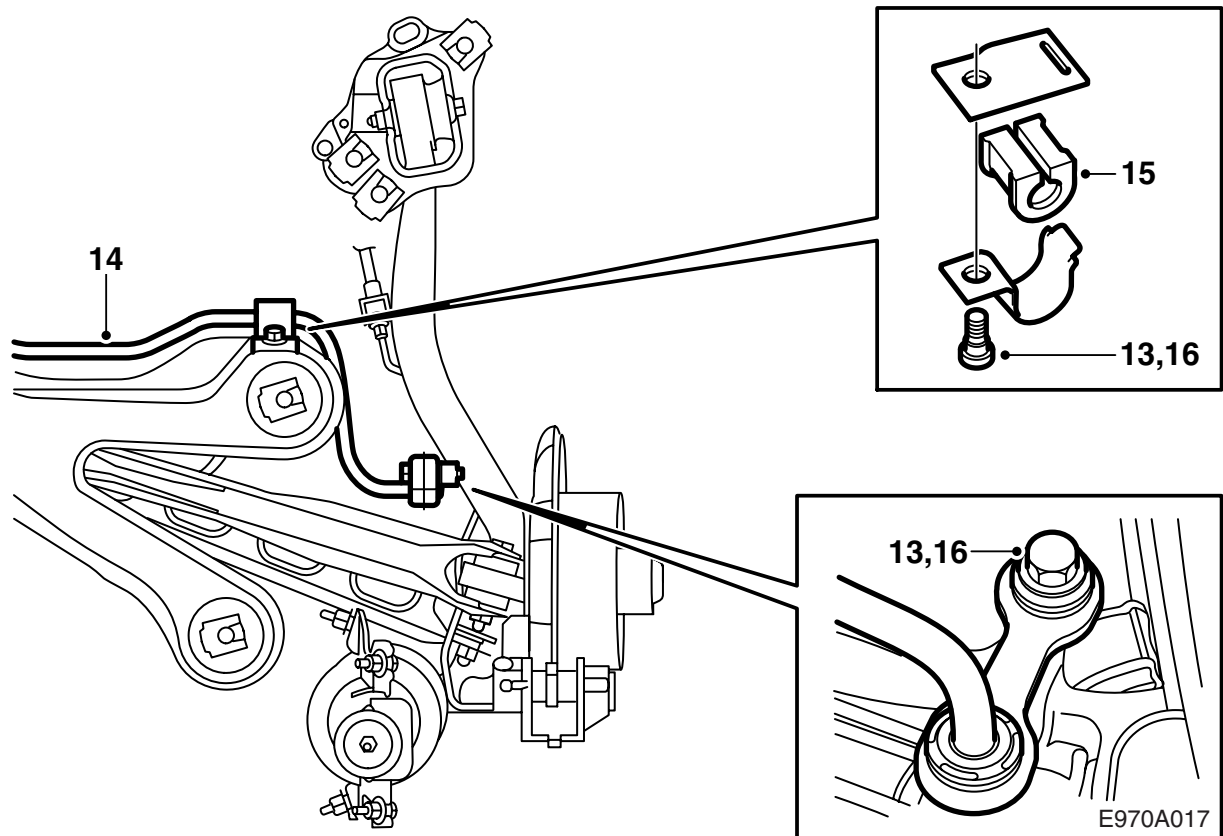
Tightening torque 55 Nm (40 lbf ft).

- 12 Align the lower mounting of the shock absorber on the rear axle. Insert the bolt. Raise the steering swivel member using a pillar jack to approximately the same position as when the car is on its wheels. Tighten the bolt together with the washer in the kit.

Tightening torque 190 Nm (140 lbf ft).

-M05: Continue with step 13.

M06-: Continue with step 17.

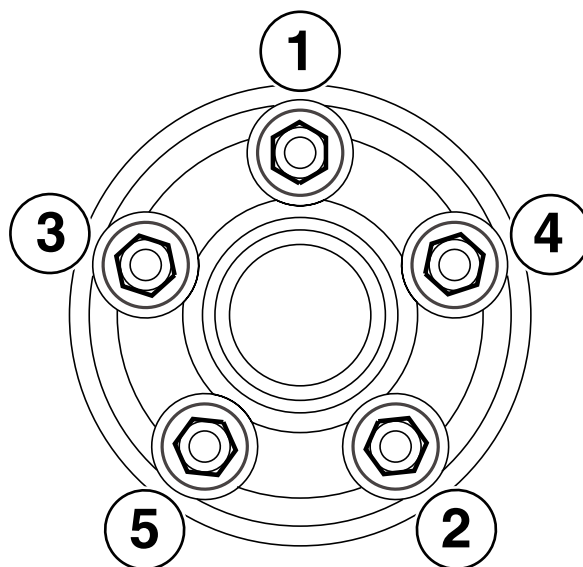
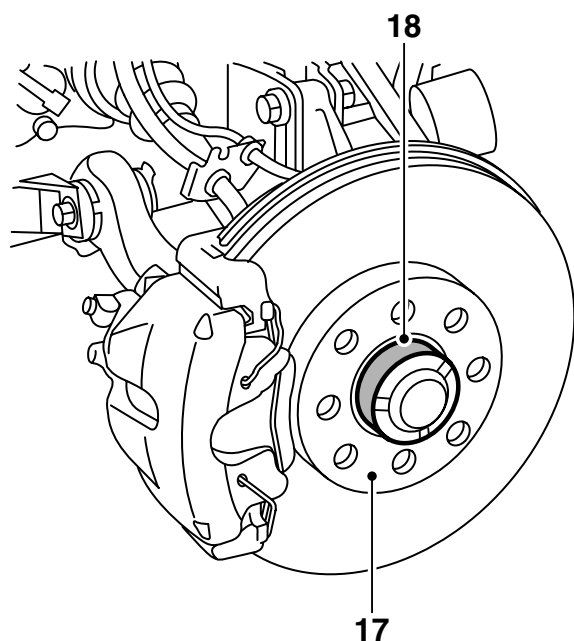


- 13 Remove the bolts and nuts that hold the anti-roll bar.
- 14 Undo the clips securing the wiring harness to the ABS system wheel sensors and extract the anti-roll bar to the right while pulling down the exhaust pipe slightly.

Important

The rear exhaust pipe mountings must not be detached so that the exhaust pipe is left hanging freely as this can damage the front section.

- Inspect the rubber hangers suspending the exhaust pipe and change if necessary.
- 15 Position the new anti-roll bar and fit it. Use the new nuts.
 - 16 Tighten the bolts and nuts.
Tightening torque 50 Nm (40 lbf ft).
 Fit the clips securing the wiring harness to the ABS system wheel sensors.



E970A033

- 17 Clean all dirt and rust from the contact surfaces of the wheel and brake disc.
- 18 Apply white high-pressure grease (part no. 30 06 442) to the hub.

Important

Make sure that no grease gets onto the contact surfaces of the wheel and brake disc.

- 19 **Aluminium wheels:** Oil the bolt threads and the conical surface of the bolts.
- 20 Position the wheel, fit the bolts and tighten these in sequence by hand to centre the wheel.
- 21 Tighten the bolts in sequence twice.

Important

The wheel should be freely suspended during tightening.

Tightening torque:

aluminium rim 110 Nm (81 lbf ft)

**pressed steel wheel 50 Nm +90° +90°,
max. 110 Nm (37 lbf ft +90° +90°, max. 81 lbf ft).**

Note

In order to avoid the bolts being tightened too hard when fitting pressed steel wheels the angle tightening must be carried out with a torque wrench set at 110 Nm (81 lbf ft). If the torque wrench indicates that 110 Nm (81 lbf ft) has been reached then the angle tightening must be stopped.

- 22 Lower the car.

Concluding work

- 1 Check the alignment of all 4 wheels (refer to WIS 6. Steering assembly, Steering linkage, Adjustment/Replacement, Wheel alignment) and adjust if necessary.
- 2 **Cars with ESP:** Connect the diagnostic tool, select ESP system, programming and select sports chassis.
- 3 **Cars with conventional headlights:** Check headlight alignment and adjust if necessary.
Cars with xenon headlights: Calibrate AHL as follows:
 - The car must be standing level.
 - The car must be unladen.
 - Rock the car to ensure that all dampers are freed up.
 - The handbrake must be released.
 - The xenon headlights must be on.
 - Connect the diagnostic tool and calibrate both AHL control modules. Check the function of the headlights and erase any DTCs.
 - Check headlight alignment and adjust if necessary.