

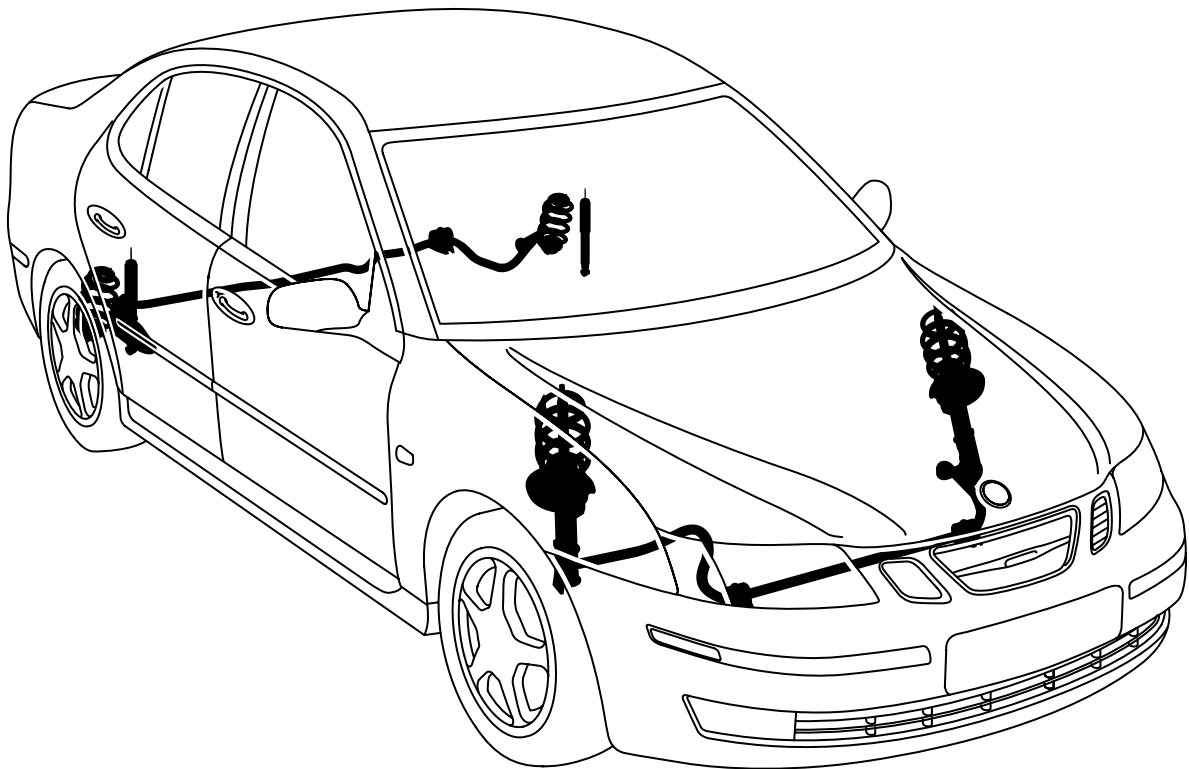


**MONTERINGSANVISNING · INSTALLATION INSTRUCTIONS
MONTAGEANLEITUNG · INSTRUCTIONS DE MONTAGE**

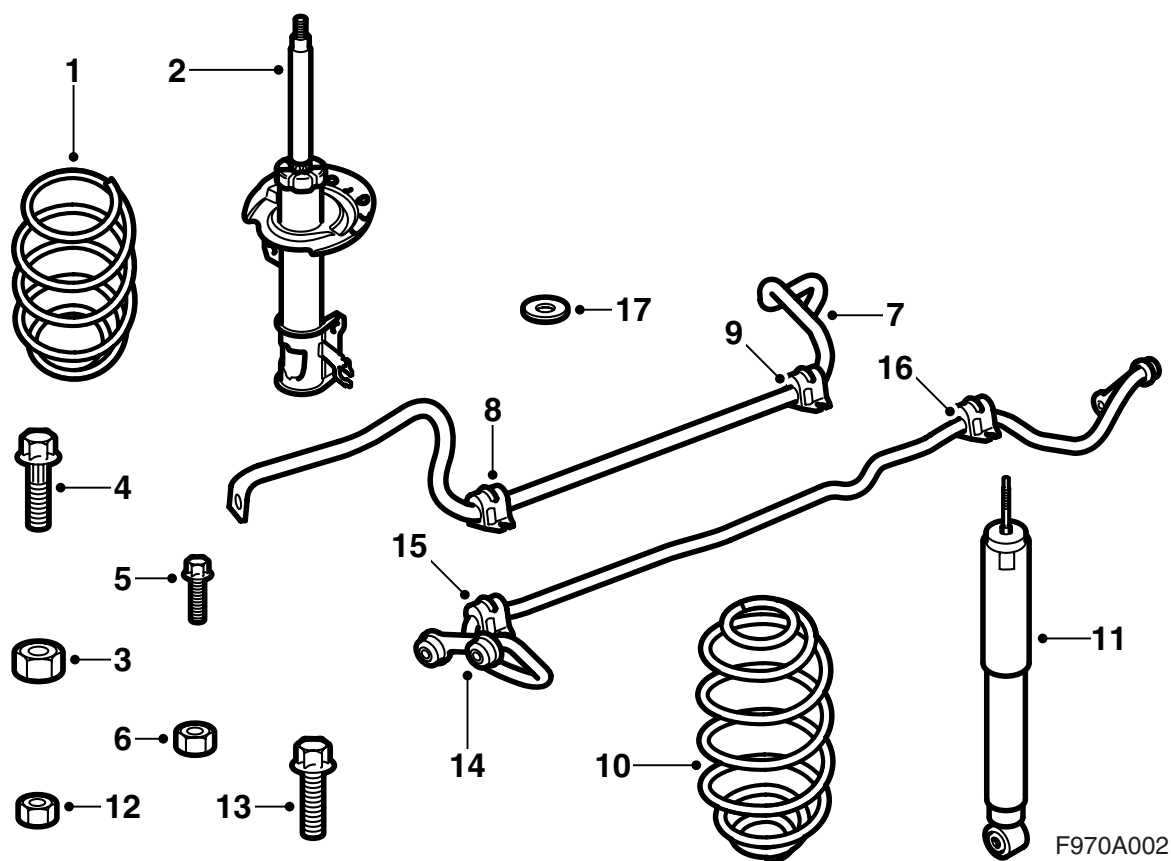
Saab 9-3 4D M03-

Sports chassis

Accessories Part No.	Group	Date	Instruction Part No.	Replaces
12 787 892				
12 799 202				
12 799 203				
32 000 521				
32 000 522				
32 000 523				
32 000 524	9:76-05	May 04	12 788 450	May 02



F970A001



- 1 Spring, front (x2)
- 2 MacPherson strut, front (x2)
- 3 Lock nut, front (x2)
- 4 Splined bolt (x4)
- 5 Screw (x6)
- 6 Nut (x9)
- 7 Anti-roll bar, front
- 8 Clamp (x2)
- 9 Rubber bush (x2)
- 10 Spring, rear (x2)
- 11 Shock absorber, rear (x2)
- 12 Nut (x2)
- 13 Screw (x2)
- 14 Anti-roll bar, rear
- 15 Clamp (x2)
- 16 Rubber bush (x2)
- 17 Washer (x4)

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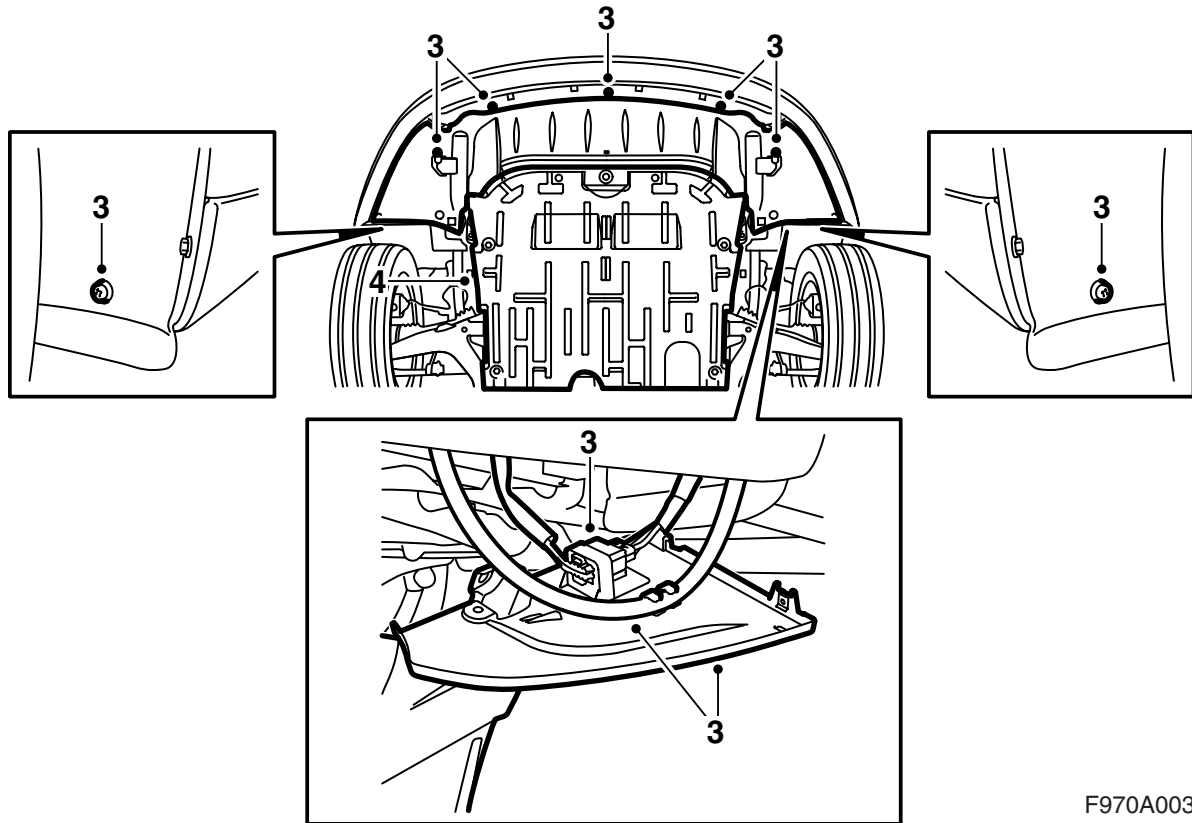
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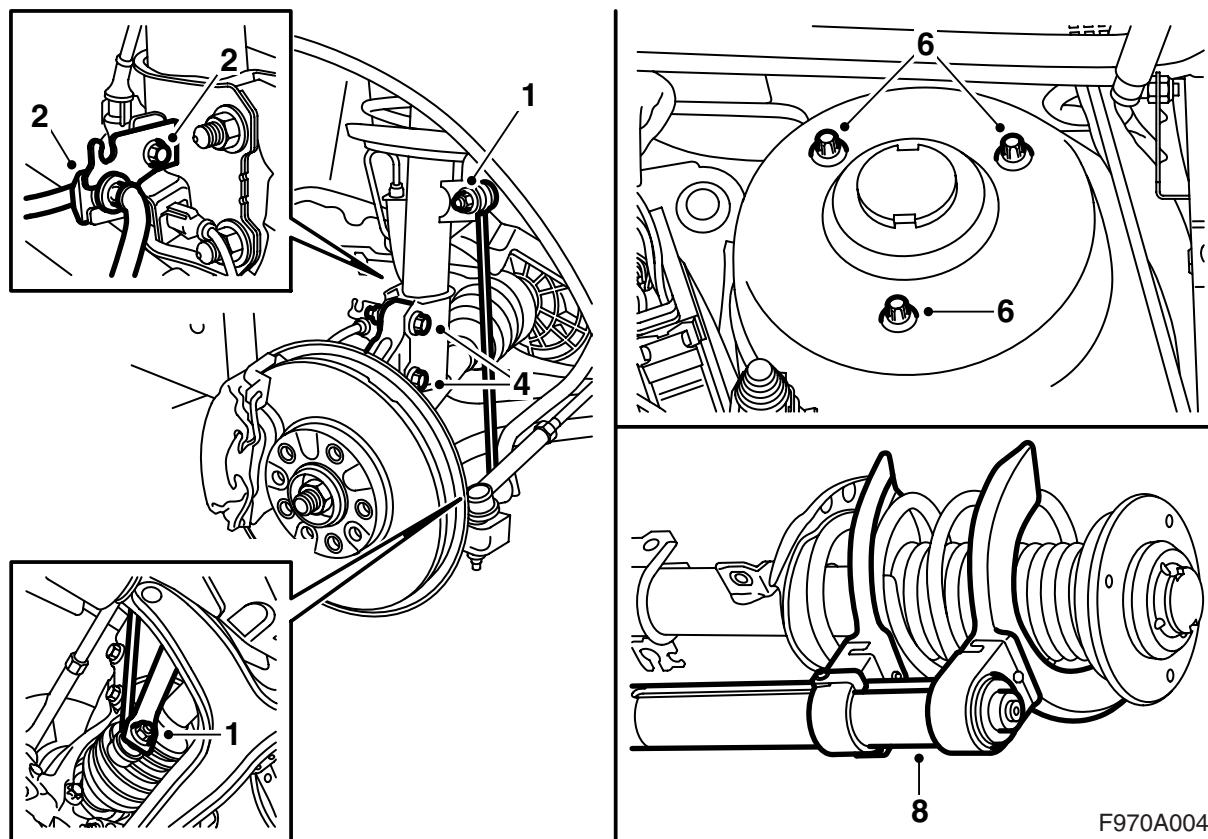
After installation of the sports chassis, page 60



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Preparations

- 1 Raise the car.
- 2 Remove all the wheels.
- 3 Remove the spoiler shield, unplug the bumper connector and remove it from the holder on the spoiler shield.
Cars with headlamp washers: Unhook the hose from the spoiler shield.
- 4 **Vehicles with diesel engine:** Remove the sound insulation from under the engine.



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Front

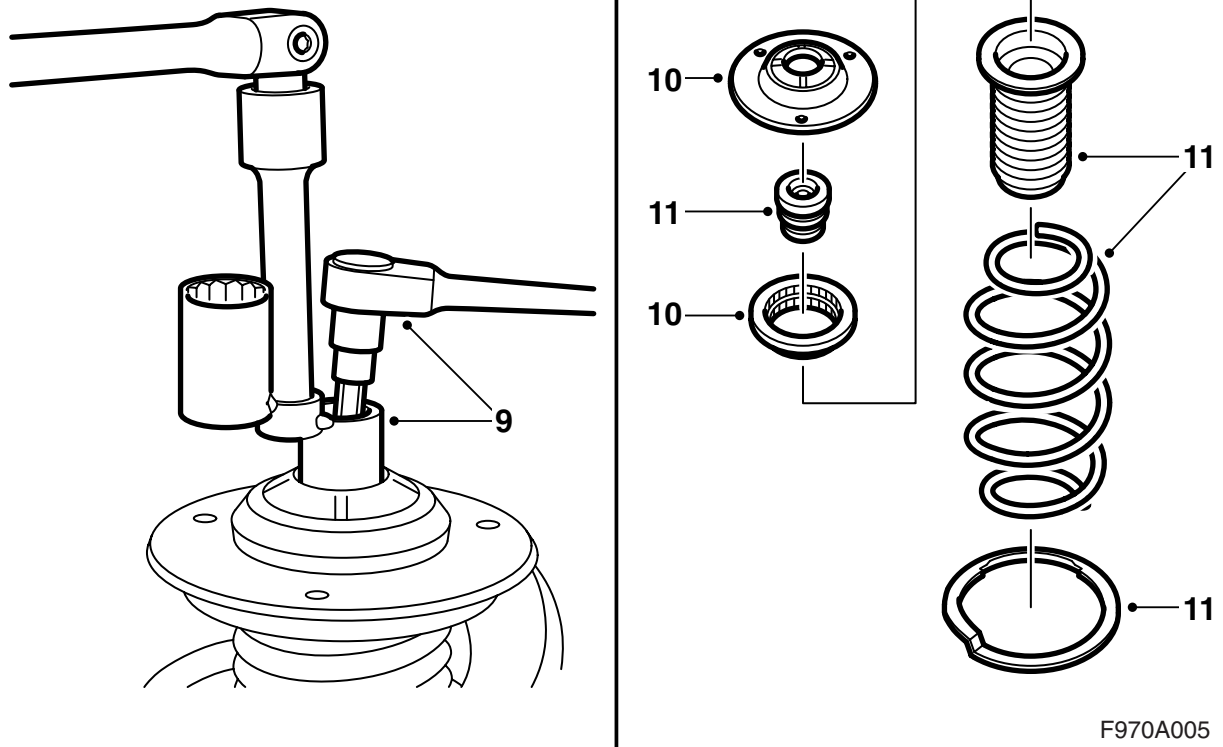
In certain cases the description applies to only one side but the work must be carried out on both sides.

- 1 Remove the anti-roll bar link from the left-hand side of the car. Use a 17 mm open ended spanner.
- 2 Remove the holder for the wheel sensor connector and the brake hose clip. Unhook the hose.
- 3 Support the steering swivel member with a jack. Let the jack remain in place throughout the procedure.
- 4 Disconnect the steering swivel member from the MacPherson strut. Use a spanner to stop the bolt from rotating.
- 5 Lower the steering swivel member.
- 6 Remove the bolts from the MacPherson strut upper mounting.
- 7 Lift away the MacPherson strut and grip it in a vice.

Important

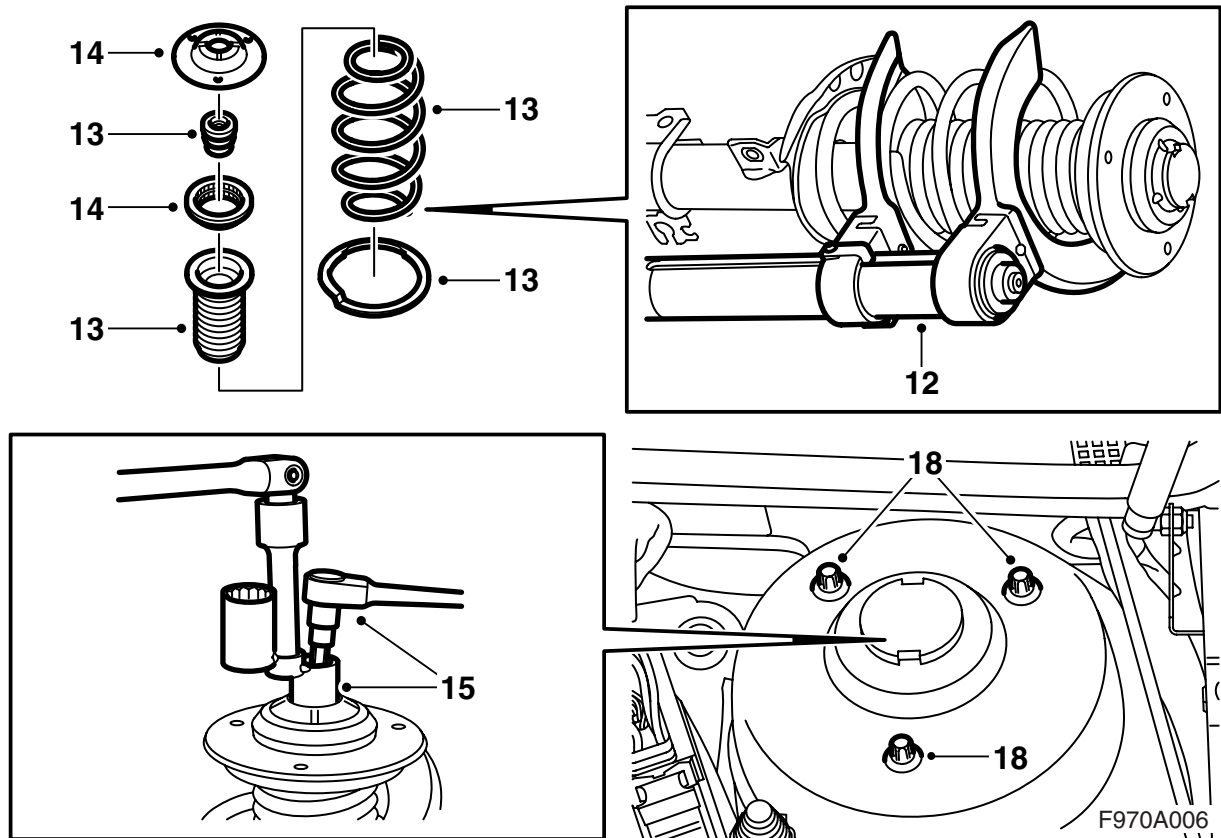
Do not grip too tightly.

- 8 Compress the spring with the 88 18 791 Spring compressor.



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- 9 Remove the protective cover from the top of the MacPherson strut. Stop the piston rod from turning and remove the nut using the 89 96 613 Socket, MacPherson strut.
- 10 Remove the bearing support and the support bearing.
- 11 Remove the dust excluder, spring, bump stop and the zinc washer.



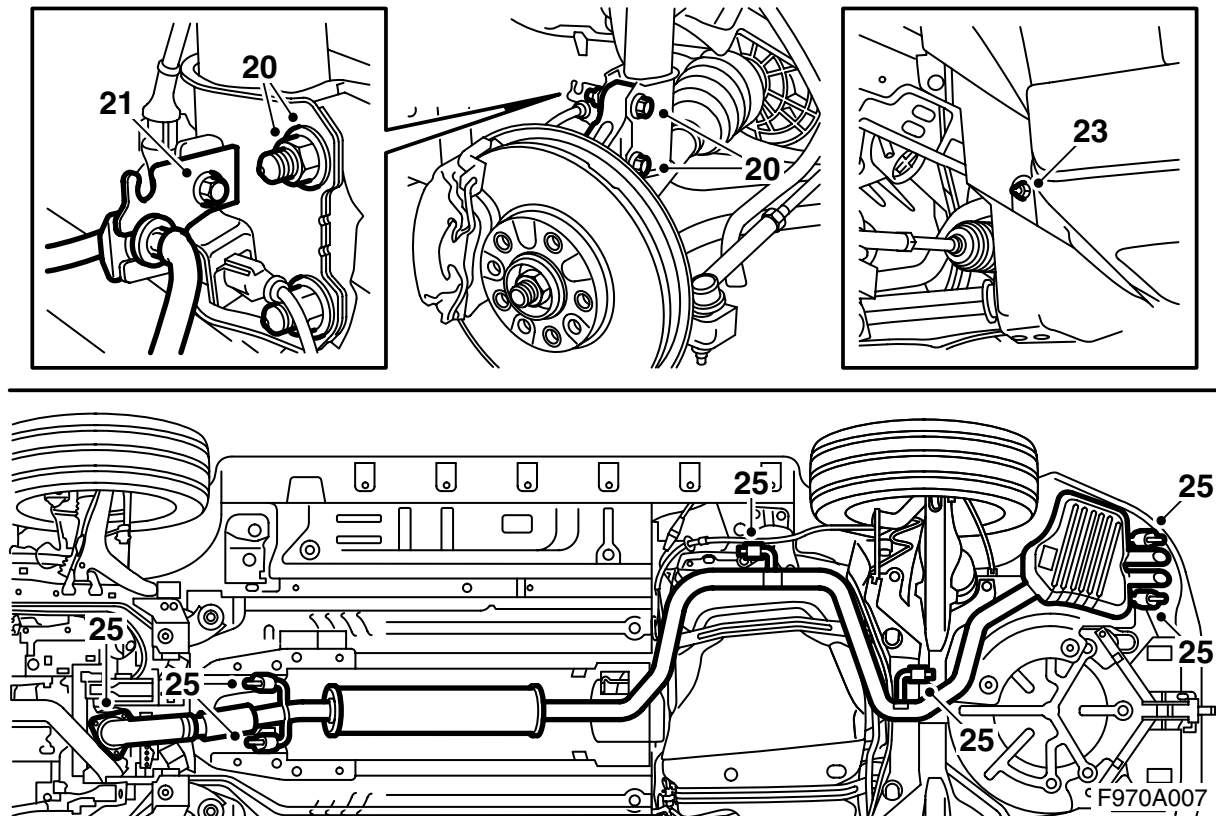
- 12 Compress the new spring with the 88 18 791 Spring compressor.
- 13 Assemble the zinc washer, bump stop, spring and the dust excluder.
Make sure that the spring's lower end lies against the stop lug in the lower spring seat.
- 14 Fit the support bearing and the bearing support.
- 15 Fit a new nut.
- Tightening torque 105 Nm (78 lbf ft)**
- 16 Fit the protective cover.
- 17 Release the spring compressor and adjust the dust excluder so that it fits over the end of the shock absorber.
- 18 Position the MacPherson strut in place on the car and fit new bolts to the upper mounting.

Note

The mounting holes are not positioned symmetrically.

- 19 Tighten the bolts by hand to begin with and thereafter with a torque wrench to the correct torque.

Tightening torque 19 Nm (14 lbf ft)



- 20 Raise the steering swivel member and push into place on the MacPherson strut. Fasten the steering swivel member to the MacPherson strut with new bolts, nuts and washers (the washers must be fitted on the same side as the nuts). Stop the bolt from turning with a spanner.

**Tightening torque 80 Nm +135°
(59 lbf ft +135°)**

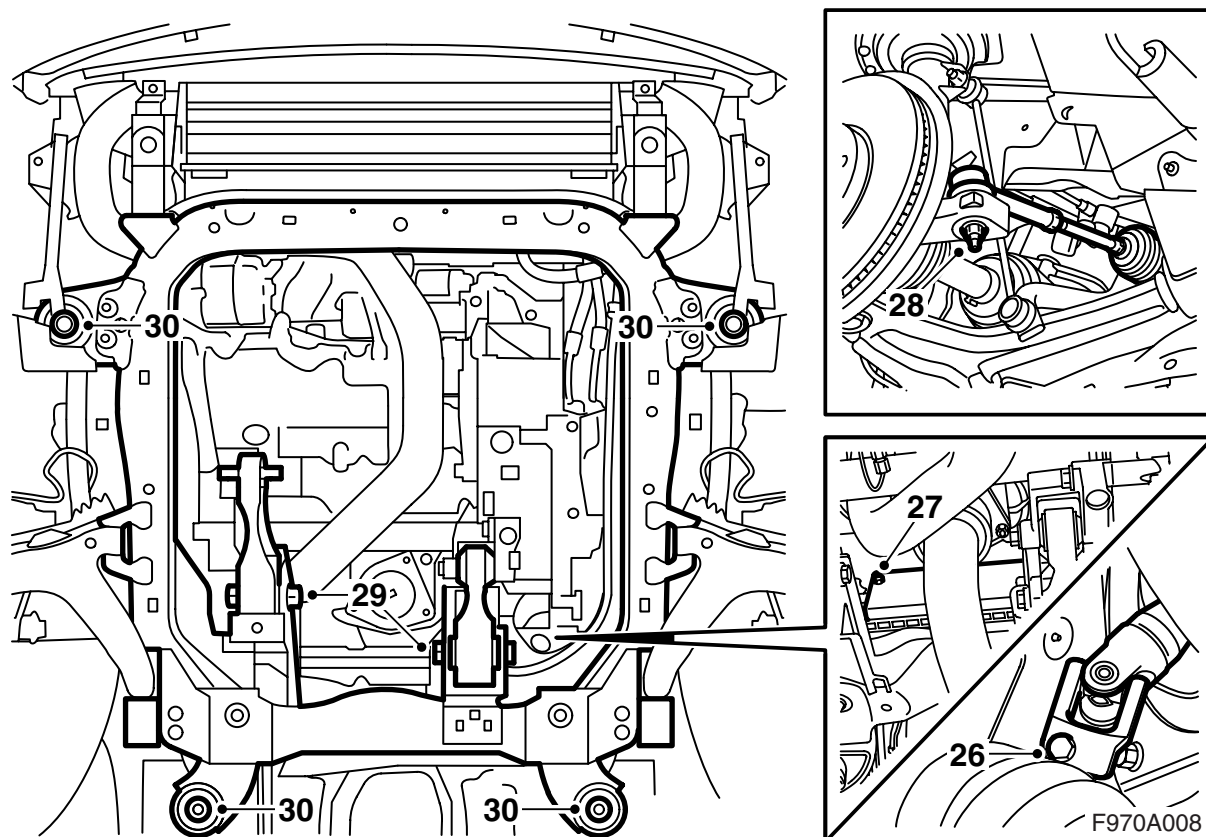
Lower and remove the jack.

- 21 Fit the mounting for the wheel sensor cable and fit the brake hose and clip.
- 22 Repeat steps 1-21 on the right-hand side of the vehicle.
- 23 Remove the rear nut from the inner wing on the driver side.
- 24 Lower the vehicle and secure the steering wheel in the straight ahead position using for example fibre tape attached to the instrument panel.
- 25 Raise the vehicle and remove the exhaust pipe.

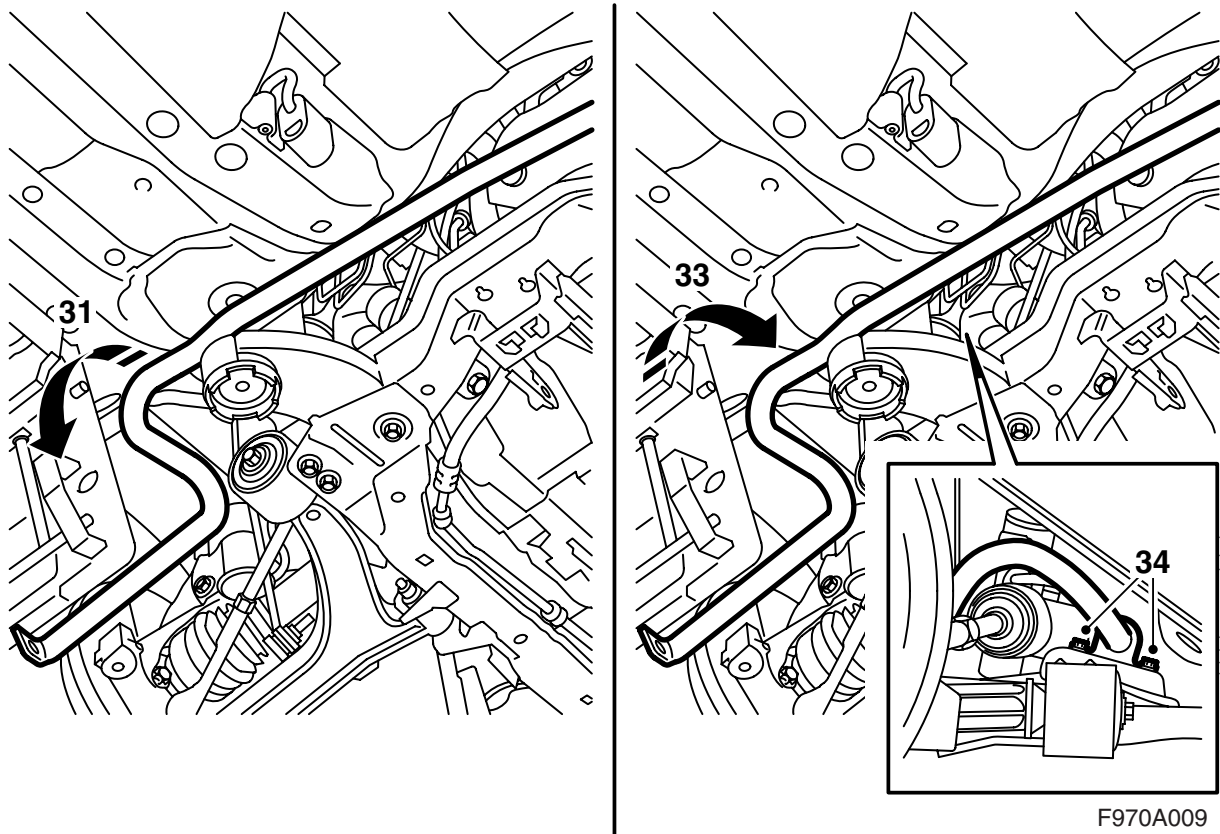
Important

The flexible dust excluder on the forward section of the exhaust system must not be bent more than 5° from its neutral alignment.

Excessive loading of the pipe can lead to residual deformations in the components which can cause noise, leakage and eventually failure.



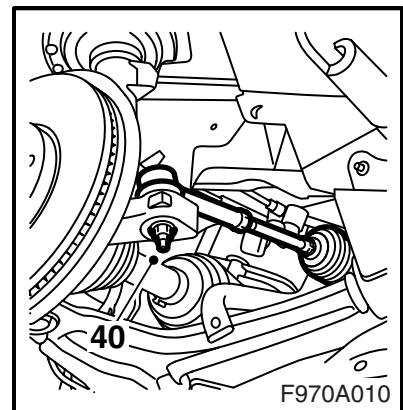
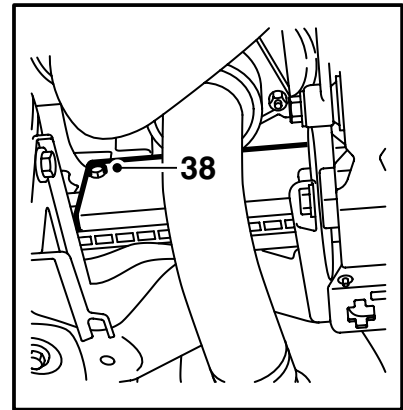
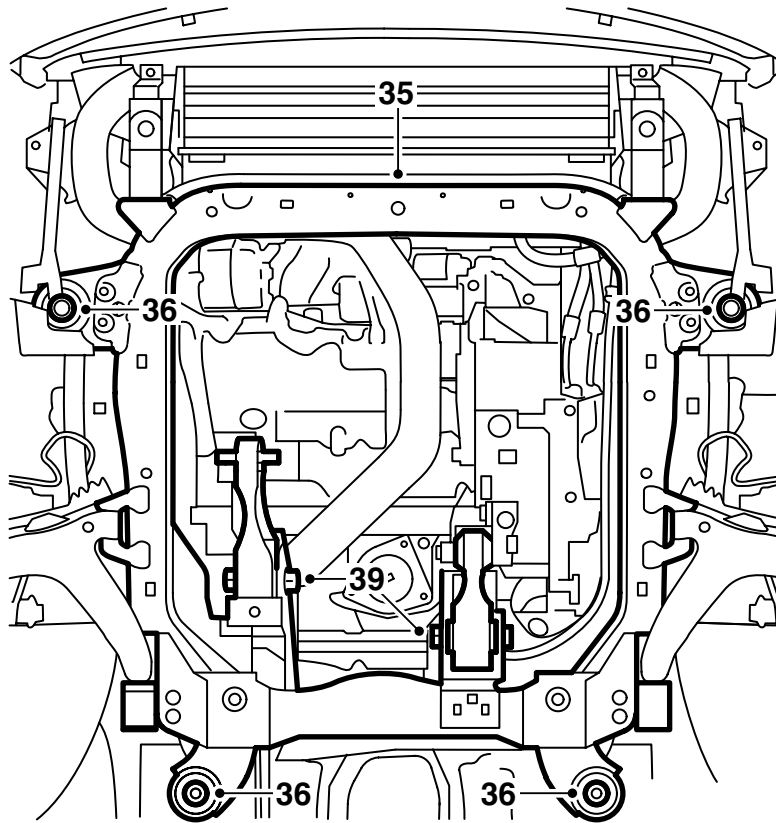
- 26 Detach the steering column from the steering gear.
- 27 Remove the heat shield from the steering gear.
- 28 Detach the track rod from the steering swivel housing on the driver side using Puller, 150 mm 87 91 287.
- 29 Remove the nuts attaching the engine torque arms to the subframe and detach the torque arms from the subframe.
- 30 Remove the rear bolts from the subframe. Unscrew the front bolts a few turns. Prise down the subframe with wedges.



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- 31 Detach the anti-roll bar from the subframe.
- 32 Remove the anti-roll bar via the driver side wheel arch, between the bulkhead and the subframe.
- 33 Insert the new anti-roll bar via the driver side wheel arch, between the bulkhead and the subframe.
- 34 Lubricate the rubber bushes with bearing grease (part No. 30 20 476) and fit them onto the new anti-roll bar together with the clamps. Attach the anti-roll bar to the subframe. The opening in the rubber bushes should be facing forwards.

Tightening torque 18 Nm (13 lbf ft)



35 Raise the subframe up against the body and loosely screw into place the bolts on both sides.

36 Position and raise a trolley jack with fixture underneath and tighten all of the subframe bolts.

**Tightening torque 75 Nm +135°
(55 lbf ft +135°)**

37 Lower and remove the trolley jack.

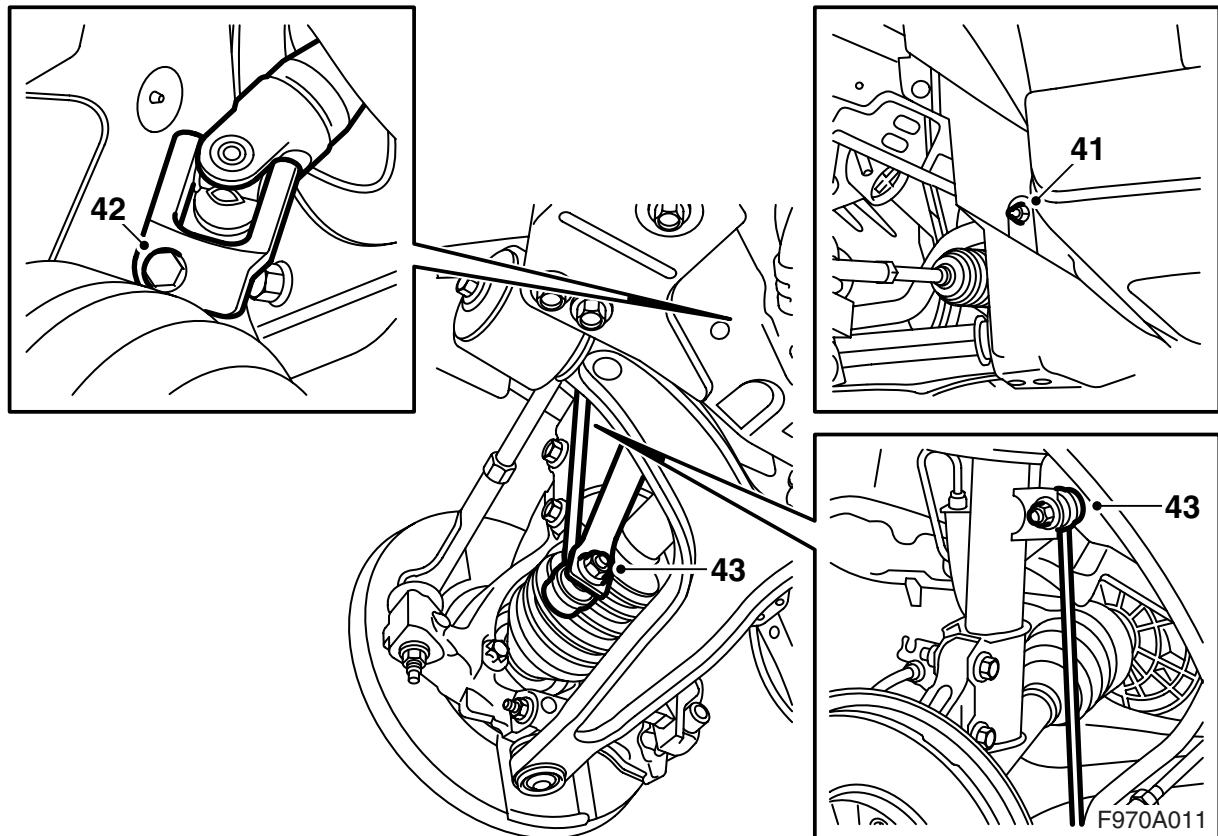
38 Fit the heat shield to the steering gear.

39 Fit the engine torque arms.

Tightening torque 70 Nm +90° (52 lbf ft +90°)

40 Attach the driver side track rod to the steering swivel housing with a new nut. Stop the ball joint rotating with an 8 mm spanner.

Tightening torque 35 Nm (26 lbf ft)

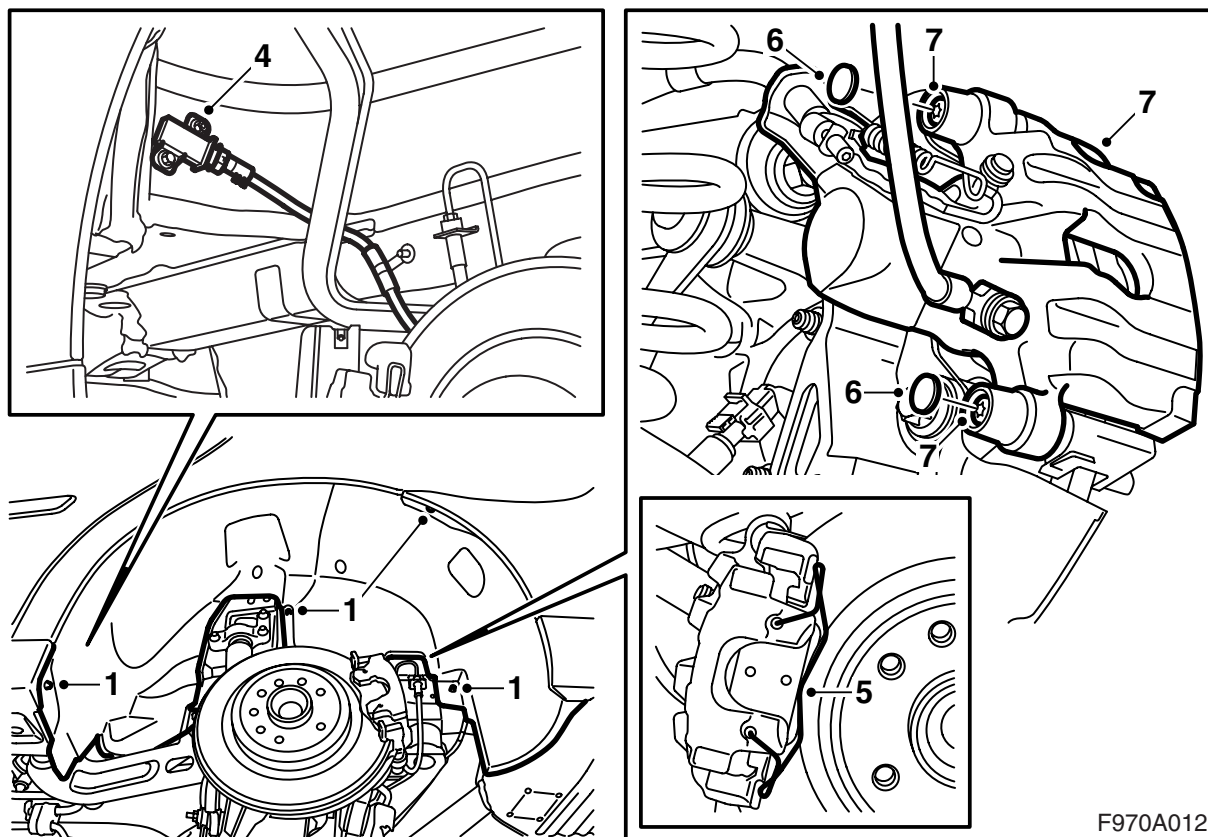


- 41 Fit the plastic nut to the rear of the inner wing.
- 42 Attach the steering column to the steering gear. Ensure that the groove in the steering gear shaft is correctly positioned so that the bolt engages in the groove.

Tightening torque 27 Nm (20 lbf ft)

- 43 Fit the anti-roll bar links on both sides. Use a thin 17 mm open ended spanner.

Tightening torque 64 Nm (47 lbf ft)



Rear

In certain cases the description applies to only one side but the work must be carried out on both sides.

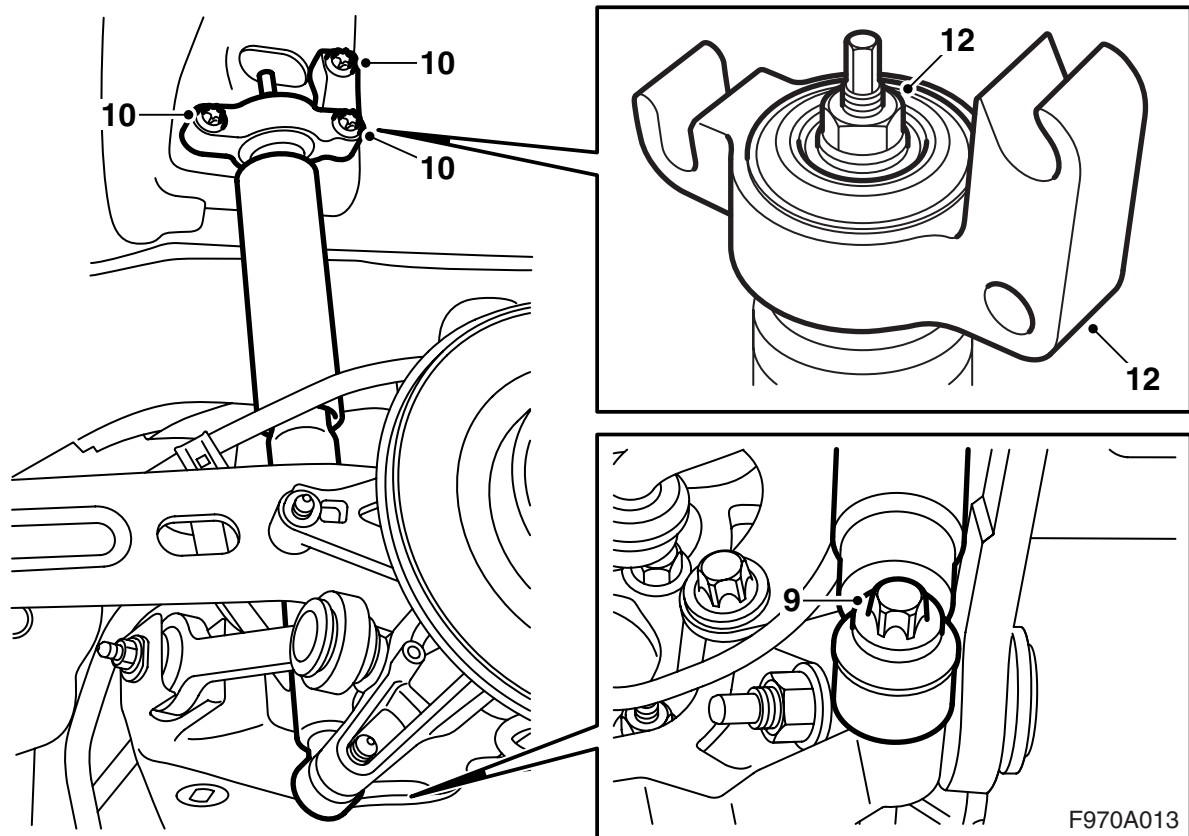
- 1 **TPM:** Remove the screws and nuts which fasten the rear wing liners.
- 2 **TPM:** Detach both wing liners from the studs.
- 3 **TPM:** Free the wing liners from the wheel arch rim starting at the rear and working forwards. Lift away the wing liners.
- 4 **TPM:** Unplug the connector from the signal detector. Undo the clips in the wheel arch and fold down the wiring harness on both sides.
- 5 Remove the spring from the brake caliper.
- 6 Remove the protective covers.
- 7 Detach the brake caliper and hang it up with a hook from the brake pipe mounting.

Important

Be careful so that the brake pipe is not damaged.

Remove the outer brake pads.

- 8 Detach the brake caliper on the other side.



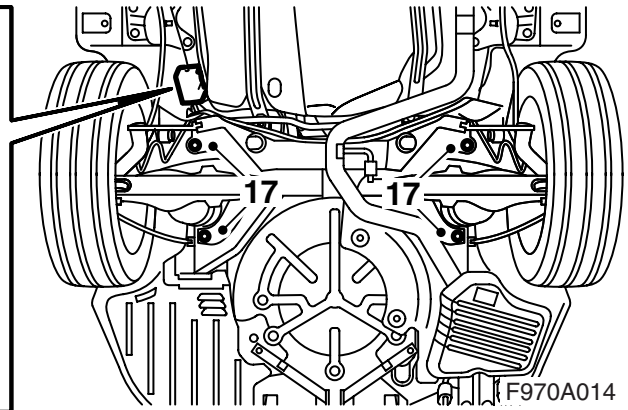
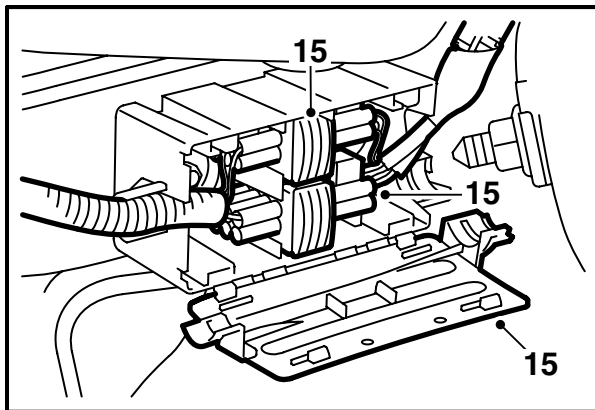
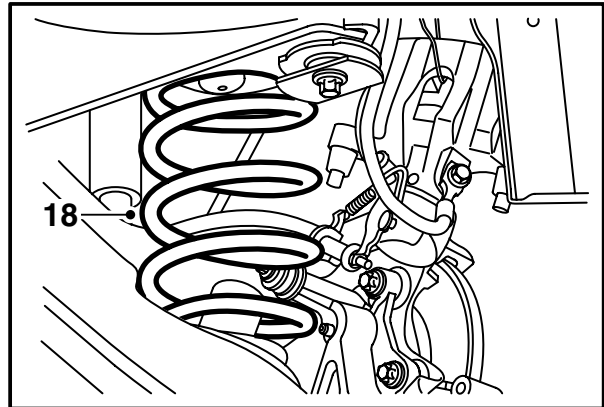
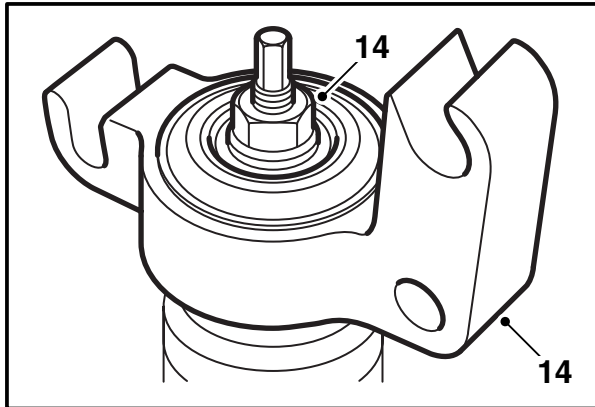
- 9 Remove the bolt which attaches the shock absorber to the steering swivel member.
- 10 Detach the shock absorber bracket from the body.

Note

The forward and upper bracket bolts only need to be loosened as they locate in open slots in the bracket.

Lift away the shock absorber.

- 11 Remove the shock absorber on the other side.
- 12 Remove the bracket from the shock absorber.
- 13 Transfer the washers to the new shock absorbers.



14 Fit the brackets to each of the shock absorbers with new nuts.

Tightening torque 27 Nm (20 lbf ft)

15 Open the protective box and unplug the wiring harness connectors.

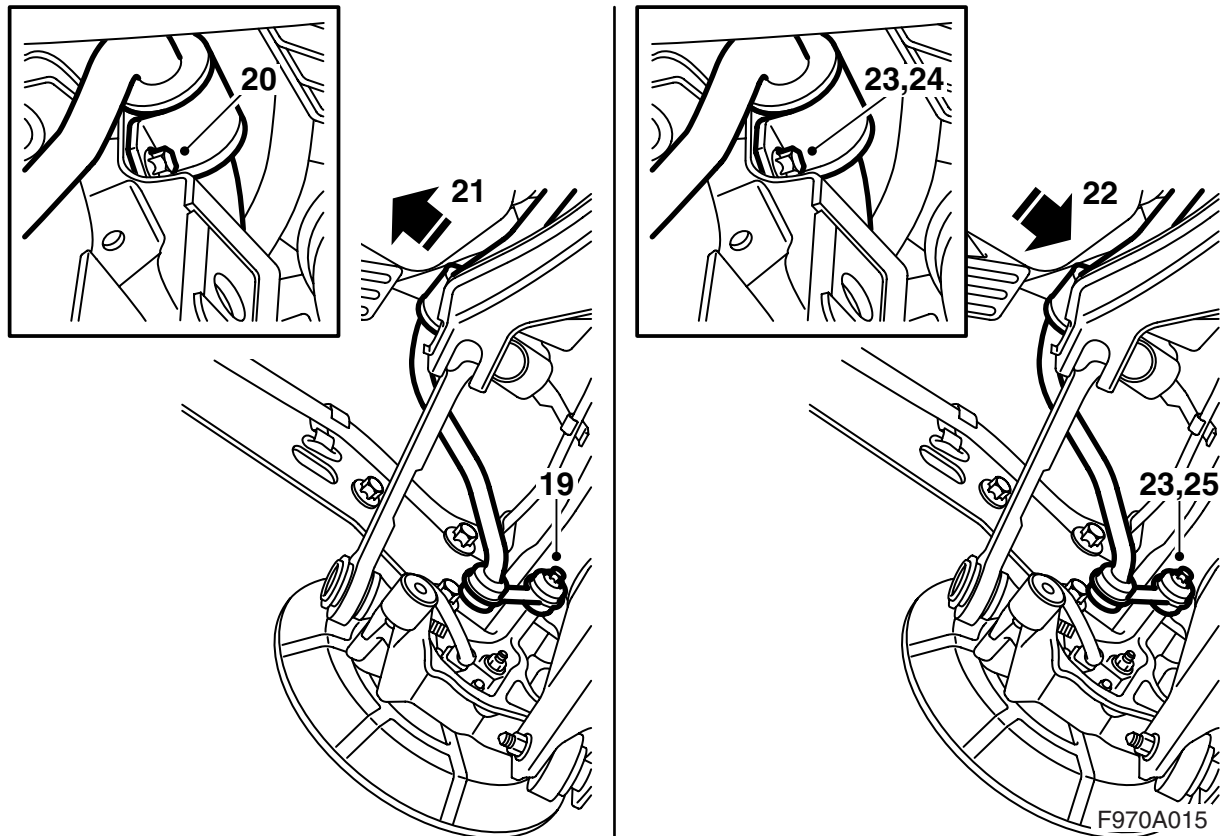
16 Place a pillar jack centrally under the subframe.

17 Unscrew the subframe bolts from the body.

18 Lower the subframe and lift away the springs.

Important

The subframe must not be lowered more than 200 mm at the rear edge.



- 19 Detach the anti-roll bar from the axle carrier.
- 20 Remove the anti-roll bar clamps from the subframe.
- 21 Lift out the anti-roll bar backwards between the subframe and the body.
- 22 Manoeuvre in the new anti-roll bar between the subframe and the body.

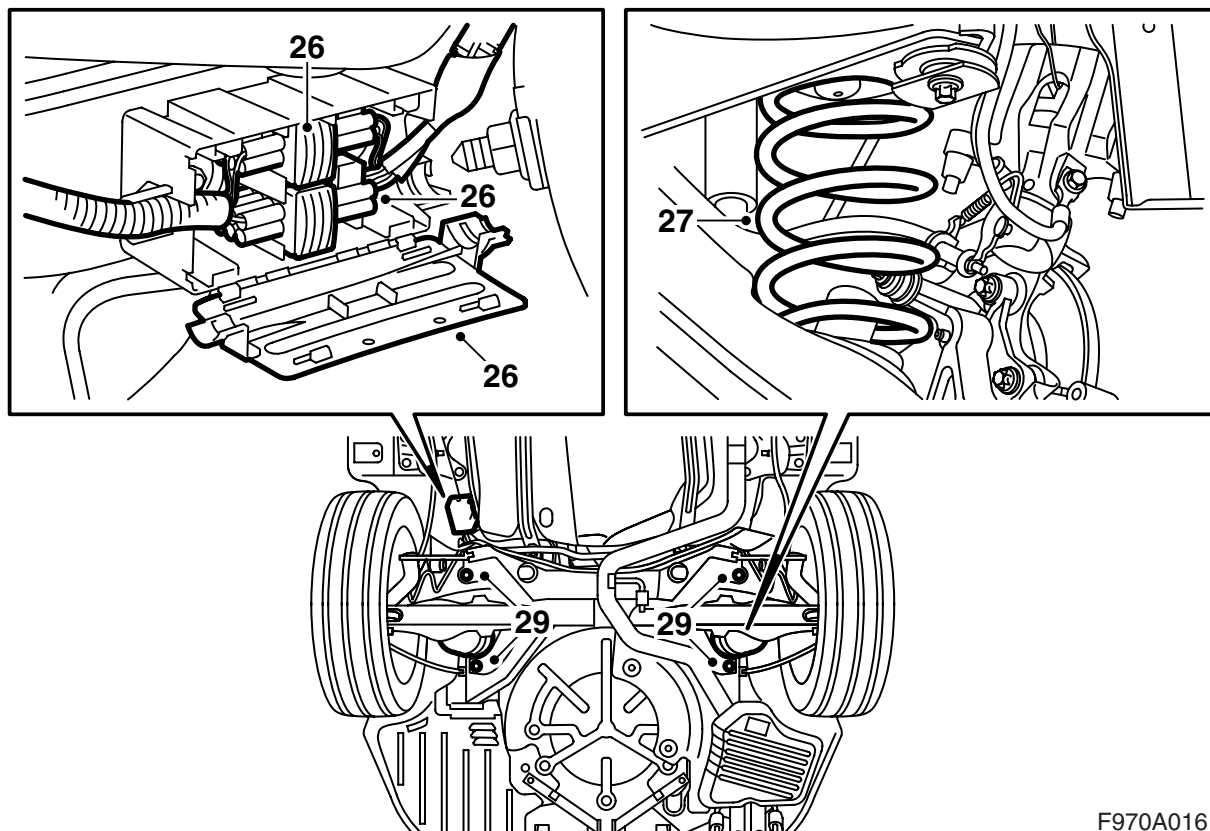
⚠ WARNING

Check that the wiring harness is not pinched. Incorrect fitting can damage the wiring harness and cause a short-circuit/fire.

Lubricate the rubber bushes with bearing grease (part No. 30 20 476) and fit them onto the new anti-roll bar together with the clamps. Locate the anti-roll bar against the subframe.

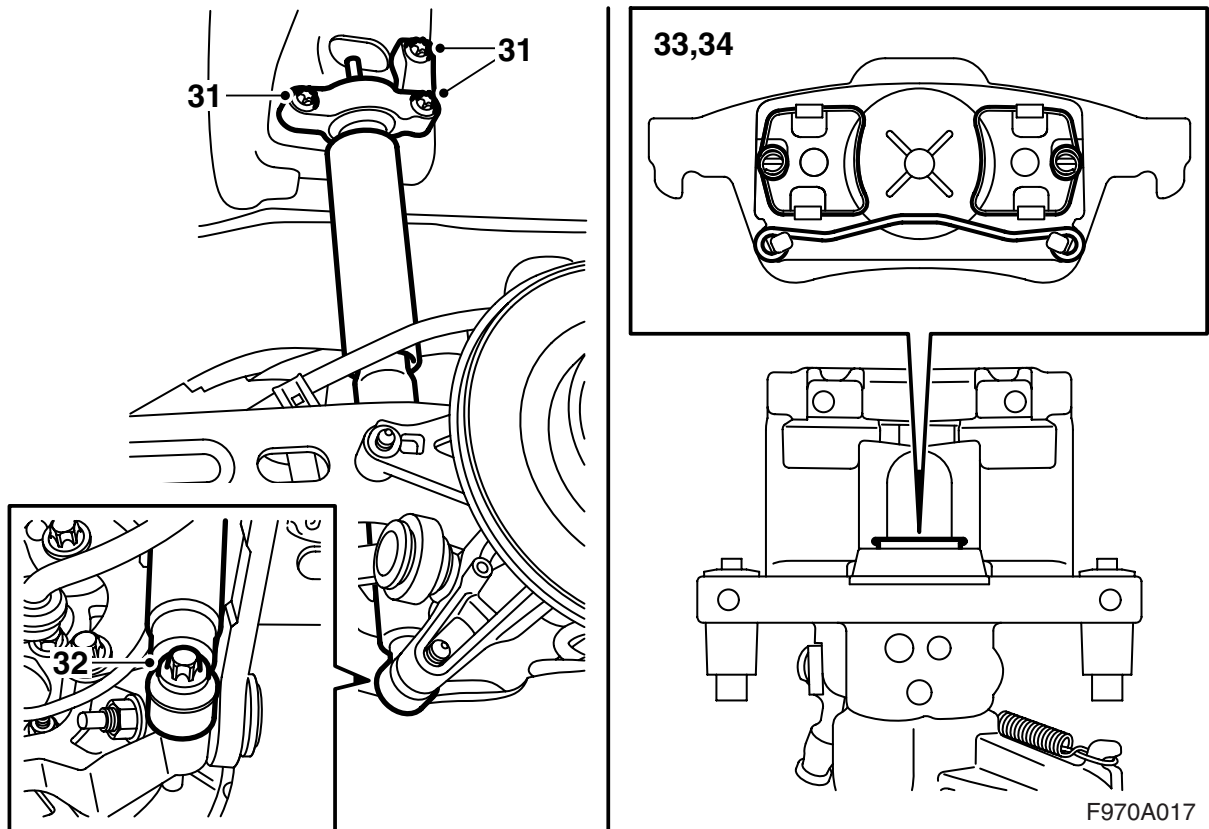
- 23 Insert and loosely screw in all of the anti-roll bar mounting bolts.
- 24 Tighten the bolts holding the anti-roll bar to the subframe.
- Tightening torque 18 Nm (13 lbf ft)**
- 25 Attach the anti-roll bar to the axle carrier on each side.

Tightening torque 53 Nm (39 lbf ft)



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- 26 Plug in the wiring harness connector and close the lid of the protective box.
- 27 Fit the spring supports onto the springs. Place the springs on the lower suspension arms.
- 28 Raise the subframe. Push the subframe slightly forwards.
- 29 Attach the subframe to the body.
**Tightening torque 75 Nm +135°
(55 lbf ft +135°)**
- 30 Remove the jack.



31 Attach the shock absorber brackets to the body.

Tightening torque 53 Nm (39 lbf ft)

32 Attach the shock absorbers to the steering swivel members with new bolts.

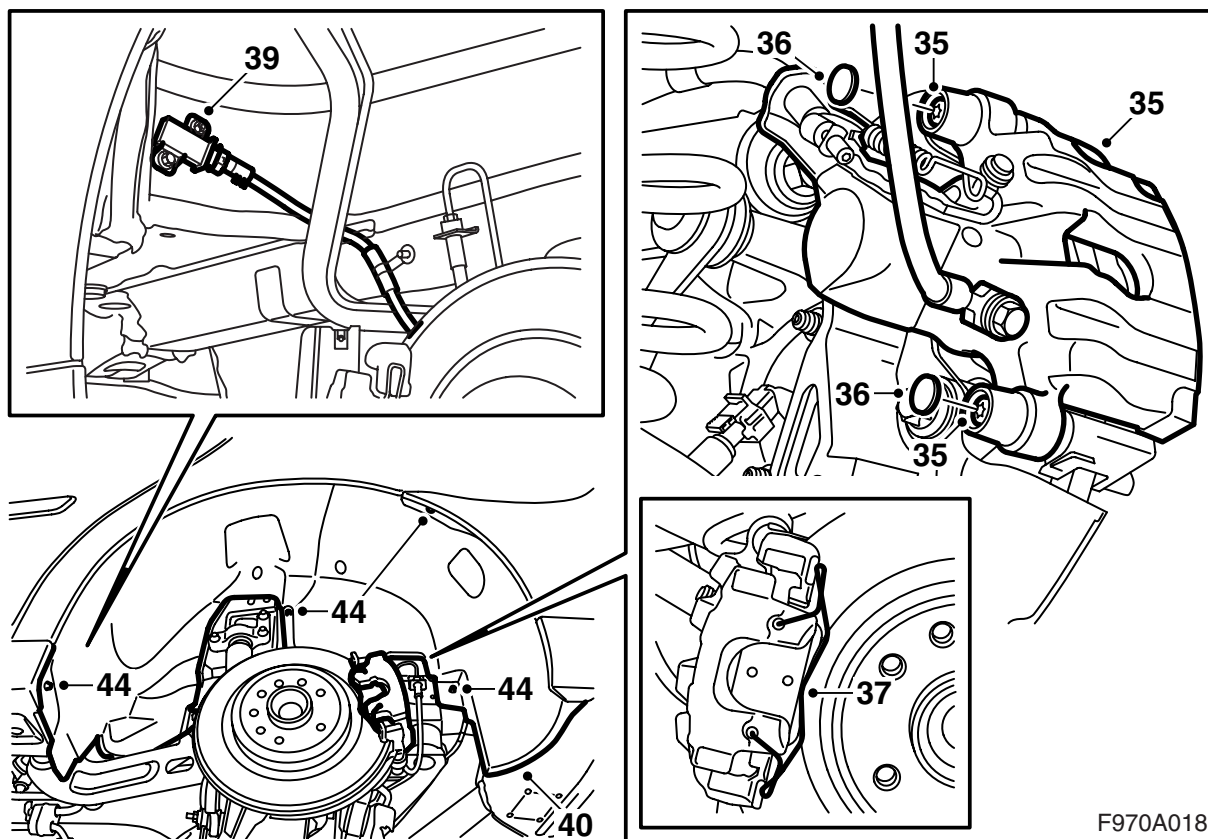
Tightening torque 150 Nm (111 lbf ft)

33 Remove the inner brake pads and press in the brake pistons using the Resetting tool 89 96 969 together with Adapter 89 96 977.

34 Fit the brake pads.

Important

Ensure that the springs on the inner pad locate in the groove on the cylinder.



35 Fit the brake caliper.

Tightening torque 28 Nm (21 lbf ft)

36 Fit the protective covers.

37 Fit the spring.

38 Repeat steps 33-37 on the other side.

39 **TPM:** Plug in the connector to the signal detector and push the clip firmly in place.

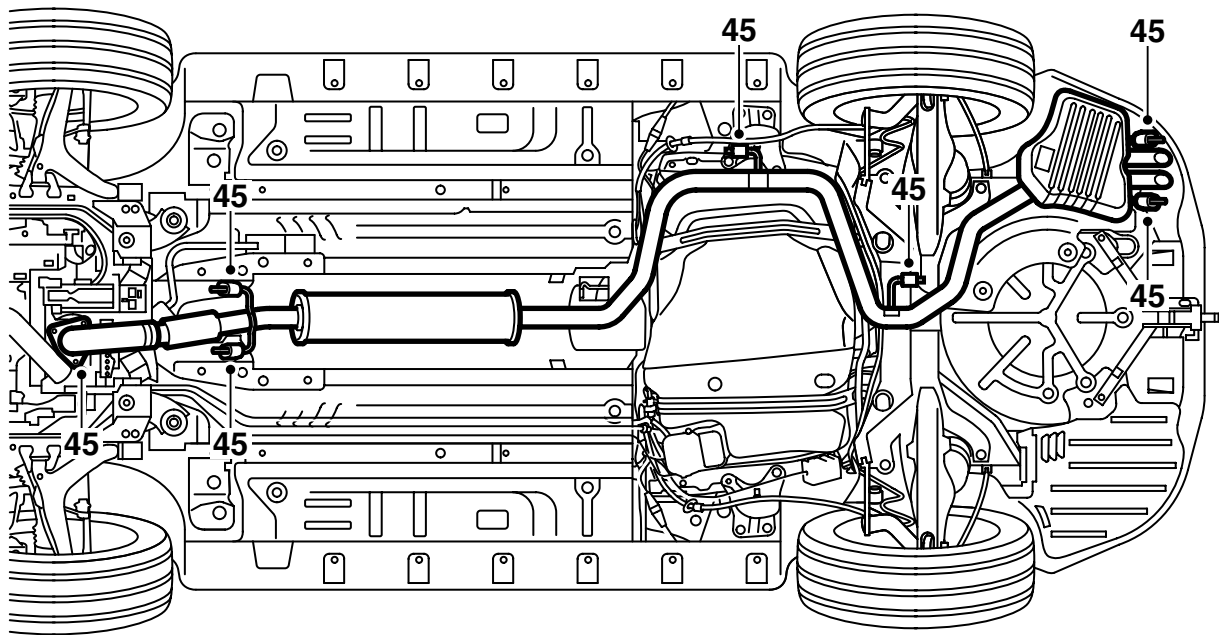
40 **TPM:** Angle each wing liner into position. Manoeuvre the lower edges in against the wheel arch.

41 **TPM:** Guide each liner onto the upper stud and then onto the remaining studs.

42 **TPM:** Fit each wing liner in against the wheel arch rim and the bumper cover. The wing liner should be located behind the bumper cover.

43 **TPM:** Check that the wing liners are correctly fitted.

44 **TPM:** Fit all the screws and nuts.



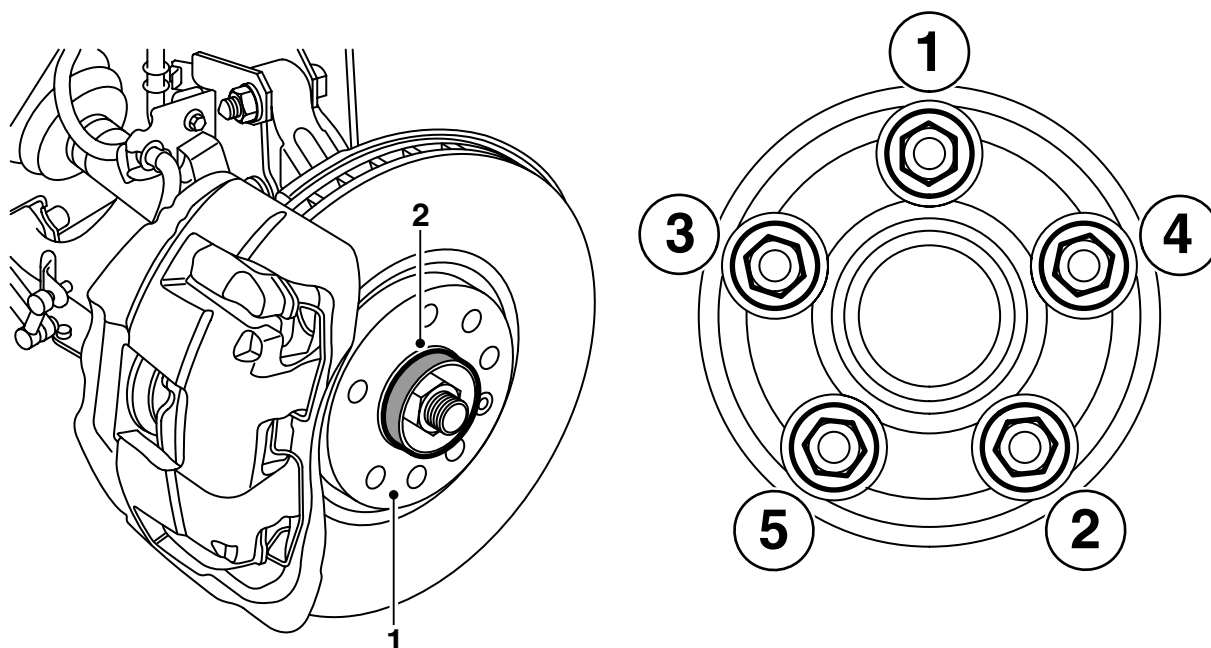
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45 Fit the exhaust pipe.

Important

The flexible dust excluder on the forward section of the exhaust system must not be bent more than 5° from its neutral alignment.

Excessive loading of the pipe can lead to residual deformations in the components which can cause noise, leakage and eventually failure.



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Concluding work

- 1 Clean all dirt and rust from the contact surfaces of the wheel and brake disc.
- 2 Brush White high-pressure grease paste 30 06 442 onto the hub.

Important

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

- 3 **Aluminium wheels:** Oil the bolt threads and the conical surface of the bolts.
- 4 Hang the wheels in position.
Fit the bolts and screw them in by hand, progressively and sequentially, so that the wheel is centred.
- 5 Tighten the bolts in sequence twice.

Important

When tightening the wheel bolts the wheel must be hanging freely.

Tightening torque 110 Nm (81 lbf ft)

- 6 **Vehicles with diesel engine:** Fit the sound insulation under the engine.
- 7 Lift up the spoiler shield, fit the bumper connector into the holder and plug in the connector.

Cars with headlamp washers: Hook the hose to the spoiler shield.

All: Fit the spoiler shield.

- 8 Lower the car.
- 9 Remove the steering wheel restraint.
- 10 Push down on the brake pedal a few times to activate the brake pistons and the handbrake self-adjustment.
- 11 **Cars with headlamp washers:** Check the function of the headlamp washers.

Important

After fitting is completed a 4-wheel alignment check must be carried out.

After fitting the sports chassis:

- 1 Carry out a 4-wheel alignment check and adjust if necessary. (See WIS 6. Steering assembly - Steering linkage - Adjustment, replacement - Four wheel alignment.)
- 2 **Vehicles with ESP:** Connect the diagnostic tool, select model and year, select "All", select "Add/Remove", select the accessory and select "Add".
- 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.