651: Cross member, bushing

10/2/2019

XC90, 2007, D5244T4, TF-80SC AWD, L.H.D, YV1CM714671338226, 338226



PRINT

651: Cross member, bushing

Sub-frame rear, replacing

Special tools:

951 2923

998 5434

999 5500

999 5659

999 7031

999 7030

999 7039

999 7074

999 7060

Note! Since the illustrations in this service information are used for different model years and / or models, some variation may occur. However, the essential information in the illustrations is always correct.

Preparatory work Removing wheels

Raise the vehicle. Remove the wheels.

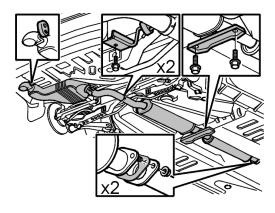
Removal

Removing the exhaust system

Start at the front when separating the three-way catalytic converter (TWC).

Hang up the three-way catalytic converter (TWC) on a hook.

- the mountings in the subframe
- the rearmost exhaust mounting



• the screws in the bracket.

Removing the position sensor

Note! Only applies to cars with Bi-Xenon lights.

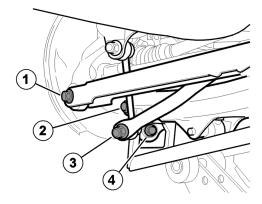
Remove the position sensor for Bi-Xenon lamps. See Position sensor Bi-Xenon lamps, replacing.

Removing the spring

Install tensioner 999 5659 . See Tensioner 999 5659, User instructions .

Note! The tensioner must be positioned as far out as possible on the tensioner plates to provide the correct lifting force.

Press the tensioner up approximately 25 mm from the normal position.
Remove the screw from the lower mounting for the shock absorber.



- the inner and outer screws for the tie rod
- the tie rod (1)
- the link from the anti-roll bar (3). Use a Torx wrench as a counterhold so that the boot is not damaged
- the screws for the lateral link(4)
- the lateral link
- the screw for the control arm in the wheel spindle (2).

Lower the control arm with the tensioner. The spring is now unloaded. Remove tensioner 999 5659 see: Tensioner 999 5659, User instructions.

Press the control arm down by hand.

Remove:

- the spring
- the screw in the inner mounting on the control arm in the sub-frame
- the control arm.

Removing the brake caliper

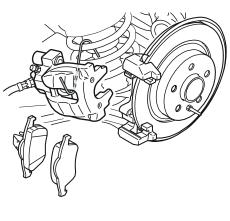
Remove:

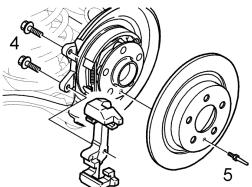
- the sliding pin for the brake caliper
- the brake pads
- the brake caliper. Hang the brake caliper on a hook in the sub-frame
- the screw for the ABS sensor
- the ABS sensor
- the ABS line on the wheel spindle.

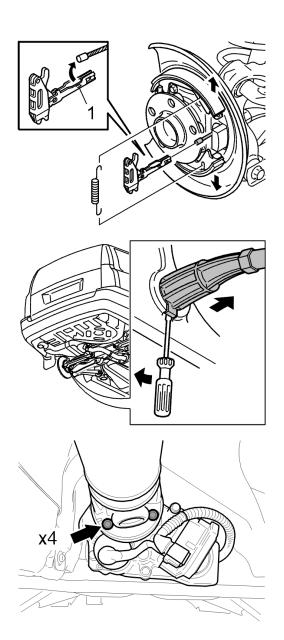
Remove:

- the screws for the holder on the brake caliper (4)
- the holder for the brake caliper
- the screw for the brake disc(5)
- the brake disc.

- the return spring at the expander
- the expander.







Lift the brake shoe slightly. Grip the expander and pull it outwards to access the cable.
Unhook or pry apart the expander

Unhook or pry apart the expander (1) by the mechanical cable to remove it.

Remove the guide sleeve for the cable sleeve. Apply a screwdriver between the guide sleeve lug and wheel arch. Pry apart slightly to remove the sleeve.

Note! Only applies to vehicles with 6-cylinder engines.

Pay attention to the following when removing propeller shaft

Follow instructions.

Refer to: Propeller shaft, special information

Note! Only applies to cars with AWD.

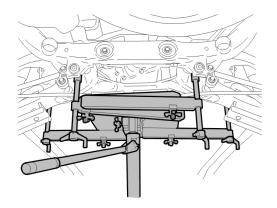
Remove:

- the 4 screws for the propeller shaft
- the propeller shaft
- the power supply cable and the clamps for the Active on Demand coupling (AOC).

Lowering the subframe

Position a lifting table under the **sub-frame**.

Apply the lifting table so that the load is taken off the **sub-frame** screws. Remove the bracket for the fuel pre-filter and brake pipe.



Remove the **sub-frame** screws with accompanying washers and brackets. Carefully lower the **sub-frame** approximately 100 mm.

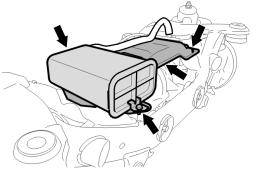
Remove:

- the pressure pump
- the hose for the carbon filter container
- the plastic clips.

Lower the **sub-frame**.

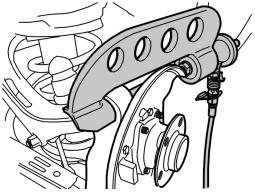
Removing the shock absorber

Remove the upper shock absorber nut. Use socket 999 5500 and a Torx wrench as a counterhold.





- the screw for the carbon filter container
- the carbon filter container
- the screws for the sub-frame
- the cover on the **sub-frame**.



Slacken off the screw for the outer control arm mounting. Slacken off 3 turns.

Use: $951\ 2923$, $999\ 7031$ and $999\ 7030$ together with threaded rod $999\ 7039$.

Press off the wheel spindle.

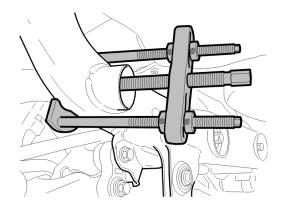
Note! Only applies to cars with AWD.

Remove:

- the screw
- the screw for the drive shaft.

Press in the drive shaft and remove the spindle.

Remove the 2 screws for the inner



front control arm mounting. Slacken off the screw for the inner rear control arm mounting. Slacken off 3 turns. Use puller 998 5434 with counterhold 999 7074.

Note! Only press until the bushing releases from its splined area.

Remove the screw.

Remove:

- the upper control arm
- the 4 x screws for the anti-roll bar
- the anti-roll bar.

Removing the drive shaft from the final drive

Note! Only applies to cars with AWD.

Remove the drive shafts.
Use a larger screwdriver. Position the tip of the screwdriver between the constant velocity joint and the final drive. Tap firmly so that the snap ring for the drive shaft releases. Pull out the drive shaft. Do not damage the drive shaft seal.
Install sealing plug 999 7060.

Removing the final drive

Note! Only applies to cars with AWD.

- the 3 screws for the final drive
- the final drive.

Installation

Note! For tightening torques, see: Tightening torque.

Note! To ensure that there is no exhaust leakage, see: Flanged joint, assembling.

Installing the subframe

Note! Only applies to cars with AWD.

Install:

- the final drive
- the 3 M12 screws for the final drive
- the drive shafts
- the anti-roll bar
- the 4 x M10 screws for the anti-roll bar in the sub-frame
- the anti-roll bar
- the 4 x M10 screws for the anti-roll bar in the sub-frame.

Installing the shock absorber

Raise the new shock absorber to the upper mounting.
Install the new nut.
For tightening torques, see: Tightening torque:Summary of tightening torques for specific components.

Note! Make sure that the bushing seats correctly in the opening in the rear end.

Install:

- the sub-frame
- the M12 screws for the subframe cover
- the carbon filter container
- the M6 screws for the carbon filter container.

Installing the upper control arm

Install:

- the screws for the rear control arm mounting. Only tighten a few turns
- the front upper control arm mounting, M12.

Installing the wheel spindle

Install the screw on the outer control arm mounting in the wheel spindle. Only tighten a few turns.

Note! Only applies to cars with AWD.

Install the drive shaft in the wheel spindle, M10.

Lifting sub-frame

Lift up the **sub-frame** approximately 100 mm from the upper position.

Install:

- the clamp for the hose on the pressure pump
- the pressure pump on the bracket

• the plastic clips.

Raise the **sub-frame** to the upper position.

Install:

- the bracket for the fuel pre-filter, M6
- the bracket for the brake pipe, M6
- the M6 screws for the front mounting for the bracket on the sub-frame
- the 4 x M12 screws for the sub-frame. For model year 2005see Tightening torque: Summary of tightening torques for specific components .

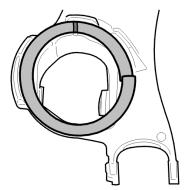
Installing the propeller shaft

Note! Only applies to cars with AWD.

Install:

- the propeller shaft
- the 4 x screws for the propeller shaft. Tighten. See Tightening torque:Summary of tightening torques for specific components.
- the power supply cable and the clamps for the Active on Demand coupling (AOC).

Installing the spring



Install:

- the lower control arm
- the screw holding the lower control arm to the subframe. Finger tighten
- the spring

Press up the control arm by hand. Install the screw for the control arm in the wheel spindle. Finger tighten.

Note! Check that the spring ends up correctly installed in the lower spring seat.

Install:

- the parking brake cable
- the expander
- the spring for the parking brake shoes
- the brake disc
- the M6 screw for the brake disc
- the ABS sensor, M6
- the ABS line on the wheel spindle and the lateral link.

Installing the brake caliper

Install:

- the holder for the brake caliper
- the sliding pin for the brake caliper.
 Tighten. See
 Tightening
 torque .
- the brake pads
- the tensioner 999
 5659 . See
 Tensioner 999
 5659, User
 instructions .

Press the tensioner up approximately 25 mm from the normal

position.

Note! The tensioner must be positioned as far out as possible on the tensioner plates to provide the correct lifting force.

Install the screw for the lower mounting for the shock absorber. Finger tighten.

Move the control arms to the normal position.

See Normal position.

Tighten:

- the M12 screws for the tie rod
- the M12 screws for the lateral link
- the anti-roll bar link, M12, to the anti-roll bar. Use a Torx wrench as a counterhold on the ball joint so that the rubber boot is not damaged

Tighten (lower control arm):

- the lower control arm, M12, in the wheel spindle
- the lower inner control arm mounting, M12, in the sub-frame
- the lower mounting, M12, in the shock absorber.

Tighten (upper control arm):

 the rear upper control arm mounting, M12

 the upper control arm mounting in the wheel spindle, M12.

Removing the tensioner

Remove tensioner. 999 5659 See: Tensioner 999 5659, User instructions.

Installing the position sensor

Note! Only applies to cars with Bi-Xenon lights.

Install the position sensor for Bi-Xenon lamps. See Position sensor Bi-Xenon lamps, replacing.

Installing the exhaust system

Install the exhaust system. See Exhaust system, replacing.

Finishing Installing wheels

Install the wheels. See: Installing wheels. Carry out wheel alignment in accordance with: Wheel alignment, checking / adjusting.

Note! If the vehicle is equipped with Bi-Xenon lamps, the position sensor must be calibrated. Calibrate according to Vehicle communication,

Function group 3, Electrical system, Rear electronic module (REM).

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