



Date 07-29-2009

Volvo Cars of North America, LLC  
Technical Engineering

Reference: VIDA, VSTG, RTJ 20261

Note! If using a printed copy of this Retailer Technical Journal, first check for the latest online version.

**NOTE! THIS DOCUMENT SUPERSEDES THE PREVIOUS RETAILER TECHNICAL JOURNAL 17644 DATED 05-06-2009. The chassis numbers in the header have been updated. PLEASE UPDATE YOUR FILES.**

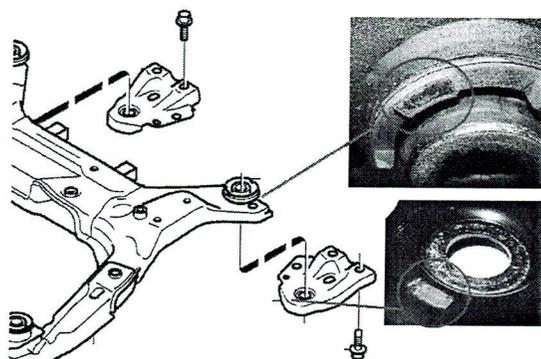
#### AFFECTED VEHICLES:

Models	Type	Model year	Chassis range
S80	124	2007 – 2010	– 105015
V70	135	2008 – 2010	– 103000
V70 R-Design	135	2008 – 2009	– 076390
XC70	136	2008 – 2010	– 064228

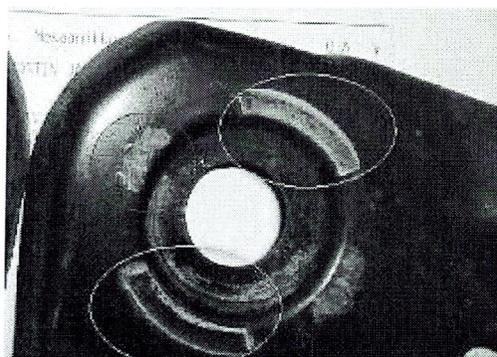
#### DESCRIPTION:

A customer may complain of a knocking noise from the front suspension. The noise can occur when turning, accelerating, braking, or in a situation with side loads. Analysis has shown that it is possible that the noise is caused by movements of the bushing in the subframe bushing tube.

A customer may also complain of a groaning noise from the front suspension of the vehicle, especially when turning or driving over a speed bump. The root cause may be a rubbing conflict between the front subframe rear bushing and the support plate. Refer to the picture below to the left for abnormal contact. Contact between the bushing and the support plate according to the green areas in the picture below to the right, is normal.



NOK



OK

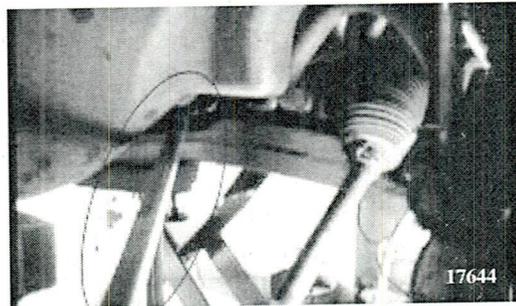
**SERVICE:**

First, carry out basic analysis to understand where the noise is coming from. If possible, use the Chassis Ear tool kit.

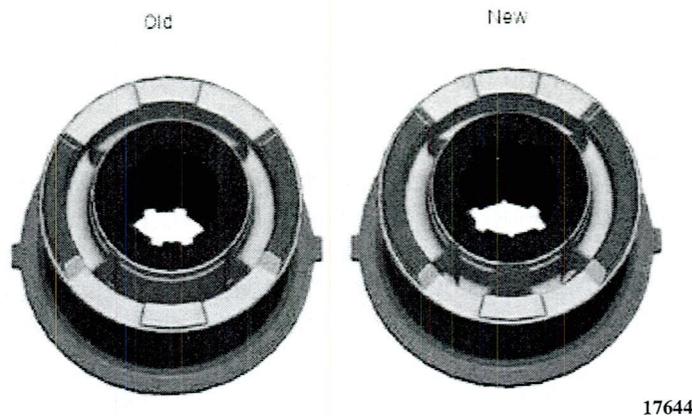
If a hard knocking noise can be heard from the rear subframe bushings, fault trace accordingly:

Test 1: Disconnect the front anti-roll bar link on both sides. If the noise is gone, it indicates that the noise could be coming from the front subframe, rear bushings.

Test 2: Use a pry bar to move the subframe (see picture below) and listen for the noise.



If the bushing show signs of wear or if the cause of the problem is that the bushing is not in the correct position in the subframe metal tube, replace the subframe bushing according to VIDA, RTJ 20261, and the details on page 3. The new subframe bushing will have a different interface (wider contact area) with the support plate. See the photo below.



If the knocking noise goes away during test 1 or test 2, replace the subframe bushing according to VIDA, RTJ 20261, and the details on page 3.

**Note!** For the **groaning noise**, refer to the chassis numbers **in the header**. Replacing the subframe bushing for a **knocking noise** only applies to vehicles up to the chassis numbers in the table **below**.

Models	Type	Model year	Chassis range
S80	124	2007 – 2008	– 077517
V70	135	2008 – 2008	– 047660
XC70	136	2008 – 2008	– 034274

**Note!** Do **not** use grease when installing the bushings.

**Note!** When installing the new bushings, apply epoxy adhesive between subframe and bushing. Recommended epoxy glue is:

- Volvo part number 9511027, 3M™ DP8005 epoxy adhesive
- Volvo part number 9512950, glue gun kit
- Volvo part number 1161730, nozzle for glue gun kit.

Notes on Volvo epoxy glue:

- There is a "best before" date on a label on the glue. Do not use the glue after this date.
- The Volvo epoxy glue has a pot (working) time of 3 minutes. Do not allow glue to harden on tools or other surfaces it is not intended for.
- It is important to let the glue set properly before the subframe is installed in the car, follow instructions on glue tube.

An alternative epoxy glue is LORD® 305 epoxy glue. Notes on LORD® 305 epoxy glue:

- LORD® 305 is available on the Internet at [www.ellsworth.com](http://www.ellsworth.com).
- LORD® 305 has a shelf life of one year from date of shipment, in its original unopened container. Do not use the glue beyond its shelf life date.
- LORD® 305 has a pot (working) time of one to two hours. Do not allow glue to harden on tools or other surfaces it is not intended for.

It is important to let the glue set properly before the subframe is installed in the vehicle, follow instructions on glue tube.

#### **WARRANTY CLAIM INFORMATION**

<b>LABOR OP</b>	<b>LABOR DESCRIPTION</b>	<b>LABOR TIME</b>
21824-2	Subframe rear bushing, replace (1 side)	See VSTG
99521-2	Chassis ear tool kit, install/remove	0.4 hrs

Claims may be submitted under the new car warranty when there is a documented customer complaint using claim type: 01

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