

Check/replacing exhaust system

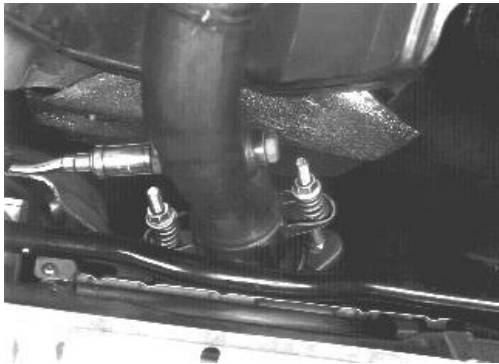
Note! Replacing exhaust manifold see [Replacing exhaust manifold](#) , [Bellows type exhaust manifold, replacement on RHD car](#) or [Exhaust manifold replacement, right-hand drive 850](#)

Replacing exhaust pipe see [Replacing exhaust pipe](#)

Replacing exhaust manifold

Slacken off front exhaust pipe

Remove nuts at flange joins at manifold.
Remove carriage bolts.



Remove the exhaust manifold

Remove two heat deflector plates from manifold.
Remove manifold from studs.
Turn manifold 90° to the right and lift up.
Check gasket face to cylinder head

Caution! Applies to cars with air conditioning (A/C): Do not damage the pressure switch (Pressostat) on the air conditioning (A/C) pipe.

Note! Studs should always be secured with strong thread seal, P/N 1161076-5, when installed.



Install exhaust manifold

Install manifold Use new gaskets.
Locate the front exhaust pipe to the manifold with carriage bolts.

Tighten manifold to cylinder head. Torque to 25 Nm.

Reinstall the heat deflector plates.

Tighten the front exhaust pipe to the manifold, Use copper paste on the copper bolts. The nuts should be tightened to the top of the thread. Do not tighten more than 10 Nm.



Note! Do not forget to install the springs and washers as well as the two exhaust pipe nuts.

Replacing exhaust pipe

Note! General

Check rubber mountings, replace if necessary.

The play between the exhaust system and bodywork should not be less than 20 mm.

Installing system assembly

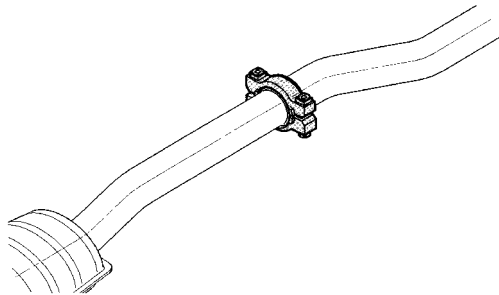
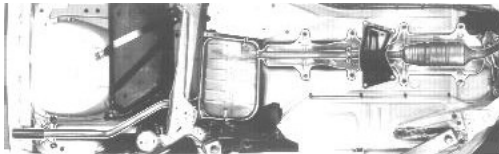
To avoid tension in the system follow the following procedure:

1. Thread the silencer tail pipe between the floor and rear axle.
2. Then hang the silencer from the rubber mounts.
3. Install the three-way catalytic converter (TWC) and partially tighten the flanged joint to the exhaust manifold
4. Connect the exhaust system to the three-way catalytic converter (TWC), lubricate the terminal with copper paste (P/N 1 161 035-9). Align the other exhaust system components.
5. Tighten the three-way catalytic converter (TWC) to the exhaust pipe. Tighten the nuts to the top of the thread and then tighten to 10 Nm.
6. Tighten the front/rear pipe connections to 25 Nm.

Test function

Start engine.

Check for leaks.



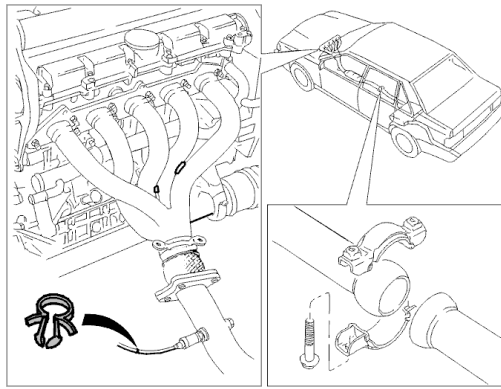
Bellows type exhaust manifold, replacement on RHD car

Raise the car

Remove the clamp between the front and rear exhaust pipes

Lubricate the studs with oil.

Remove the front exhaust pipe from the manifold, 4 nuts.

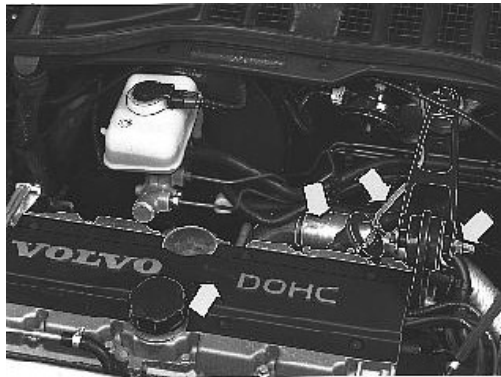


Detach the two heated oxygen sensor (HO2S) clips from the engine pad.
Move the front exhaust manifold back approximately 10 cm.

Caution! The heated oxygen sensor (HO2S) cable must not be stretched!)

Lower the car

Remove preheating hose
Slacken off the torque rod from the engine and turn to one side.
Remove the ground strip from the engine.



Cars with air pump:

Remove cover over ignition leads

Remove:

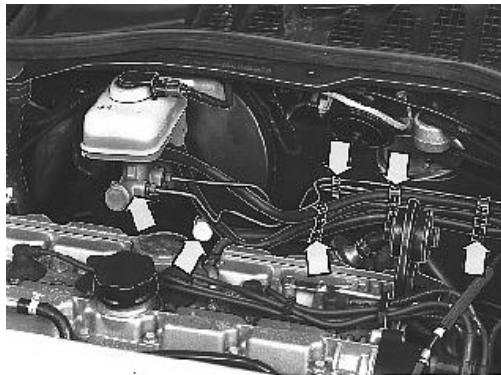
- brakefluid hoses and vacuum hose with clip from brake pipes
- vacuum hose from brake servo by pulling it out
- the two upper brake pipes from the clip closest to the brake servo in the firewall
- the main cylinder from the brake servo and place on the plenum chamber cover

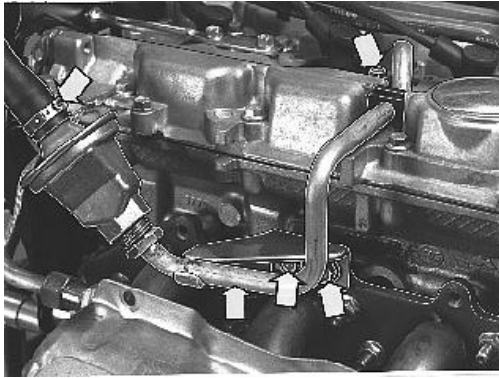
Remove the preheating plate screws (5)

Cars with air pump,

Remove:

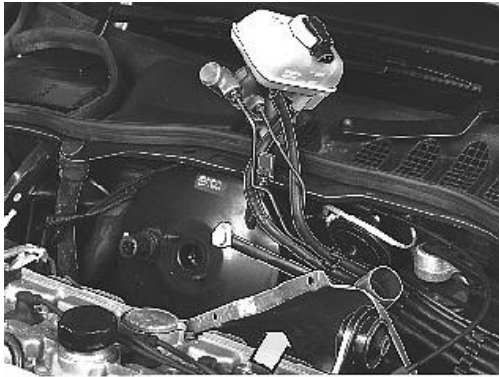
- the pipe and non-return valve between the cylinder head and hose. Undo the screw on the cylinder head. Move the preheating plate down.
- the two copper gaskets screws of the reverse
- oetik clamp from non-return valve/hose
- pipe with non-return valve





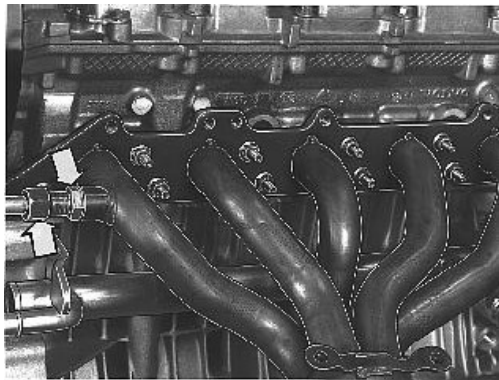
All cars

Remove the preheating plate



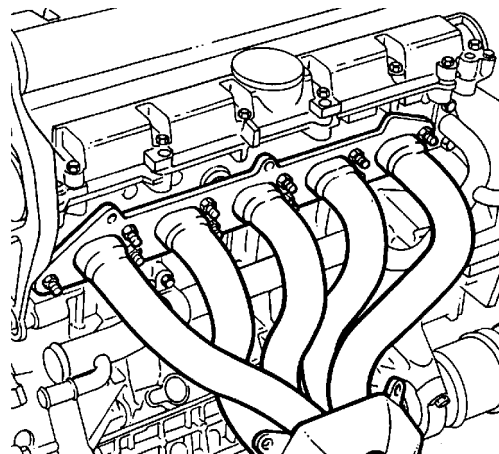
Cars with EGR,

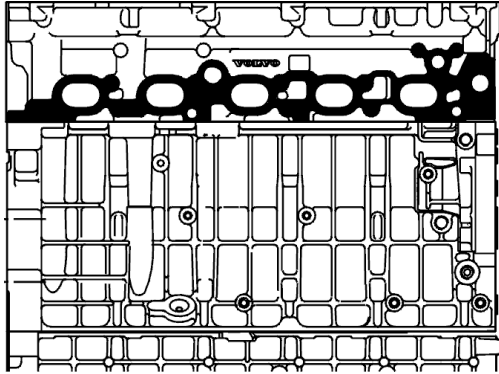
Detach the EGR pipe from the nipple.
Remove the nipple.



All cars:

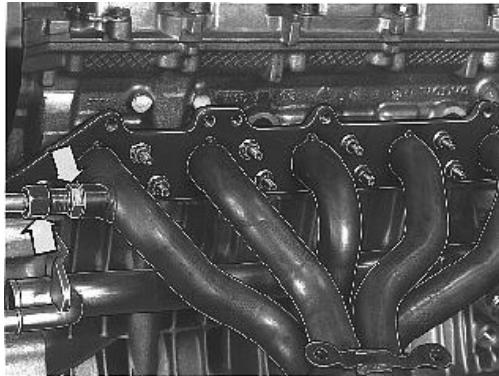
Remove the exhaust manifold.
Lubricate the studs.
Undo the 10 nuts.
Remove the exhaust manifold.





Remove the gasket from the engine block

Clean and inspect the gasket surfaces on the engine block.
Install new gaskets.



Install new exhaust manifold

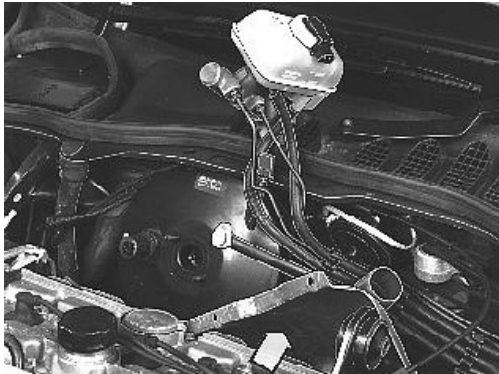
Take 10 new nuts.
Tighten exhaust manifold to 25 Nm.

Cars with EGR Exhaust Gas Recirculation System:

Install EGR nipple and EGR pipe

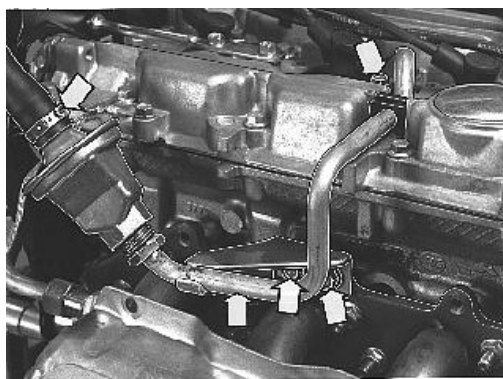
All cars:

Position the preheating plate on the exhaust manifold.



Cars with air pump:

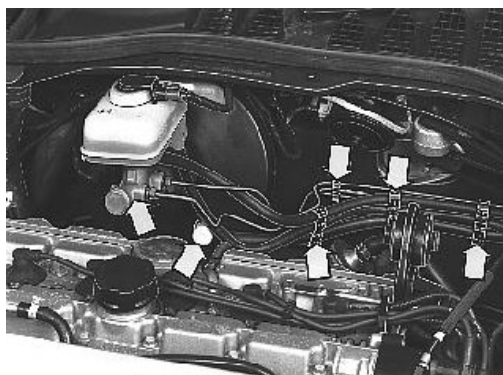
Install pipe and non-return valve.



All cars:

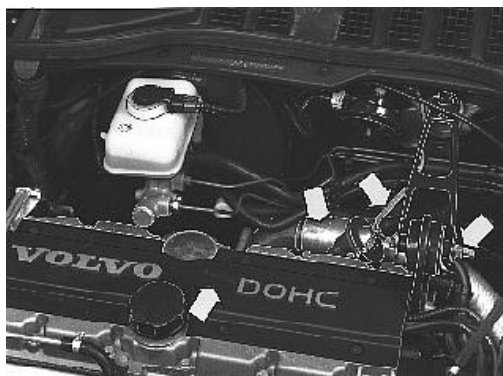
Screw on preheating plate. Use copper paste P/N 1161408-8

Install



- master cylinder. Use a new nuts and tighten to 25 Nm.
- the brake servo vacuum hose
- brake pipes in the clip on the firewall
- the hoses with clips on the brake pipes

Install



- torque control arm. Use new screw and nut. Tighten to 35 Nm + angle-tighten 90°.
- ground strip Tighten to 10 Nm.
- preheating hose

Cars with air pump:

Install ignition lead cover

Raise the car

Install:

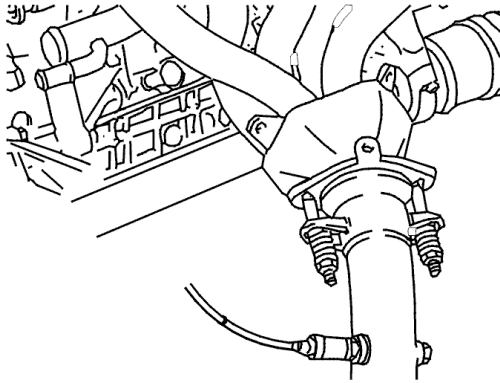
- exhaust pipe on exhaust manifold (4 nuts)
- the clamp between the front and rear exhaust pipes
- heated oxygen sensor (HO2S) cable with 2

clips on the engine pad

Lower the car

Start the engine and check that the exhaust manifold joints are sealed.

Exhaust manifold replacement, right-hand drive 850



This service bulletin applies to B5204S, B5254S, B5252S engines with manifolds of earlier type (see illustration).

Special tools	P/N	
Protractor	951 2050	-7
Counterhold	999 5461	-2
Counterhold	999 5540	-3
Protective sleeve	999 5562	-7
Holders	999 5563	-5
Impact wrench with torque socket	115 8147	-7

Materials:	P/N
Rust inhibitor	1161030-0
Metal adhesive	1161370-0
Copper paste	1161408-8

Preparations

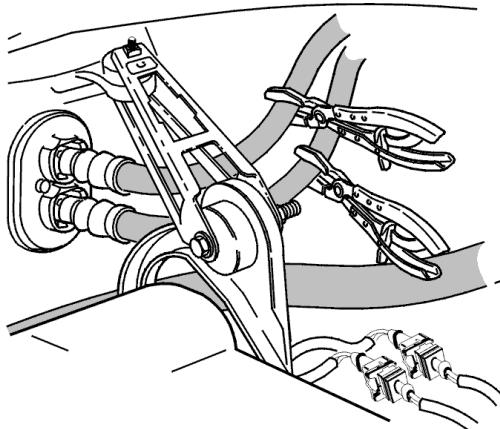
Remove:

- Air preheating hose between the preheating plate and the air cleaner ACL.

Apply the hose pliers on the hoses to heater and disconnect hoses at the firewall.

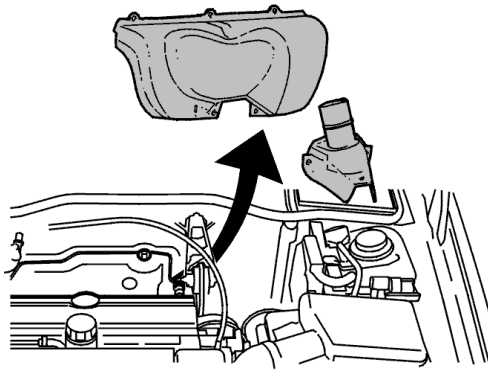
Detach the two connectors to the Oxygen sensor HO2S.

Detach the clip with the HO2S wiring from the engine mount.

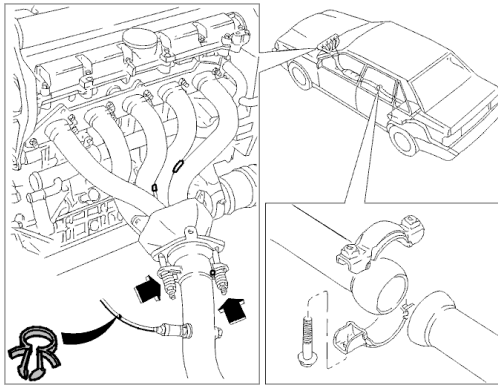


Remove:

- The screws to the preheating plate and the heat shield plate, 6 screws.
- Preheating plate and the heat shield plate



between the torque arm and the left side suspension tower.



Raise the car

Remove the front exhaust pipe from the manifold, 2 nuts.

Note! Be careful with the sealing ring. If it is dropped on the floor a new sealing ring must be installed.

Remove:

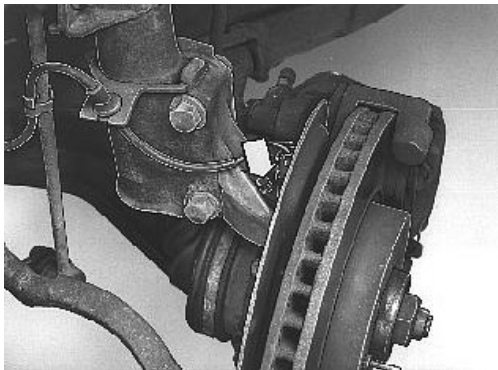
- 3 screws on the cross member and loosen the fourth screw. Twist the cross member to one side.
- The clamp between the front and rear exhaust pipes and lower the front exhaust pipe.
- splash guard under engine.

Right drive shaft, removal

Remove:

- The front wheel.
- The Anti-lock breaking ABS sensor from the stub axle.

Note! Do not separate the connector halves!



Detach the bracket for the brake line and ABS cable

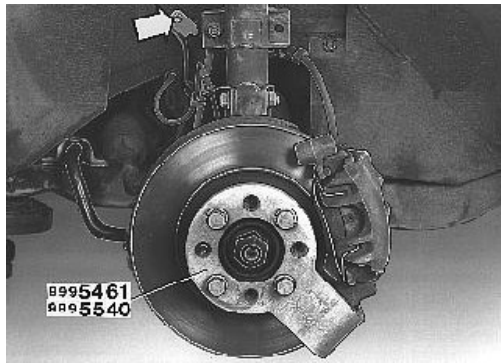
Unhook bracket and let it hang free.

Remove drive shaft nut.

Knock the drive shaft nut locking open.

Install counterhold [999 5461](#) (4 x wheel

studs) alternatively counterhold [999 5540](#) (5

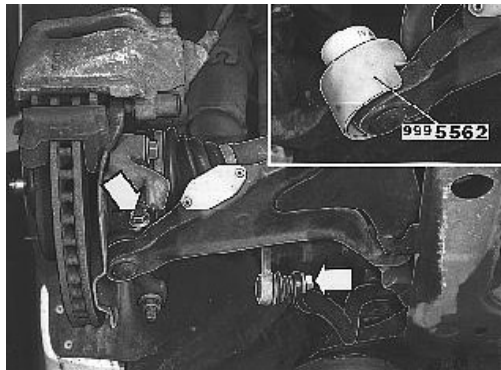


x wheel studs) and remove the nut.
Detach drive shaft end in the hub. Tap shaft in about 10-15 mm. Use a rubber or copper mallet.

Detach the link/ball-joint from the stub axle

Install protective socket [999 5562](#) on ball joint.

Unhook the link from the anti-roll bar.

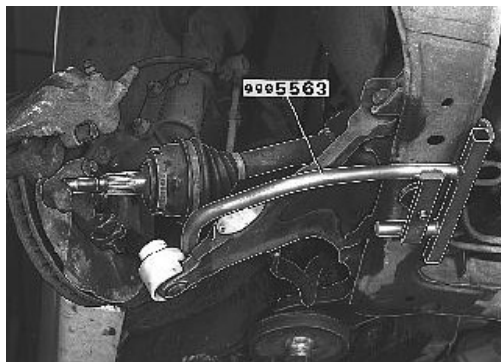


Remove the drive shaft from the hub

Install holder [999 5563](#) to hold down the control arm.

Turn and fold out spring strut. Tap on the drive shaft end with a plastic or copper hammer and pull drive shaft out of the hub.

Clean off traces of metal adhesive from the spline joint (hub-drive shaft).

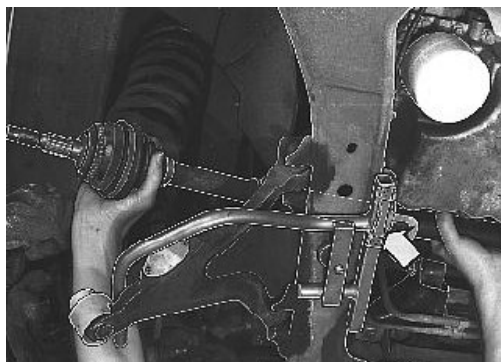


Remove drive shaft from transmission

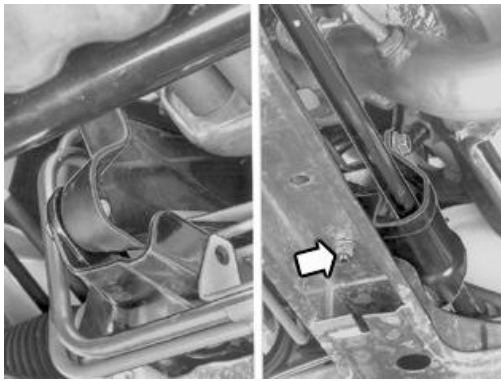
Remove the bearing cap from the drive shaft support bearing.

Withdraw the drive shaft from the transmission. Insert a plastic plug in the drive shaft hole.

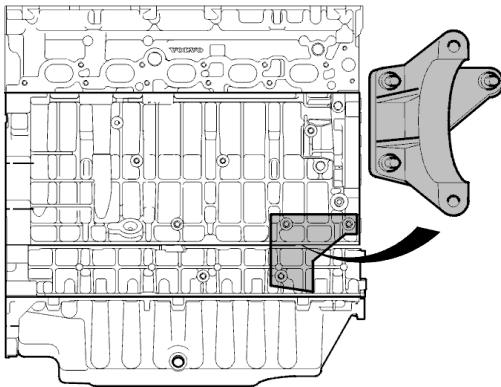
Note! Take care not to damage the sealing ring in the transmission or the boot on the drive shaft.



Remove collision protection above the steering gear

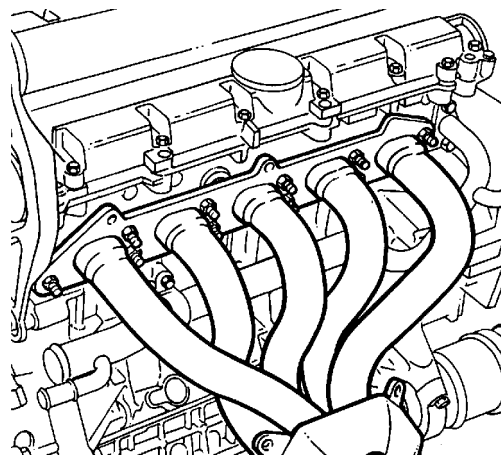


(2 screws).



Remove the drive shaft bearing bracket

(3 screws).



Replacing exhaust manifold

Removing the exhaust manifold

Lower the car.

Grease the stud bolts so they are easier to remove.

Remove 10 nuts from the exhaust manifold.

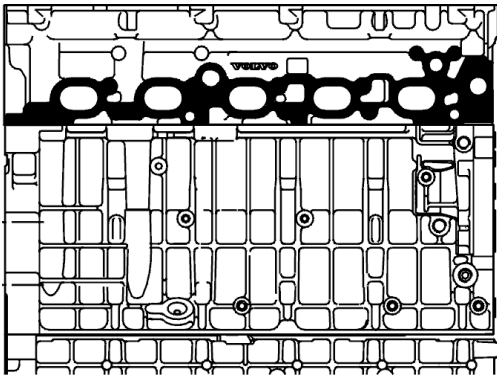
Raise the car.

Remove the exhaust manifold by lowering down.

Remove the gaskets on the engine block

Check and clean the gasket mating surfaces on the engine block.

Install new gaskets.



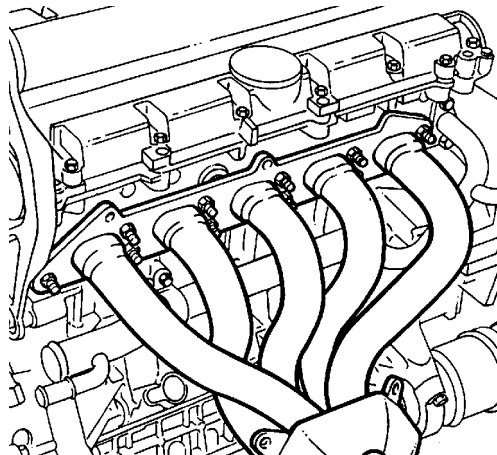
Install new exhaust manifold

Install new exhaust manifold from below.

Lower the car.

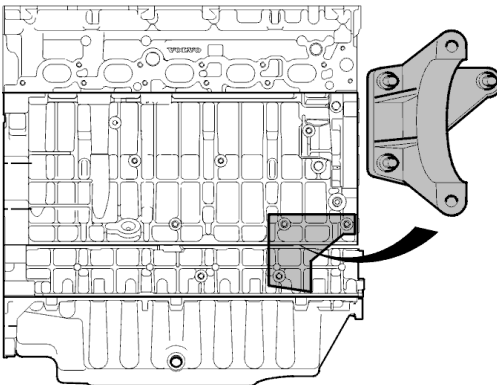
Install the exhaust manifold using 10 nuts. Use new nuts and tighten to 25 Nm.

Raise the car.



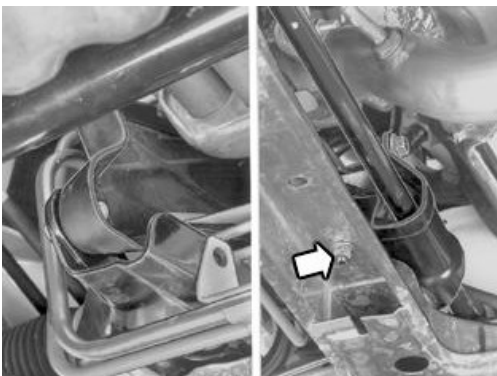
Reinstall drive shaft bearing bracket

Tighten screws with 25 Nm.



Install steering gear collision protection

Tighten to 80 Nm.



Right drive shaft, reinstall

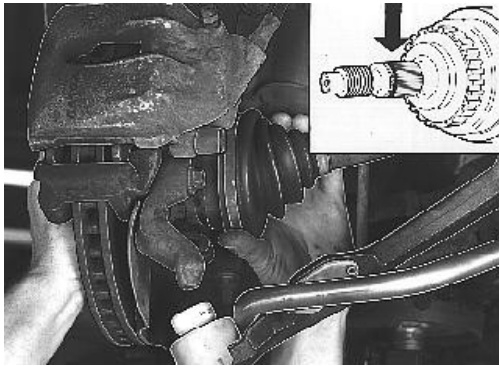
Install the drive shaft into the transmission



Note! Take care not to damage the sealing ring in the transmission or the boot on the drive shaft.

Replace bearing cap. Torque to 25 Nm.

Reinstall drive shaft in hub



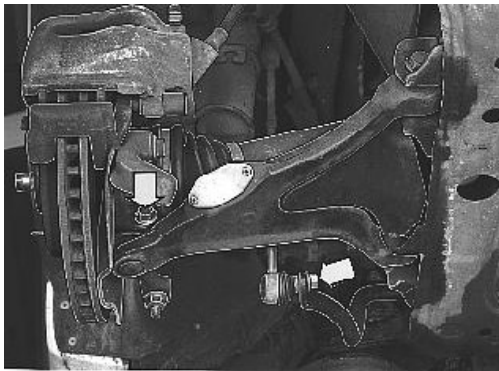
Note! Apply metal adhesive [1161370-0](#) on the drive shaft splines (see illustration).

Fold out and twist the spring strut and locate the drive shaft in the hub.

Install a new drive shaft nut finger tight.

Note! Oil the threads and flange.

Install:



- Control arm/ball joint to axle shaft. Remove holder [999 5563](#) and sleeve [999 5562](#) from ball-joint. Ensure that the ball joint pinion groove lines up with the screw hole in the stub axle. Use new lock nut on bolt. Tighten to 50 Nm.
- Anti-roll bar link. Use new lock nut. Tighten to 50 Nm.

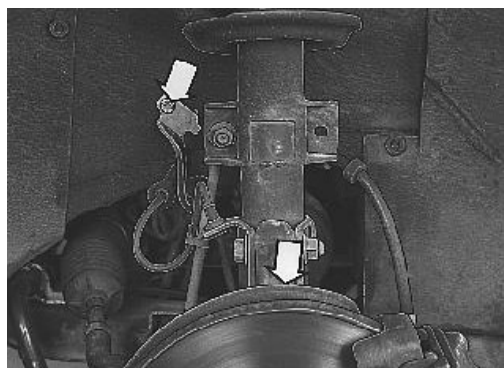
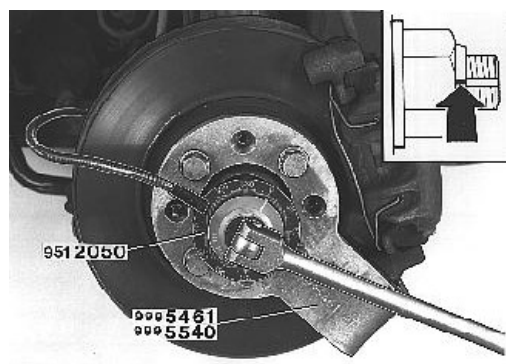
Tighten drive shaft nut

Use counterhold [999 5461](#) (4 wheel studs) Alternatively [999 5540](#) (5 wheel studs) and protractor [951 2050](#) and then tighten to 120 Nm + 60°.

Remove the counterhold.

Lock the drive shaft nut

Use a cold chisel and chase the lock flange on the nut into the drive shaft groove.



Install:

- Bracket for the brake line/ABS cable.

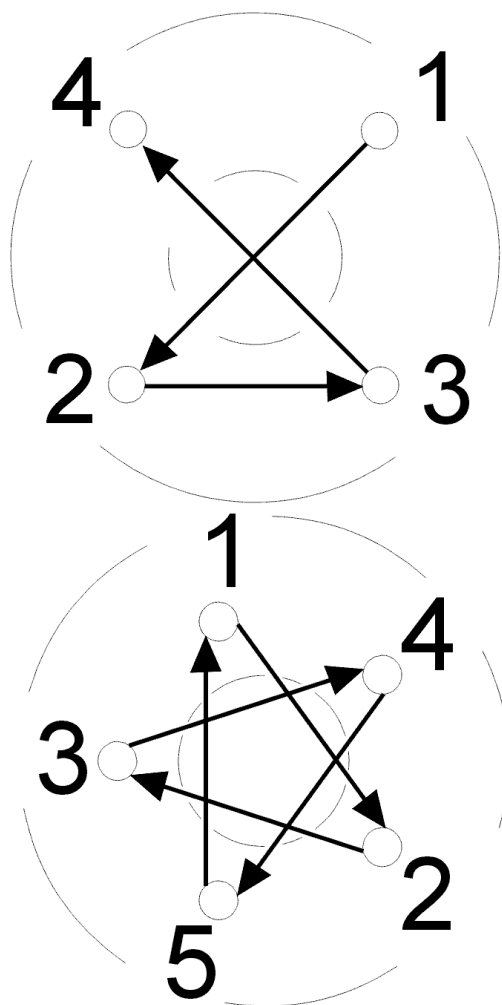
Note! Check that the ABS sensor seating is absolutely clean!

Clean the ABS sensor first using a soft brush. Then install the small wheel spindle and tighten to 10 Nm.

Reinstall the front wheel

Ensure that the brake disk and wheel rim mating surfaces are clean. Lubricate hub centering lug for the rim with rustproofing agent 1161030-0. Tighten studs lightly. Tighten crosswise to 110 Nm.

When using an impact wrench, torque socket [1158147-7](#) should be used.



Final operations

Install:

- Front exhaust pipe to rear exhaust pipe.
- Cross member.
- Front exhaust pipe to exhaust manifold.

Use copper paste [1161408-8](#) on carriage bolts .

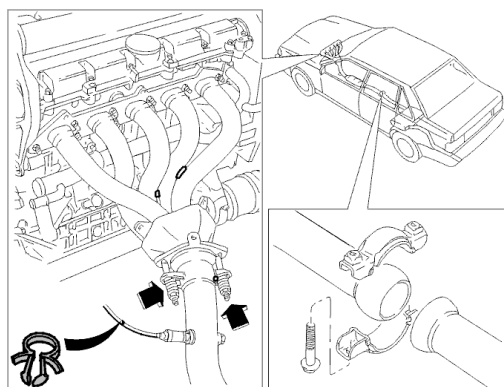
Note! Be careful with the sealing ring. If it is dropped on the floor a new sealing ring must be installed.

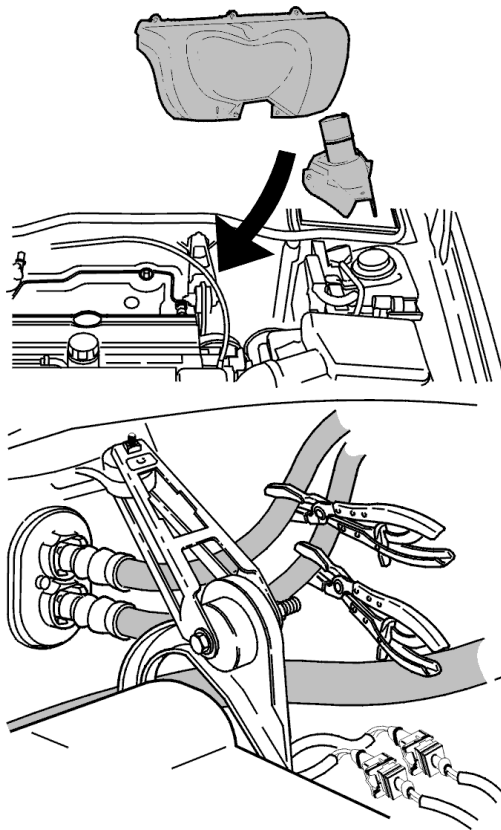
- Clip the HO2S oxygen sensor wiring on the engine mounting.
- Splash guard under engine.

Lower the car.

Install:

- Preheating plate and heat shield plate.





Use copper paste [1161408-8](#) on the screws.

Connect the connector halves for the HO2S sensor.

Reconnect the hoses to the heater in the firewall.

Note! Check that the quick-coupling has locked by pulling on the hoses.

Remove hose clamps.

Reinstall the air preheating hose.

Start engine.

Check engine coolant level and top up if required.