

Gearbox oil / oil filter, replacing

Special tools: [999 4090](#)

Warning! Avoid skin contact with the gearbox fluid.

Note! Oil grade: Only ATF fluid Dexron III (with G-license).

Gearbox oil, Volvo P/N 116 1521-8 (1 litre container), 116 1621-6 (4 litre container).

Conditions

Always replace the oil in the following instances:

Where diagnostic trouble codes (DTCs) TCM 0042 and TCM 0046 are stored, in which case the diagnostic function activates the warning lamp in the following circumstances.

The gearbox control module (TCM) receives data about the operating temperature of the gearbox fluid while the car is being driven. TCM 0042 is stored after an accumulated amount of time.

Diagnostic trouble code (DTC) TCM 0046 is stored if the gearbox fluid temperature exceeds 150° C for more than 2 minutes.

On cars used in continuous taxi service and / or used for towing a trailer or caravan for most of its mileage, the oil must be replaced at a service interval of 75, 000 km $\pm$ 5000 km. This is to conform to the regular service program.

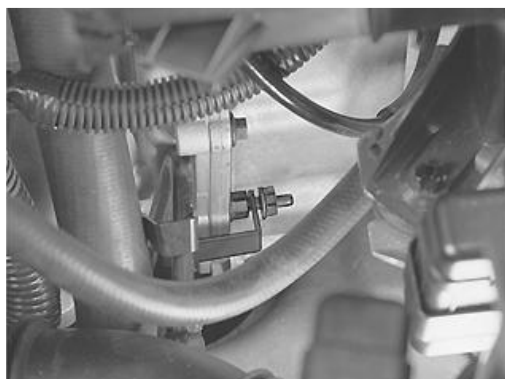
Warning! The oil may be very hot if the car has just been driven. Avoid skin contact.

Drain the oil

Suck up the oil through the dip stick pipe using an oil suction device. There is no drain plug.



Slacken off the nut on the return line for the oil pipe bracket a few turns



Remove the splash guard under the engine

Secured with 7 screws.



Remove the sump and the seal

Warning! Avoid skin contact with the oil. There is a risk of burns.

Allow the remaining oil to run out into a container.

Clean the sump.

Note! The gasket can be reused once.



Remove the oil filter

The filter is only secured to the gearbox by a plastic pipe and an O-ring.

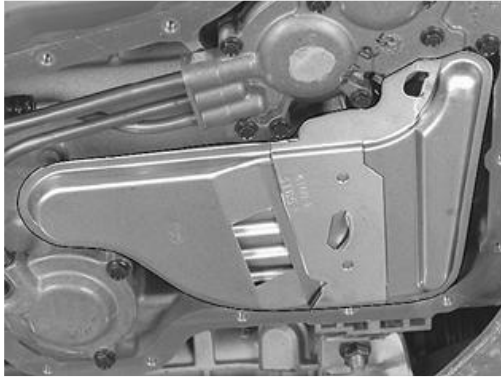
Use a jimmy bar.

Position the jimmy bar by the pipe connecting the oil filter to the gearbox.

Pry off the oil filter straight downward. Hold the filter.

Note! Use extractor **999 4090** if the plastic pipe comes off. Pull out the pipe and the O-ring. Replace the O-ring.





Install the oil filter

Apply a little oil to the oil filter pipe before installing it.

Press the filter into place in the gearbox. **Check that it is secure.**

Install the sump

Install the screws. Tighten to **10 Nm**.

Note! The gasket can be reused once.

Drain off the remaining oil in the torque converter and the oil cooler

Note! Disconnect the oil return line at the gearbox and install a plastic hose. Drain off the old oil.

Remove the screw nipple on the oil return line from the connection. Counterhold in the gearbox

Pull out the oil pipe.



Install a plastic hose on the oil return line

Plug the connection in the gearbox.

Install a transparent plastic hose on the oil return line. Clamp the hose into place in the sub-frame.

Place a container beneath the hose to catch the oil.



Fill the gearbox with oil. There are two different methods. Method 1

Fill the gearbox with oil

Use a funnel with a plastic hose. Fill through the



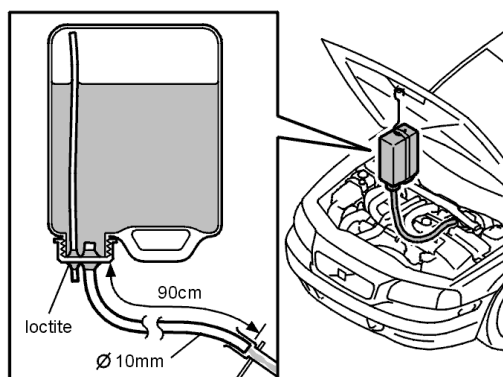
dipstick pipe.

Clear up any oil spillage under the dip stick pipe.

Fill the gearbox with oil. Method 2

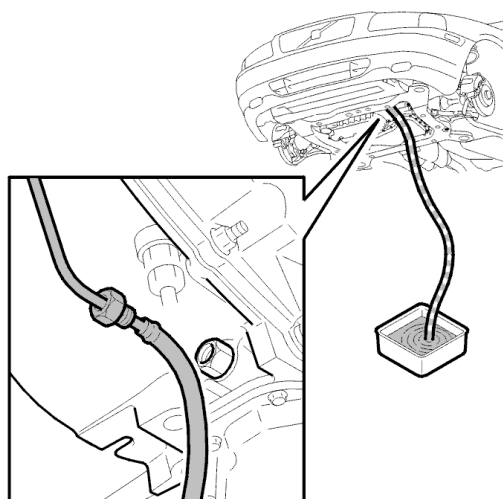
Use a converted five litre plastic can (see the illustration).

This method avoids oil spillage. It also provides a more regular flow when filling.



When filling (select method 1 or 2)

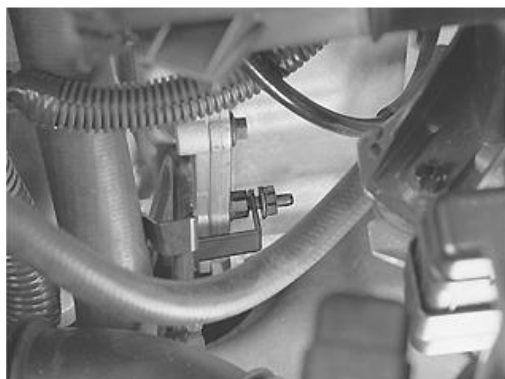
Apply the handbrake. Move the gear selector to position P. Add approximately 2 litres of oil. Start the engine. Let it idle for a maximum of 40 seconds. Turn the engine off when air bubbles start to become visible in the hose. Refill with approximately 2 litres of oil. Start the engine. Let it idle for a maximum of 40 seconds. Turn the engine off when air bubbles start to become visible in the hose. Remove the plastic hose.



Install the oil return line on the gearbox

Install the oil pipe with the screw nipple on the connection.

Tighten to **30 Nm**.



Lower the car

Tighten the nut for the oil pipe bracket. Tighten to **25 Nm**.

Finishing work

Pour the rest of the oil into the gearbox

Note! If the gearbox is over filled with oil, there may be operational problems. The oil must be filled to the correct level.

The total oil volume of the gearbox is 11.9 litres.

Measure the amount of oil that was drained. Refill with the same amount of new oil (approximately 11 litres).

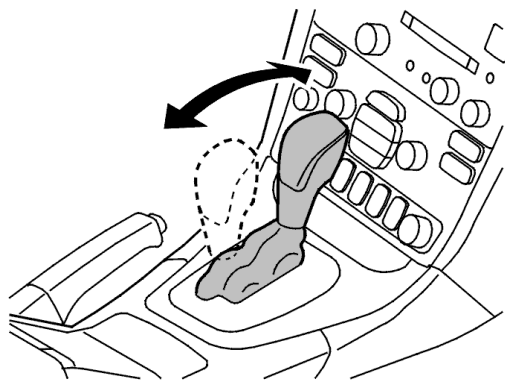
Start the engine. Move the gear selector through all the gear positions. Then move the gear selector lever to position P.

Note! Carry out the following check at an oil temperature of $85^{\circ} \pm 5^{\circ}\text{C}$. Go to car communication function group 4. Select the digital display parameter. Select the parameter for the gearbox oil temperature.

Check the oil level

Check the oil level according to [Oil level, checking](#).

Check that there is no oil leakage at the pipe



couplings or sump

Install the splashguard under the engine

Tighten the screws. Tighten to **25 Nm**.

Test driving the car.

Checking the oil level.

Note! After replacing the gearbox oil/filter, the "Gearbox oil change" counter must be reset. Use VIDA vehicle communication to reset the counter.