

Replacing the turbocharger (TC) exhaust manifold and gasket

Note! As 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.

Remove:

- the heat deflector plate over the turbocharger (TC)
- the charge air pipe over the engine
- the intake manifold for the turbocharger (TC).



Detach the upper coolant return pipe from the turbocharger (TC). Clamp the coolant hose using lock grip pliers. Then place the pipe/hose to one side.

Remove the oil inlet nipple.

Raise the car.

Remove:

- the clamp between the pipes
- the oil return line
- the nuts for the exhaust manifold / turbocharger (TC).



Apply lock grip pliers to the coolant inlet hose.

Lower the car.

Remove the turbocharger (TC)

Remove the coolant inlet pipe.

Remove the nuts securing the turbocharger (TC)/exhaust manifold.

Disconnect the hoses for:

- boost pressure (red)
- the by-pass valve (white)
- the pressure regulator (yellow).



Remove:

- the turbocharger (TC)
- the old studs from the exhaust manifold.

Remove the nuts holding the manifold to the cylinder head.

Lift up the manifold.

Clean the gasket faces and check that all studs are tightened.

Install new gaskets.
Install the manifold. Use **new nuts**
and tighten to **25 Nm**.

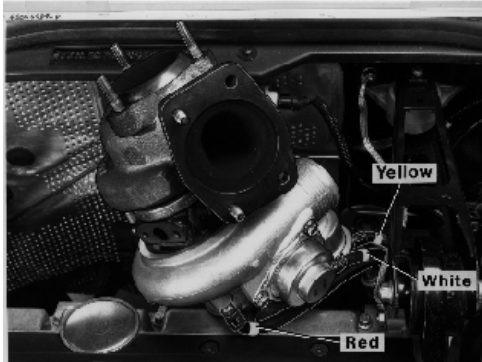
Install:

Note! For tightening torques, see: [Tightening torque](#) .

Note! To ensure that there is no exhaust leakage, see: [Flanged joint, assembling](#) .

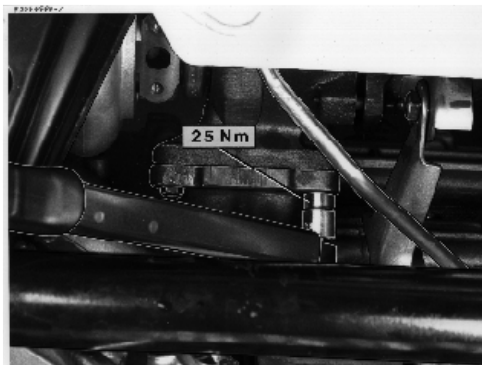
- new studs (if any are missing). Tighten to **20 Nm**
- the turbocharger (TC)
- the hoses according to the marking
- both the upper nuts for the exhaust manifold. Tighten them slightly.

Raise the car.



Install:

- the lower nuts for the exhaust manifold. Tighten to **25 Nm**.



Tighten the turbocharger (TC)

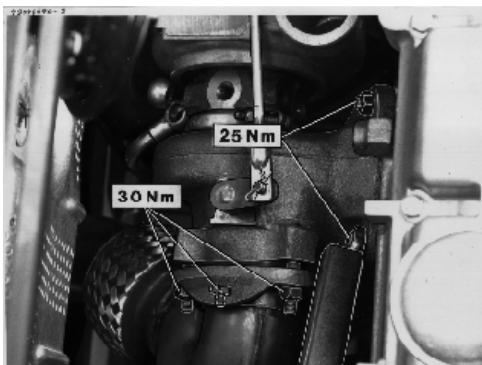
Tighten the upper nuts for the exhaust manifold

Tighten to **25 Nm**.

Tighten the exhaust manifold to the turbocharger (TC).

Tighten all the nuts. Tighten to **30 Nm** and check that the surfaces are parallel.

Raise the car.

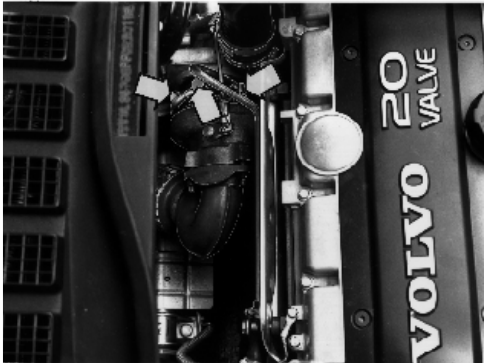
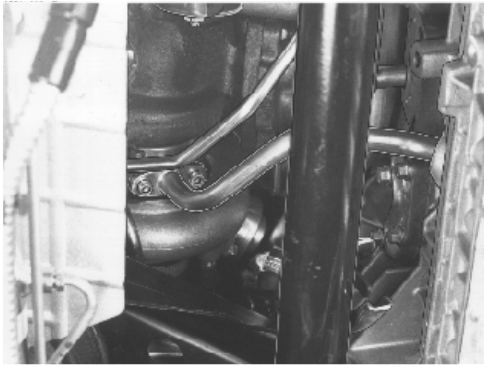


Install the lower oil pipe

Install the oil pipe. Use a **new gasket** and a **new O-ring**.

Lubricate the O-ring.

Lower the car.



Install:

- the oil inlet pipe.

Note! Install new copper washers for the coolant pipe and for the upper oil pipe.

- the clamp between the pipes
- the inlet and outlet coolant pipes.
Remove the lock grip pliers
- the fresh air intake hose
- the inner heat deflector plate
- the charge air pipe over the engine
- the heat deflector plate over the turbocharger (TC).

Raise the car.

Carry out a function test:

Test drive the engine.

Check the boost pressure according to

Pressure regulator, checking/adjusting .

Check the oil and coolant levels.

Wipe the engine compartment clean.

Ensure that the steering wheel and gear selector lever are clean.