

Removing and installing exhaust manifold

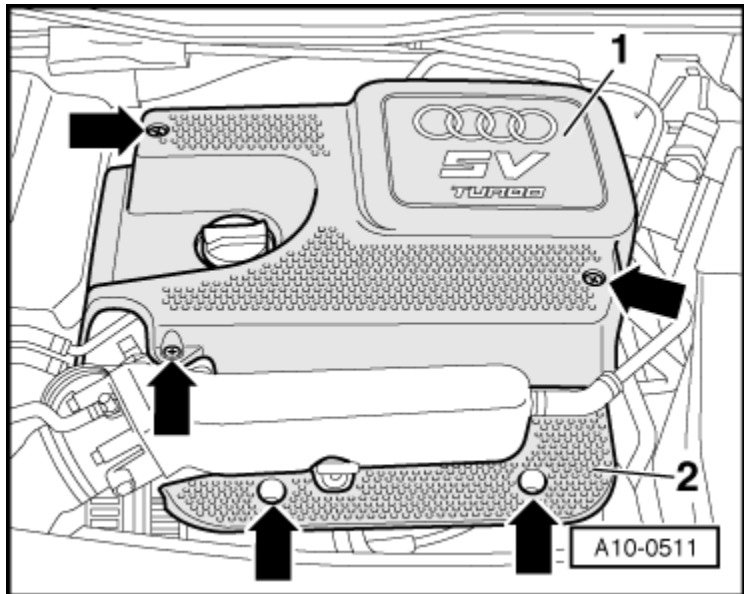
Removing

- Remove engine cover panel -1-- arrows-



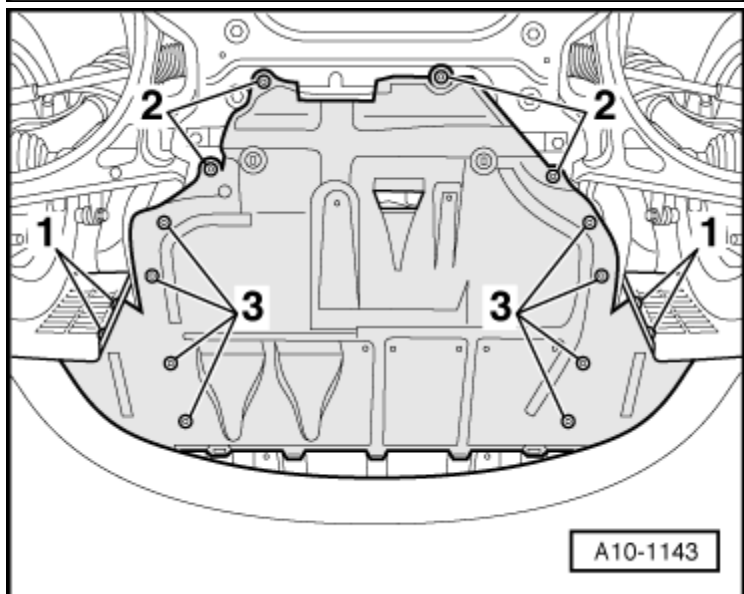
Note

Disregard -item 2-

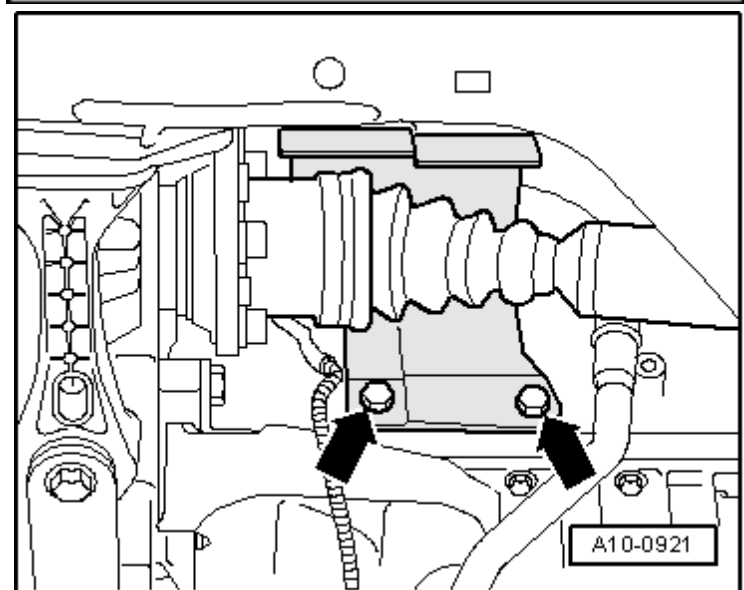


- Remove centre noise insulation -1 ... 3-

- Remove front exhaust pipe together with catalytic converter → [Chapter](#).



- Unbolt heat shield for drive shaft (right-side) from cylinder block -arrows-

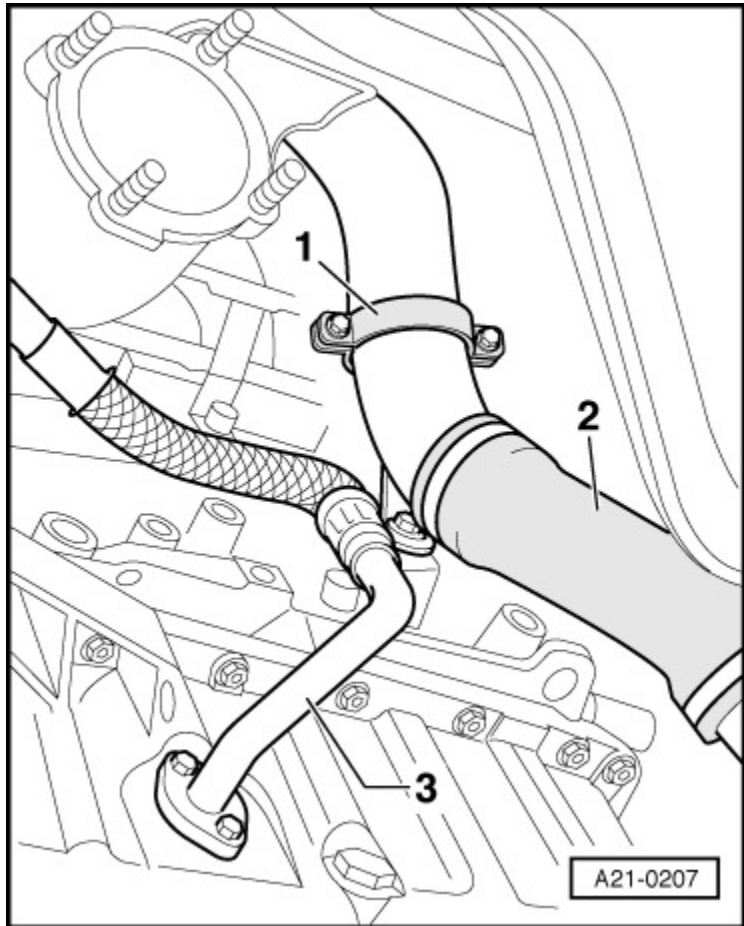


- Remove air intake hose -2- between top air pipe and bottom air pipe.
- Detach retaining clip -1- for air intake pipe.



Note

Disregard -item 3-.

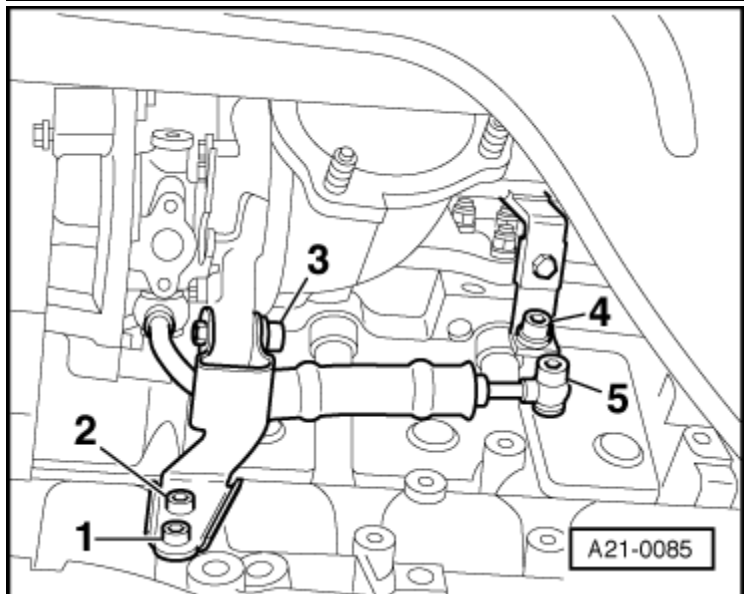


- Slacken bolted connection -3- for turbocharger bracket a few turns.
- Remove bolts -1- and -2- and detach bracket for turbocharger.
- Unbolt bracket for coolant return pipe -4-.

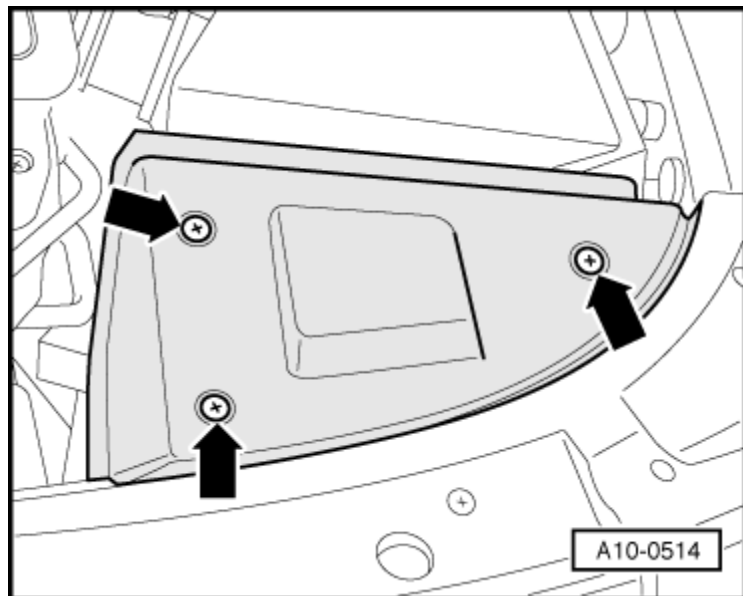


Note

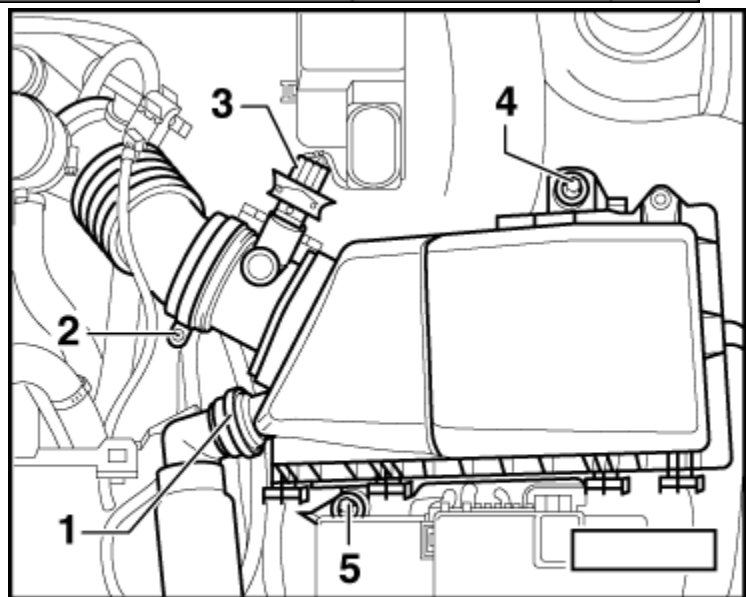
Disregard -item 5-.



- Remove front left cover -arrows-.



- Detach air hose -1- leading to secondary air pump at air cleaner housing.
- Release hose clip -2- and detach air duct from air mass meter -G70-.
- Unplug electrical connector at air mass meter -G70- -item 3-.
- Unscrew bolts -4- and -5- and remove air cleaner housing.



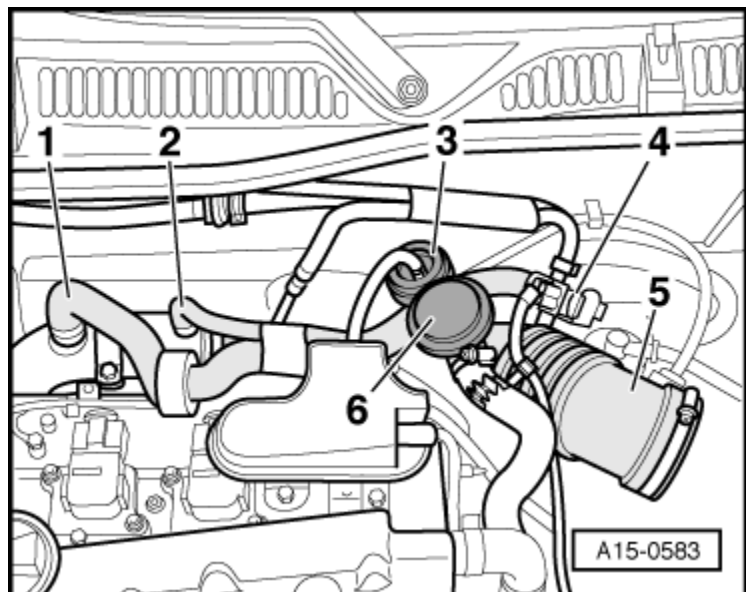
- Detach mechanical air recirculation valve -3-, pressure control valve for crankcase breather -6- and charge pressure control solenoid valve -N75-- item 4- from air duct.
- Pull locking clip out at turbocharger connection and detach air duct -5-.



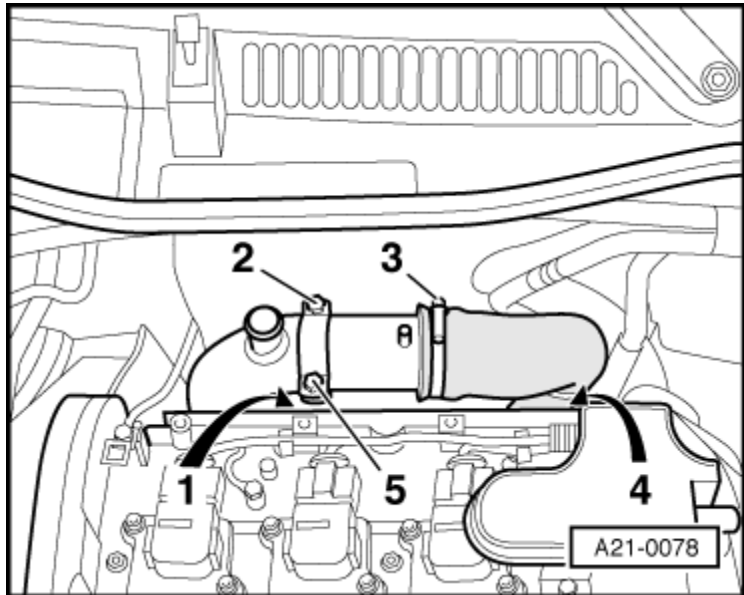
**Note**

Seal off opening in turbocharger intake system with a clean cloth.

- Detach hoses -1- and -2- from top air pipe.



- Disconnect air intake hose -3- leading to turbocharger from top air pipe.
- Unscrew bolts -2- and -5- on retaining clip for top air pipe.
- Unscrew bolts -1- and -4- for heat shield at back of cylinder head.
- Remove top air pipe and heat shield.

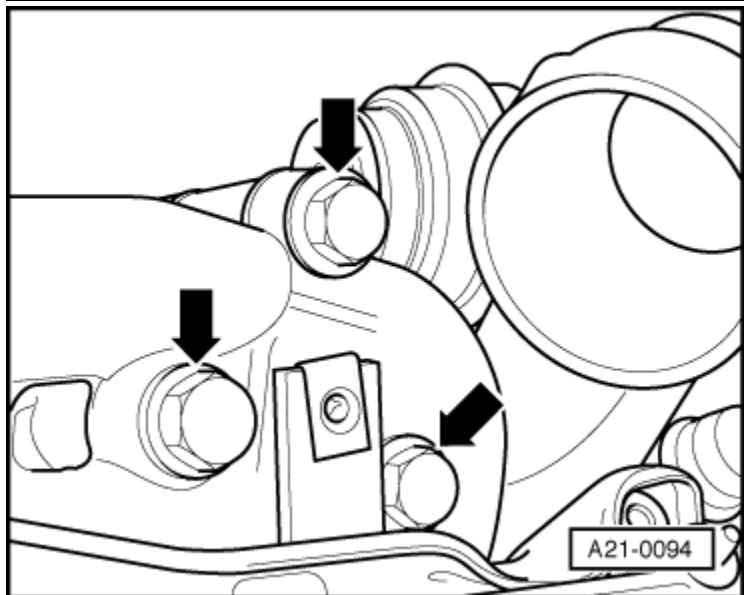


- Unbolt turbocharger from exhaust manifold -arrows-.
- Remove gasket. The turbocharger will drop slightly.



Note

Seal off opening in turbocharger intake system with a clean cloth.



- Unscrew nuts -arrows- at exhaust manifold -2- (accessible from above).
- Remove washers and exhaust manifold.

Installing

Installation is carried out in the reverse order; note the following:

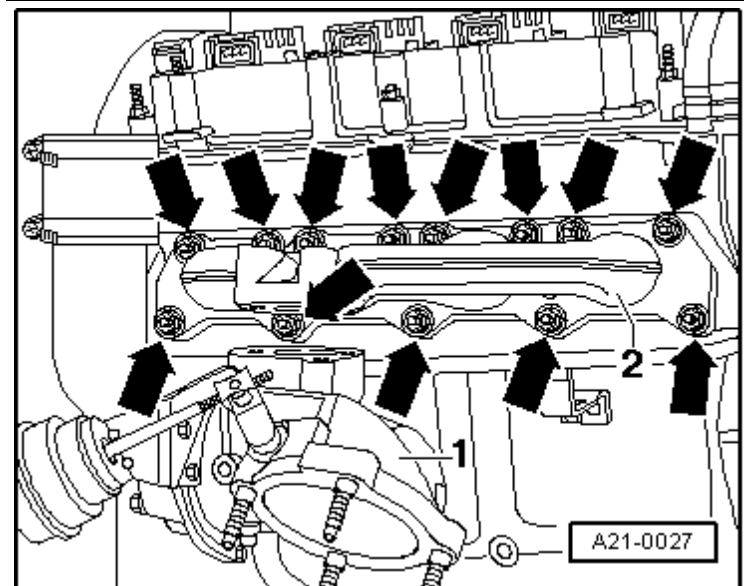


Note

Renew gaskets and self-locking nuts.

- Install cross piece for suspension strut → [Rep. Gr.40](#).
- Align exhaust system so it is free of stress → [Chapter](#).

Tightening torques



Component	Nm
Exhaust manifold to cylinder head	30
Turbocharger to exhaust manifold	35 <sup>1)2)</sup>

Bracket for turbocharger to cylinder block	25
Bracket for coolant return pipe to cylinder block	23
Bracket for turbocharger to turbocharger	45
Front exhaust pipe to turbocharger	40
Drive shaft heat shield to cylinder block	35
Heat shield to cylinder head	23
Air pipe to bracket	10
Hose clips for air hoses	3.5
1 <sup>1)</sup> Renew bolts.	
1 <sup>2)</sup> Coat with high-temperature paste; refer to <a href="#">→ Parts catalogue.</a>	