

## Upper Intake Manifold

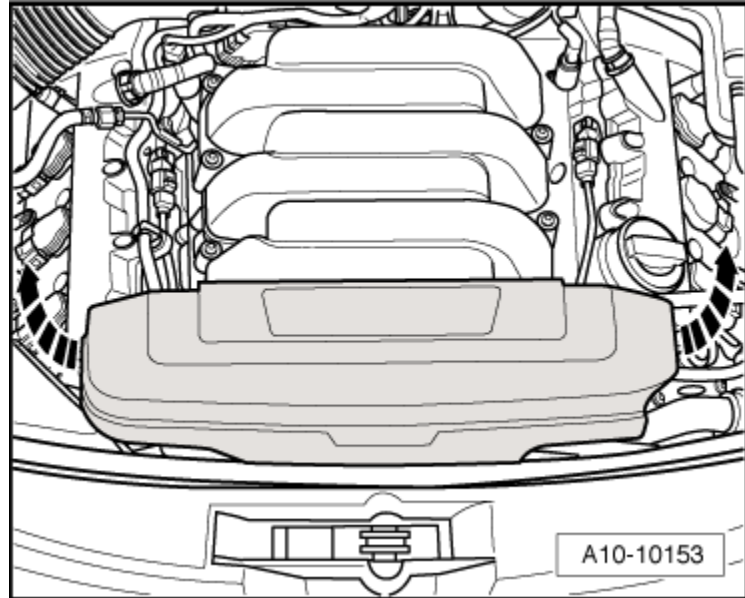
## Removing



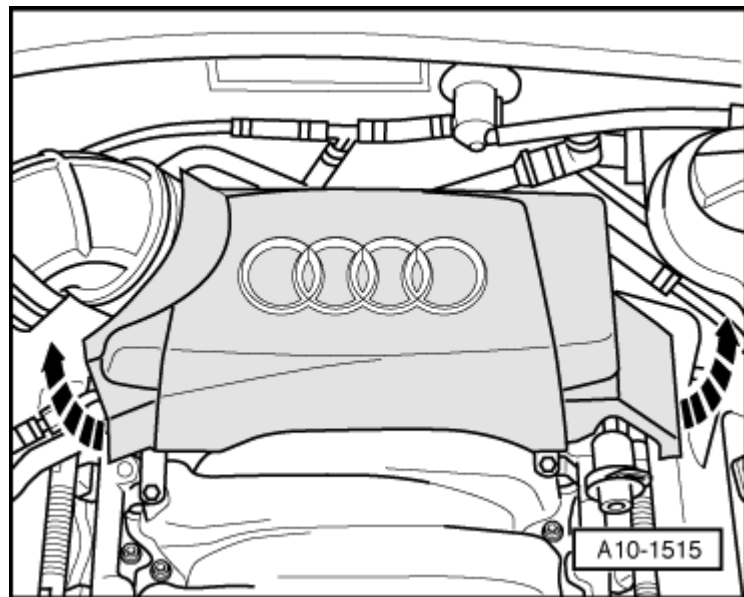
## Note

All cable ties which are opened or cut open when removing, must be replaced in the same position when installing.

- Remove front engine cover -arrows-

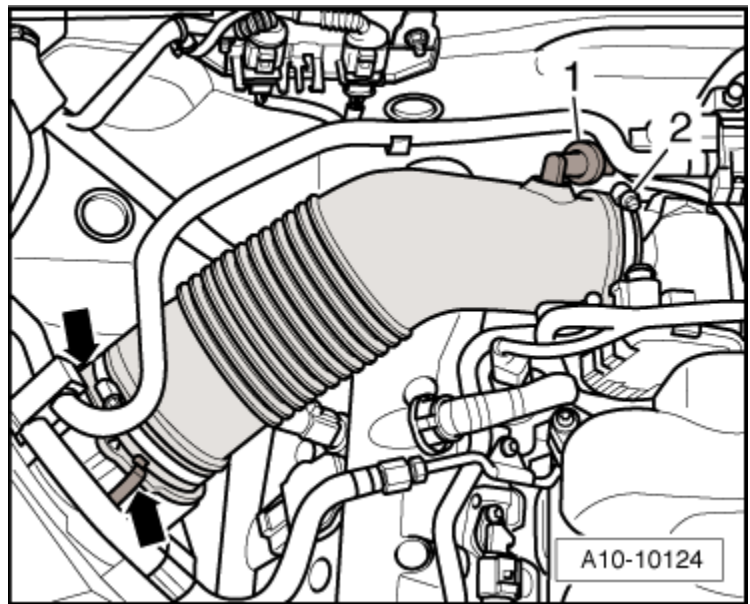


- Remove rear engine cover -arrows-

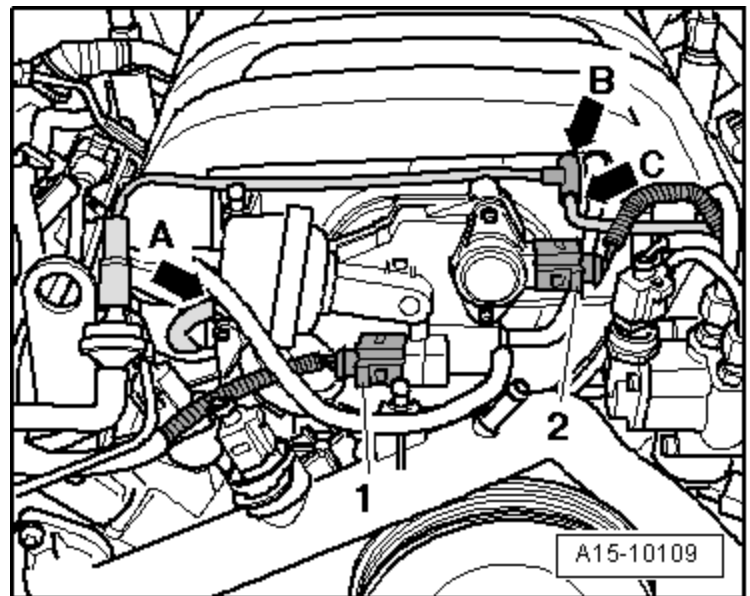


- Disconnect check valve -1- from air duct hose.
- Remove air duct hose, thereby loosening

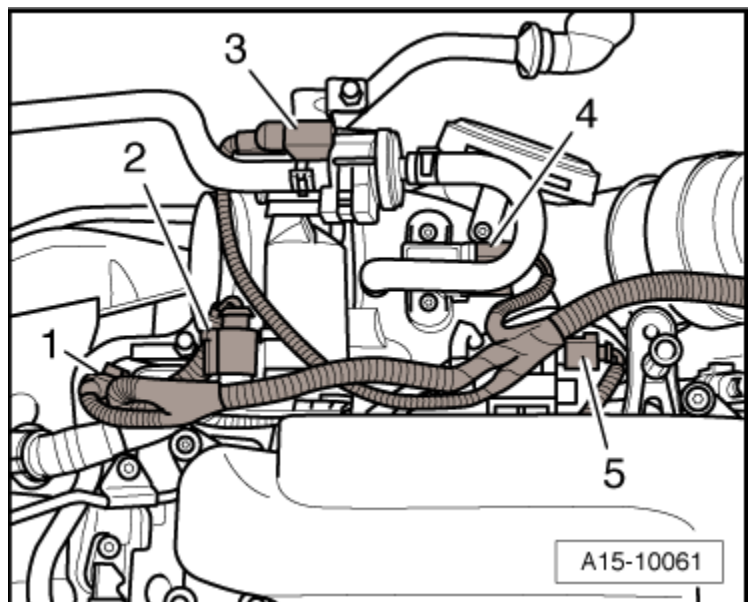
hose clamp -2- and opening clips -arrow s-.



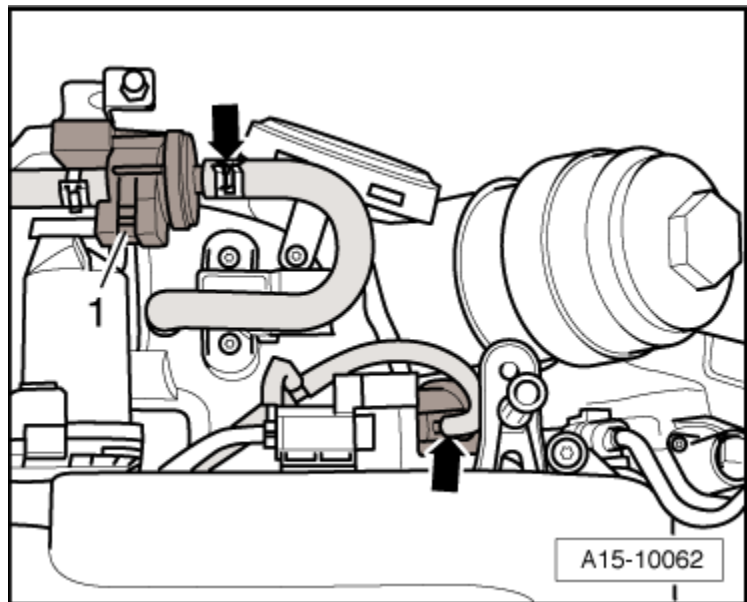
- Disconnect electrical harness connectors.
- 1 - Change over valve for intake manifold flap -N 239-
- 2 - Intake Manifold Tuning (IMT) valve position sensor -G 513-
- Remove vacuum lines -arrow A -and -arrow B-.



- Disconnect vacuum hose -arrow C -at leak detection pump.
- Disconnect electrical harness connectors.
- 1 - Camshaft adjustment valve 1 -N 205-
- 2 - Throttle valve control module -J338-
- 3 - Evaporative emission (EVAP) canister purge solenoid valve -N 80-
- 4 - Intake Air Temperature (IAT) sensor -G 42- Manifold Absolute Pressure (MAP) sensor -G 71-
- 5 - Intake Manifold Runner Control (IMRC) valve -N 316-
- Free up wiring harness.



- Disconnect vacuum hoses -arrow s-.
- Remove Evaporative emission (EVAP) canister purge regulator valve -N 80-1- from throttle valve control module -J338-.

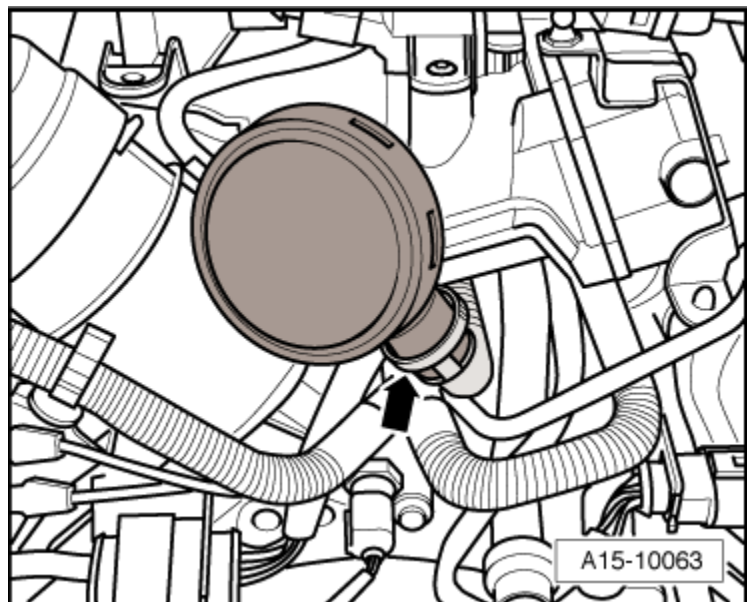


- Disconnect crankcase breather hose at pressure regulator valve -arrow -.



Note

To improve clarity, the engine is removed shown from the rear.



- Remove bolts -arrow s- and remove intake manifold upper.



Note

Plug the intake ports of the cylinder head with clean rags.

Installing

Installation is in reverse order of removal, note the following:



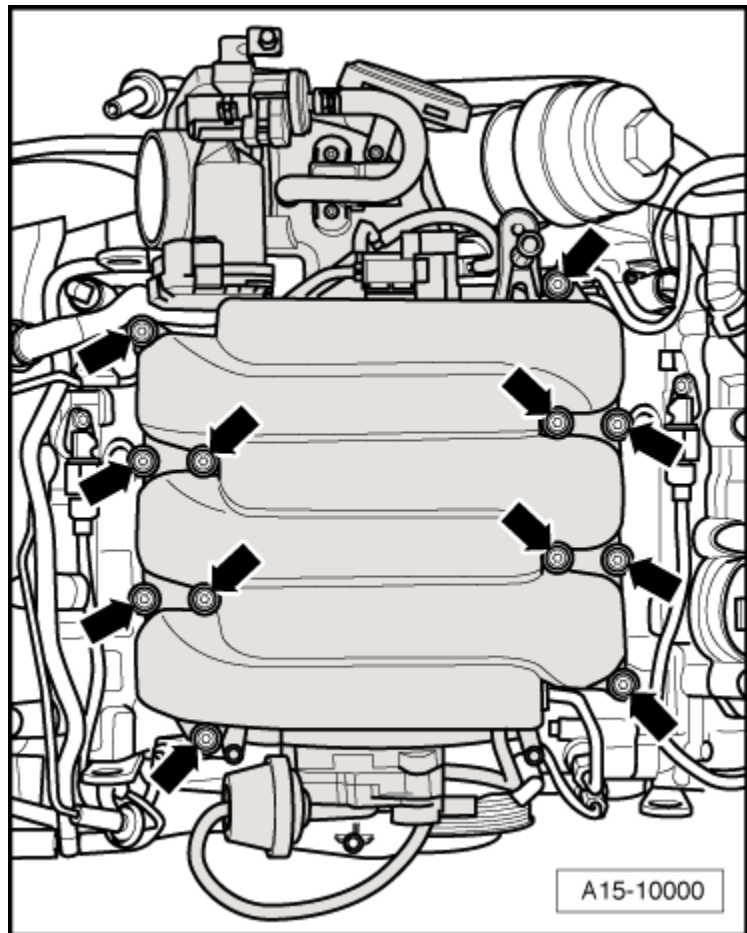
Note

Replace gaskets and O-rings.

During installation, all cable ties must be reinstalled at the same location.

Secure all hose connections using hose clamps appropriate for the model type  
 → [Parts catalog](#).

#### Tightening Specifications



Component	Nm
Intake manifold upper-part to intake manifold lower-part	6 <sup>1)</sup>
Hose clamps 9 mm wide	3
1 <sup>1)</sup> Tighten diagonally in stages.	