

## Components in engine compartment

### Removing and installing pump valve unit

#### Special tools, testers and auxiliary items required

- ☐ Collector V.A.G 1306

#### Removing

- Switch off ignition.
- Remove brake servo.

=> [FWD and 4WD Running Gear; Repair Group 47; Exploded view: Brake servo/brake master cylinder: Removing and installing brake servo](#)

#### Notes:

- ☐ If coolant circulation pump -V50 is noisy, check that cooling system has been completely bled before removing pump valve unit (air in coolant circuit may be source of noise)

=> [Engine Mechanical Components; Repair Group 19](#)

- ☐ On RHD vehicles, remove E-box/plenum chamber connection point.
- Open cap on coolant expansion tank.
- Place collector V.A.G 1306 below engine.
- Drain coolant circuit:

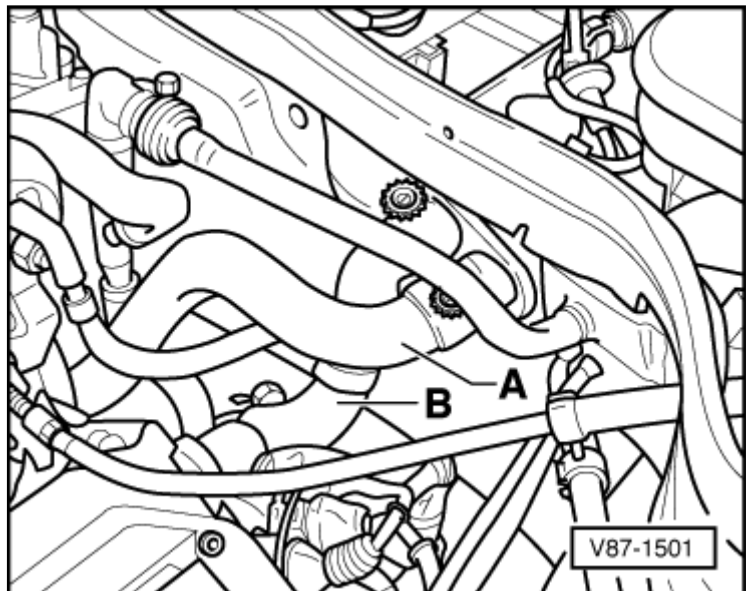
=> [Engine Mechanical Components; Repair Group 19](#)

- → Mark positions of coolant hoses - A- and -B-.
- Detach coolant hoses -A- and -B- from engine to pump valve unit.

#### Note:

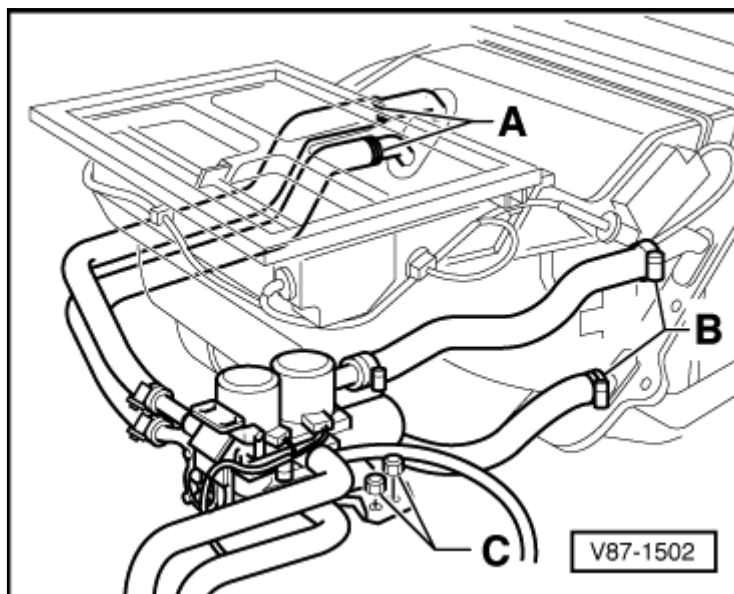
*Fig shows arrangement in 8-cylinder engine.*

- Removing intake duct with air flow flap => Page [80-8](#).
- Hold coolant hose -A- over a vessel.
- Use compressed-air gun to carefully blow coolant out of pump valve unit through coolant hose -B-.
- Detach connectors to pump valve unit.
- Removing reinforcement plate (plenum chamber) =>Page [80-21](#).
- → Mark coolant hoses -A- and -B-.
- Detach coolant hoses between

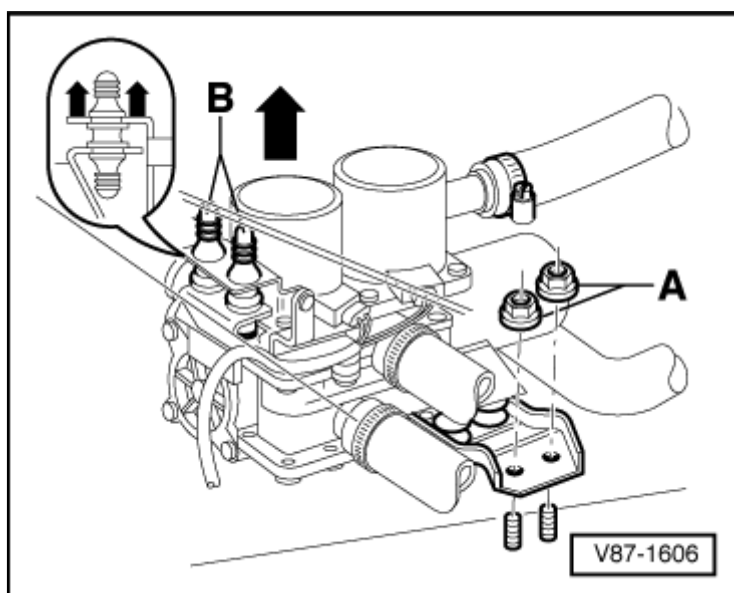


coolant pipes and heat exchangers.

- Unscrew nuts -C-.



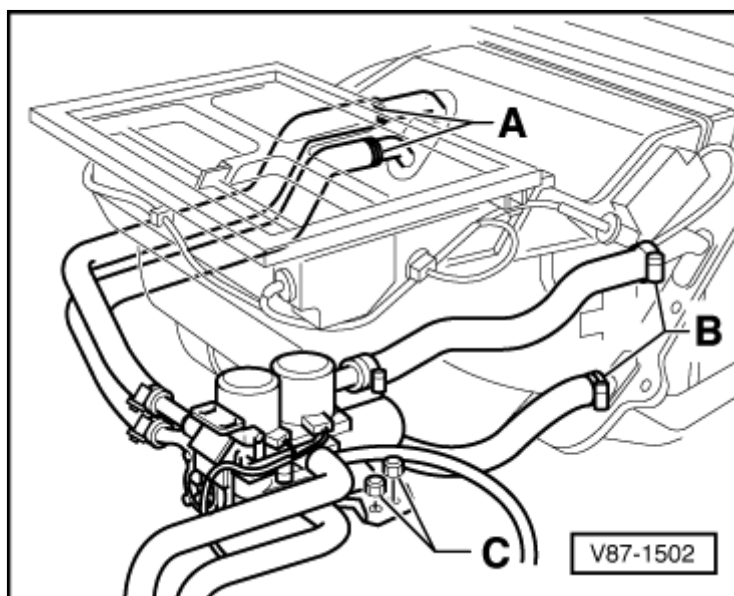
- → Detach pump valve unit from rubber mounts -B-.



- → Pull pump valve unit to the right until the two clips at the coolant hoses -A- (at pump valve unit) become accessible.
- Mark coolant hoses -A-.
- Detach pump valve unit.

## Installing

Installation is carried out in the reverse order to removal, noting the following:

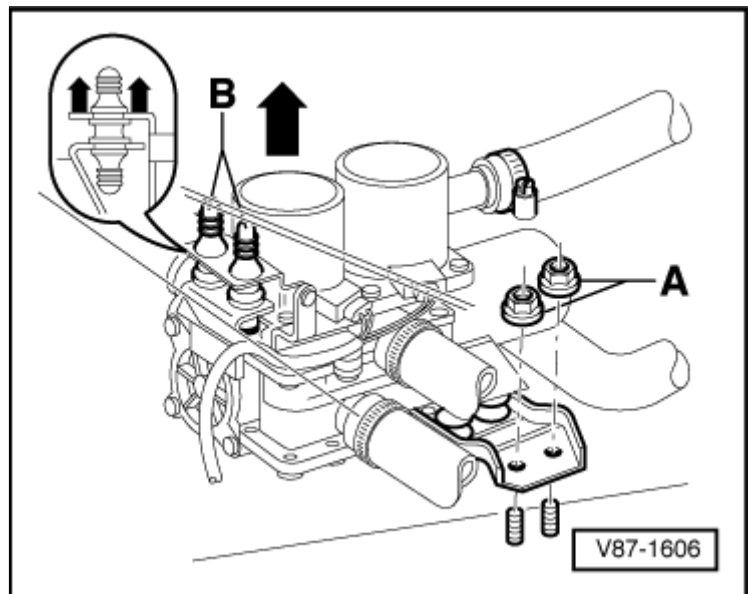


- → Tighten nuts -A- to 10 Nm.

- Ensure coolant hoses are correctly connected to the heat exchanger:
  - Lower hose = coolant feed
  - Upper hose = coolant return
- Connect coolant hoses to engine, paying attention to their markings.

**Notes:**

- ☐ Coolant circuit must be bled before starting up coolant circulation pump - V50 of pump valve unit.
- ☐ Dry running of the pump valve unit will destroy it.
- Bleed coolant circuit before attaching two-way connector to pump valve unit



=> Engine Mechanical Components: Repair Group 19

- Following installation, check correct positioning of sleeve between engine compartment and plenum chamber.

**Replace pump valve unit**

- Removing pump valve unit =>Page 80-14.
- → Screw out bolts -A-.
- Remove bracket -B-.
- Detach coolant pipes:
  - Pipes -C- to passengers'-side heat exchanger
  - Pipes -D- to drivers'-side heat exchanger

**Notes:**

- ☐ Renew O-ring seals -E-.
- ☐ Insert rubber mount -F- in pump valve unit and bracket -G- as shown.

