

Water Pump: Service and Repair

Coolant Pump Drive Gear Seal, Replacing

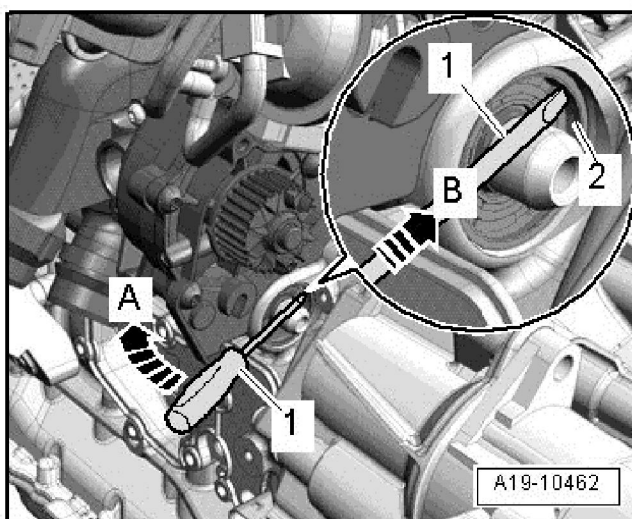
Coolant Pump Drive Gear Seal, Replacing

Special tools, testers and auxiliary items required

- ◁ Thrust Piece (T10353)

Removing

- Remove the coolant pump toothed belt. Refer to => [Coolant Pump Toothed Belt] See: Coolant Pump Toothed Belt.
- Firmly press a screwdriver - **1** - into the surface of the seal - **2** - - **Arrow B** -.



- Pry out the seal - **arrow A** -.

Installing

- Clean the running and sealing surface.
- Lubricate the sealing surface of the balance shaft - **2** - with engine oil.

Water Pump: Service and Repair

Coolant Pump Toothed Belt

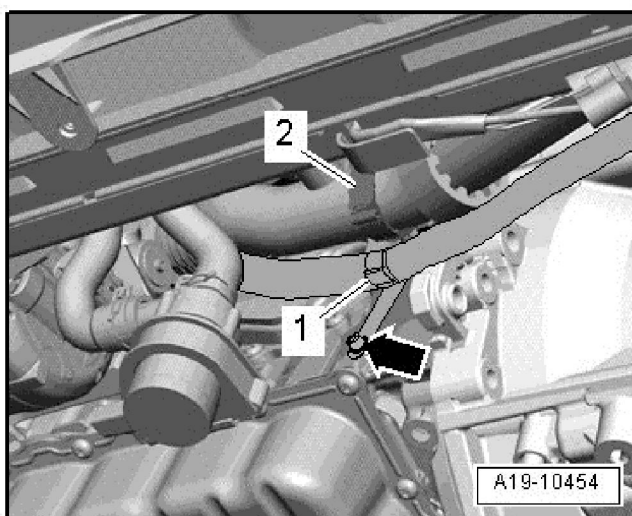
Coolant Pump Toothed Belt

Special tools, testers and auxiliary items required

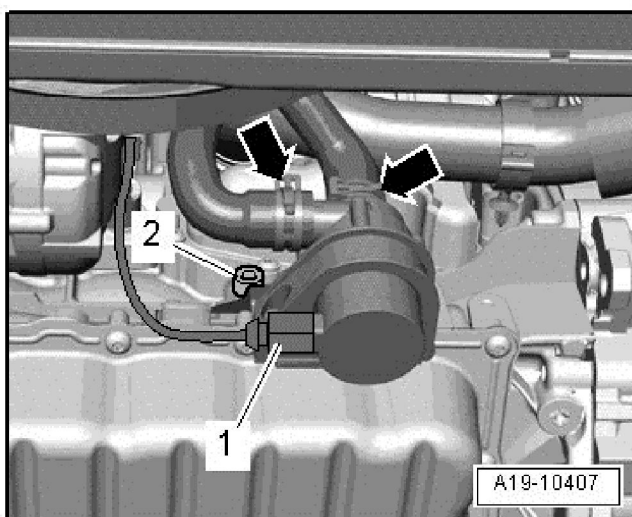
- ◇ Insert Tool 12 mm (T10360)
- ◇ Torque Wrench (5-50 Nm) (V.A.G 1331)

Removing

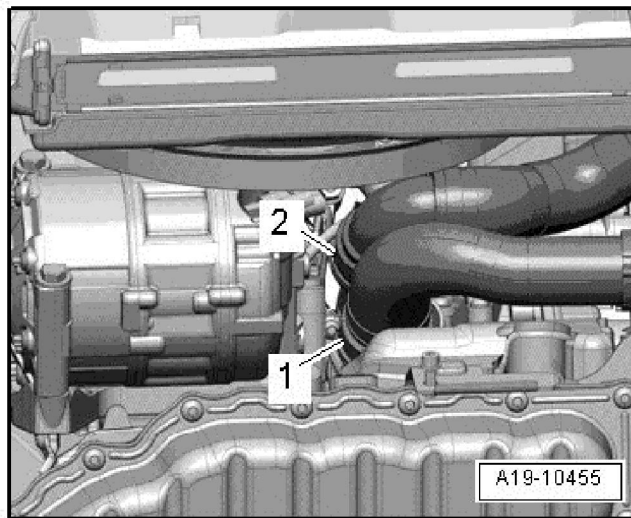
- Remove the small coolant pipe. Refer to => [Small Coolant Pipe] See: Cooling System/Coolant Line/Hose/Service and Repair/Small Coolant Pipe.
- Free up the coolant hose - **2** - and electrical harness - **1** -.



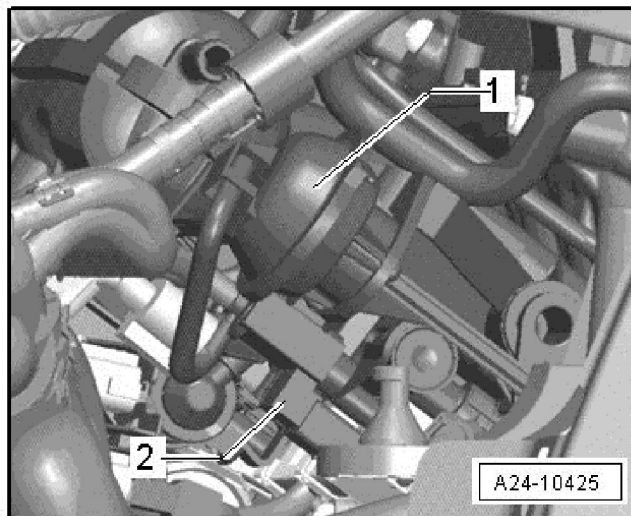
- Remove the bolt - **arrow** - and remove the bracket.
- Remove the after-run coolant pump bracket bolt - **2** -.



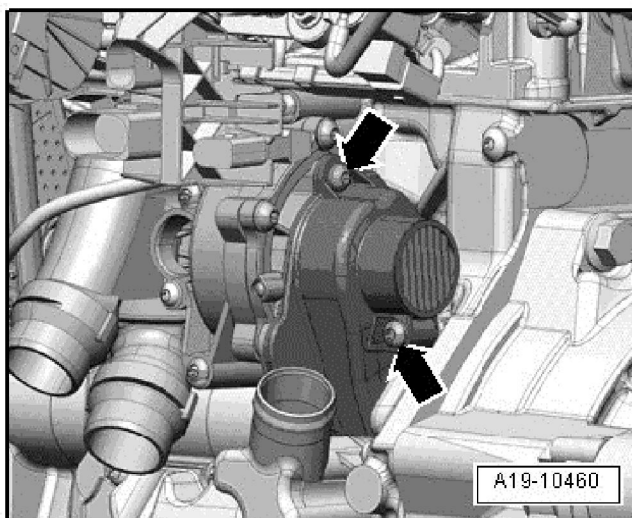
- Remove the coolant hoses - **1 and 2** - and lay them aside.



- Remove the intake manifold runner control valve (N316) - **2** - and move it to the side.

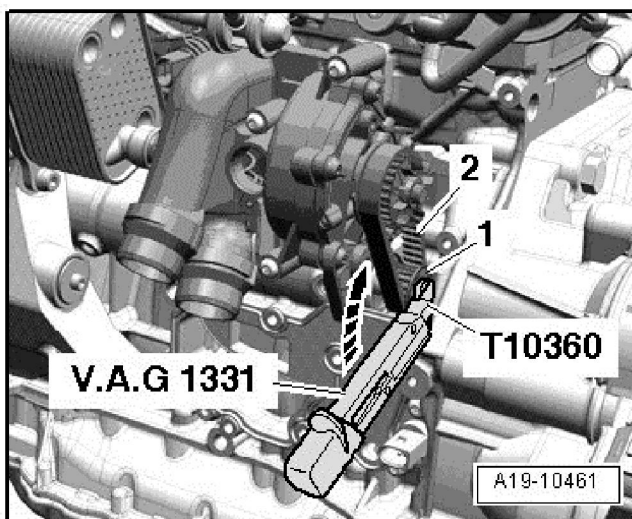


- Free up the wiring harness, pull it upward and secure it with cable ties.
- Remove the bolts - **arrows** - and remove the toothed belt guard.



The drive gear bolt has left hand threads.

- Loosen the bolt - **1** - for the coolant pump drive gear clockwise using the torque wrench (5-50 Nm) (V.A.G 1331) and insert tool 12 mm (T10360). Counter hold the vibration damper with a 24 mm socket when doing this.



- Remove the drive gear - **1** - and the toothed belt - **2** -.

Installing

- ◇ Tightening specifications, refer to => [Coolant Pump and Thermostat Overview] See: Cooling System/Thermostat/Service and Repair/Coolant Pump and Thermostat Overview.

Install in reverse order of removal. When doing this note the following:

- Replace the drive gear bolt.
- Replace gaskets and O-rings.

Pay attention to the installed position of the drive gear:

- ◇ The collar on the drive gear faces the transmission.

Water Pump: Service and Repair

Coolant Pump

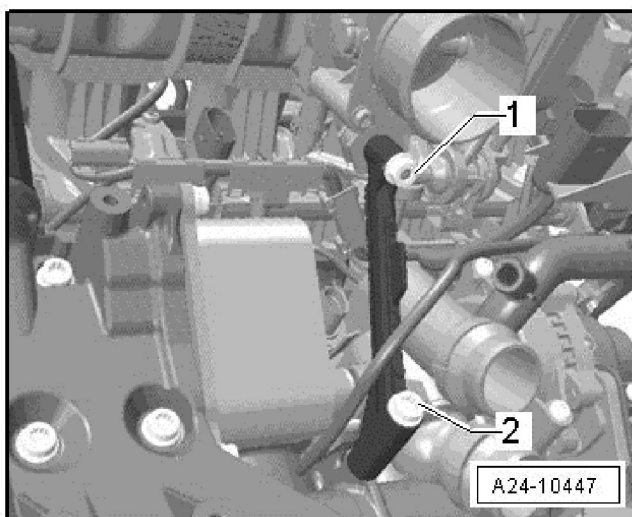
Coolant Pump

Special tools, testers and auxiliary items required

- ◊ Torque Wrench (5-50 Nm) (V.A.G 1331)

Removing

- Remove the small coolant pipe. Refer to => [Small Coolant Pipe] See: Cooling System/Coolant Line/Hose/Service and Repair/Small Coolant Pipe.
- Remove the throttle valve control module. Refer to => [] See: Powertrain Management/Fuel Delivery and Air Induction/Relays and Modules - Fuel Delivery and Air Induction/Variable Induction Control Module/Service and Repair/Removal and Replacement.
- Remove the coolant pump toothed belt. Refer to => [Coolant Pump Toothed Belt] See: Coolant Pump Toothed Belt.
- Remove the nut - **1** -, the bolt - **2** - and the intake manifold support.

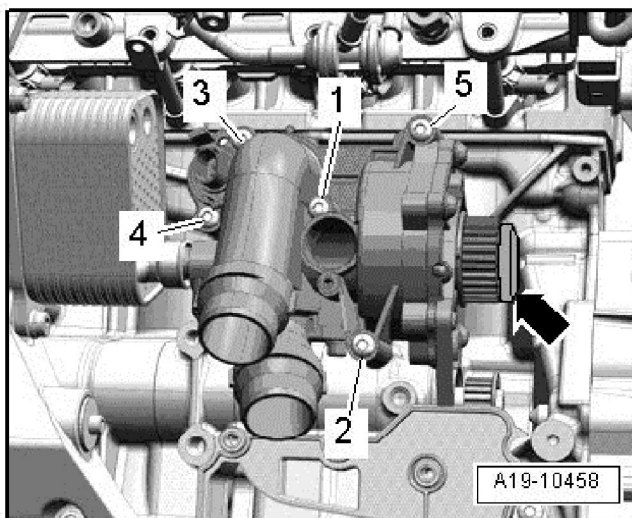


- Remove the bonded rubber bushing for the intake manifold support from the intake manifold.
- Remove the engine coolant temperature sensor (G62). Refer to one of the following:

Inserted version, refer to => [Engine Coolant Temperature (ECT) Sensor with a Clip:] See: Cooling System/Engine - Coolant Temperature Sensor/Switch/Service and Repair.

Threaded version, refer to => [ECT Sensor with a Retaining Plate:] See: Cooling System/Engine - Coolant Temperature Sensor/Switch/Service and Repair.

- Remove the bolts - **5 through 1** -.

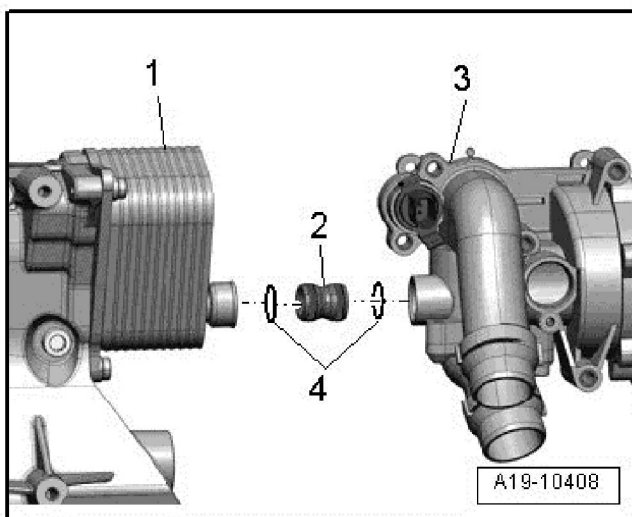


- Remove the coolant pump from the centering pins and the oil cooler.

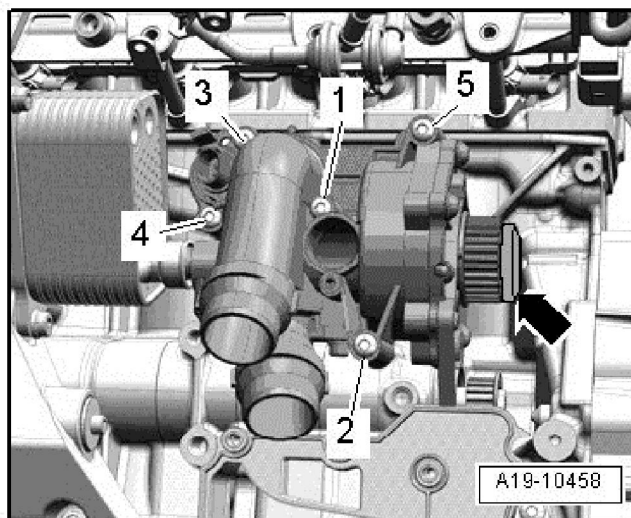
Installing

Install in reverse order of removal. When doing this note the following:

- ⟳ Replace seals and O-rings.
- Clean the O-ring sealing surfaces.
- Lubricate the O-rings - **4** - with coolant.

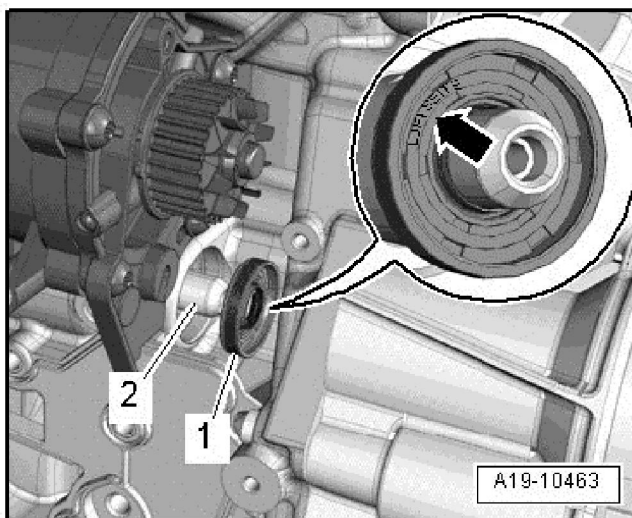


- Make sure both centering pins are installed in the cylinder block.
- Install the connection piece - **2** - into the oil cooler - **1** -.
- First, slide the coolant pump - **3** - onto the connecting piece and then onto the centering pins in the cylinder block.
- Using a mirror, check if the coolant pump is seated correctly on the centering pins.
- Tighten the bolts in sequence - **1 through 5** -.



◊ If a new coolant pump was installed, then the protective cap - **arrow** - must be removed.

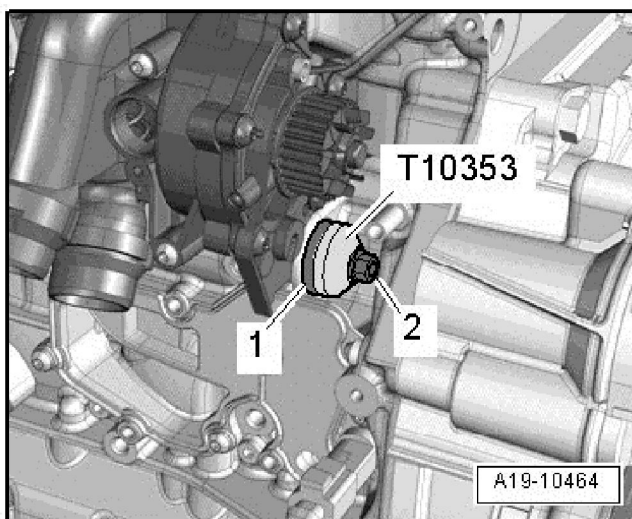
The rest of the installation follows the reverse of the removal procedures.



- Push the seal - 1 - onto the balance shaft.

⌋ "Luftseite" or ("Outside") - **arrow** - must be readable from the outside.

- Install the thrust piece (T10353) on the seal - 1 - and press it into the cylinder block all the way with the bolt - 2 -; when doing this, do not bend the seal.



The rest of the installation follows the reverse of the removal procedure.