

Workshop Manual Audi A1 2011 ➤

Fuel supply system, diesel engines								
Engine ID	CAY C	CAY B	CFH B	CFH D	CUS B	CXM A		

Edition 11.2014



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List of Workshop Manual Repair Groups

Repair Group

00 - Technical data

20 - Fuel supply system



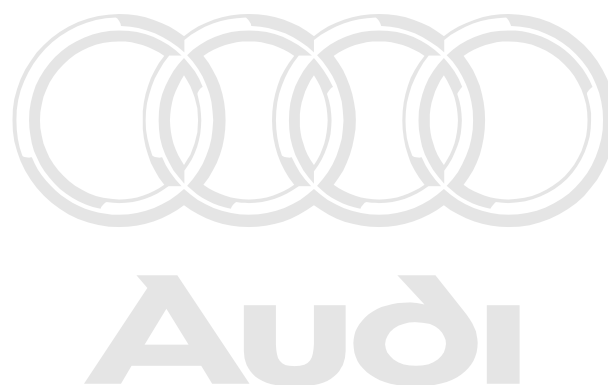
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Technical information should always be available to the foremen and mechanics, because their careful and constant adherence to the instructions is essential to ensure vehicle road-worthiness and safety. In addition, the normal basic safety precautions for working on motor vehicles must, as a matter of course, be observed.

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00 – Technical data

1 Safety precautions

(ARL003950; Edition 11.2014)

⇒ ["1.1 Safety precautions when working on the fuel system", page 1](#)

⇒ ["1.2 Safety precautions when working on vehicles with start/stop system", page 2](#)

⇒ ["1.3 Safety precautions when using testers and measuring instruments during a road test", page 3](#)

1.1 Safety precautions when working on the fuel system

When working on the fuel system note the following warnings:



WARNING

Risk of injury - fuel system operates under pressure.

- ◆ *Wrap a cloth around the connection before opening the fuel system. Then release pressure by carefully loosening the connection.*

The fuel can become extremely hot. This can cause injuries.

- ◆ *In extreme cases the temperature of the fuel lines and the fuel can be up to 100 °C after the engine is switched off. Allow the fuel to cool down before disconnecting the lines - danger of scalding.*
- ◆ *Wear protective gloves.*
- ◆ *Wear safety goggles.*

Escaping fuel can cause a risk.

- ◆ *The power supply for the fuel system pressurisation pump - G6- must be disconnected before opening the fuel system, since -G6- will be activated briefly when the driver's door is opened with the battery still connected.*
- ◆ *Disconnect power supply by removing fuse for fuel pump control unit - J538- /fuel delivery unit ⇒ Current flow diagrams, Electrical fault finding and Fitting locations, or disconnect battery.*

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When removing and installing components from a full or partly full fuel tank, note the following:

- ◆ Fuel tank must not be full. The amount of fuel which can be left in the fuel tank is indicated in the corresponding procedure description. Drain fuel tank if necessary ⇒ [page 8](#).
- ◆ Before commencing work, switch on exhaust extraction system and place an extraction hose close to the opening in the fuel tank to extract escaping petrol fumes. If no exhaust extraction system is available, a radial fan with a displacement of at least 15 m³/h can be used (the fan motor must be clear of the air stream).
- ◆ Avoid skin contact with fuel. Wear fuel-resistant gloves.

Removing and installing fuel tank

Fuel tank must be empty to reduce weight. Drain fuel tank if necessary ⇒ [page 8](#).

Observe the following points to prevent personal injuries and damage to the injection and glow plug system:

- ◆ Always switch off the ignition before connecting or disconnecting tester cables or electrical wiring for the injection or glow plug system.
- ◆ Always switch off ignition before washing engine.
- ◆ Erase any entries in event memory resulting from testing or installation ⇒ Vehicle diagnostic tester, Guided Functions, then Interrogate event memory.



Caution

To prevent irreparable damage to the electronic components when disconnecting the battery:

- ◆ *Observe notes on procedure for disconnecting the battery.*
- ◆ *Always switch off the ignition before disconnecting the battery ⇒ Electrical system; Rep. gr. 27 ; Battery; Disconnecting and connecting battery .*

1.2 Safety precautions when working on vehicles with start/stop system

When performing repairs on vehicles with start/stop system, note the following:



WARNING

Risk of injury due to automatic engine start on vehicles with start/stop system.

- ◆ *On vehicles with activated start/stop system (this is indicated by a message in the instrument cluster display), the engine may start automatically on demand.*
- ◆ *Therefore it is important to ensure that the start/stop system is deactivated when performing repairs (switch off ignition, if required switch on ignition again).*

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1.3 Safety precautions when using testers and measuring instruments during a road test

Note the following if testers and measuring instruments have to be used during a road test:



WARNING

Accidents can be caused if the driver is distracted by test equipment while road-testing, or if test equipment is not properly secured.

Persons sitting in the front passenger's seat could be injured if the airbag is triggered in an accident.

- *The use of test equipment while driving causes distraction.*
- *There is an increased risk of injury if test equipment is not secured.*
- ◆ *Test equipment must always be secured on the rear seat with a strap and operated from the rear seat by a second person.*

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2 Repair instructions

⇒ [“2.1 Rules for cleanliness”, page 4](#)

⇒ [“2.2 Test conditions”, page 4](#)

⇒ [“2.3 Contact corrosion”, page 5](#)

⇒ [“2.4 Routing and attachment of pipes, hoses and wiring”, page 5](#)

2.1 Rules for cleanliness

Even small amounts of dirt can cause malfunctions. When working on the fuel supply system and injection system, pay careful attention to the following basic rules:

- ◆ Carefully clean connection points and the surrounding area with engine cleaner or brake cleaner and dry thoroughly before opening.
- ◆ Immediately seal open lines and connections with clean plugs, for example from engine bung set - VAS 6122- .
- ◆ Place parts that have been removed on a clean surface and cover them over. Use only lint-free cloths.
- ◆ Carefully cover or seal open components if repairs cannot be carried out immediately.
- ◆ Only install clean components; replacement parts should only be unpacked immediately prior to installation. Do not use parts that have not been stored in their packing (e.g. in tool boxes etc.).
- ◆ When the system is open, do not work with compressed air and do not move the vehicle.
- ◆ Protect unplugged electrical connectors against dirt and moisture and make sure connections are dry when attaching.
- ◆ Make sure that no diesel fuel comes into contact with other components in the engine compartment. If necessary, clean immediately.

2.2 Test conditions

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- Battery in standby mode ⇒ Electrical system; Rep. gr. 27 ; Battery; Charging battery .
- Fuses for fuel pump/ fuel pump relay - J17- / fuel pump control unit - J538- OK ⇒ Current flow diagrams, Electrical fault finding and Fitting locations.
- Fuel pump relay - J17- OK; checking in Guided Fault Finding ⇒ Vehicle diagnostic tester.
- Fuel pump control unit - J538- OK; checking in Guided Fault Finding ⇒ Vehicle diagnostic tester.
- Fuel tank at least $\frac{1}{4}$ full.
- Fuel filter OK.
- Fuel lines OK (not obstructed or crushed).
- Ignition off.
- Suitable grade of diesel for climatic conditions. Summer-grade diesel may be affected by thickening at very low temperatures.
- All electrical equipment switched off.

2.3 Contact corrosion

Contact corrosion can occur if unsuitable fasteners are used (e.g. bolts, nuts, washers, etc.).

For this reason, only fasteners with a special surface coating are used.

Additionally, all rubber and plastic parts and all adhesives are made of non-conductive materials.

Always install new parts if you are not sure whether used parts can be re-fitted ⇒ Electronic parts catalogue .

Note the following:

- ◆ We recommend using only genuine replacement parts; these have been tested and are compatible with aluminium.
- ◆ We recommend the use of Audi accessories.
- ◆ Damage caused by contact corrosion is not covered under warranty.

2.4 Routing and attachment of pipes, hoses and wiring



Caution

Risk of damage to pipes/hoses/wiring.

- ◆ ***The original routing must be restored when installing any kind of pipes/hoses/wiring.***
- ◆ ***Due to the restricted space in the engine compartment, it is important to ensure sufficient clearance from all moving or hot components.***

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20 – Fuel supply system

1 Fuel tank

⇒ "1.1 Exploded view - fuel tank", page 6

⇒ "1.2 Draining fuel tank", page 8

⇒ "1.3 Removing and installing fuel tank", page 10

1.1 Exploded view - fuel tank

1 - Bolts

- ☐ Renew after removing
- ☐ 20 Nm + turn +90° further

2 - Fuel supply line

- ☐ To fuel filter
- ☐ Do not kink
- ☐ Clipped onto fuel tank
- ☐ Disconnecting and connecting plug-in connectors ⇒ page 25

3 - Fuel return line

- ☐ From engine
- ☐ Do not kink
- ☐ Clipped onto fuel tank
- ☐ Disconnecting and connecting plug-in connectors ⇒ page 25

4 - Electrical connector

- ☐ For fuel system pressurisation pump - G6- and fuel gauge sender - G-

5 - Overflow hose

6 - Tank flap unit

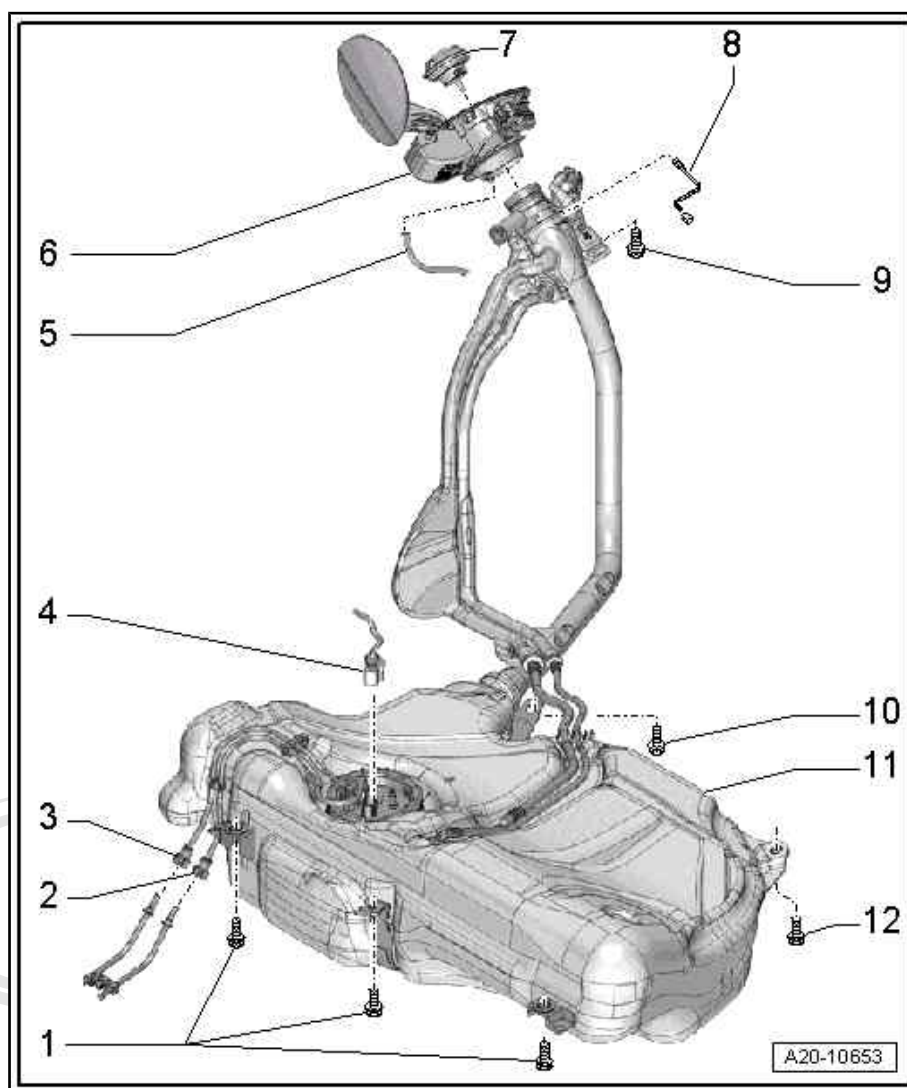
- ☐ Removing and installing ⇒ General body repairs, exterior; Rep. gr. 55 ; Tank flap unit; Removing and installing tank flap unit

7 - Filler cap

- ☐ Screw down until it clicks audibly
- ☐ Secured to tank flap unit

8 - Earth connection

- ☐ To eliminate electrostatic charge
- ☐ Installation position ⇒ page 7
- ☐ Make sure connector is correctly seated and secure wire with bolt for fuel filler neck -item 9-
- ☐ After installation, use an ohmmeter to check electrical connection between metal ring on fuel filler neck and a bare metal part on body. Specification: approx. 0 Ω



9 - Bolt

- ☐ Secures fuel filler neck and earth connection -item 8-
- ☐ Renew after removing
- ☐ 8 Nm + turn +90° further

10 - Bolt

- ☐ Renew after removing
- ☐ 20 Nm + turn +90° further

11 - Fuel tank

- ☐ Removing and installing ⇒ [page 10](#)
- ☐ Removing, installing and checking gravity valve ⇒ [page 7](#)
- ☐ Removing, installing and checking breather valve ⇒ [page 8](#)

12 - Bolt

- ☐ Renew after removing
- ☐ 20 Nm + turn +90° further

Earth connection for fuel filler neck

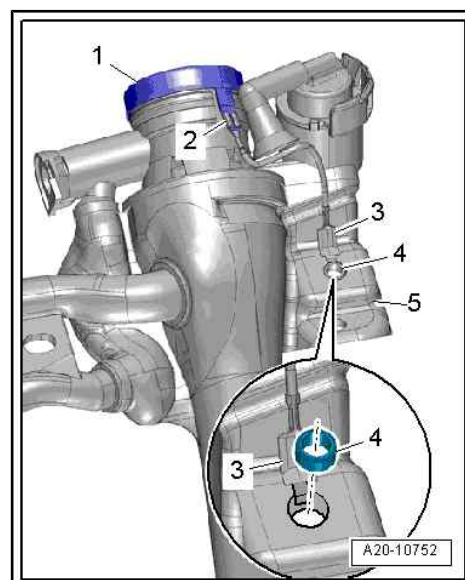
- Route earth connection as shown in illustration.
- Ensure that connector for earth connection -2- is properly seated on metal ring -1- at fuel filler neck.
- First engage contact tab -3- of earth connection in mounting hole on fuel tank -5- and then press in spacer bush -4-.



WARNING

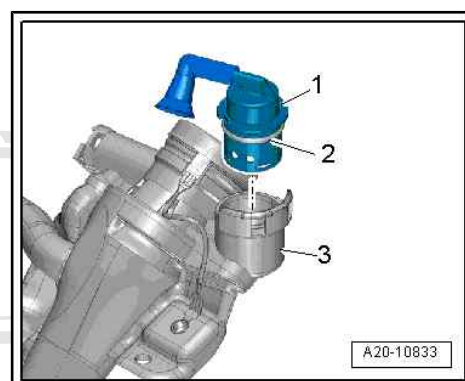
Safety risk due to electrostatic discharge.

- ◆ **After installation, use an ohmmeter to check the electrical connection between the metal ring on the fuel filler neck and a bare metal part on the body:**
- **Specification: approx. 0 Ω**



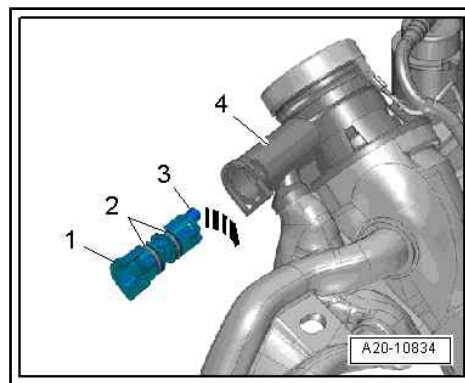
Removing, installing and checking gravity valve

- To remove gravity valve -1-, release retaining tabs and pull valve upwards out of connection -3-.
- Checking gravity valve:
 - Hold valve in a vertical position: it should be possible to blow through valve.
 - Tilt valve to 45°; it should not be possible to blow through valve.
 - Make sure O-ring -2- is not damaged.



Removing, installing and checking breather valve

- To remove breather valve -1-, release retaining tab and pull valve sideways out of connection -4-.
- Before installing breather valve, unscrew filler cap from fuel tank.
- Check breather valve:
 - Lever -3- in released position: breather valve closed.
 - Lever pressed in direction of -arrow-: breather valve open.
 - Make sure O-rings -2- are not damaged.



1.2 Draining fuel tank

Special tools and workshop equipment required

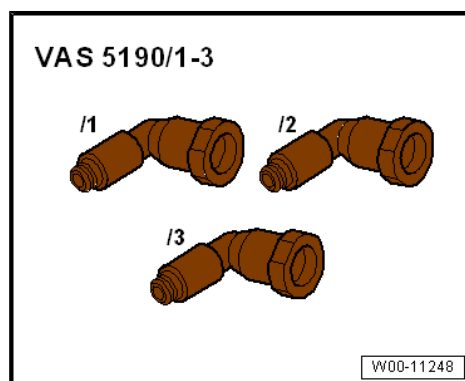
- ◆ Removal wedge - 3409-



- ◆ Fuel extractor - VAS 5190A-



- ◆ Adapter for fuel extraction - VAS 5190 /2-





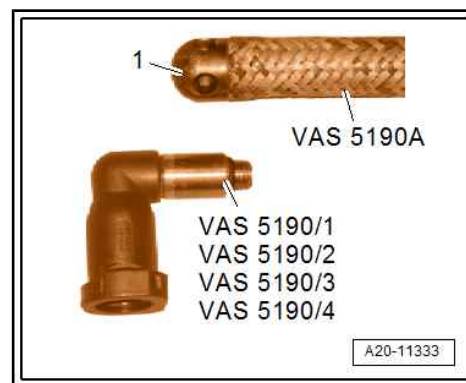
Note

If fuel extractor - VAS 5190A- is still fitted with extraction hose with fixed tip, replace with version with screw-on tip.

- Unscrew tip -1- of extraction hose of fuel extractor -VAS 5190A- .
- Screw adapter for fuel extraction - VAS 5190 /2- from adapter set for fuel extraction - VAS 5190 /10- onto extraction hose.

Procedure

- Observe safety precautions ⇒ [page 1](#) .
- Observe rules for cleanliness ⇒ [page 4](#) .
- Move front right seat all the way forwards.
- Remove rear seat bench ⇒ General body repairs, interior; Rep. gr. 72 ; Rear seats; Removing and installing seat bench/ individual seats .
- Unclip cover -1- for fuel tank flange at retainers -arrows- using removal wedge - 3409- .



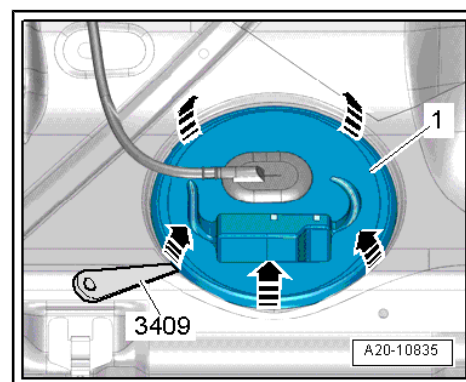
WARNING

The fuel can become extremely hot. This can cause injuries.

- ◆ *In extreme cases the temperature of the fuel lines and the fuel can be up to 100 °C after the engine is switched off. Allow the fuel to cool down before disconnecting the lines - danger of scalding.*
- ◆ *Wear protective gloves.*
- ◆ *Wear safety goggles.*

Risk of injury - fuel system operates under high pressure.

- ◆ *To reduce the pressure in the fuel system, wrap a clean cloth around the connection and carefully loosen the connection.*



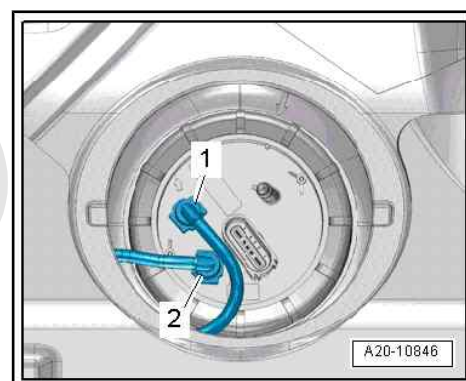
Version 1:

- Disconnect fuel supply line -1- on flange. Disconnecting plug-in connectors ⇒ [page 25](#)



Note

Disregard -item 2-.



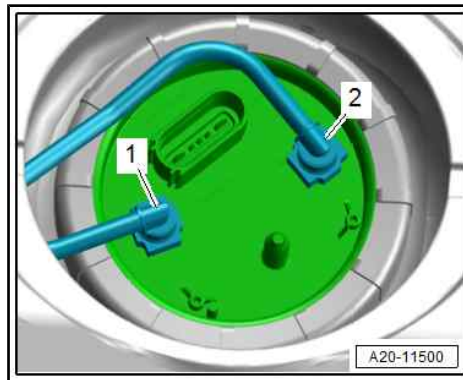
Version 2:

- Disconnect fuel supply line -1- on flange. Disconnecting plug-in connectors ⇒ [page 25](#)



Note

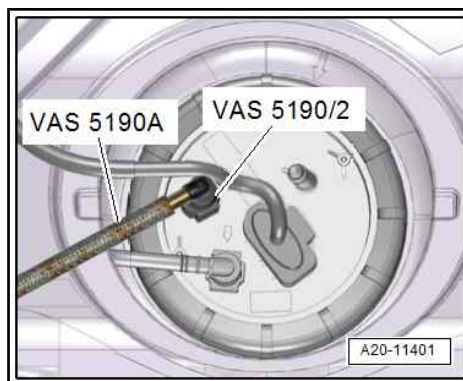
Disregard -item 2-.



All vehicles (continued):

- Connect extraction hose to supply connection on flange with adapter for fuel extraction - VAS 5190 /2- .
- Extract fuel from fuel tank with fuel extractor - VAS 5190A- (via supply connection on flange).

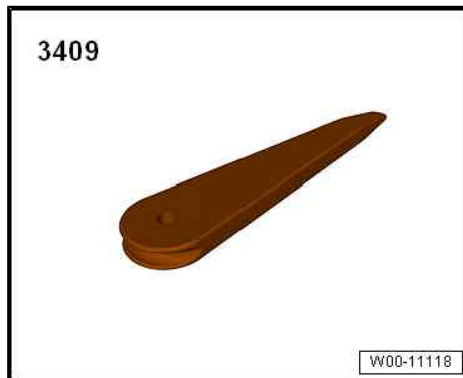
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1.3 Removing and installing fuel tank

Special tools and workshop equipment required

- ◆ Removal wedge - 3409-



- ◆ Engine and gearbox jack - VAS 6931-



Removing

- Observe safety precautions ⇒ [page 1](#) .
- Observe rules for cleanliness ⇒ [page 4](#) .

- Move front right seat all the way forwards.
- Remove rear seat bench ⇒ General body repairs, interior;
 Rep. gr. 72 ; Rear seats; Removing and installing seat bench/
 individual seats .



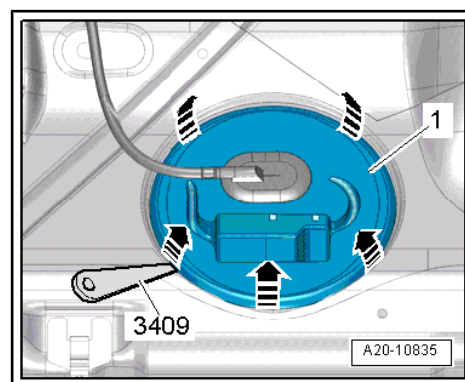
WARNING

Risk of accident caused by weight of fuel tank

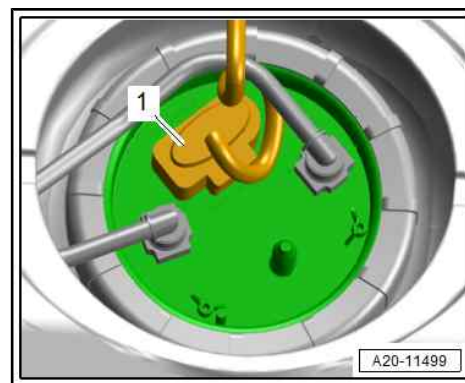
♦ *Fuel tank must be empty when it is removed.*

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- Drain fuel tank ⇒ [page 8](#) .
- Unclip cover -1- for fuel tank flange at retainers -arrows- using
 removal wedge - 3409- .



- Release retainer catch and unplug electrical connector -1- on
 flange.

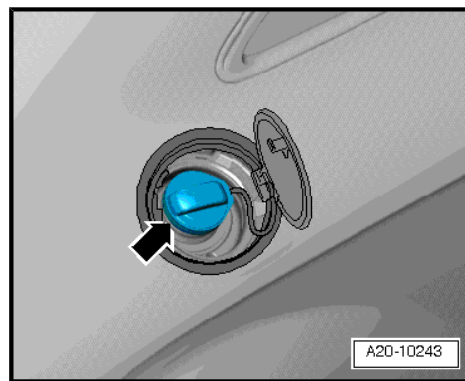


- Open tank flap.
- Clean area around fuel filler neck.
- Remove filler cap -arrow- for fuel filler neck.



Note

Seal off opening of fuel filler neck with a clean plug to prevent dirt from entering.

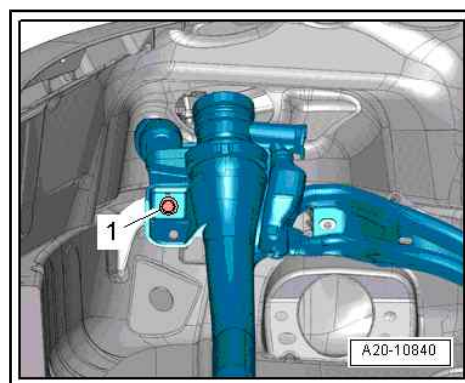


WARNING

The vehicle can tip over on the lifting platform when the rear axle is removed.

- ◆ **BEFORE loosening the axle beam bolts, take steps to ensure that the vehicle does not tip forwards on the lifting platform ⇒ Running gear, axles, steering; Rep. gr. 42 ; Axle beam; Removing and installing axle beam .**

- Remove axle beam ⇒ Running gear, axles, steering; Rep. gr. 42 ; Axle beam; Removing and installing axle beam .
- Remove bolt -1- for fuel filler neck.



- Remove rear section of exhaust system ⇒ Rep. gr. 26 ; Exhaust pipes/silencer; Exploded view - silencer .
- Remove heat shield -1-.



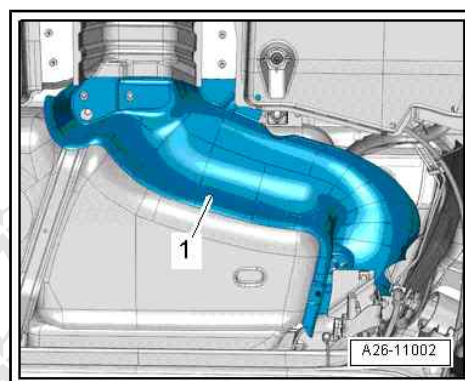
WARNING

The fuel can become extremely hot. This can cause injuries.

- ◆ **In extreme cases the temperature of the fuel lines and the fuel can be up to 100 °C after the engine is switched off. Allow the fuel to cool down before disconnecting the lines - danger of scalding.**
- ◆ **Wear protective gloves.**
- ◆ **Wear safety goggles.**

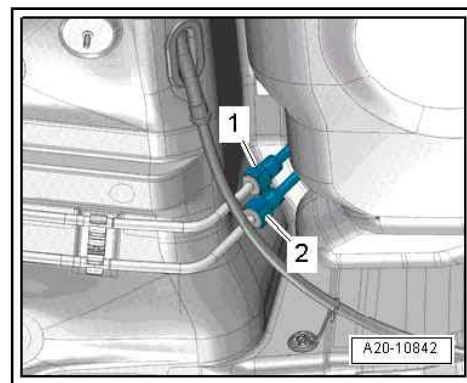
Risk of injury - fuel system operates under high pressure.

- ◆ **To reduce the pressure in the fuel system, wrap a clean cloth around the connection and carefully loosen the connection.**

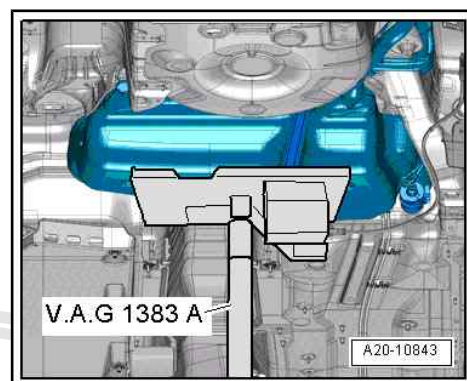


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- Disconnect fuel lines -1 and 2-. Disconnecting plug-in connectors ⇒ [page 25](#)



- Position engine and gearbox jack under vehicle to support tank, as shown in illustration.

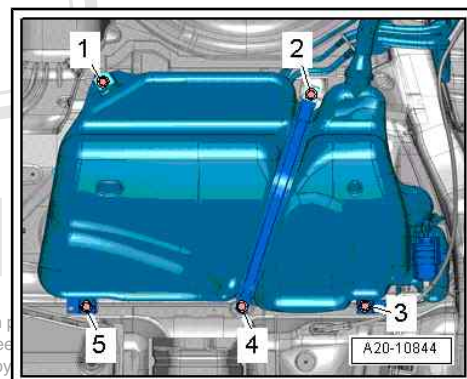


⚠ WARNING

Risk of accident caused by weight of fuel tank

◆ *Fuel tank must be empty when it is removed.*

- Remove bolts -1 ... 5-.
- Then lower fuel tank using engine and gearbox jack , simultaneously guiding fuel tank down by hand.



i Note

For illustration purposes the fuel tank is shown without engine and gearbox jack.

Installing

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

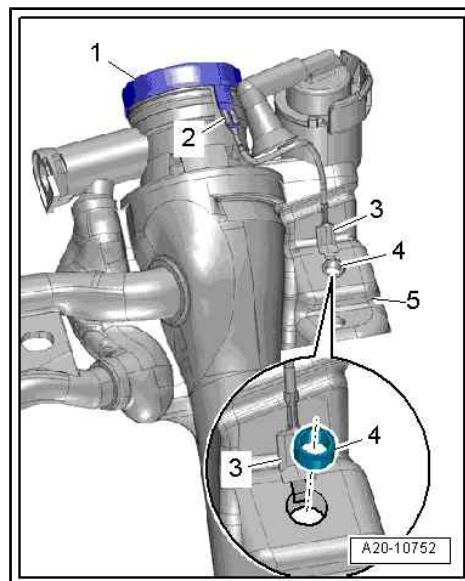
- Tightening torques ⇒ [“1.1 Exploded view - fuel tank”, page 6](#)
- Check earth wire for traces of oxidation at connectors; remove any oxidation if necessary.
- Connector -2- must be seated securely on metal ring -1-.
- Contact tab -3- must be attached to fuel tank -5- and secured with spacer bush -4-.



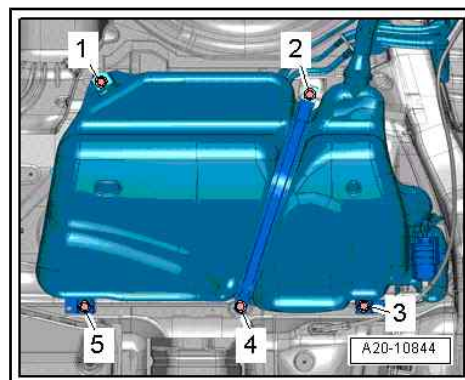
WARNING

Safety risk due to electrostatic discharge.

- ◆ **After installation, use an ohmmeter to check the electrical connection between the metal ring on the fuel filler neck and a bare metal part on the body:**
- **Specification: approx. 0 Ω**



- Check that fuel lines are clipped onto fuel tank.
- Position fuel tank and securing strap on underside of vehicle using engine and gearbox jack .
- When installing fuel tank, make sure that fuel filler neck is correctly inserted into opening on body.
- Tighten bolts -1 ... 5-.
- Install axle beam ⇒ Running gear, axles, steering; Rep. gr. 42 ; Axle beam; Removing and installing axle beam .
- Install rear section of exhaust system ⇒ Rep. gr. 26 ; Exhaust pipes/silencer; Exploded view - silencer .
- Install rear seat bench ⇒ General body repairs, interior; Rep. gr. 72 ; Rear seats; Removing and installing seat bench/individual seats .



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2 Fuel delivery unit/fuel gauge sender

⇒ [“2.1 Exploded view - fuel delivery unit/fuel gauge sender”, page 15](#)

⇒ [“2.2 Removing and installing fuel delivery unit/fuel gauge sender”, page 17](#)

⇒ [“2.3 Checking fuel gauge sender G”, page 20](#)

⇒ [“2.4 Removing and installing fuel gauge sender G”, page 22](#)

2.1 Exploded view - fuel delivery unit/fuel gauge sender

⇒ [“2.1.1 Exploded view - fuel delivery unit/fuel gauge sender, version 1”, page 15](#)

⇒ [“2.1.2 Exploded view - fuel delivery unit/fuel gauge sender, version 2”, page 16](#)

2.1.1 Exploded view - fuel delivery unit/fuel gauge sender, version 1

1 - Fuel delivery unit

- ☐ With fuel system pressurisation pump - G6-
- ☐ Checking fuel pump (electrical test) in [Guided Fault Finding](#) ⇒ vehicle diagnostic tester
- ☐ Removing and installing ⇒ [page 17](#)
- ☐ Put at least 5 litres of fuel into tank after installing

2 - Seal

- ☐ Renew
- ☐ Install dry

3 - Union nut

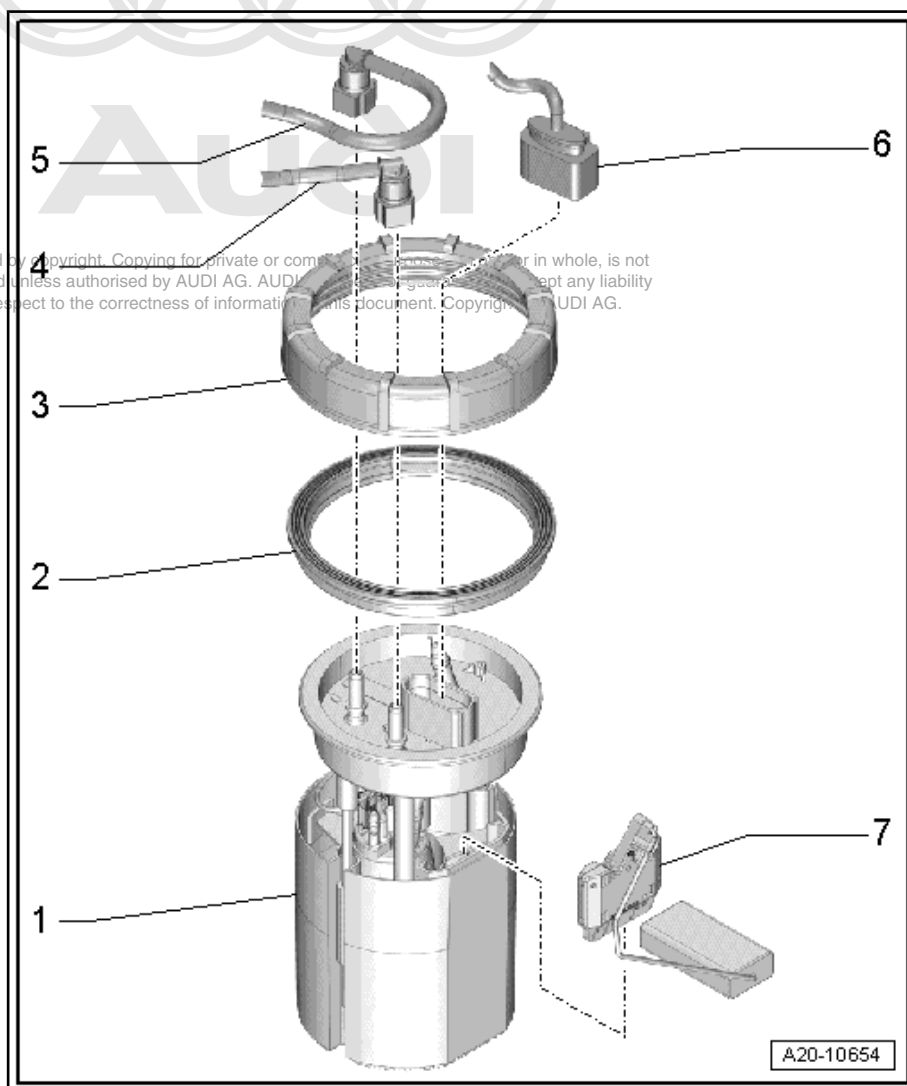
- ☐ Remove and install with union nut tool - 3217-
- ☐ 80 Nm

4 - Fuel return line

- ☐ From engine
- ☐ Do not kink
- ☐ Note direction of arrow (fuel supply or fuel return system) on flange when installing
- ☐ Clipped onto fuel tank
- ☐ Disconnecting and connecting plug-in connectors ⇒ [page 25](#)

5 - Fuel supply line

- ☐ To fuel filter
- ☐ Do not kink
- ☐ Note direction of arrow (fuel supply or fuel return system) on flange when installing



- ☐ Clipped onto fuel tank
- ☐ Disconnecting and connecting plug-in connectors ⇒ [page 25](#)

6 - Electrical connector

- ☐ For fuel system pressurisation pump - G6- and fuel gauge sender - G-

7 - Fuel gauge sender - G-

- ☐ Clipped onto baffle housing
- ☐ Checking resistance values ⇒ [page 20](#)
- ☐ Removing and installing ⇒ [page 22](#)

2.1.2 Exploded view - fuel delivery unit/fuel gauge sender, version 2

1 - Fuel delivery unit

- ☐ With fuel system pressurisation pump - G6-
- ☐ Checking fuel pump (electrical test) in Guided Fault Finding ⇒ vehicle diagnostic tester
- ☐ Removing and installing ⇒ [page 17](#)
- ☐ Put at least 5 litres of fuel into tank after installing

2 - Seal

- ☐ Renew
- ☐ Install dry

3 - Fuel supply line

- ☐ To fuel filter
- ☐ Do not kink
- ☐ Note direction of arrow (fuel supply or fuel return system) on flange when installing
- ☐ Clipped onto fuel tank
- ☐ Disconnecting and connecting plug-in connectors ⇒ [page 25](#)

4 - Fuel return line

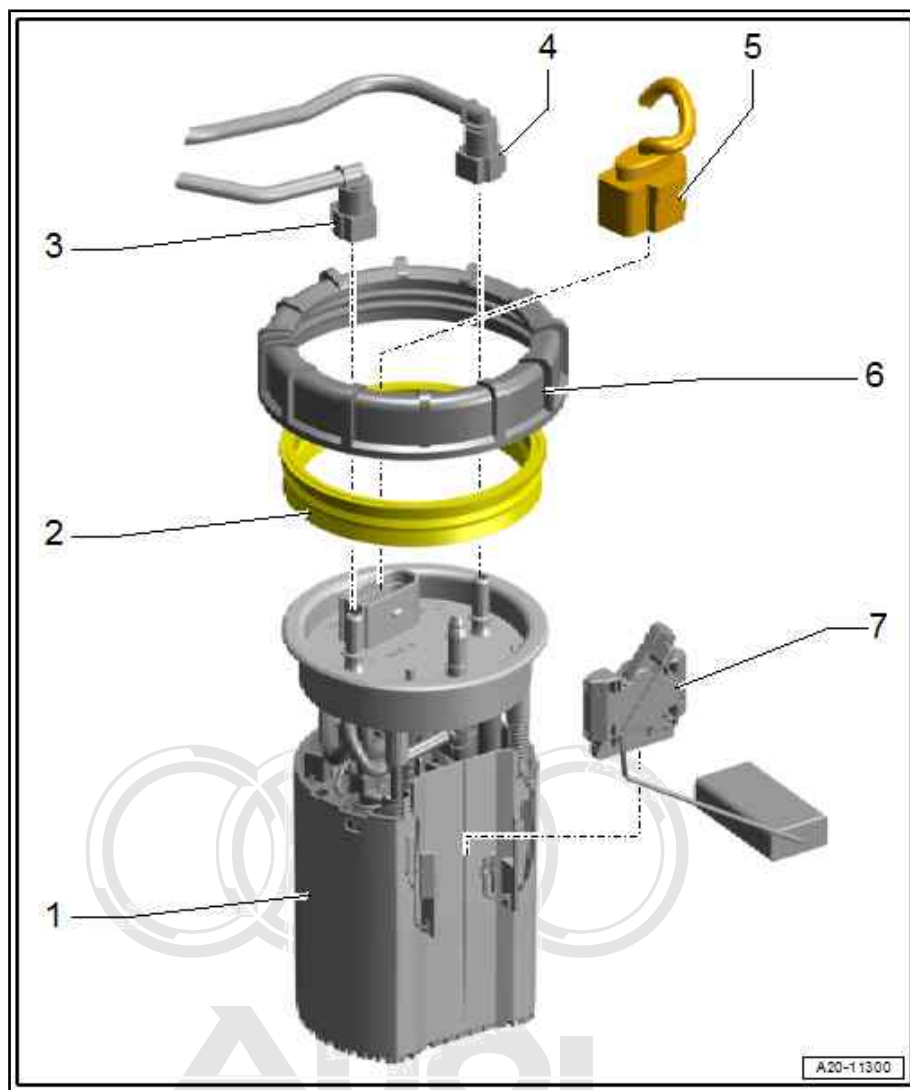
- ☐ From engine
- ☐ Do not kink
- ☐ Note direction of arrow (fuel supply or fuel return system) on flange when installing
- ☐ Clipped onto fuel tank
- ☐ Disconnecting and connecting plug-in connectors ⇒ [page 25](#)

5 - Electrical connector

- ☐ For fuel system pressurisation pump - G6- and fuel gauge sender - G-

6 - Union nut

- ☐ Remove and install with union nut tool - 3217-
- ☐ 80 Nm



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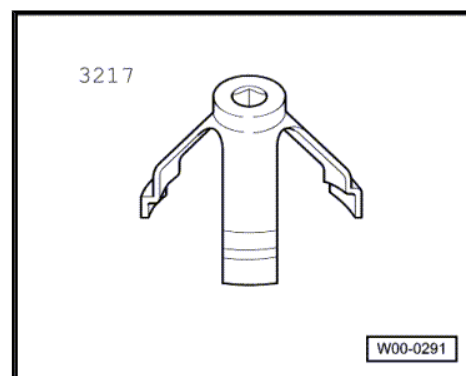
7 - Fuel gauge sender - G-

- ☐ Clipped onto baffle housing
- ☐ Checking resistance values ⇒ [page 20](#)
- ☐ Removing and installing ⇒ [page 22](#)

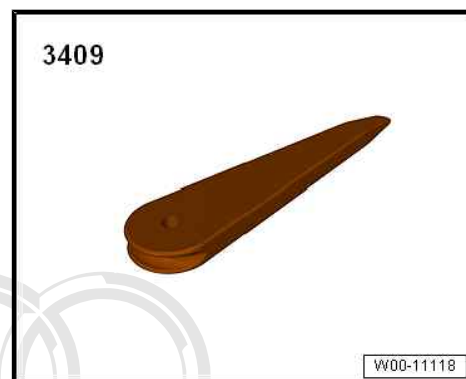
2.2 Removing and installing fuel delivery unit/fuel gauge sender

Special tools and workshop equipment required

- ◆ Union nut tool - 3217-



- ◆ Removal wedge - 3409-



Removing

- Observe safety precautions ⇒ [page 1](#) .
- Observe rules for cleanliness ⇒ [page 4](#) .



WARNING

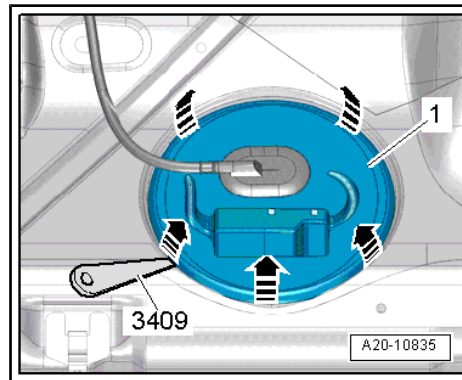
Danger! Fuel may escape.

- ◆ ***The fuel tank must not be more than 3/4 full when removing the fuel delivery unit, otherwise a large amount of fuel will escape.***

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- Drain fuel tank if necessary ⇒ [page 8](#) .
- Move front right seat all the way forwards.
- Remove rear seat bench ⇒ General body repairs, interior; Rep. gr. 72 ; Rear seats; Removing and installing seat bench/ individual seats .

- Unclip cover -1- for fuel tank flange at retainers -arrows- using removal wedge - 3409- .



- Release retainer catch and unplug electrical connector -1- on flange.


WARNING

The fuel can become extremely hot. This can cause injuries.

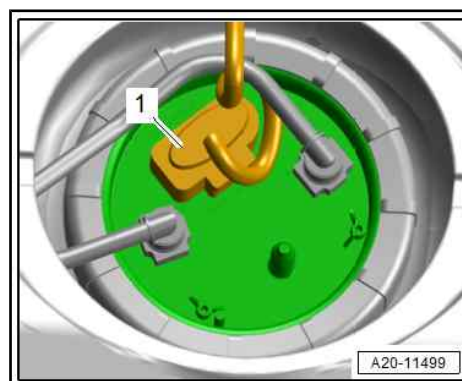
- ◆ *In extreme cases the temperature of the fuel lines and the fuel can be up to 100 °C after the engine is switched off. Allow the fuel to cool down before disconnecting the lines - danger of scalding.*

- ◆ *Wear protective gloves.*

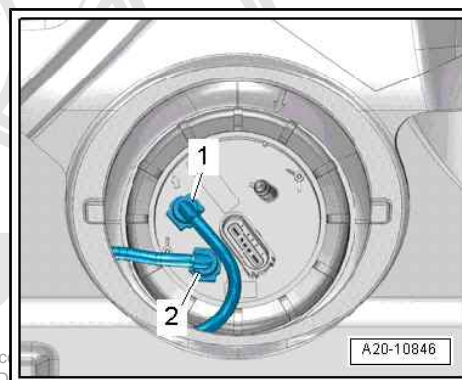
- ◆ *Wear safety goggles.*

Risk of injury - fuel system operates under high pressure.

- ◆ *To reduce the pressure in the fuel system, wrap a clean cloth around the connection and carefully loosen the connection.*


Version 1:

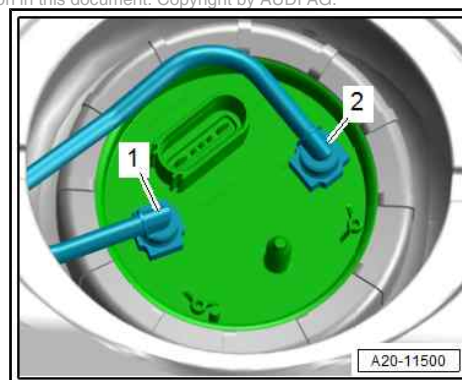
- Disconnect fuel lines -1 and 2- on flange. Disconnecting plug-in connectors ⇒ [page 25](#)



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Version 2:

- Disconnect fuel lines -1 and 2- on flange. Disconnecting plug-in connectors ⇒ [page 25](#)



All vehicles (continued):

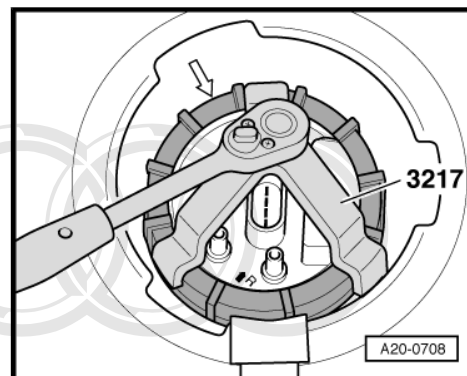


WARNING

Danger! Fuel may escape.

- ◆ ***The fuel tank must not be more than $\frac{3}{4}$ full when removing the fuel delivery unit, otherwise a large amount of fuel will escape.***

- Unscrew union nut using union nut tool - 3217- .
- Pull flange out of opening in fuel tank.
- Take seal out of opening in fuel tank.



WARNING

Safety risk from escaping fuel: the fuel delivery unit is still filled.

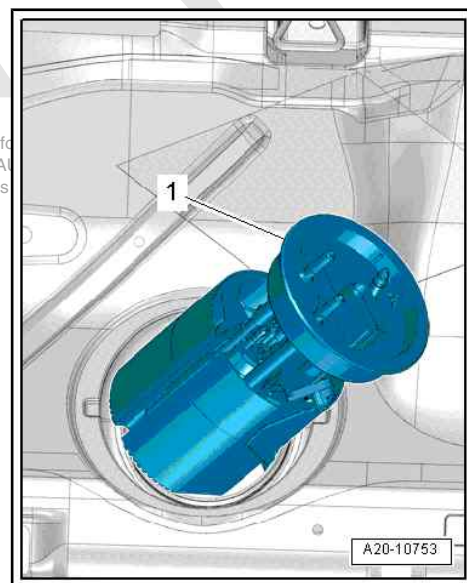
- ◆ ***Use a cloth to catch escaping fuel.***

- Carefully pull fuel delivery unit -1- with fuel gauge sender out through opening in fuel tank.



Note

When removing fuel delivery unit, make sure you do not bend float arm of fuel gauge sender -G- .



Installing

Remaining installation steps are carried out in reverse sequence; note the following:

- Tightening torque
 ⇒ ["2.1 Exploded view - fuel delivery unit/fuel gauge sender", page 15](#)



Note

- ◆ ***Renew seal.***
- ◆ ***Take care not to bend float arm of fuel gauge sender -G- when fitting fuel delivery unit.***
- Carefully guide fuel delivery unit -1- with fuel gauge sender in through opening in fuel tank.

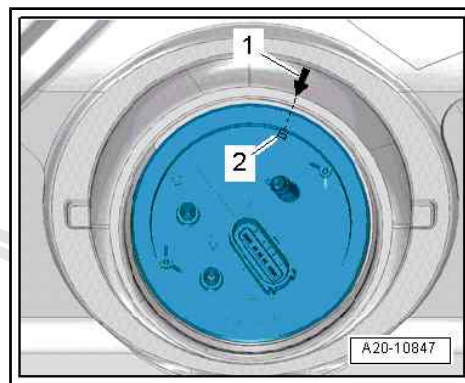
- Install new seal for flange (seal must be installed dry).



Caution

Leakage risk

- ◆ *The seal must not be pinched or damaged when installing the flange.*



- With fuel delivery unit raised, fit flange in correct installation position.
- Arrow/lug -2- on flange must align with arrow -1- on fuel tank.
- Press flange down against spring pressure.
- Fit union nut and tighten using union nut tool - 3217- .
- Connect fuel lines so they engage audibly.
- Press fuel line in again and then pull to check that plug-in connector is correctly engaged.
- Plug in electrical connector and make sure it is correctly engaged.
- Install rear seat bench ⇒ General body repairs, interior; Rep. gr. 72 ; Rear seats; Removing and installing seat bench/individual seats .
- Put at least 5 litres of fuel into tank after installing fuel delivery unit.

2.3 Checking fuel gauge sender - G-

Special tools and workshop equipment required

- ◆ Hand-held multimeter - V.A.G 1526E-

V.A.G 1526 E



W00-11266

- ◆ Auxiliary measuring set - V.A.G 1594C-

V.A.G 1594 C



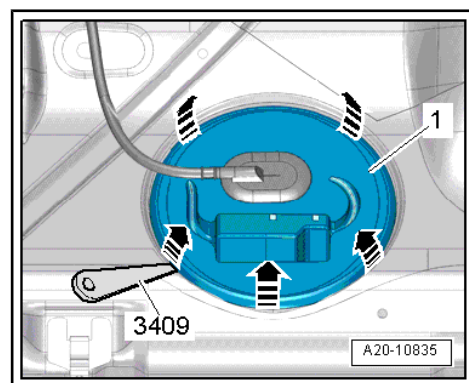
W00-11191

◆ Removal wedge - 3409-

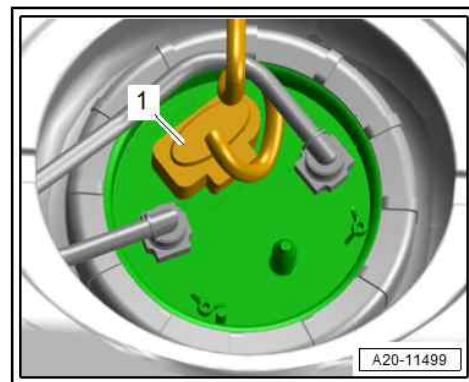


Procedure

- Move front right seat all the way forwards.
- Remove rear seat bench ⇒ General body repairs, interior; Rep. gr. 72 ; Rear seats; Removing and installing seat bench/ individual seats .
- Unclip cover -1- for fuel tank flange at retainers -arrows- using removal wedge - 3409- .



- Release retainer catch and unplug electrical connector -1- on flange.



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Fuel gauge sender - G- installed:

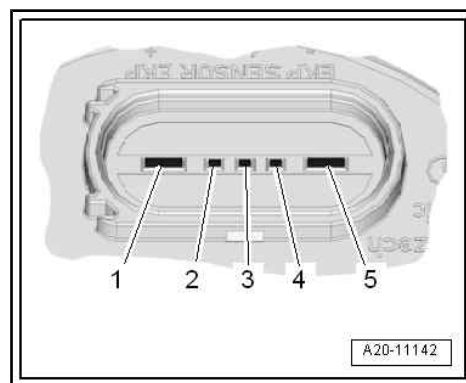


Note

To obtain an exact measurement of the resistance value for the specification "Tank full", the fuel tank must be completely full. For this, drive for at least 500 metres after filling the tank to let air bubbles escape from the fuel tank; then add fuel again.

- Connect multimeter (resistance test) as shown in table.

Measure at contacts	Tank empty	Tank full
2 + 3	266 ... 274 Ω	67 ... 73 Ω
2 + 4	67 ... 73 Ω	266 ... 274 Ω
3 + 4 ¹⁾	335 ... 345 Ω	335 ... 345 Ω
¹⁾ Sender in any position		



Fuel gauge sender - G- removed:

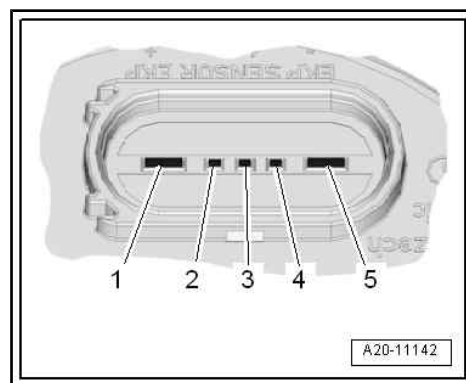


Note

- ◆ To test the maximum and minimum resistance values for "tank full" and "tank empty", remove the fuel delivery unit and move the sender float all the way to its top or bottom position.
- ◆ The following values are obtained with the fuel delivery unit removed, due to the greater travel of the float arm:

- Connect multimeter (resistance test) as shown in table.

Measure at contacts	Tank empty	Tank full
2 + 3	285 ... 295 Ω	48 ... 52 Ω
2 + 4	48 ... 52 Ω	285 ... 295 Ω
3 + 4 ¹⁾	335 ... 345 Ω	335 ... 345 Ω
¹⁾ Sender in any position		



Fuel gauge sender - G- is defective in the following cases:

- ◆ Large differences in test readings
- ◆ Reading: 0 Ω (short circuit)
- ◆ Reading ∞ Ω (open circuit)
- ◆ No fault in electrical wiring
- Removing and installing fuel gauge sender - G- ⇒ [page 22](#) .

2.4 Removing and installing fuel gauge sender - G-

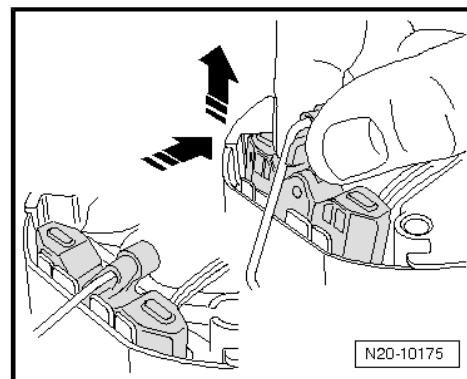
Removing

- Observe safety precautions ⇒ [page 1](#) .
- Observe rules for cleanliness ⇒ [page 4](#) .
- Remove fuel delivery unit ⇒ [page 17](#) .

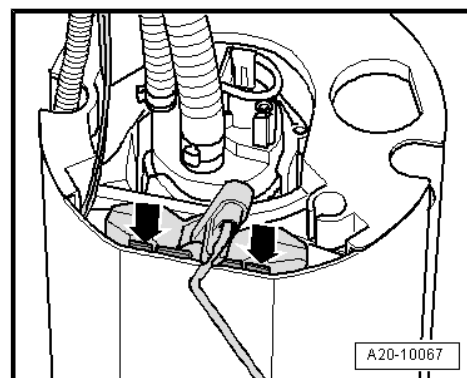
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Version 1:

- Pull fuel gauge sender - G- inwards slightly and then lift out -arrows-.

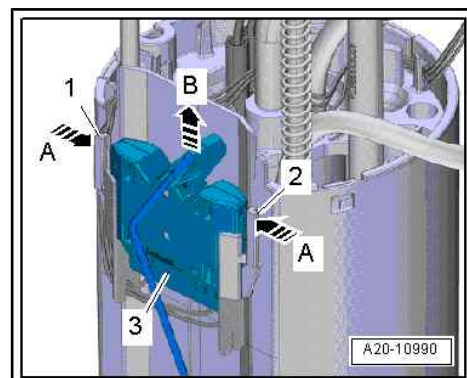


- If necessary, release retaining tabs -arrows- using a screwdriver.



Version 2:

- Move clear electrical wiring leading to fuel gauge sender - G- .
- Release catches -1 and 2- -arrows A- and press out fuel gauge sender - G- upwards -arrow B-.



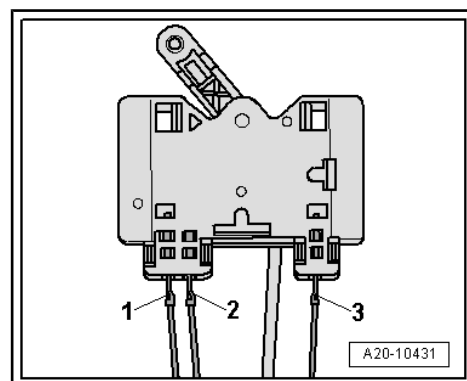
All versions (continued):

 **Caution**

Risk of damage.

◆ **First release retainer tabs on connector contact before detaching electrical connectors on fuel gauge sender - G- .**

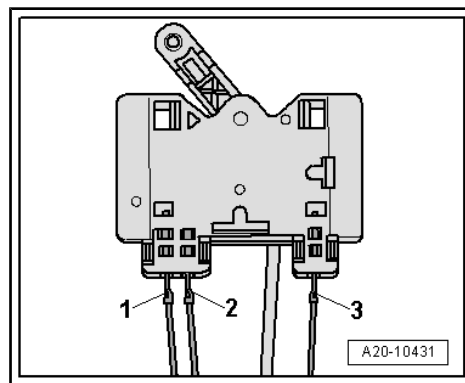
- Release and unplug electrical connectors -1...3-.



Installing

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

- Plug in electrical connectors -1 ... 3- and make sure they are securely engaged.
- Insert fuel gauge sender - G- into guides on fuel delivery unit and press downwards until it clicks into place.
- Install fuel delivery unit ⇒ [page 17](#) .



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3 Plug-in connectors

⇒ [“3.1 Disconnecting plug-in connectors”, page 25](#)

3.1 Disconnecting plug-in connectors

Special tools and workshop equipment required

- ◆ Lever - T10468-



Allocation of plug-in connectors



Note

The plug-in connectors for the fuel lines, vacuum lines, and breather lines are colour coded. There is either a coloured marking on the plug-in connector, or the release tab is the corresponding colour ⇒ [page 25](#).

Colour coding

Plug-in connector	Colour coding on plug-in connector
Fuel supply	Black
Fuel return line	Blue
Breather	White-beige
Vacuum	Green



WARNING

Fuel line is pressurised.

Risk of injury to eyes and skin caused by fuel.

Wear safety goggles and protective clothing to avoid possible injury and skin contact. Before opening hose connections wrap a cloth around the connection. Then relieve pressure by carefully opening the connection.

Version 1

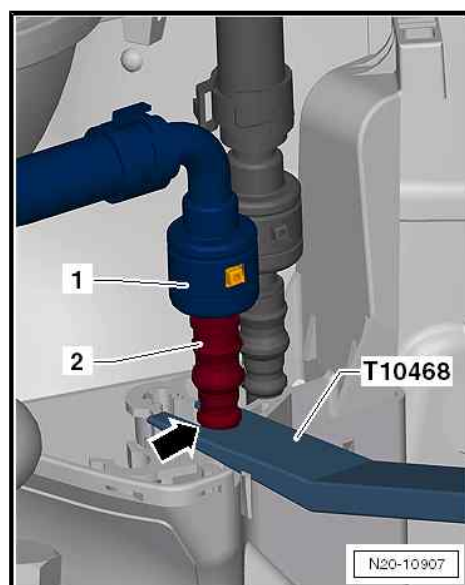
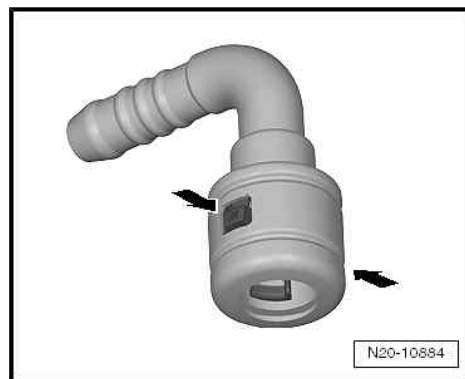
Plug-in connector with release tabs -arrows- on both sides

Disconnecting

Counter-hold connection point for fuel -1- in engine compartment.

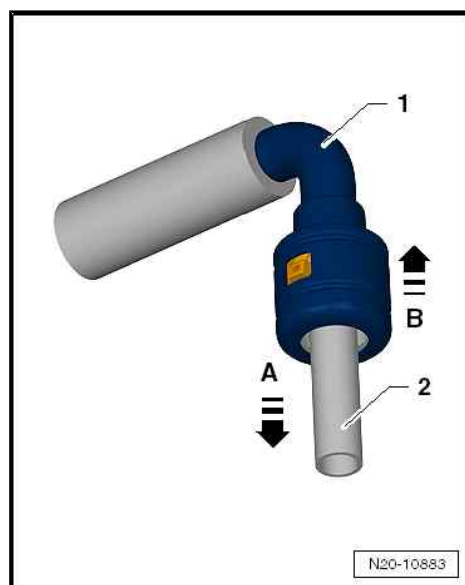
- Insert lever - T10468- between heat shield and stop -arrow- of fuel line -2- and counter-hold.

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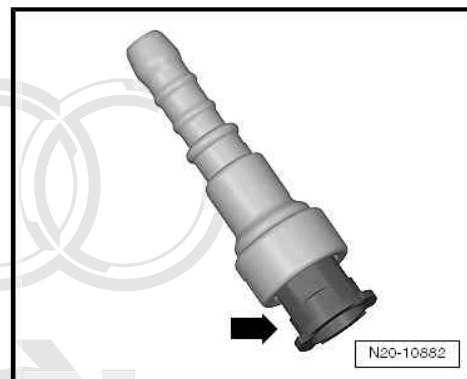
Continued for all connection points in fuel system:

- Press plug-in connector -1- in direction of -arrow A-.
- Press in and hold release tabs.
- Unplug plug-in connector -1- from fuel line -2- in direction of -arrow B-.
- When installing observe colour coding ⇒ [page 25](#) .
- Plug-in connectors should engage audibly when connecting.
- Check that plug-in connector is securely seated by pulling at it.



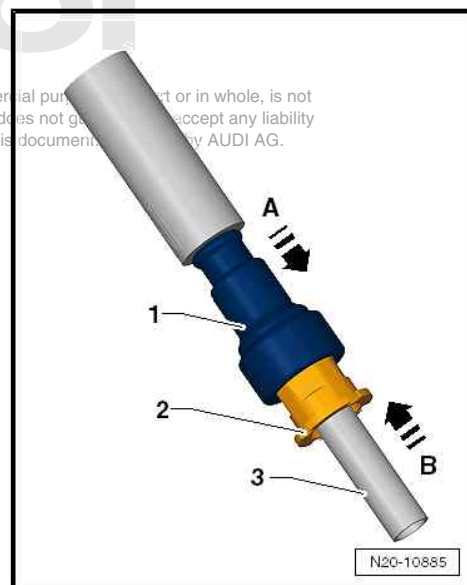
Version 2

Plug-in connector with pull release -arrow-:



Disconnecting

- Press plug-in connector -1- in direction of -arrow A-.
- Pull the pull release catch -2- in direction of -arrow B-.
- Unplug plug-in connector -1- from fuel line -3- in direction of -arrow B-.
- When installing observe colour coding ⇒ [page 25](#) .
- Plug-in connectors should engage audibly when connecting.
- Check that plug-in connector is securely seated by pulling at it.

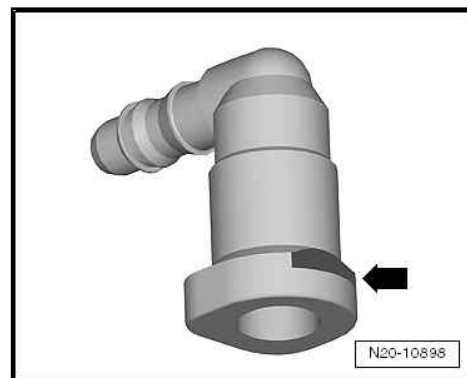


Version 3

Plug-in connector with release tab at front -arrow-:

Disconnecting

- Press release tab -arrow- and disconnect plug-in connectors.
- When installing observe colour coding ⇒ [page 25](#) .
- Plug-in connectors should engage audibly when connecting.
- Check that plug-in connector is securely seated by pulling at it.

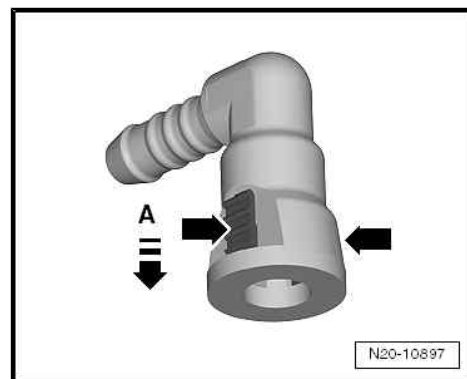


Version 4

Plug-in connector with release tab -arrows- on both sides:

Disconnecting

- Press plug-in connector in direction of -arrow A-.
- Press release tabs -arrows- and disconnect plug-in connector.
- When installing observe colour coding ⇒ [page 25](#) .
- Plug-in connectors should engage audibly when connecting.
- Check that plug-in connector is securely seated by pulling at it.

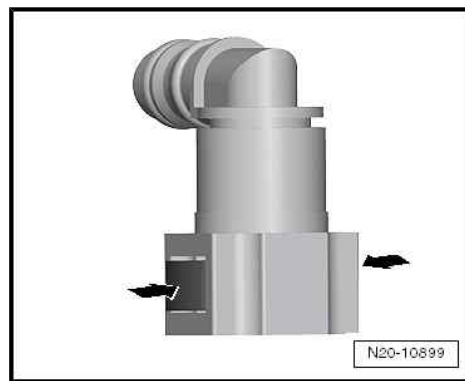


Version 5

Plug-in connector with release tabs -arrows- on both sides:

Disconnecting

- Press release tabs -arrows- and disconnect plug-in connector.
- When installing observe colour coding ⇒ [page 25](#) .
- Plug-in connectors should engage audibly when connecting.
- Check that plug-in connector is securely seated by pulling at it.

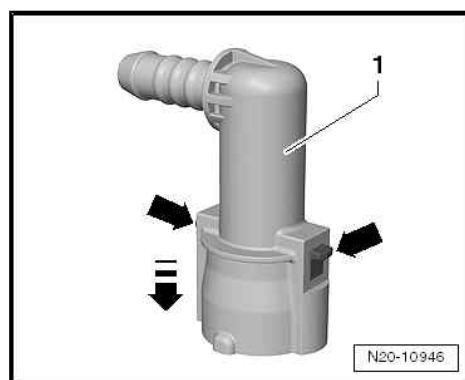


Version 6

Plug-in connector with release tabs -arrows- on both sides:

Disconnecting

- Press and hold plug-in connector -1- in direction of -arrow -.
- Press release tabs -arrows- and disconnect plug-in connector.
- When installing observe colour coding ⇒ [page 25](#) .
- Plug-in connectors should engage audibly when connecting.
- Check that plug-in connector is securely seated by pulling at it.

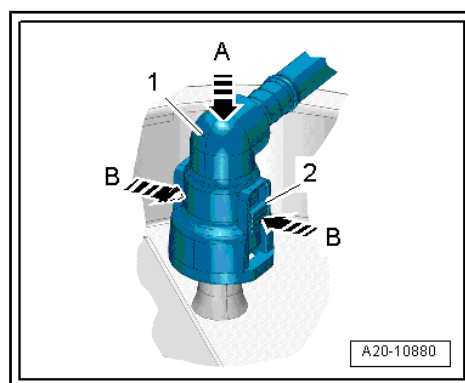


Version 7

Plug-in connector -1- with release tabs -2- on both sides:

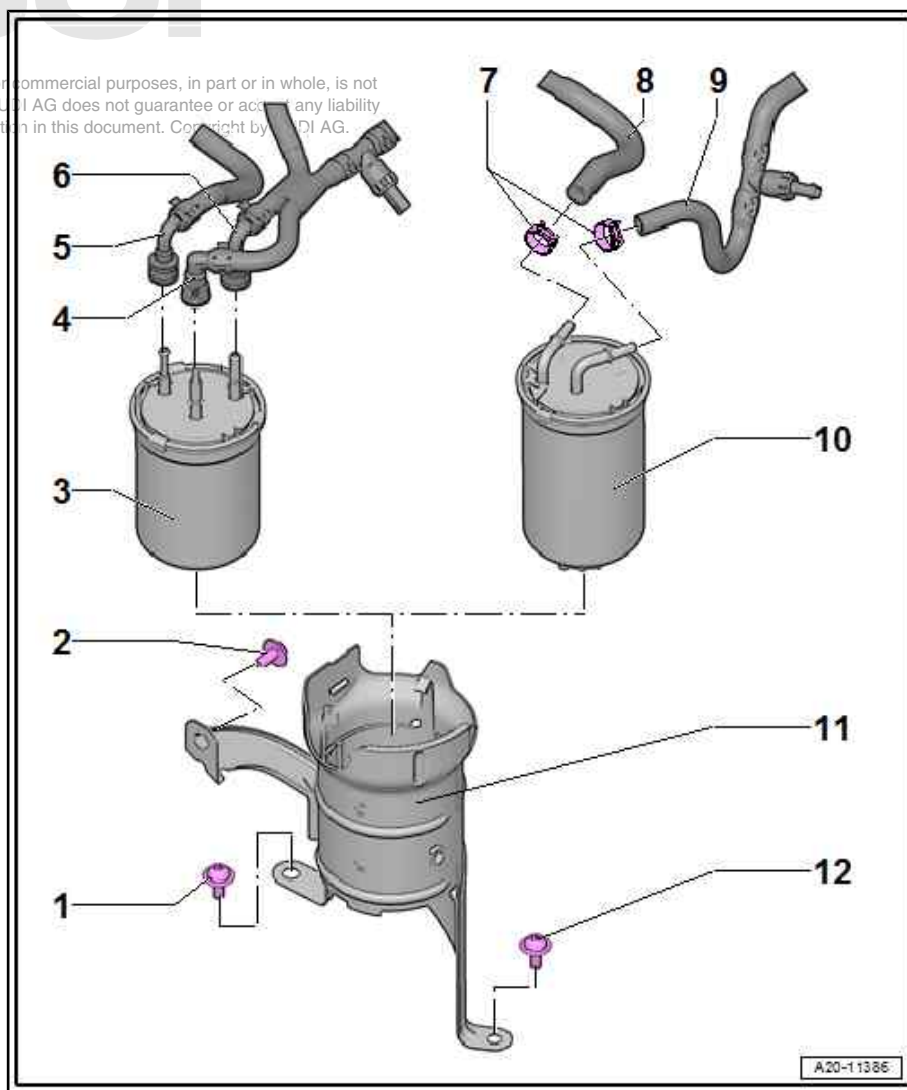
Disconnecting

- Press and hold plug-in connector -1- in direction of -arrow A-.
- Press release tabs -2- in direction of -arrow B- and unplug plug-in connector -1-.
- When installing observe colour coding ⇒ [page 25](#) .
- Plug-in connectors should engage audibly when connecting.
- Check that plug-in connector is securely seated by pulling at it.



⇒ “4.2.2 Removing and installing bracket for fuel filter”, page 32

☐ With 2 or 3 connections (depending on vehicle version)



- ☐ Allocation ⇒ Electronic parts catalogue
- ☐ Flow direction is marked by arrows
- ☐ Do not interchange connections
- ☐ Removing and installing ⇒ [page 30](#)

11 - Bracket

- ☐ For fuel filter
- ☐ Removing and installing ⇒ [page 32](#)

12 - Bolt

- ☐ 5 Nm

4.2 Removing and installing fuel filter

⇒ [“4.2.1 Removing and installing fuel filter”, page 30](#)

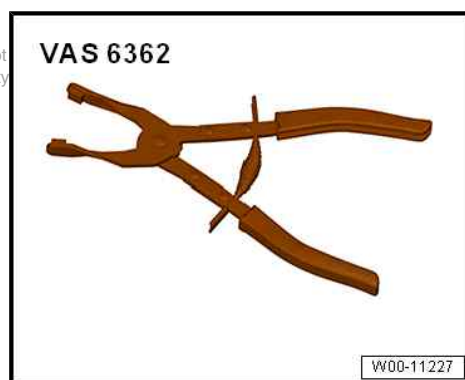
⇒ [“4.2.2 Removing and installing bracket for fuel filter”, page 32](#)

4.2.1 Removing and installing fuel filter

Special tools and workshop equipment required

- ◆ Hose clip pliers - VAS 6362-

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- ◆ Protective gloves
- ◆ Safety goggles

Removing

- Observe safety precautions ⇒ [page 1](#) .
- Observe rules for cleanliness ⇒ [page 4](#) .



WARNING

The fuel can become extremely hot. This can cause injuries.

- ◆ *In extreme cases the temperature of the fuel lines and the fuel can be up to 100 °C after the engine is switched off. Allow the fuel to cool down before disconnecting the lines - danger of scalding.*
- ◆ *Wear protective gloves.*
- ◆ *Wear safety goggles.*

Risk of injury - fuel system operates under high pressure.

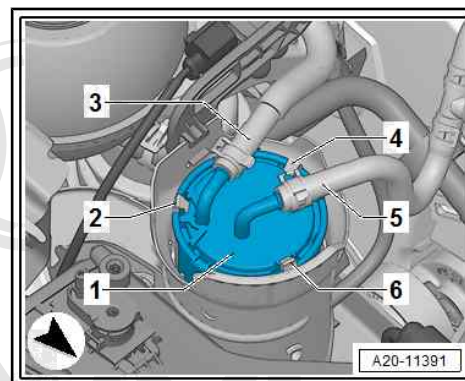
- ◆ *To reduce the pressure in the fuel system, wrap a clean cloth around the connection and carefully loosen the connection.*

 Note

Depending on the vehicle version, a fuel filter with two connections (type A) or a fuel filter with three connections (type B) may be fitted.

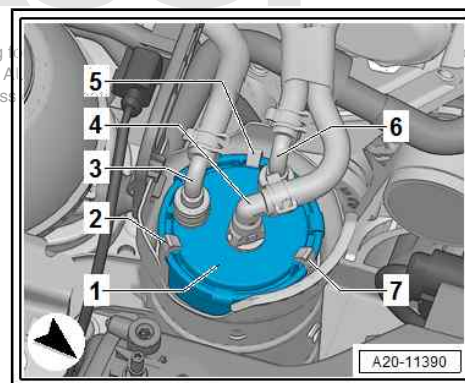
Type A:

- Detach spring-type clips and disconnect fuel lines -3 and 5- from fuel filter.
- Release retaining tabs -2, 4 and 6- and pull fuel filter -1- upwards out of bracket.



Type B:

- Disconnect fuel lines -3, 4 and 6- at fuel filter. **Disconnecting** plug-in connectors ⇒ [page 25](#)
- Release retaining tabs -2, 5 and 7- and pull fuel filter -1- upwards out of bracket.



Installing

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

- Slide fuel filter into bracket as far as stop.
- Flow direction is marked with arrows on filter housing.

With plug-in connector:

- Connect fuel lines so they engage audibly.
- Press fuel line in again and then pull to check that plug-in connector is correctly engaged.

With spring-type clip:

- Secure fuel line with spring-type clip and then pull to check that fuel line is properly secured.



Caution

Running when dry causes irreparable damage to high-pressure pump.

- ◆ *If the fuel filter or fuel lines are renewed, it is important to bleed the fuel system before the engine is started for the first time.*

- Bleed fuel system ⇒ Rep. gr. 23 ; Injection system; Filling and bleeding fuel system .

4.2.2 Removing and installing bracket for fuel filter

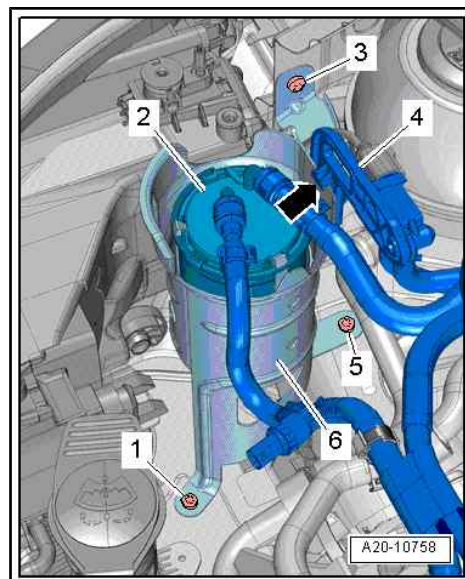
Removing

- Observe safety precautions ⇒ [page 1](#) .
- Observe rules for cleanliness ⇒ [page 4](#) .
- Pull fuel filter -2- out of bracket with fuel lines still connected ⇒ [page 30](#) .
- Detach bracket -4- for pressure differential sender - G505-
-arrow-.
- Remove bolts -1, 3 and 5-.
- Detach bracket for fuel filter -6-.

Installing

Install in reverse order.

- Tightening torque ⇒ ["4.1 Exploded view - fuel filter", page 29](#)



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5 Accelerator mechanism

⇒ [“5.1 Exploded view - accelerator pedal module”, page 33](#)

⇒ [“5.2 Removing and installing accelerator pedal module with accelerator position sender G79 / G185”, page 34](#)

5.1 Exploded view - accelerator pedal module

⇒ [“5.1.1 Exploded view - accelerator pedal module, vehicles with electrohydraulic steering”, page 33](#)

⇒ [“5.1.2 Exploded view - accelerator pedal module, vehicles with electromechanical steering”, page 34](#)

5.1.1 Exploded view - accelerator pedal module, vehicles with electrohydraulic steering

1 - Bolt

- ☐ 8 Nm

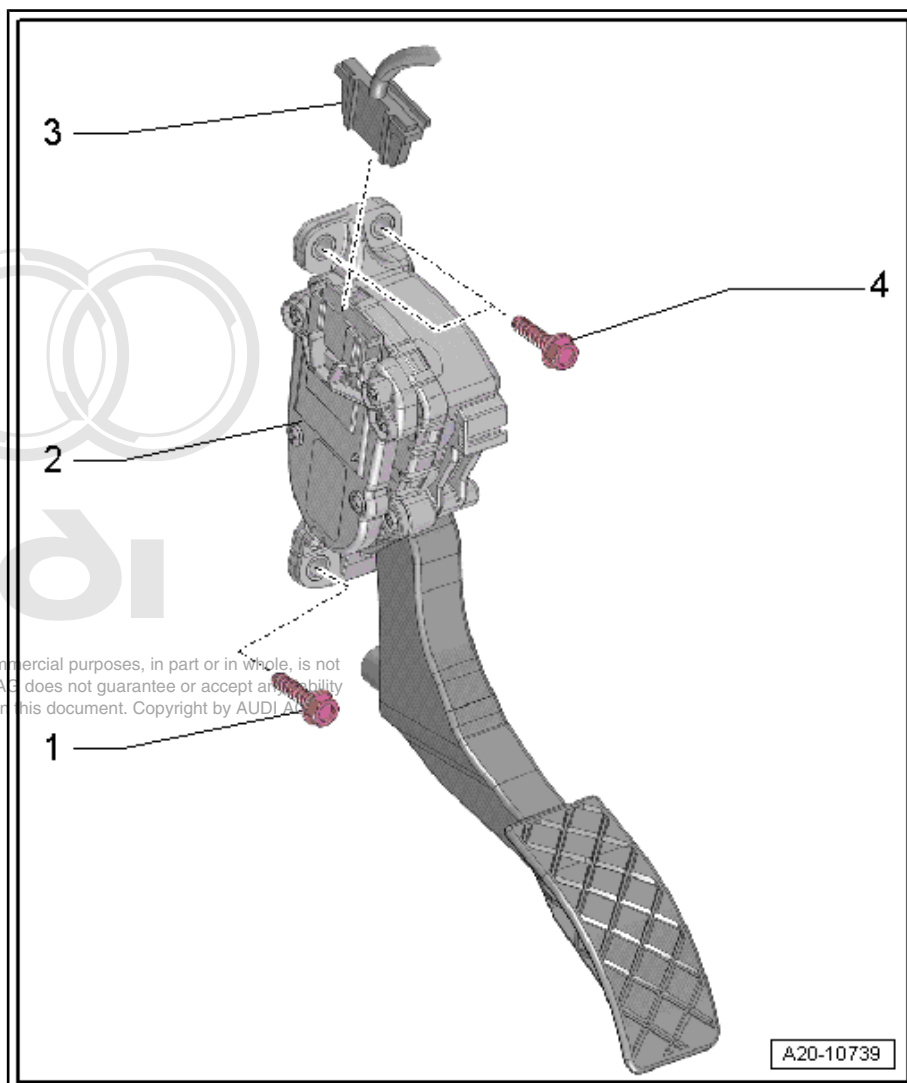
2 - Accelerator pedal module

- ☐ With accelerator position sender - G79- and accelerator position sender 2 - G185-
- ☐ Checking in [\[Guided Fault Finding\]](#) ⇒ Vehicle diagnostic tester
- ☐ Removing and installing ⇒ [page 34](#)
- ☐ Adaption may be required after renewing, depending on engine/ gearbox combination
- ☐ If this menu item is available in “Guided Functions”, perform adaption ⇒ Vehicle diagnostic tester

3 - Electrical connector

4 - Bolt

- ☐ 8 Nm



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5.1.2 Exploded view - accelerator pedal module, vehicles with electromechanical steering

1 - Bolt

- ☐ 8 Nm

2 - Mounting bracket

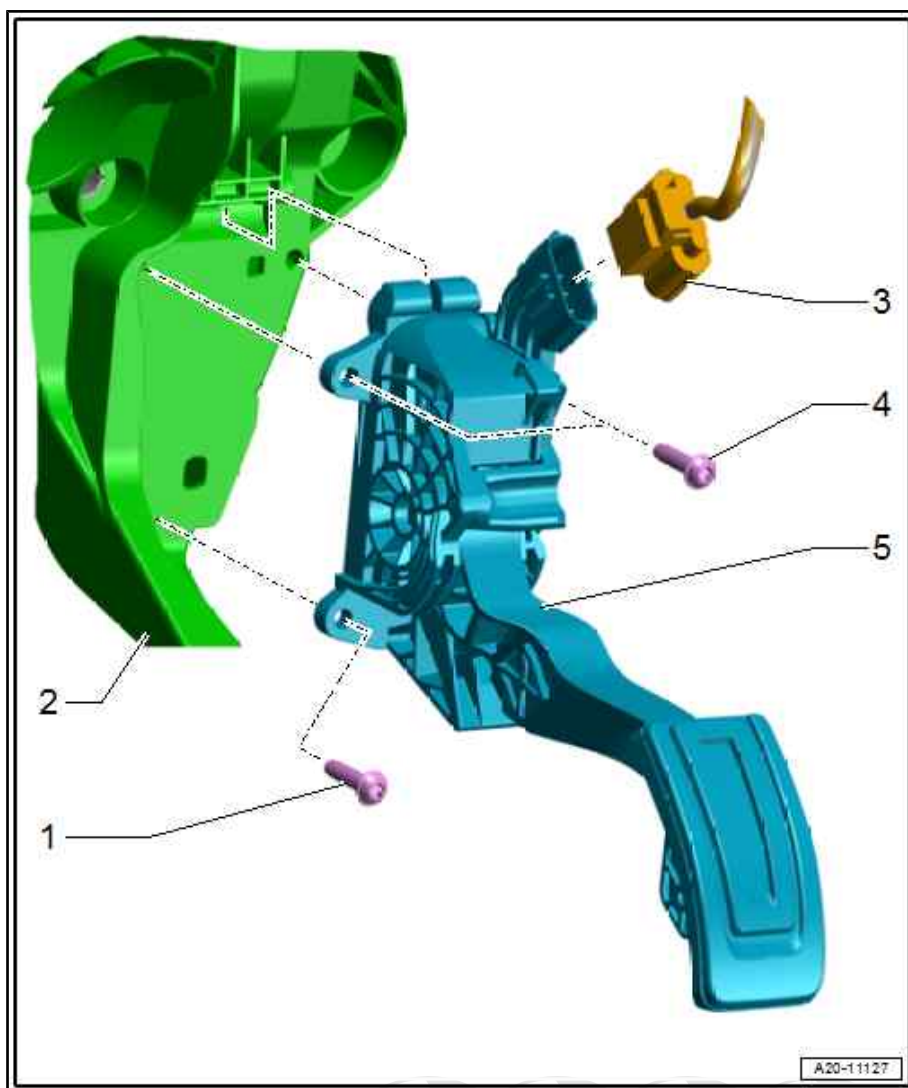
3 - Electrical connector

4 - Bolt

- ☐ 2x
- ☐ 8 Nm

5 - Accelerator pedal module

- ☐ With accelerator position sender - G79- and accelerator position sender 2 - G185-
- ☐ Checking in Guided Fault Finding ⇒ Vehicle diagnostic tester
- ☐ Removing and installing ⇒ [page 34](#)
- ☐ Adaption may be required after renewing, depending on engine/gearbox combination
- ☐ If this menu item is available in "Guided Functions", perform adaption ⇒ Vehicle diagnostic tester



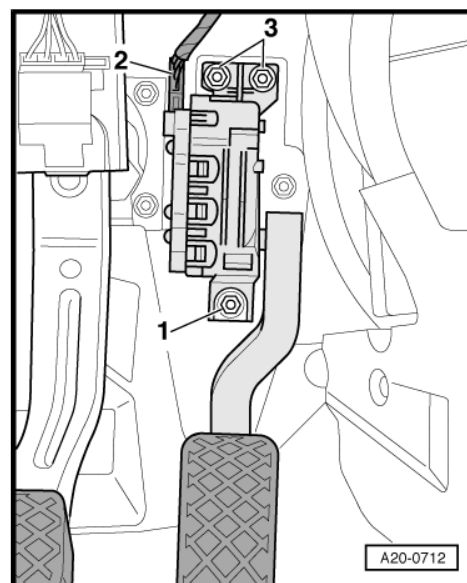
5.2 Removing and installing accelerator pedal module with accelerator position sender -G79- / -G185-

Removing

- Remove dash panel cover (driver side) ⇒ General body repairs, interior; Rep. gr. 68 ; Shelves / trim panels; Removing and installing dash panel cover (driver side) .

Vehicles with electrohydraulic steering:

- Press release tab and unplug electrical connector -2-.
- Unscrew bolts -1 and 3- and detach accelerator pedal module.



Vehicles with electromechanical steering:

- Release retainer catch and unplug electrical connector -2-.
- Unscrew bolts -1 and 3- and detach accelerator pedal module -4-.

Installing

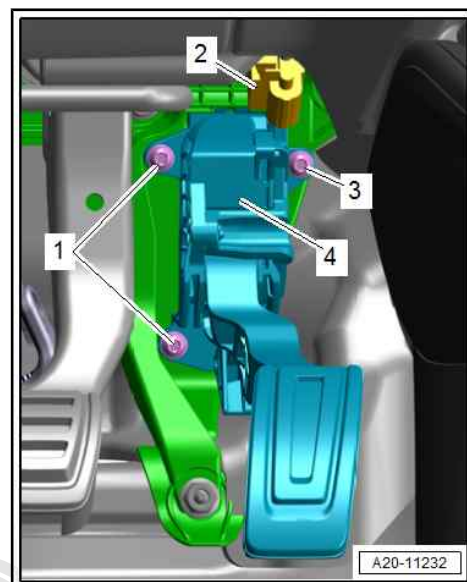
Installation is carried out in the reverse order; note the following:

- Tightening torque
 ⇒ ["5.1 Exploded view - accelerator pedal module", page 33](#)
- Install dash panel cover (driver side) ⇒ General body repairs, interior; Rep. gr. 68 ; Shelves / trim panels; Removing and installing dash panel cover (driver side) .



Note

- ◆ *Adaption must be carried out after renewing, depending on engine/gearbox combination.*
- ◆ *If this menu item is available in "Guided Functions", perform adaption ⇒ Vehicle diagnostic tester.*



6 Fuel pump

⇒ "6.1 Overview - fuel pump", page 36

⇒ "6.2 Checking fuel system pressurisation pump G6 ", page 37

6.1 Overview - fuel pump



Note

- ◆ The design and performance of the electric fuel pump in the fuel tank depends on the type and manufacturer of the injection system.
- ◆ The easiest way of identifying the injection system installed in the vehicle is by checking which high-pressure pump version is installed.

1 - 1.6 ltr. TDI engine up to approx. 04.2011 - Conti high-pressure pump

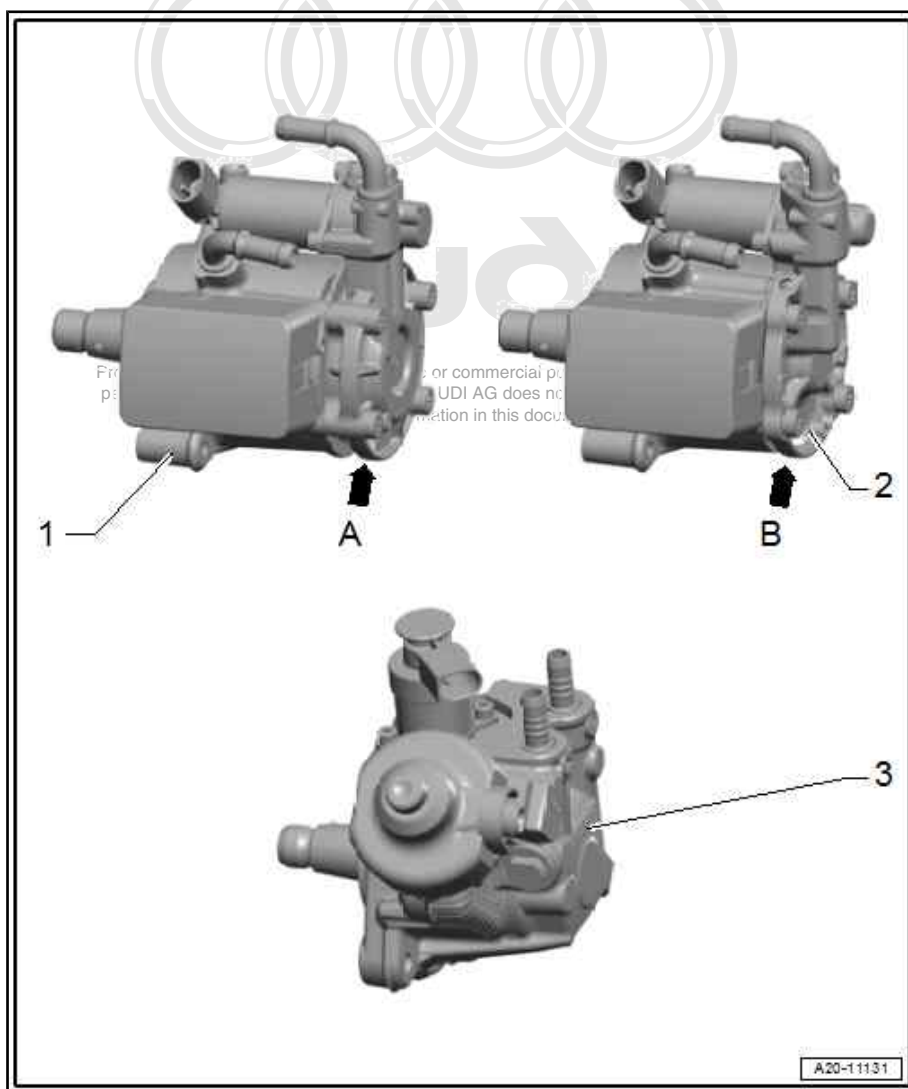
- ☐ With electric fuel pump (0.5 bar)
- ☐ Can be identified by wide flange -arrow A-

2 - 1.6 ltr. TDI engine from approx. 05.2011 onwards - Conti high-pressure pump

- ☐ With electric fuel pump (6.0 bar)
- ☐ Can be identified by narrow flange -arrow B-

3 - 1.4 ltr. and 2.0 ltr. TDI engine - Bosch high-pressure pump

- ☐ With electric fuel pump (6.0 bar)



6.2 Checking fuel system pressurisation pump - G6-

⇒ ["6.2.1 Checking fuel system pressurisation pump G6 \(0.5 bar high-pressure pump\)", page 37](#)

⇒ ["6.2.2 Checking fuel system pressurisation pump G6 \(6.0 bar high-pressure pump\)", page 41](#)

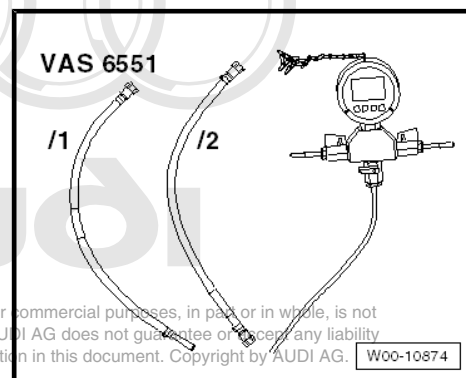
6.2.1 Checking fuel system pressurisation pump - G6- (0.5 bar high-pressure pump)

Special tools and workshop equipment required

◆ Lever - T10468-



◆ Pressure tester (diesel) - VAS 6551-



◆ Pressure control valve - VAS 6551/6-



◆ Fuel-resistant measuring container

◆ Vehicle diagnostic tester

A - Checking fuel delivery rate

- Observe test conditions ⇒ [page 4](#) .
- Remove filler cap -arrow- for fuel filler neck.



WARNING

The fuel can become extremely hot. This can cause injuries.

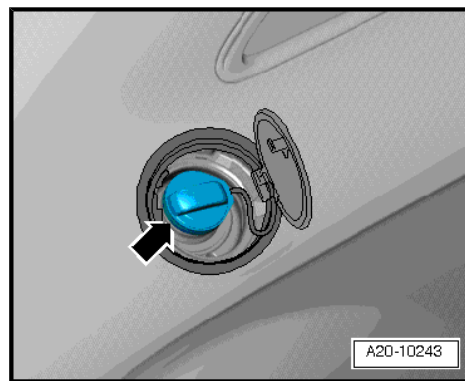
- ◆ *In extreme cases the temperature of the fuel lines and the fuel can be up to 100 °C after the engine is switched off. Allow the fuel to cool down before disconnecting the lines - danger of scalding.*

- ◆ *Wear protective gloves.*

- ◆ *Wear safety goggles.*

Risk of injury - fuel system operates under high pressure.

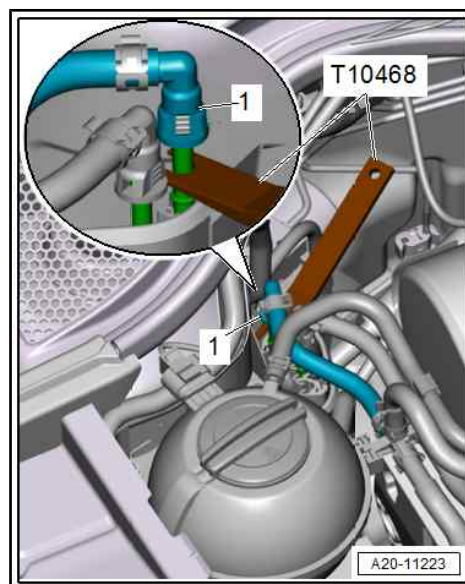
- ◆ *To reduce the pressure in the fuel system, wrap a clean cloth around the connection and carefully loosen the connection.*



A20-10243

Version 1:

- Disconnect fuel supply line -1-. Disconnecting plug-in connectors ⇒ [page 25](#)



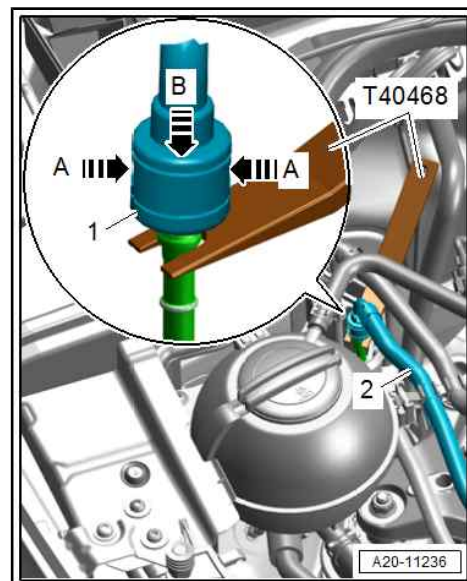
A20-11223



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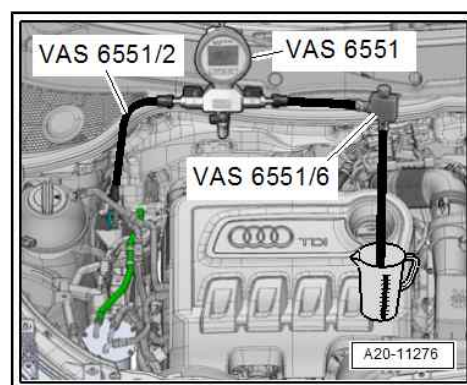
Version 2:

- Disconnect fuel line -2-. Disconnecting plug-in connectors
 ⇒ [page 25](#)



All vehicles (continued):

- Connect pressure tester (diesel) - VAS 6551- to fuel supply line with hose - VAS 6551/2- .
- Attach pressure control valve - VAS 6551/6- and hold end of hose into fuel-resistant measuring container.



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- Switch on pressure tester (diesel) - VAS 6551- -item 1- by pressing **[On/Off]** button.



Note

To measure the fuel delivery rate, pressure must first be built up in the fuel supply line; the fuel pump must then operate against this pressure during the measurement. This pressure can be built up using the pressure control valve - VAS 6551/6- as follows:

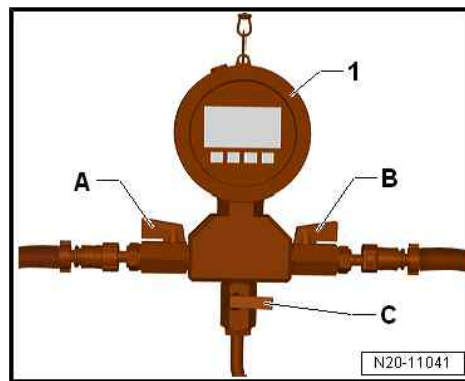
- Open cut-off valves -A and B-.
- Levers must point in direction of flow.



Caution

Risk of fuel escaping.

- ◆ **Cut-off valve -C- must be closed.**
- ◆ **The lever should point perpendicular to direction of flow.**



- Connect vehicle diagnostic tester .
- Switch on the ignition and select the following menu options on the vehicle diagnostic tester:
 - ◆ **Vehicle self-diagnosis**
 - ◆ **Engine electronics**
 - ◆ **Basic setting**
 - ◆ **Checking fuel system pressurisation pump**
- Press **[Start]**: The fuel pump will start running.

- Build up pressure in fuel system by turning adjuster screw -1- on pressure control valve - VAS 6551/6- until correct pressure is reached.
- Specification: 0.5 bar
- From this point on, do not turn adjuster screw -1-.
- Press **[Stop]**.
- Drain measuring container.
- For measurement, press **[Start]** again and let fuel pump run for 15 seconds.
- Press **[Stop]** after 15 seconds.
- Check amount of fuel delivered in measuring container.

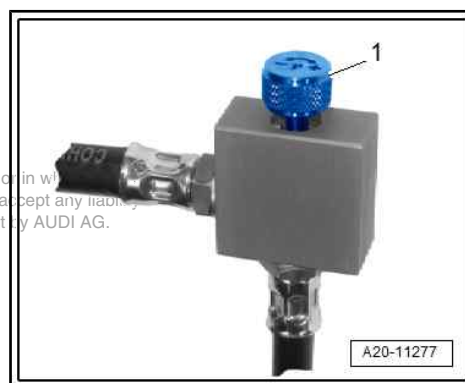
- Specification: minimum delivery rate 200 cm³/15 sec.

If the minimum delivery rate is attained:

- ◆ Fuel supply line and fuel pump are OK.
- ◆ However, there may be a fault in the return line or fuel filter.

If minimum delivery rate is not achieved, check for the following causes:

- ◆ Fuel pump in fuel tank faulty.
- ◆ Fuel line crushed.



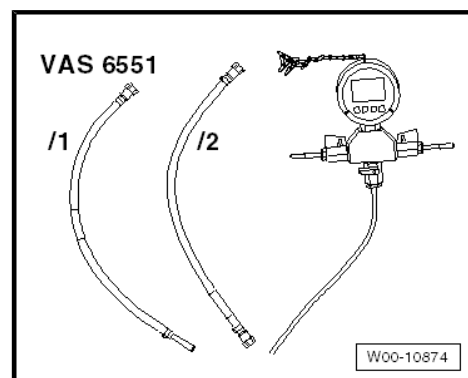
6.2.2 Checking fuel system pressurisation pump - G6- (6.0 bar high-pressure pump)

Special tools and workshop equipment required

- ◆ Lever - T10468-



- ◆ Pressure tester (diesel) - VAS 6551-



- ◆ Pressure control valve - VAS 6551/6-



- ◆ Fuel-resistant measuring container
- ◆ Vehicle diagnostic tester

A - Checking fuel delivery rate

- Observe test conditions ⇒ [page 4](#) .
- Remove filler cap -arrow- for fuel filler neck.



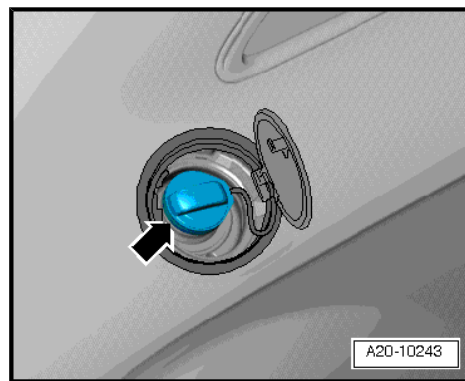
WARNING

The fuel can become extremely hot. This can cause injuries.

- ◆ *In extreme cases the temperature of the fuel lines and the fuel can be up to 100 °C after the engine is switched off. Allow the fuel to cool down before disconnecting the lines - danger of scalding.*
- ◆ *Wear protective gloves.*
- ◆ *Wear safety goggles.*

Risk of injury - fuel system operates under high pressure.

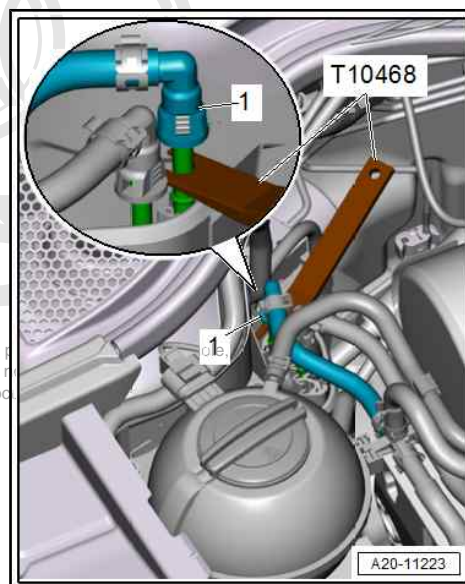
- ◆ *To reduce the pressure in the fuel system, wrap a clean cloth around the connection and carefully loosen the connection.*



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Version 1:

- Disconnect fuel supply line -1-. Disconnecting plug-in connectors ⇒ [page 25](#)

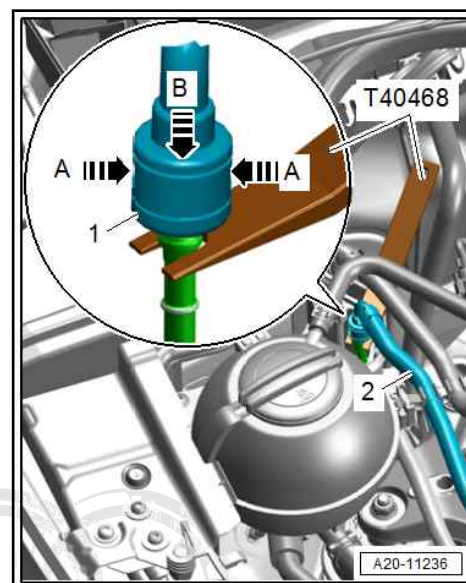


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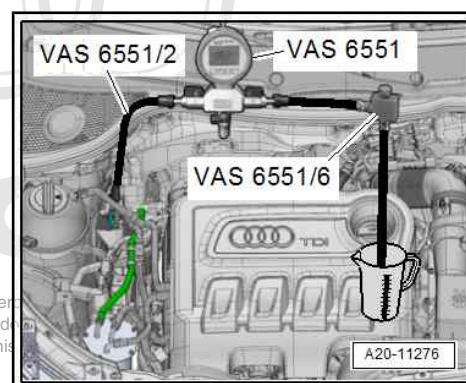
Version 2:

- Disconnect fuel line -2-. Disconnecting plug-in connectors
 ⇒ [page 25](#)



All vehicles (continued):

- Connect pressure tester (diesel) - VAS 6551- to fuel supply line with hose - VAS 6551/2- .
- Attach pressure control valve - VAS 6551/6- and hold end of hose into fuel-resistant measuring container.



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- Switch on pressure tester (diesel) - VAS 6551- -item 1- by pressing **[On/Off]** button.

**Note**

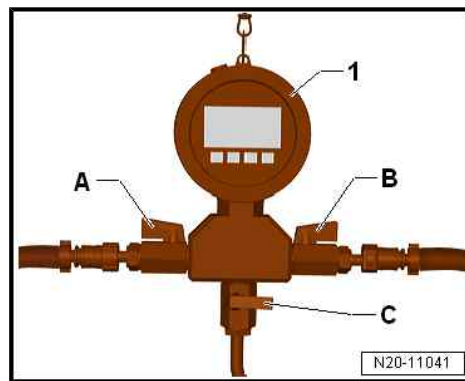
To measure the fuel delivery rate, pressure must first be built up in the fuel supply line; the fuel pump must then operate against this pressure during the measurement. This pressure can be built up using the pressure control valve - VAS 6551/6- as follows:

- Open cut-off valves -A and B-.
- Levers must point in direction of flow.

**Caution**

Risk of fuel escaping.

- ◆ ***Cut-off valve -C- must be closed.***
- ◆ ***The lever should point perpendicular to direction of flow.***

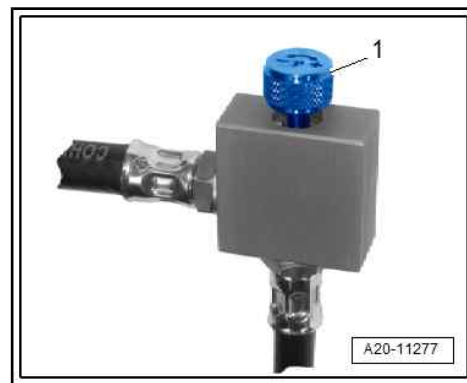


- Connect vehicle diagnostic tester .
- Switch on the ignition and select the following menu options on the vehicle diagnostic tester:
 - ◆ **[Vehicle self-diagnosis]**
 - ◆ **[Engine electronics]**
 - ◆ **[Basic setting]**
 - ◆ **[Checking fuel system pressurisation pump]**
- Press **[Start]**: The fuel pump will start running.



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- Build up pressure in fuel system by turning adjuster screw -1- on pressure control valve - VAS 6551/6- until correct pressure is reached.
- Specification: 5.0 bar
- From this point on, do not turn adjuster screw -1-.
- Press **Stop**.
- Drain measuring container.
- For measurement, press **Start** again and let fuel pump run for 15 seconds.
- Press **Stop** after 15 seconds.
- Check amount of fuel delivered in measuring container.
- Specification: minimum delivery rate 400 cm³/15 sec.



If the minimum delivery rate is attained:

- ◆ Fuel supply line and fuel pump are OK.
- ◆ However, there may be a fault in the return line. For Fault Finding, perform "Pressure test for entire system"
 => [page 47](#).

If minimum delivery rate is not achieved, check for the following causes:

- ◆ Fuel pump in fuel tank faulty.
- ◆ Fuel line crushed.



To find the precise cause of the fault, a pressure test must be performed on the fuel supply line as described below.

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B - Pressure test on fuel supply line

- Leave measuring equipment connected in the same way as for measuring the fuel delivery rate.
- Vehicle diagnostic tester still connected.
- Switch on pressure tester (diesel) - VAS 6551- -item 1- by pressing **On/Off** button.
- Open cut-off valve -A-.
- Lever must point in direction of flow.



Caution

Risk of fuel escaping.

- ◆ **Cut-off valves -B and C- must be closed.**
- ◆ **The levers should point perpendicular to direction of flow.**

- Press **Start** on vehicle diagnostic tester display to start the fuel pump.
- Press **Stop** after 15 seconds.
- Read fuel pressure off pressure tester (diesel) - VAS 6551- .
- Specification: at least 5.0 bar

If specification is attained although fuel delivery rate was not OK:

- ◆ **Fuel supply line crushed.**

If specification is not attained:

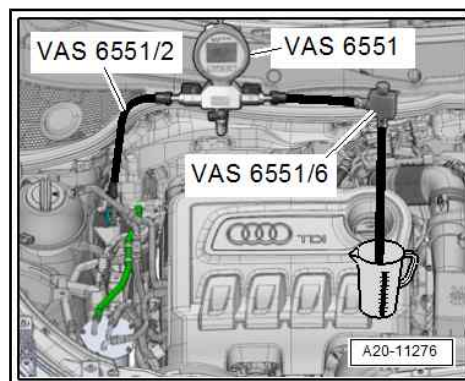
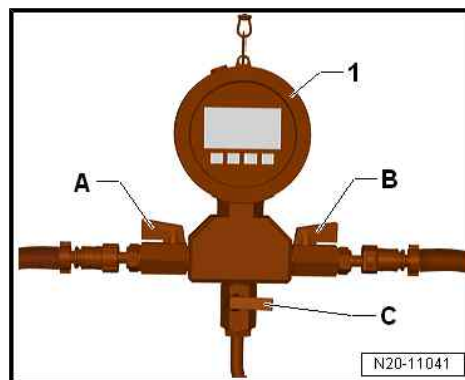
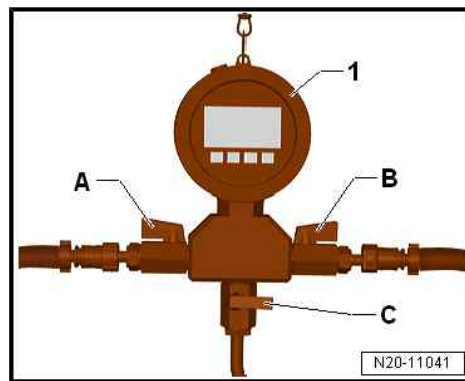
- ◆ Fuel pump in fuel tank faulty.



Note

- ◆ **To detect any faults in the fuel return line or in the relief valve of the high-pressure pump, a pressure test must be performed on the entire system as described below.**
- ◆ **Before disconnecting the measuring equipment, release the fuel pressure by opening the cut-off valves -B and C- and allowing fuel to drain off into a measuring container.**

- Detach pressure control valve - VAS 6551/6- and remove together with measuring container.



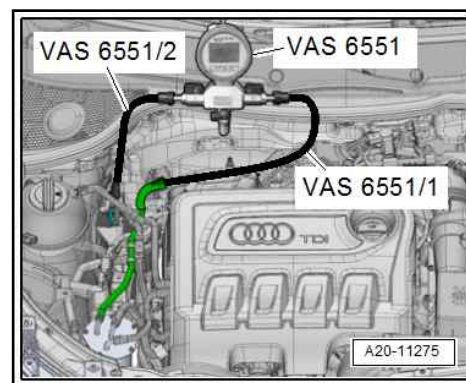
C - Pressure test for entire system

- Fuel delivery rate and pressure test on fuel supply line OK
- Hose - VAS 6551/2- connected to fuel supply line and to pressure tester (diesel) - VAS 6551- .
- Vehicle diagnostic tester connected.
- Connect hose - VAS 6551/1- to fuel supply line leading to high-pressure pump and to pressure tester (diesel) - VAS 6551- .



Note

In this way the pressure tester (diesel) - VAS 6551- is connected into the fuel supply line.



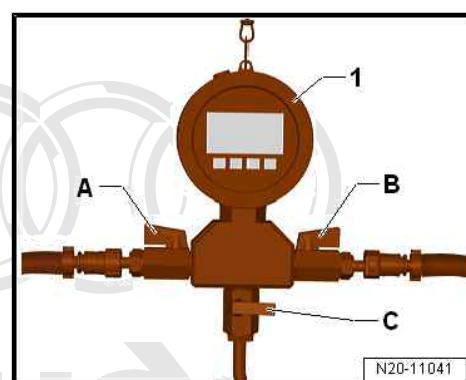
- Switch on pressure tester (diesel) - VAS 6551- -item 1- by pressing **[On/Off]** button.
- Open cut-off valves -A and B-.
- Levers must point in direction of flow.



Caution

Risk of fuel escaping.

- ◆ ***Cut-off valve -C- must be closed.***
- ◆ ***The lever should point perpendicular to direction of flow.***



- Switch on the ignition and select the following menu options on the vehicle diagnostic tester :

- ◆ **[Vehicle self-diagnosis]**
- ◆ **[Engine electronics]**
- ◆ **[Basic setting]**
- ◆ **[Checking fuel system pressurisation pump]**

- Press **[Start]**: The fuel pump will start running.
- Read fuel pressure off pressure tester (diesel) - VAS 6551- .
- Specification (1.4 ltr.): at least 3.3 bar
- Specification (1.6 ltr.): at least 2.8 bar
- Specification (2.0 ltr.): at least 3.3 bar

If specification is not attained although fuel delivery rate was OK:

- ◆ Fuel filter is blocked.
- ◆ Relief valve in high-pressure pump not OK

Assembling

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

- The ignition must be switched off.

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Note

Before removing the pressure tester -1-, release the fuel pressure by opening the cut-off valves -B, C- and allowing fuel to drain off into a measuring container.

- Detach pressure tester (diesel) - VAS 6551- together with connecting lines.
- Connect fuel supply line, making sure it engages audibly.
- Press fuel supply line in again and then pull to check that plug-in connector is correctly engaged.

