

Audi 80 1992 ➤

Fuel supply system - Diesel engines									
Engine ID	1Z	AAZ							

Edition 03.2000



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

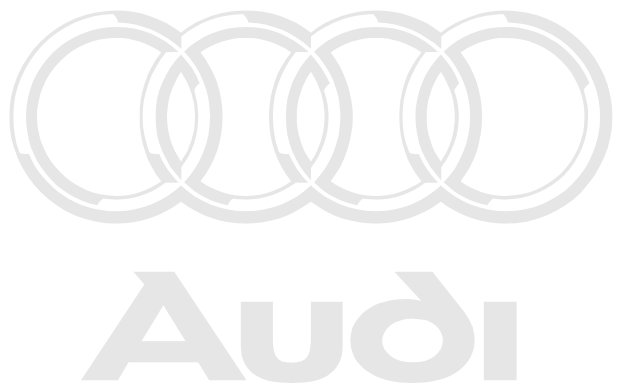
List of Workshop Manual Repair GroupsList of Workshop Manual
Repair GroupsList of Workshop Manual Repair Groups

Audi 80 1992 ➤

Fuel supply system - Diesel engines

Repair Group

20 - Fuel supply system



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

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.

All rights reserved.
No reproduction without prior agreement from publisher.

Contents

20 - Fuel supply system	1
1 Notes on performing work on fuel supply system	1
1.1 Notes on performing work on fuel supply system	1
1.2 Safety precautions when working on fuel supply system	1
1.3 Rules for cleanliness	1
2 Fuel supply system	1
2.1 Fuel supply system	1
2.2 Exploded view of components: Fuel tank with attachments	2
2.3 Draining fuel tank	7
2.4 Removing and installing fuel tank with attachments	10
2.5 Exploded view of components: Fuel gauge sender	14
2.6 Checking fuel gauge sender -G	16
2.7 Removing and installing fuel gauge sender -G	18
3 Servicing fuel filter	20
3.1 Servicing fuel filter	20
3.2 Removing and installing fuel filter	22
4 Bleeding fuel system - Vehicles with TDI engine	24
4.1 Bleeding fuel system - Vehicles with TDI engine	24
5 Checking fuel system for leaks	26
5.1 Checking fuel system for leaks	26
6 Servicing accelerator mechanism	28
6.1 Servicing accelerator mechanism	28
6.2 Removing, installing and adjusting throttle cable - Vehicles with TD engine	28
6.3 Removing, installing and adjusting cable for cold starting aid - Vehicles with TD engine	31
6.4 Accelerator mechanism - Vehicles with TDI engine	32
6.5 Installing and adjusting accelerator position sender -G79 - Vehicles with TDI engine	33



Audi 80 1992 ➤

Audi Fuel supply system - Diesel engines - Edition 03.2000



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

20 - Fuel supply system

1 - Notes on performing work on fuel supply system

1.1 - Notes on performing work on fuel supply system

1.2 - Safety precautions when working on fuel supply system

Pay attention to the following when removing and installing fuel gauge sender from full or partially filled fuel tank:

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability for the correctness of information in this document. Copyright by AUDI AG.

- ♦ The fuel tank must not be more than $\frac{3}{4}$ full.
- ♦ Drain fuel tank if necessary => Page 7 .
- ♦ Before starting work, switch on exhaust extraction system and place extraction hose in the vicinity of the fuel tank assembly opening to draw off the fuel vapours escaping.
If no exhaust extraction system is available, use can be made of a radial fan with a displacement of more than 15 m³/h provided that motor is not in air flow.
- ♦ Do not allow fuel to come into contact with skin. Wear fuel-resistant gloves.

Drain fuel tank prior to removal so as to reduce weight.

- ♦ Drain fuel tank if necessary => Page 7 .

1.3 - Rules for cleanliness

When working on fuel supply/injection system, pay careful attention to the following rules:

- ♦ Carefully clean all joints and adjacent areas before disconnecting.
- ♦ Place parts removed on a clean surface and cover them over. Do not use fluffy cloths.
- ♦ Carefully cover or seal opened components if repairs are not to be performed immediately.
- ♦ Only install clean components:
Do not remove replacement parts from wrapping until immediately prior to installation.
Do not use parts that have been stored loose (e.g. in tool boxes).
- ♦ When system is open:
Do not work with compressed air.
Do not move vehicle unless absolutely necessary.
- ♦ Care is also to be taken to ensure that diesel fuel does not run onto the coolant hoses. If necessary, hoses must be cleaned immediately. Damaged hoses are to be replaced.

2 - Fuel supply system

2.1 - Fuel supply system

Notes:

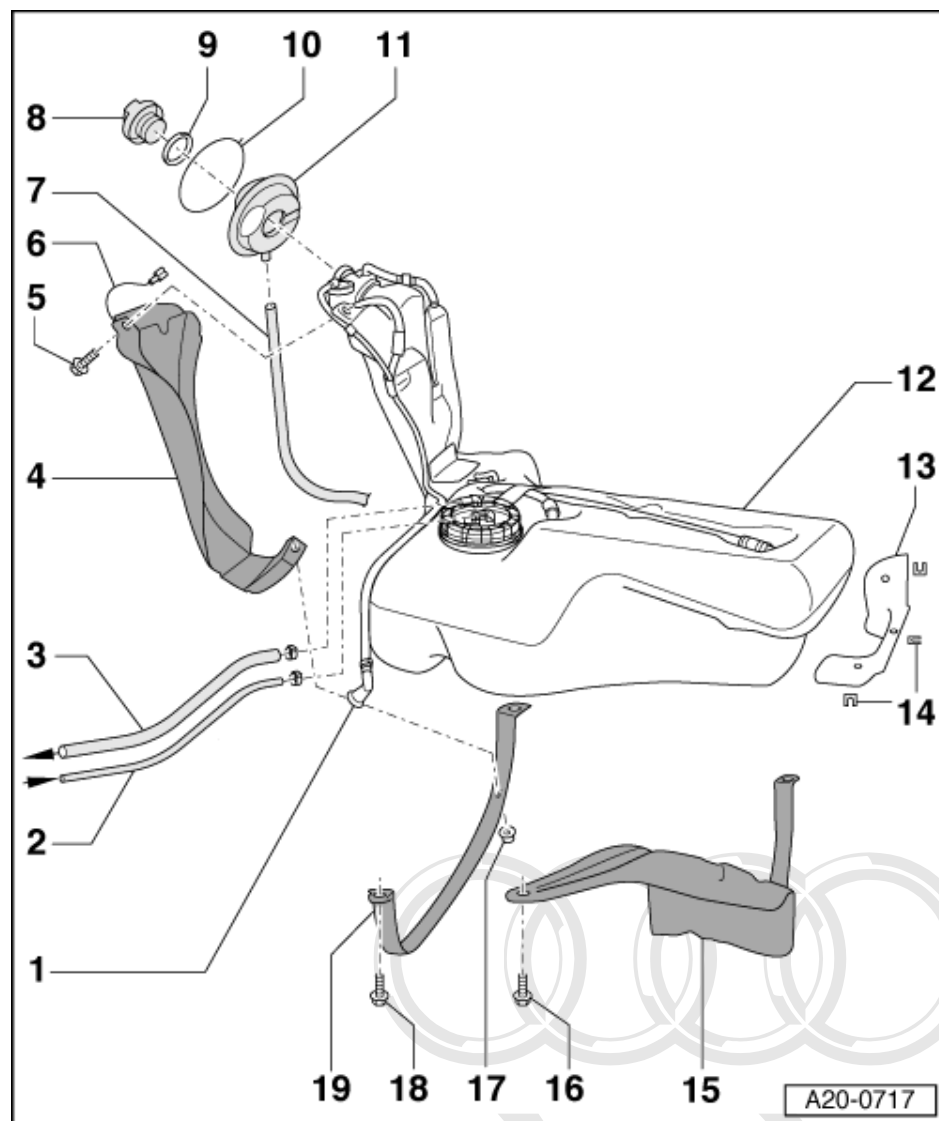
- ♦ Secure all hose connections with standard hose clamps.



=> Parts List

- ♦ Special tool V.A.G 1921 is recommended for fitting spring clips.
- ♦ Always replace sealing rings and gaskets on assembly.
- ♦ Removing, installing and checking gravity valve
=> Fig. 6.
- ♦ Removing, installing and checking breather valve
=> Fig. 7.

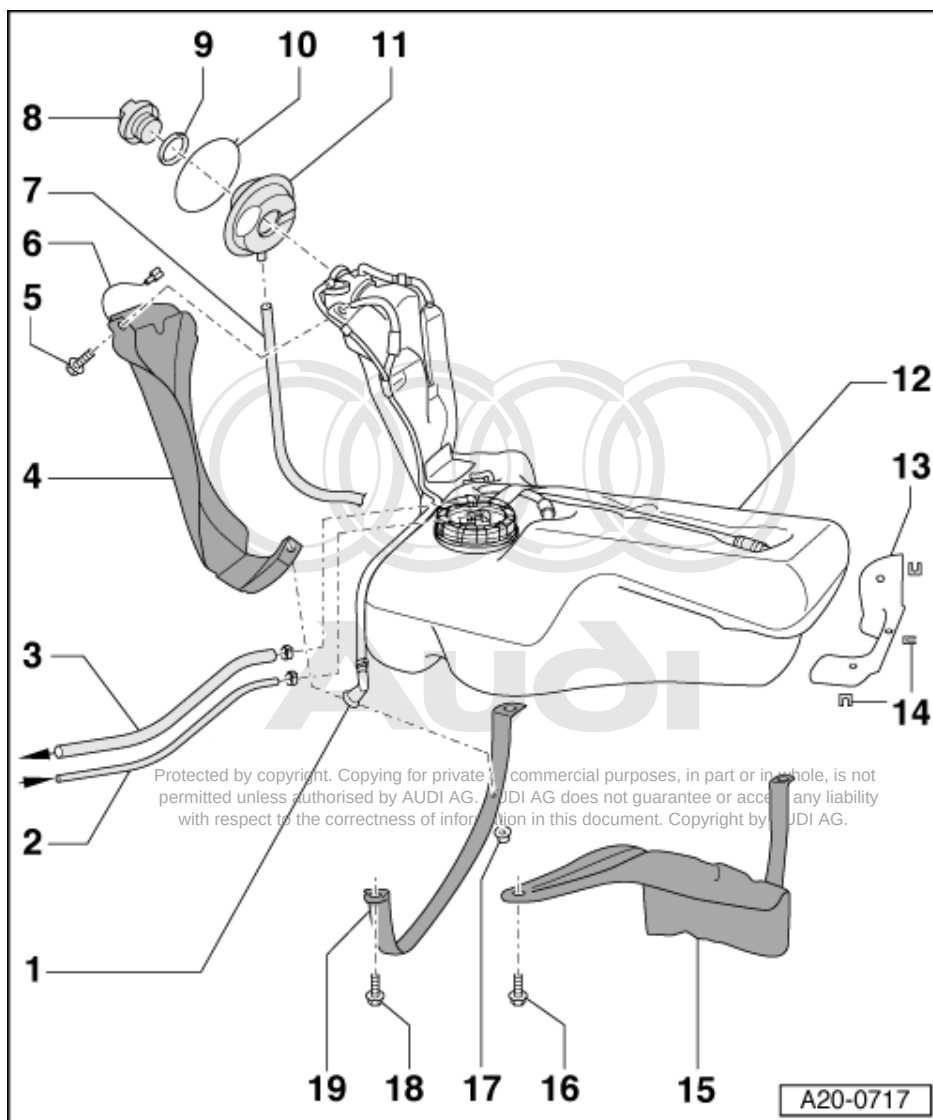
2.2 - Exploded view of components: Fuel tank with attachments



- 1 Breather pipe
- 2 Fuel return pipe
 - ♦ From fuel filter
- 3 Fuel supply pipe
 - ♦ To fuel filter
- 4 Guard
 - ♦ For fuel filler neck
 - ♦ With earth connection

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

- ♦ Before screwing in bolt -item **5** - check tightness (flange connection) of contact terminal of earth connection



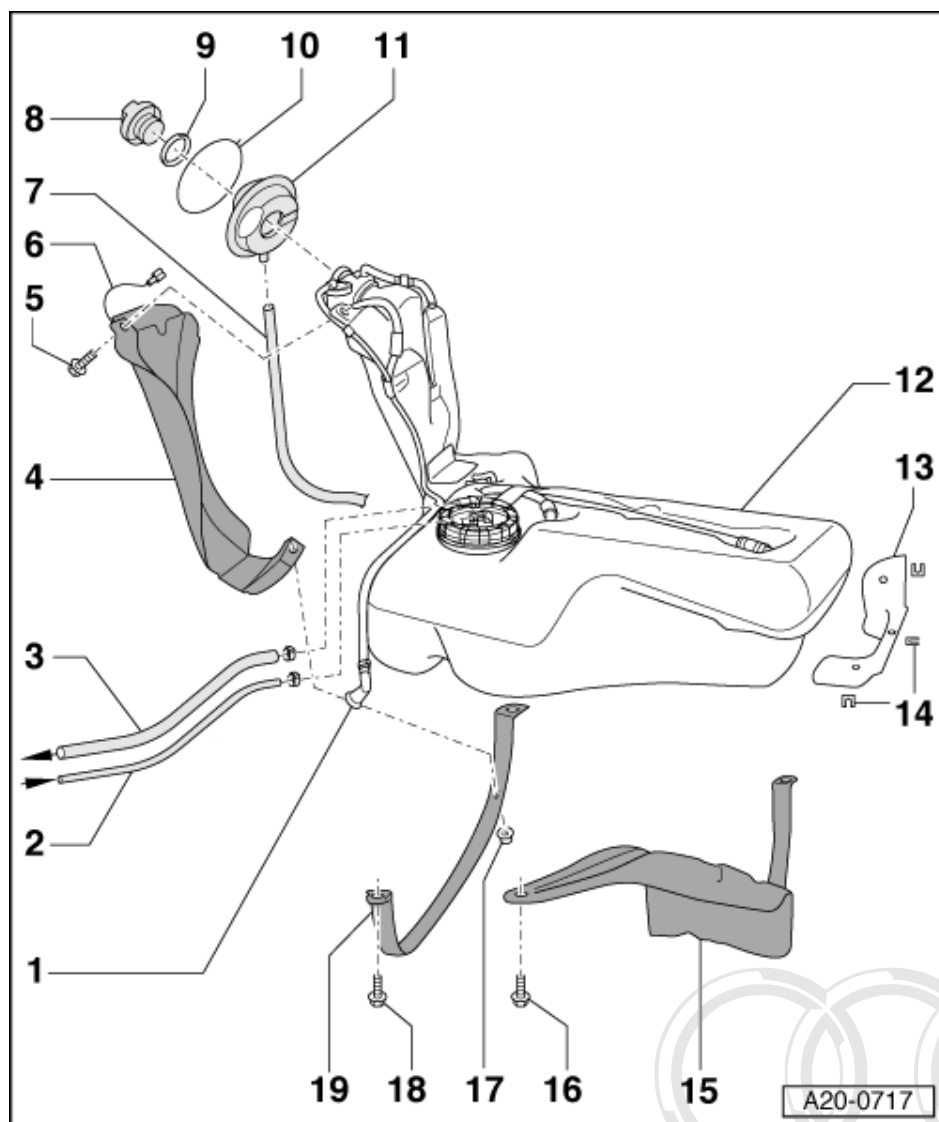
5 25 Nm

6 Earth connection

- ♦ Installation position
=>Fig. **6**
- ♦ Make sure connector is firmly attached at metal ring of fuel filler neck (check flange connection at guard -item **4** -)
- ♦ After installing, use ohmmeter to check electrical connection between metal ring on fuel filler neck and bare metal part on body - Specification: approx. 0 ω

7 Overflow hose

8 Cap



9 Gasket

- ♦ Replace if damaged

10 Tensioning ring

11 Rubber adapter

12 Fuel tank

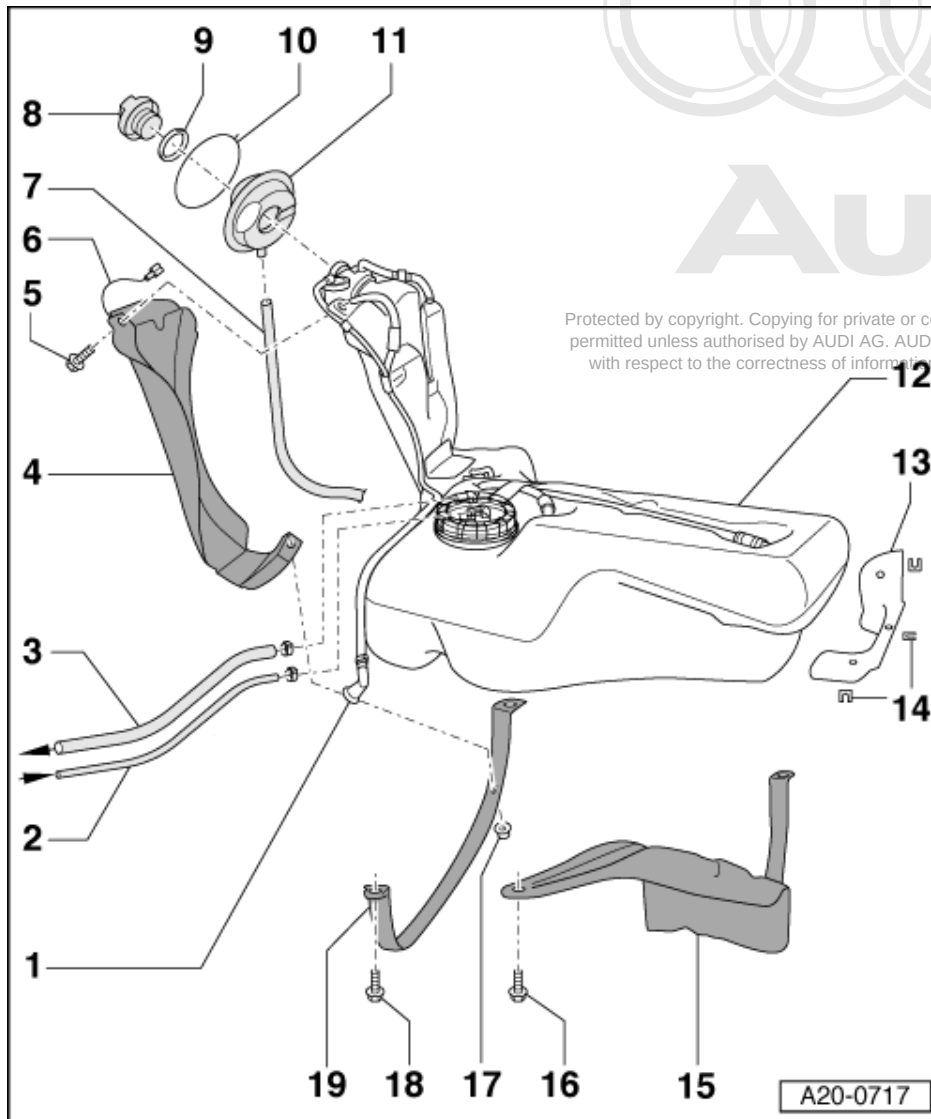
- ♦ Removing and installing
=> Page 10

13 Heat shield

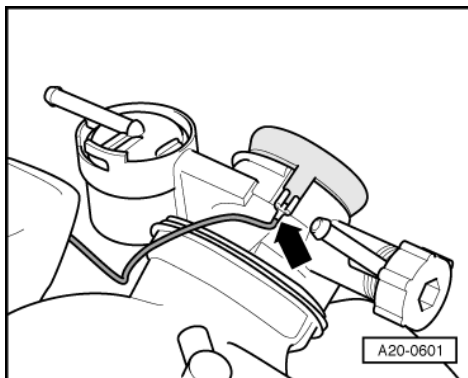
14 Fastener

- ♦ Make sure fastener is firmly attached

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



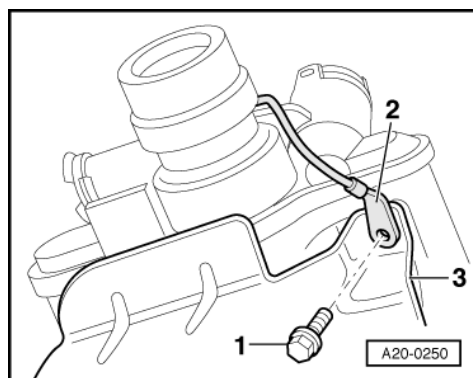
- 15 Support bracket
- 16 25 Nm
- 17 Plastic nut, 2 Nm
- 18 25 Nm
- 19 Securing strap





-> Fig.1 Installation position of earth connection

- Route earth connection -arrow- as shown.
- Make sure connector for earth connection is firmly attached at metal ring on fuel filler neck.

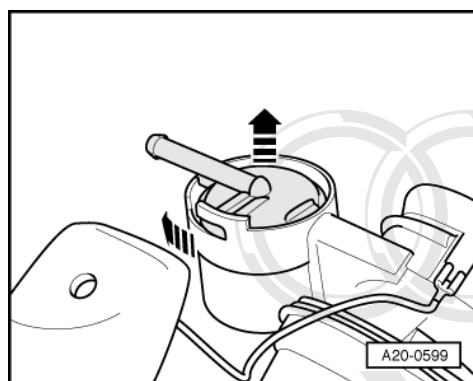


- -> Before screwing in bolt -1- check tightness (flange connection) of contact terminal -2- of earth connection at guard -3- for fuel filler neck.

Attention:

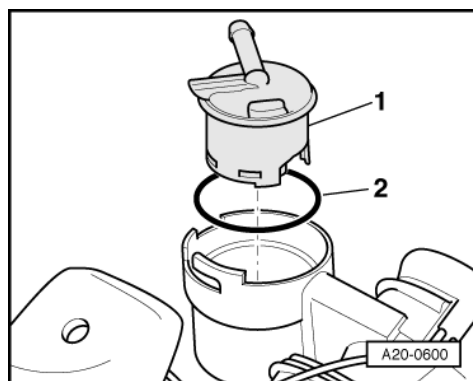
After installing, use ohmmeter to check electrical connection between metal ring on fuel filler neck and bare metal part on body.

- ♦ **Specification: approx. 0 Ω**

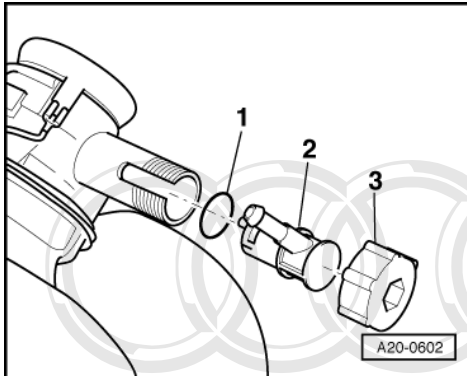


-> Fig. 2 Removing, installing and checking gravity valve

- Fuel tank removed
 - Detach breather pipe from gravity valve.
 - Turn gravity valve anti-clockwise -arrow- and pull it off upwards.
- The Audi logo and the text "Audi" are registered trademarks of Audi AG. Audi AG is not responsible for any damage or liability arising from the use of this document. Copyright by AUDI AG.

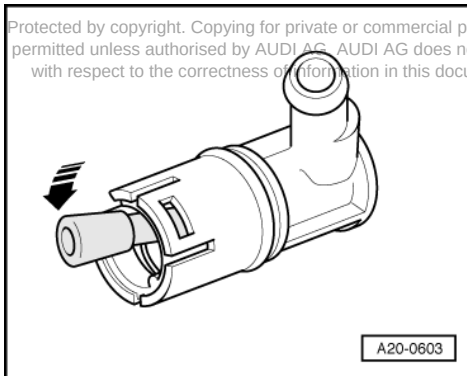


- -> Checking gravity valve -1-:
- Hold valve in vertical position: It should be possible to blow through it
- Tilt valve to 45°: It should not be possible to blow through it
- Make sure O-ring -2- is not damaged



-> **Fig. 3 Removing, installing and checking breather valve**

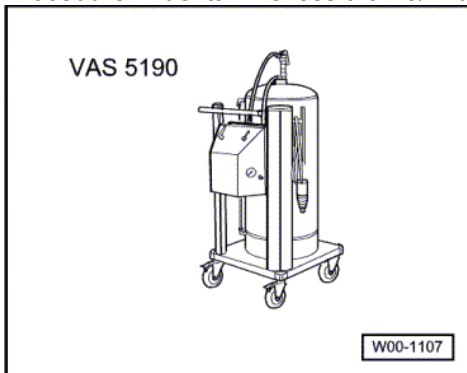
- To remove, unscrew union nut -3- from side of neck.
- Pull out valve -2- sideways.
- Before installing breather valve, detach cap from fuel filler neck.
- Replace O-ring -1-.



- -> Checking breather valve:
- Lever in rest position: It should not be possible to blow through it
- Lever pressed in direction of arrow: It should be possible to blow through it

2.3 - Draining fuel tank

Pay attention to safety precautions=> Page **1** .
 Observe rules for cleanliness => Page **1** .
 Procedure if fuel tank is more than 3/4 full => Page **8** .
 Procedure if fuel tank is less than 3/4 full => Page **10** .





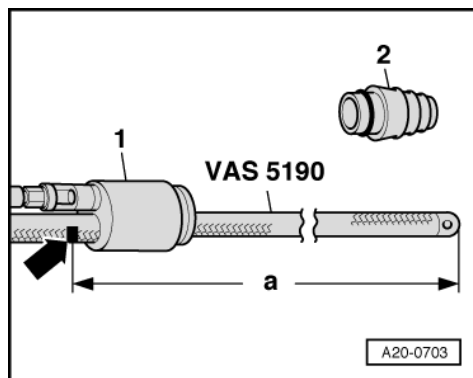
Special tools and workshop equipment required

- ♦ VAS 5190

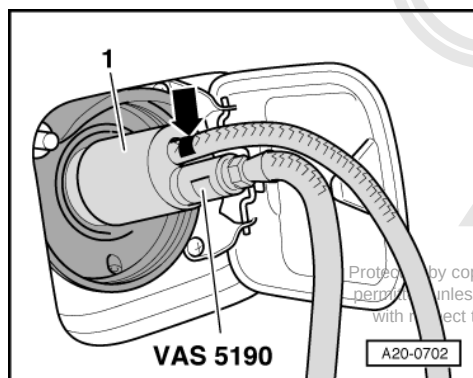
Sequence of operations

Attention:
Attach earth wire of V.A.G 1433

A - Procedure if fuel tank is more than 3/4 full

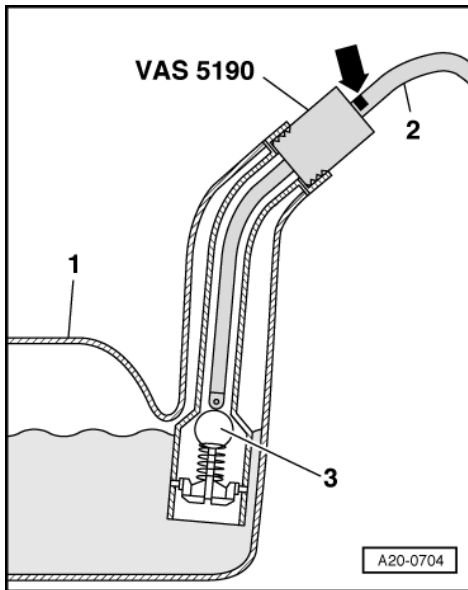


- Detach cap from fuel filler neck.
- -> Pull tapered section -2- off shank section -1- of VAS 5190.
- Use insulating tape to make a mark -arrow- on drain hose at a distance $a = 565$ mm from end of hose.



- -> Screw shank section -1- of extraction unit VAS 5190 onto filler neck of fuel tank.
- Insert drain hose into fuel tank until previously affixed mark -arrow- makes contact with shank section.

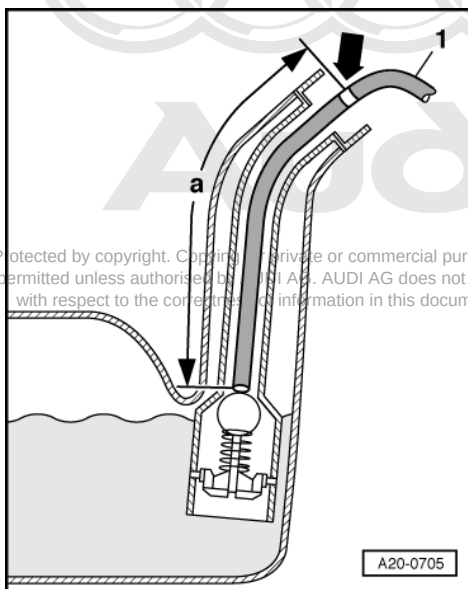
Note:



-> Located at the bottom end of the filler neck is a ball valve -3- in the fuel tank -1- which is not to be squashed or damaged by the drain hose -2-. Hose is therefore only to be inserted as far as previously affixed mark -arrow-.

- Drain fuel tank as far as possible via fuel filler neck.
- Carefully pull out drain hose.
- Remove fuel gauge sender => Page 18 .
- Extract remaining fuel through opening for fuel gauge sender.

Notes:



- ◆ -> The procedure is essentially the same if use is made of an extractor with no shank section.
- ◆ In this case, use insulating tape to make a mark -arrow- on drain hose at a distance a = 500 mm from end of hose. Drain hose -1- has been properly inserted if previously affixed mark -arrow- is opposite edge of filler neck.
- ◆ If hose is difficult to insert, apply a thin coat of engine oil. Never use silicone lubricants.



B - Procedure if fuel tank is less than 3/4 full

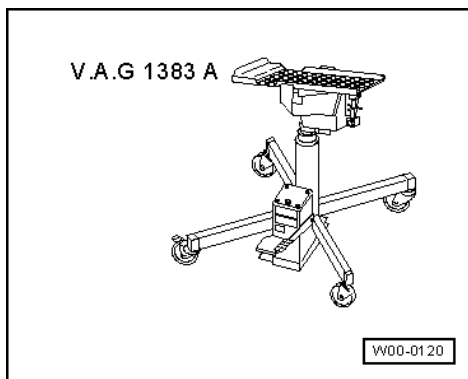
- Remove fuel gauge sender => Page 18 .
- Extract remaining fuel through opening for fuel gauge sender.

2.4 - Removing and installing fuel tank with attachments

Pay attention to safety precautions=> Page 1 .

Observe rules for cleanliness => Page 1 .

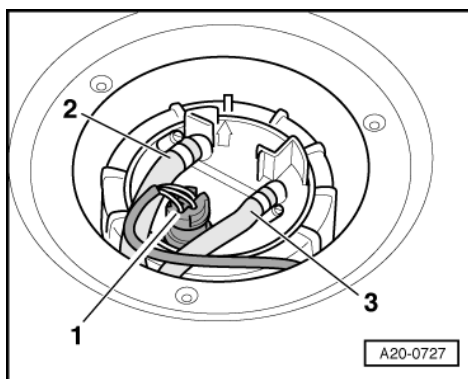
Special tools and workshop equipment required



- ♦ V.A.G 1383 A with V.A.G 1359/2

Removing

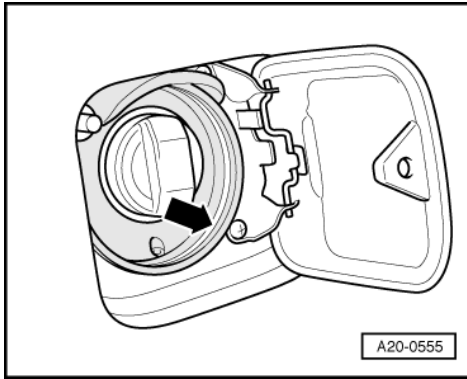
- Briefly open fuel tank cap and close again.
- Fuel tank must be empty when removing it from vehicle so as to reduce weight. Drain fuel tank if necessary. Procedure => Page 7 .
- Fold forward right backrest of rear seat bench.
- Remove luggage compartment lining.
- Unscrew cover for sealing flange beneath luggage compartment lining.



- -> Pull fuel return pipe -3- and fuel supply pipe -2- off fuel gauge sender.
- Release connector -1- and unplug.

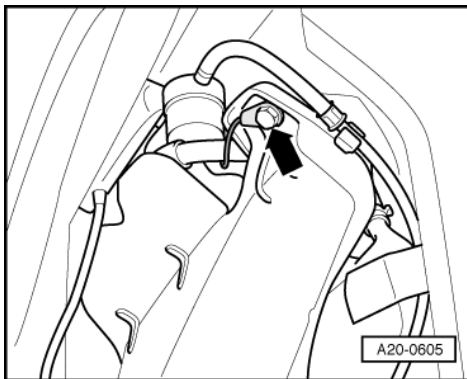
- Clean area around fuel filler neck.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

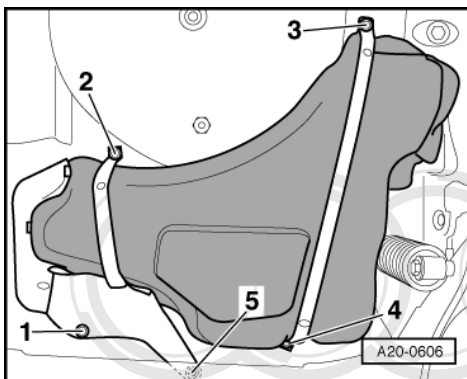


- -> Open tank flap and prise out tensioning ring -arrow- in rubber adapter (around filler neck).
- Press out rubber adapter inwards.
- Unscrew rear right wheel.
- Remove rear right wheel housing liner.

=> General Body Repairs; Repair Group 66; Wheel housing liners; Removing and installing rear wheel housing liner Wheel housing liners Removing and installing rear wheel housing liner



- -> Unscrew bolt -arrow- for tank filler neck beneath wheel housing liner.
- Position engine/gearbox lifter V.A.G 1383 A beneath vehicle to support fuel tank.



- -> Unscrew securing strap and support bracket -1 ... 5-.
- By turning it appropriately, lower fuel tank to one side and remove.

Installing

Install in reverse order, paying attention to the following:

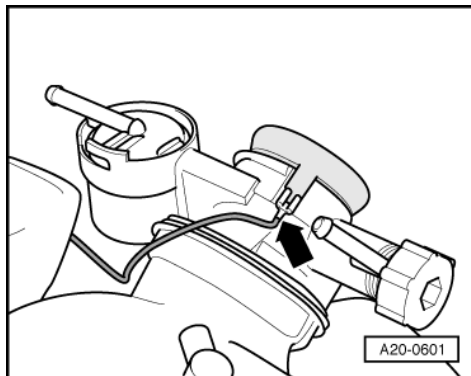
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability respect to the correctness of information in this document. Copyright by AUDI AG.

- ◆ Secure all hose connections with standard hose clamps.

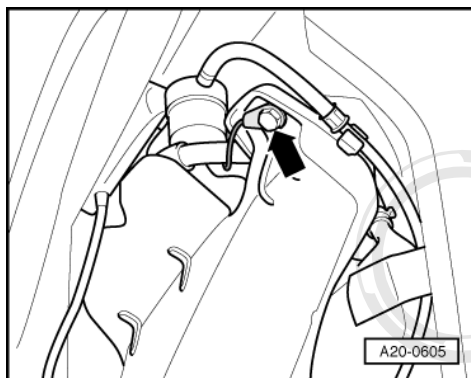


=> Parts List

- ♦ Special tool V.A.G 1921 is recommended for fitting spring clips.
- ♦ Always replace sealing rings and gaskets on assembly.
- Check both connections of earth wire for traces of oxidation and remove oxidation if necessary.



- -> Make sure connector of earth connection -arrow- is attached at metal ring of filler neck. Check routing of earth wire.
- Loosely attach securing strap and support bracket at fuel tank.
- Position fuel tank with securing strap and support bracket on underside of vehicle using engine/gearbox lifter V.A.G 1383 A.

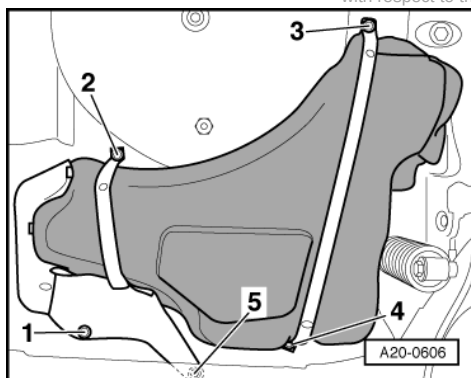


- -> Start by securing guard, earth connection and fuel filler neck with bolt -arrow-.

Attention:

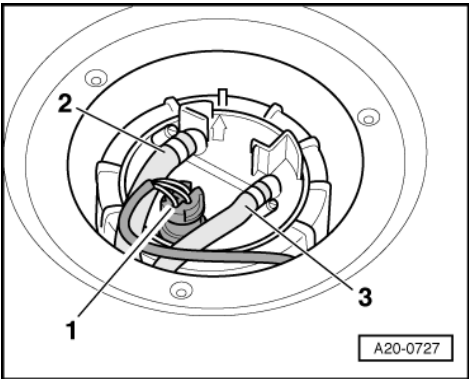
Make sure earth connection is screwed on and connector is firmly attached at fuel filler neck. Installation position=>Fig. 6 .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



- -> Screw on securing strap and support bracket -1...5-.

- Tighten plastic nuts at securing straps and support bracket.



- -> Attach fuel supply pipe -2- and fuel return pipe -3- and tighten hose clamps.

Note:

Make sure fuel hoses are a tight fit.

- Attach connector -1- for fuel gauge sender.

Attention:
After installing, use ohmmeter to check electrical connection between metal ring on fuel filler neck and bare metal part on body.
♦ **Specification: approx. 0 ω**

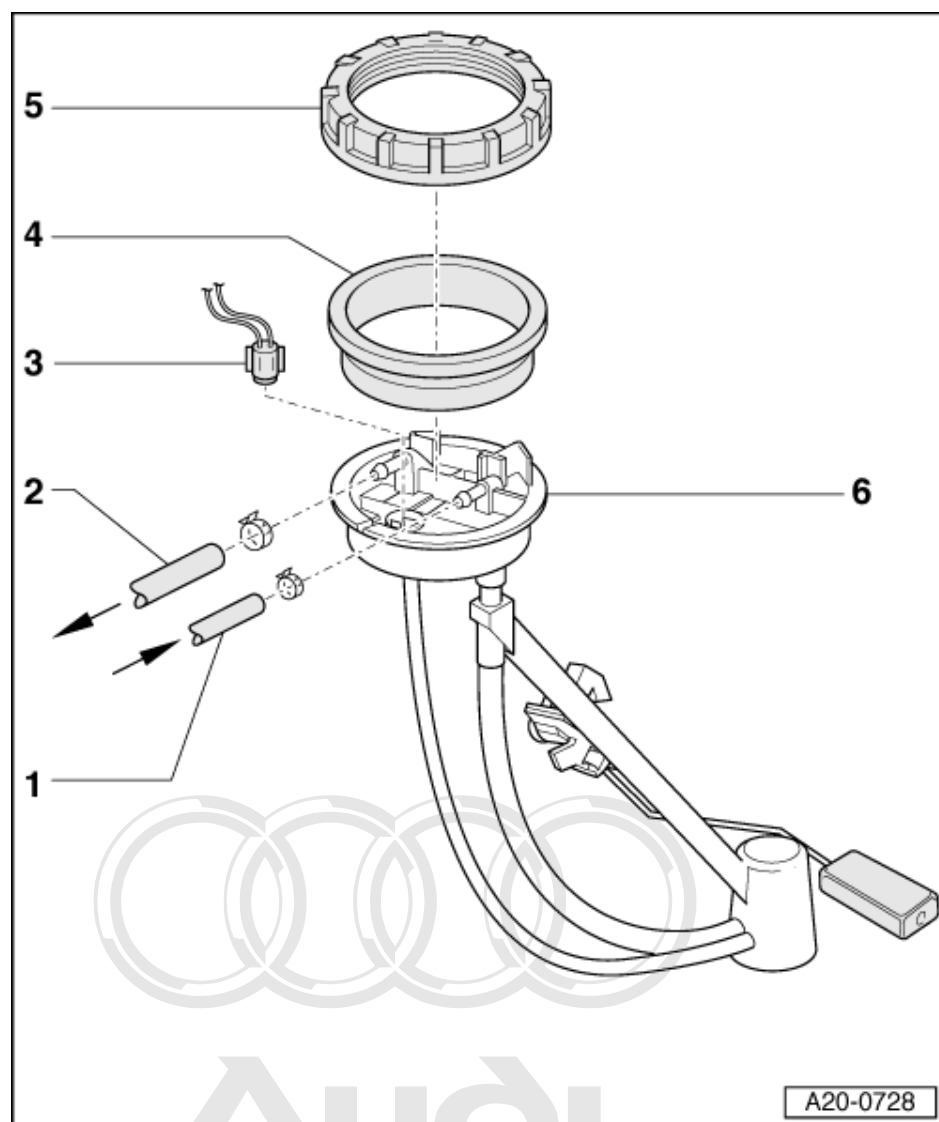
Tightening torques

Component	Nm
Securing strap/ support bracket for fuel tank to body	25
Securing strap to fuel tank	2
Support bracket to fuel tank	2
Hose clamps	2

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



2.5 - Exploded view of components: Fuel gauge sender



1 Fuel return pipe

- ♦ From fuel filter

2 Fuel supply pipe

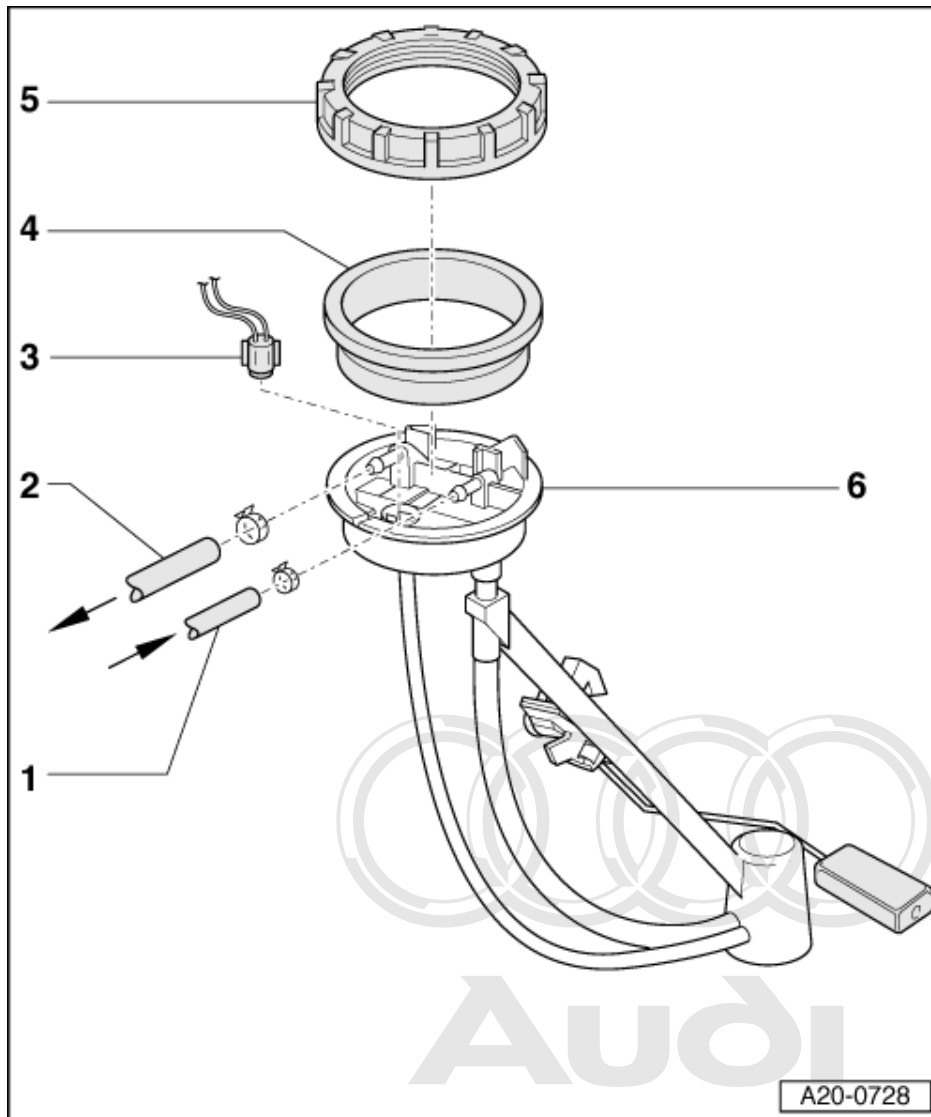
- ♦ To fuel filter

3 Connector

- ♦ For fuel gauge sender -G

4 Sealing ring

- ♦ Replace if damaged
- ♦ When installing, fit dry seal in fuel tank opening



5 Union nut, 50 Nm

- ♦ Use spanner 3217 to remove and install

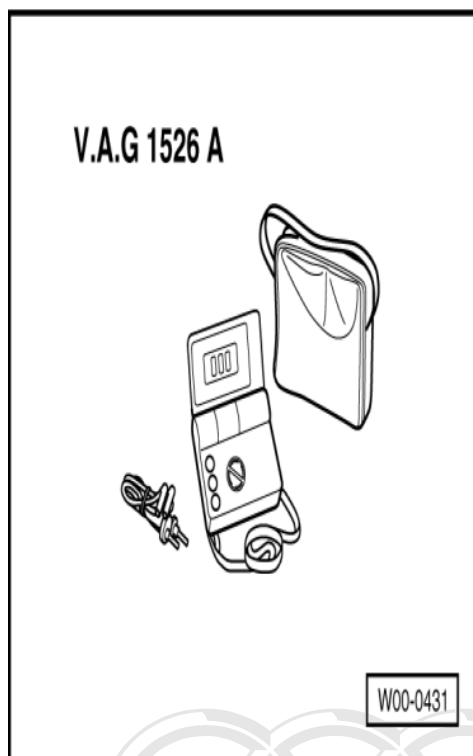
6 Fuel gauge sender -G

- ♦ Checking => Page 16
- ♦ Removing and installing
=> Page 18



2.6 - Checking fuel gauge sender -G

Note:

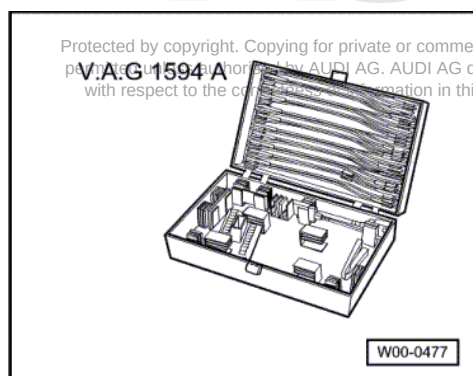


Checking signal from fuel gauge sender:

=> Electrical System; Repair Group 90; Servicing Dash Panel Insert; Assignment of contacts at connectors
Servicing Dash Panel Insert Assignment of contacts at connectors

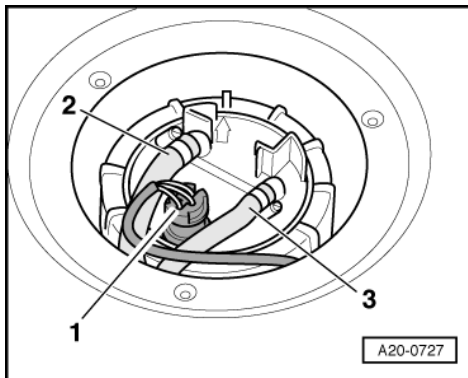
Special tools and workshop equipment required

- ♦ V.A.G 1526 A

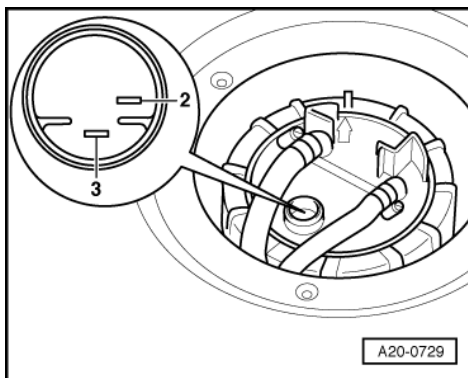


- ♦ V.A.G 1594 A

Test sequence



- Fold forward right backrest of rear seat bench.
- Remove luggage compartment lining.
- Unscrew cover for sealing flange beneath luggage compartment lining.
- -> Carefully release conn-ector -1- and unplug.



- -> Measure resistance at both contacts -2- and -3- at sealing flange.

Sender	Tank full	Tank empty
Fuel gauge sender -G	40 ω	280 ω

If level is between "Tank full" and "Tank empty" resistance value displayed must be between the two specifications.

- If measurement result is 0 ω or ∞ ω , replace fuel gauge sender
 => Page 18.

Note:

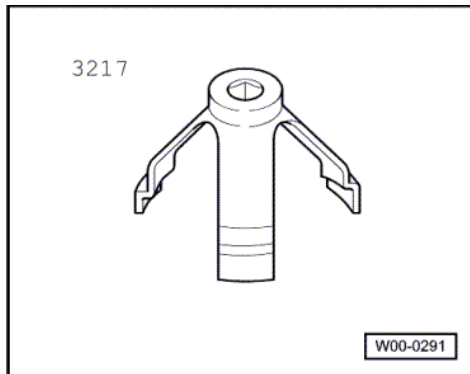
Checking resistance values "Tank full"/"Tank empty" involves removing fuel gauge sender -G => Page 18 and swivelling sender float to upper/lower stop.

Audi

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



2.7 - Removing and installing fuel gauge sender -G

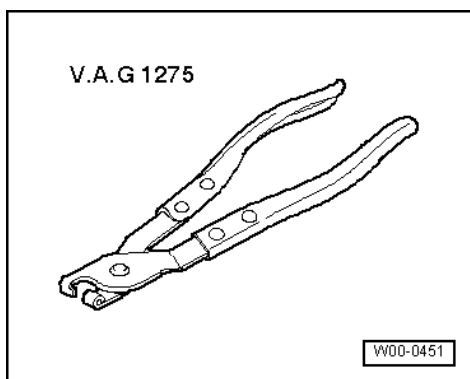


Pay attention to safety precautions=> Page **1** .

Observe rules for cleanliness => Page **1** .

Special tools and workshop equipment required

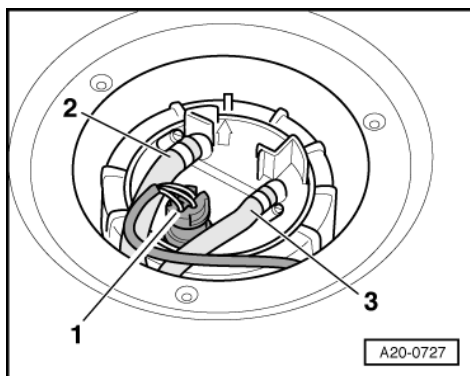
- ♦ Spanner for union nut 3217



- ♦ Hose clamp pliers V.A.G 1275

Removing

- Fold forward right backrest of rear seat bench.

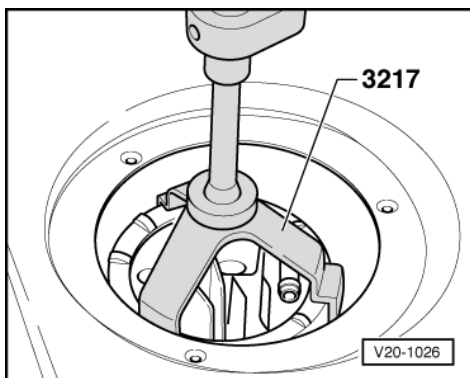


- Remove luggage compartment lining.
- Unscrew cover for sealing flange beneath luggage compartment lining.
- -> Pull fuel return pipe -3- and fuel supply pipe -2- off fuel gauge sender.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

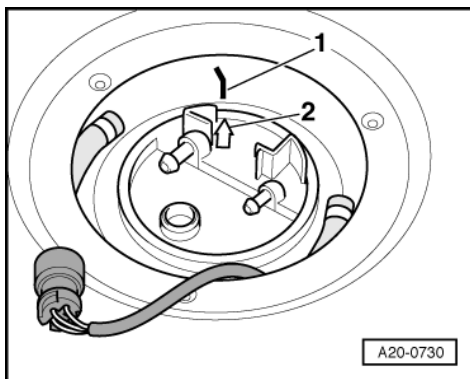
- Release connector -1- and unplug.



- -> Use spanner 3217 to unscrew union nut.
- Detach fuel gauge sender and sealing ring from fuel tank opening.

Installing

Install in reverse order, paying attention to the following:

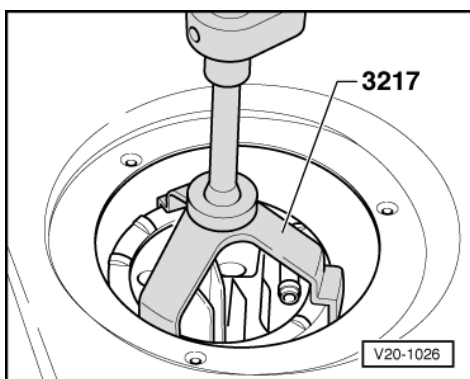


Note:

Secure all hose connections with standard hose clamps.

=> Parts List

- Insert new dry fuel gauge sender seal in fuel tank opening.
- -> Insert fuel gauge sender in fuel tank, paying attention to installation position.
 - Mark -2- on sealing flange must coincide with mark on fuel tank -1-



- -> Use spanner 3217 to tighten union nut.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



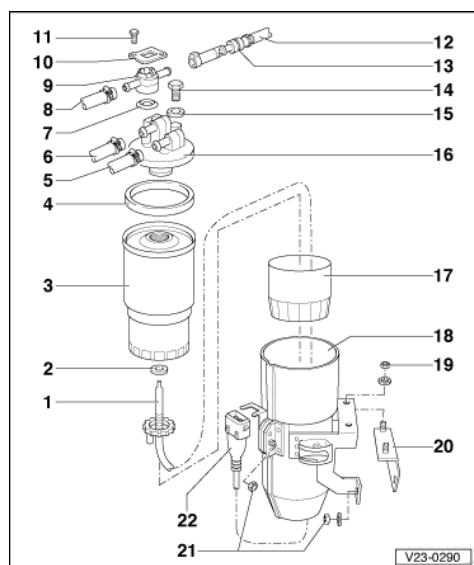
- Attach wires and connector.

Tightening torques

Component	Nm
Union nut for sealing flange	50
Hose clamps	2

3 - Servicing fuel filter

3.1 - Servicing fuel filter



Notes:

- ◆ Secure all hose connections with standard hose clamps.

=> Parts List

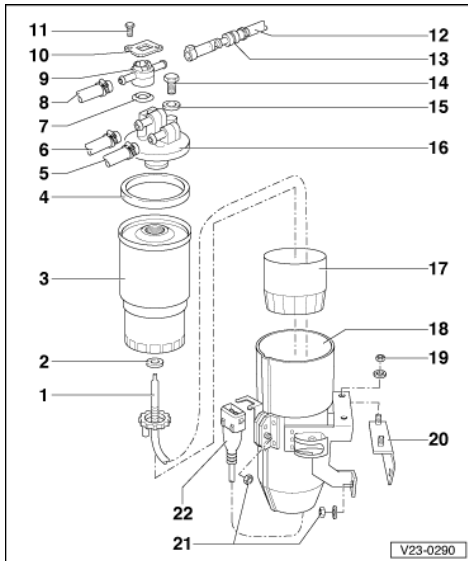
- ◆ Always replace sealing rings.

1 Drain plug

- ◆ For drainage, unfasten and allow approx. 100 cm³ of liquid to escape
- ◆ Slacken off breather bolt for drainage
- ◆ TDI engine à 02.94 with water level sender -G120
- ◆ Checking water level sender -G120

Copyright © 2000 Audi AG. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability

=> Diesel direct injection and glow plug system à 02.94; Repair Group 23; Checking additional signals; Checking water level sender -G120 Checking additional signals Checking water level sender -G120



2 Sealing ring

- ◆ Replace if damaged

3 Fuel filter

- ◆ Use strap wrench to unfasten
- ◆ Moisten sealing rings with diesel fuel prior to installation
- ◆ Fill with clean fuel before fitting
- ◆ Hand-tighten

4 Sealing ring

- ◆ Replace if damaged

5 Fuel supply pipe

- ◆ From fuel tank

6 Fuel supply pipe

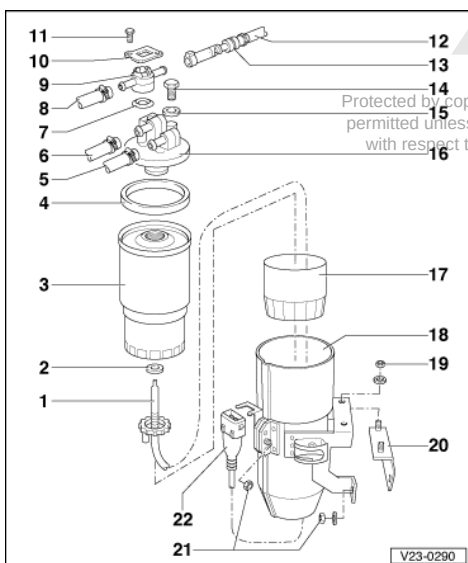
- ◆ To injection pump

7 O-ring

- ◆ Replace

8 Fuel return pipe

- ◆ From injection pump



9 Regulating valve

- ◆ Installation position: Arrow pointing towards fuel tank
- ◆ Pay attention to O-ring in filter housing when fitting valve
- ◆ At temperatures below + 15 °C:
Passage to filter open



- ♦ At temperatures above + 31 °C:
Passage to filter closed

10 Retaining plate

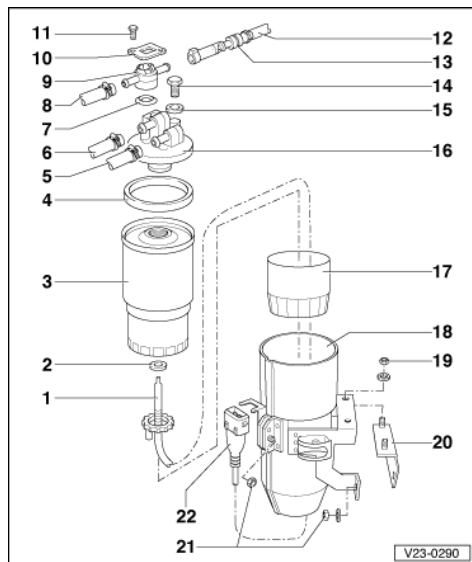
11 5 Nm

12 Fuel return pipe

- ♦ To fuel tank

13 Non-return valve

- ♦ Installation position: Arrow pointing towards fuel tank



14 Breather bolt, 10 Nm

- ♦ Slacken off for drainage

15 Sealing ring

- ♦ Replace

16 Fuel filter flange

17 Insert

18 Shield

19 10 Nm

20 Bracket

21 10 Nm

22 Connector

- ♦ TDI engine ä 02.94 with water level sender -G120



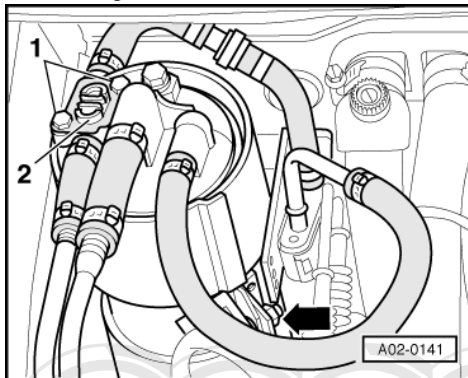
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

3.2 - Removing and installing fuel filter

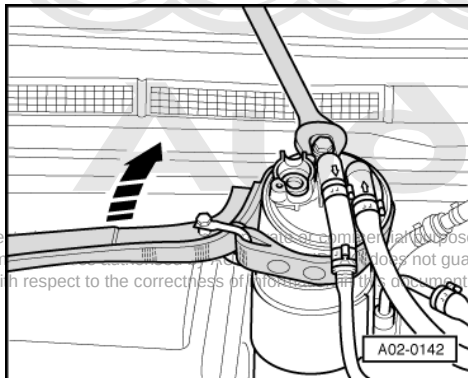
Notes:

- ♦ Make sure diesel fuel does not come into contact with coolant hoses. Clean hoses immediately if necessary.
- ♦ Observe disposal regulations.

Removing



- -> Screw out the two bolts -1- and detach regulating valve -2- with retaining plate.
- Lay aside regulating valve with connected fuel return hoses.
- Unplug connector for water level sender (TDI engine ä 02.94).
- Unfasten nut -arrow- at filter holder and pull filter with connected fuel supply hoses out of holder.



- -> Support top part of fuel filter with 17 mm open-ended wrench at hexagon base of breather bolt. If necessary, use strap wrench to release filter -arrow-.

Attention:

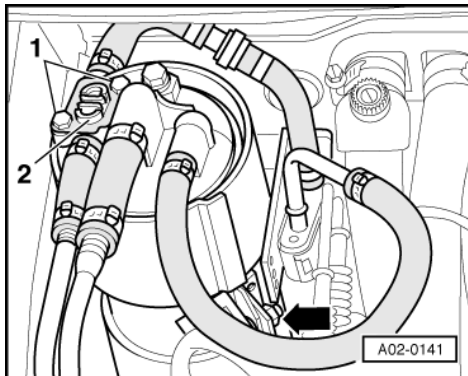
Never use pliers to provide support as this could damage filter head and cause leakage in fuel system.

- Screw filter out of top part of fuel filter.

Installing

Install in reverse order, paying attention to the following:

- Moisten sealing ring at regulating valve and rubber seal at new fuel filter with diesel fuel.
- Transfer water level sender (TDI engine ä 02.94).
- Fill new filter with clean diesel fuel. This enables engine to be started more quickly.
- Hand-tighten filter at top part of filter.
- Attach plastic insert to new filter.

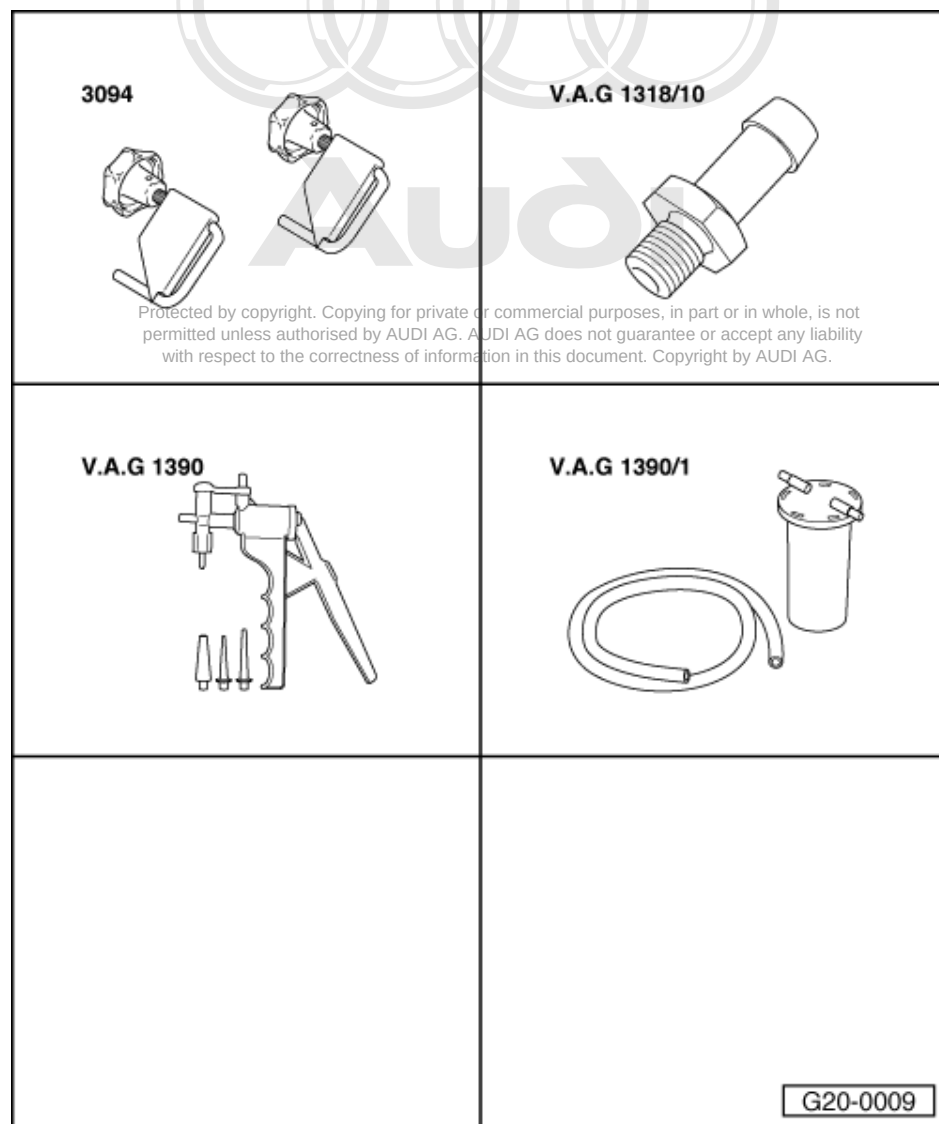




- -> Insert fuel filter in holder and secure with clamping nut -arrow-.
- Screw on regulating valve -2-.
- Start engine and visually inspect fuel system for leaks.

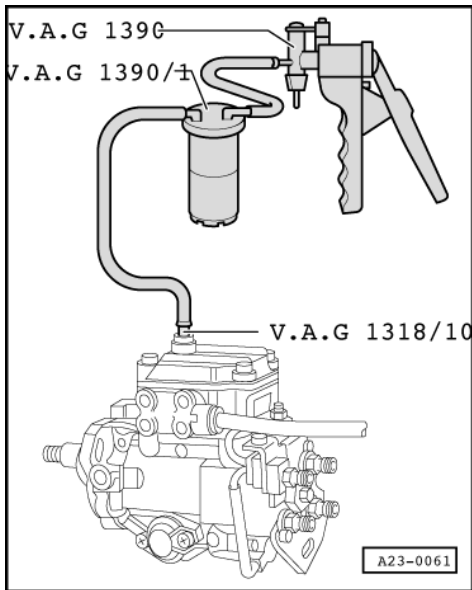
Tightening torques

Component	Nm
Regulating valve to top part of filter	5
Clamping nut to filter holder	10

4 - Bleeding fuel system - Vehicles with TDI engine**4.1 - Bleeding fuel system - Vehicles with TDI engine****Special tools and workshop equipment required**

- ♦ Hose clamps 3094
- ♦ Adapter V.A.G 1318/10
- ♦ Vacuum hand pump V.A.G 1390

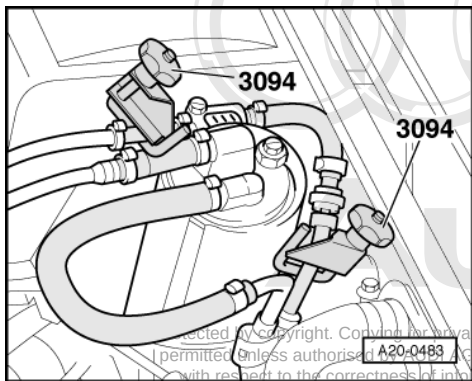
- ♦ Bleeder container V.A.G 1390/1



Sequence of operations

- Unscrew fuel return pipe at injection pump.
- -> Screw adapter V.A.G 1318/10 into injection pump return hole.
- Connect vacuum hand pump V.A.G 1390 with bleeder container V.A.G 1390/1 to connection piece.

Note:



-> At temperatures below + 15 °C, the fuel pre-heating regulating valve allows passage between fuel return pipe and filter. In this case, return pipe is to be pinched off with hose clamps 3094 upstream and downstream of regulating valve.

- Operate vacuum hand pump until bubble-free liquid is drawn in.

Attention:

Drain bleeder container in good time. Liquid must not be allowed to ingress into vacuum hand pump.

- Re-connect fuel return pipe to injection pump.

Note:

Replace sealing rings.



- Remove hose clamps 3094 at fuel return pipe.
- Start engine and visually inspect fuel system for leaks.

Tightening torque

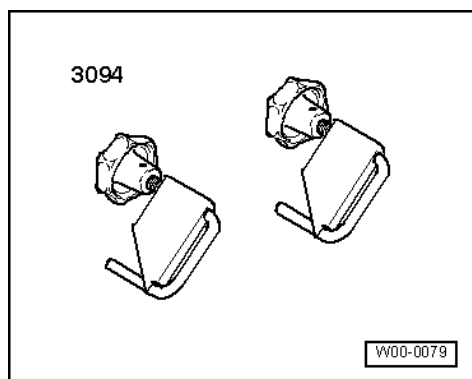
Component	Nm
Banjo bolt to injection pump	25

5 - Checking fuel system for leaks

5.1 - Checking fuel system for leaks

Leaks in fuel system may result in the following:

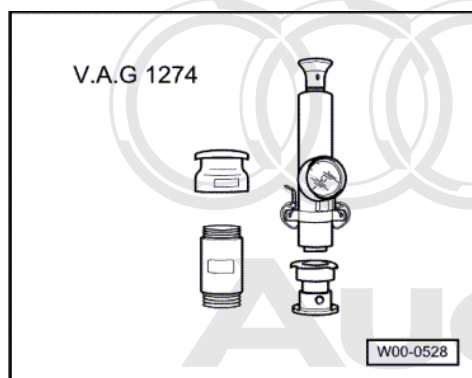
- ♦ Foaming/air bubbles in supply pipe



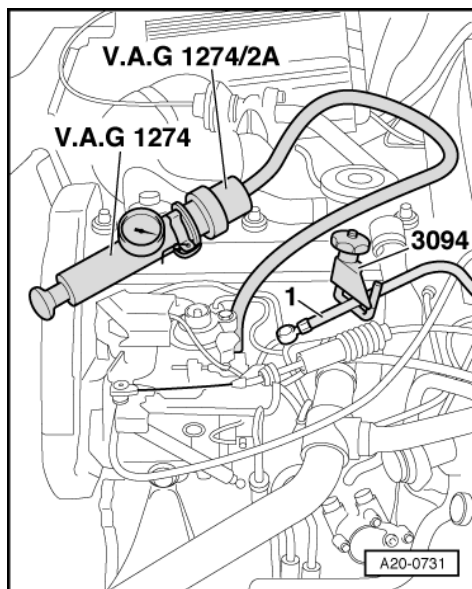
- ♦ Loss of power, misfiring
- ♦ Starting problems

Special tools and workshop equipment required

- ♦ Hose clamps 3094



- ♦ Cooling system tester V.A.G 1274
 - ♦ Adapter V.A.G 1274/2
- Audi AG does not accept any liability for errors or omissions in this document. Audi AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

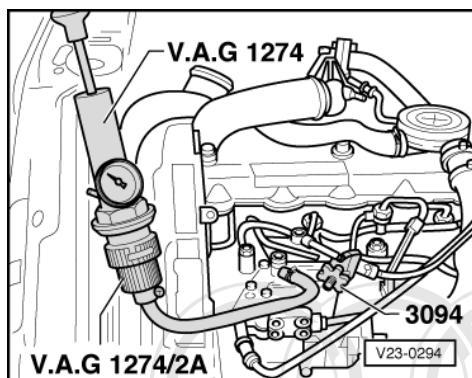


Test sequence

TD engine:

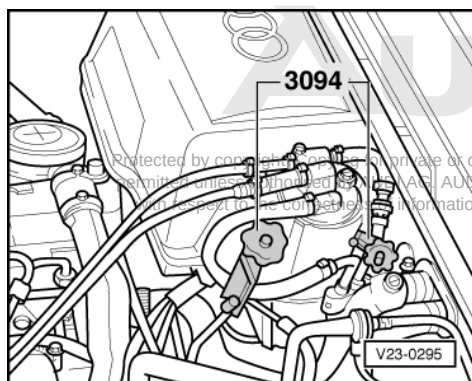
- -> Attach adapter V.A.G 1274/2A to cooling system tester V.A.G 1274.
- Unscrew fuel return pipe -1- at injection pump and connect up hose of adapter V.A.G 1274/2A in its place.
- Pinch off free fuel return pipe -1- to injection pump with hose clamp 3094.

TDI engine:



- -> Attach adapter V.A.G 1274/2A to cooling system tester V.A.G 1274.
- Unscrew fuel return pipe at injection pump and connect up hose of adapter V.A.G 1274/2A in its place.
- Pinch off free fuel return pipe to injection pump with hose clamp 3094.

All models:





- -> Attach hose clamps 3094 at the following locations:
 - Fuel supply pipe downstream of fuel filter
 - Fuel return pipe downstream of fuel filter
- Use tester hand pump to generate a pressure of 1.0...1.5 bar.
- Locate leak and eliminate fault if there is a constant drop in pressure.

Note:

Fuel pipes can also be checked if hose clamps are moved from filter to fuel tank connections.

6 - Servicing accelerator mechanism

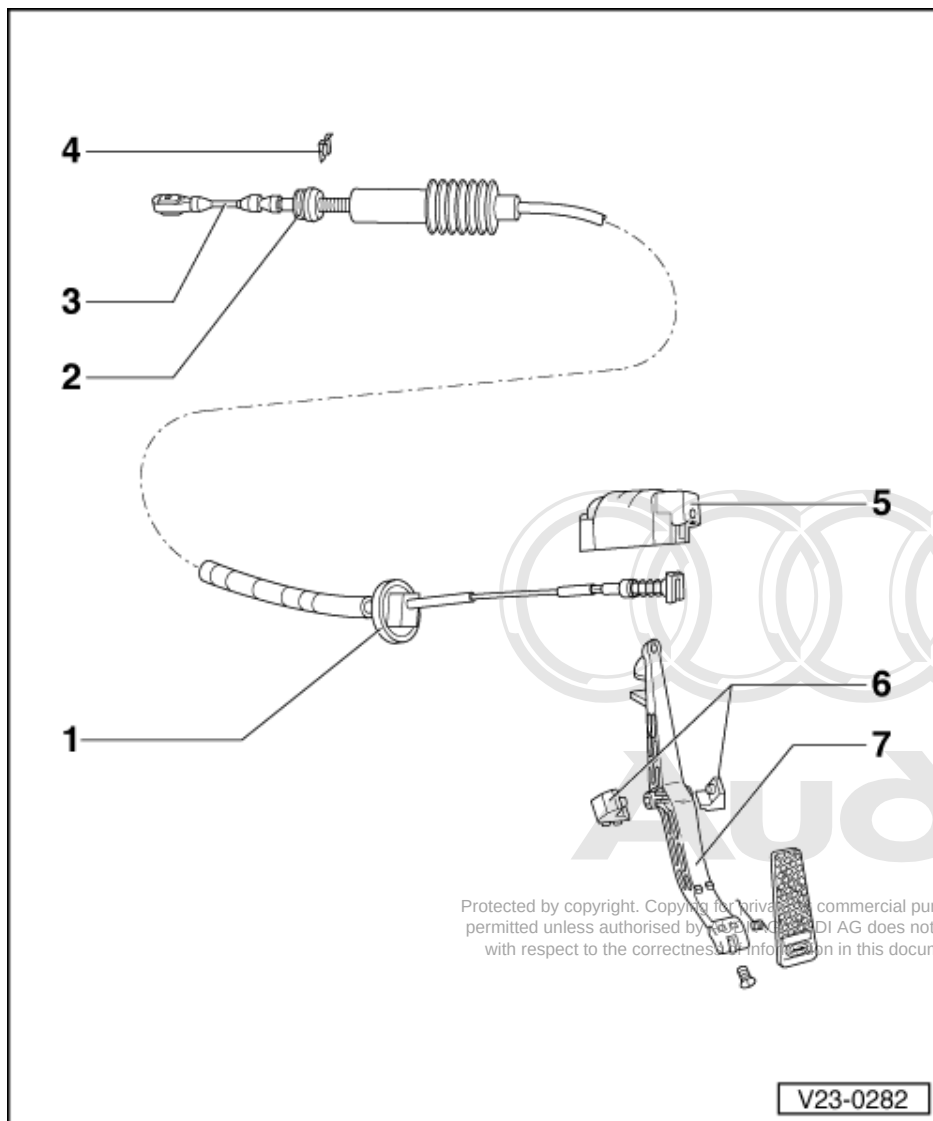
6.1 - Servicing accelerator mechanism

6.2 - Removing, installing and adjusting throttle cable - Vehicles with TD engine

Notes:

- ♦ The throttle cable is extremely sensitive to kinking and must therefore be handled with extreme care on installation.
- ♦ A single slight kink can subsequently cause cable to break whilst driving. If they have been kinked, throttle cables are therefore not to be fitted.
- ♦ On installation, make sure throttle cable is aligned between support brackets and cable attachment points.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.



1 Square mount

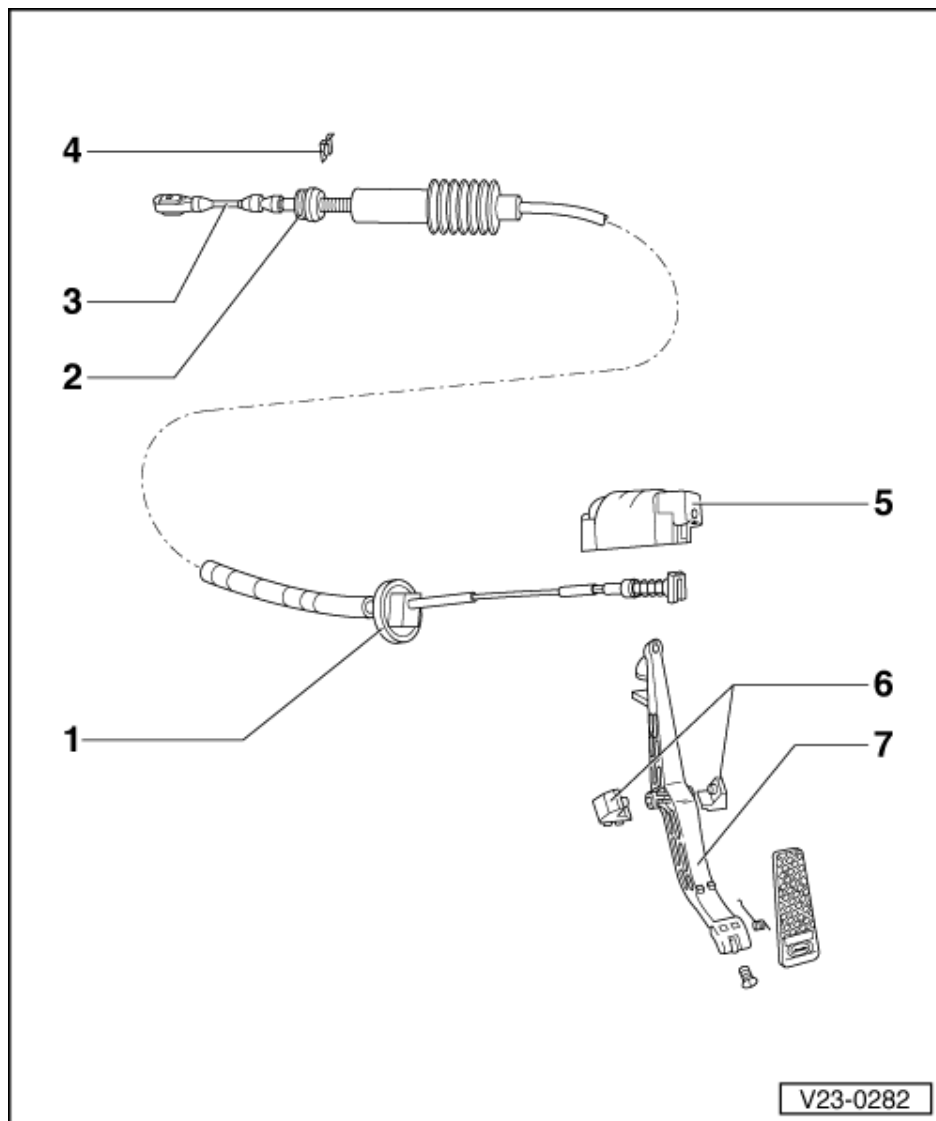
2 Rubber grommet

3 Throttle cable

- ◆ Adjusting by re-positioning locking element at throttle cable retainer => Fig. 31
- ◆ Removing
 - Disengage cable at adjusting lever and support bracket of injection pump
 - Pull off cable at accelerator pedal
 - Squeeze together retainer tabs of square mount -item 1 - working from passenger compartment
- ◆ Damaged or kinked throttle cable is not to be re-used

4 Locking element

- ◆ For throttle cable adjustment
- ◆ Adjusting throttle cable
=> Fig. 31



5 Vibration damper

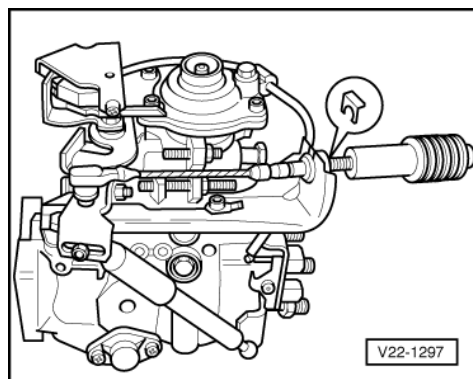
- ◆ Prevents vibration at accelerator pedal

6 Mounting bracket

- ◆ To remove accelerator pedal, squeeze together/break off retainer tabs
- ◆ Do not re-use damaged mounting bracket

7 Accelerator pedal

- ◆ Insert with mounting bracket attached in pedal bracket



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.

-> Fig.1 Adjusting throttle cable

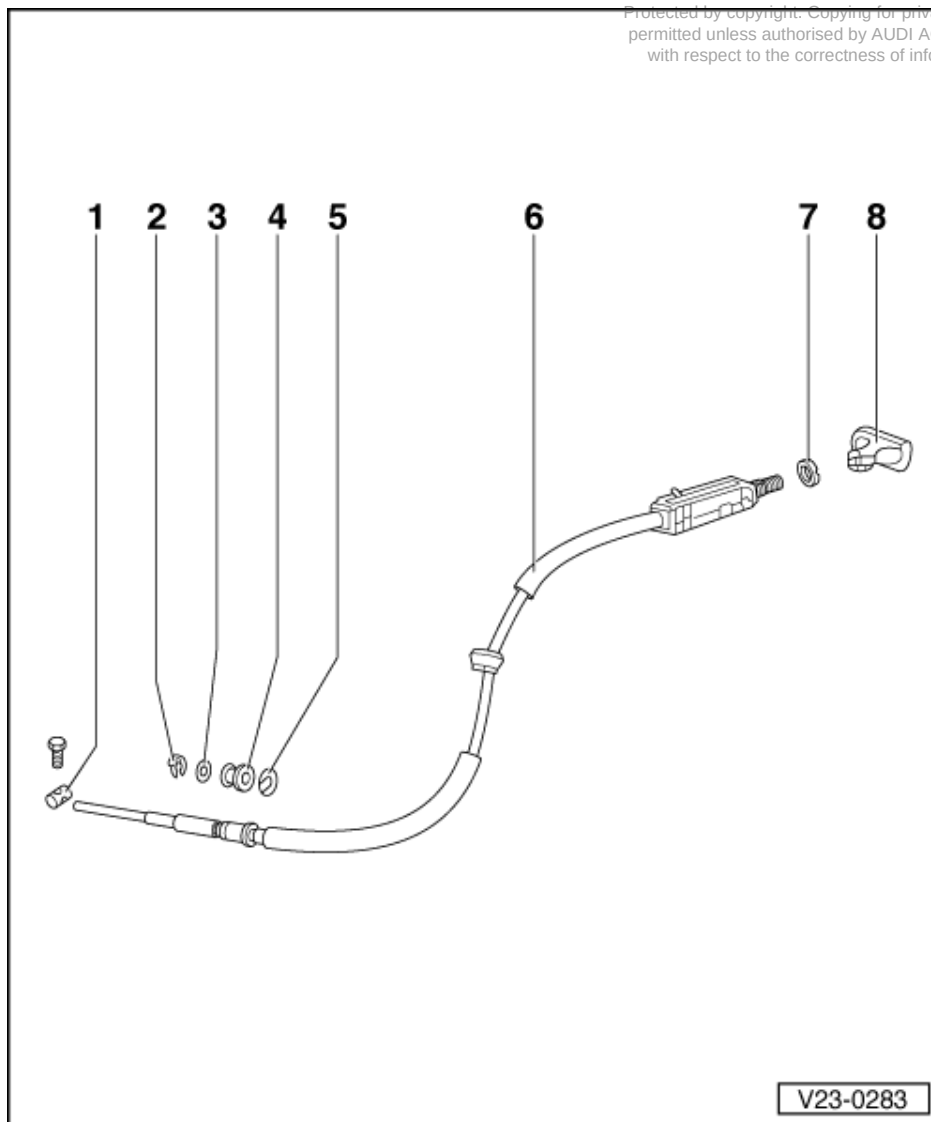
- Pull off locking element at detent segment of throttle cable sheath.
- Press accelerator pedal into full throttle position.

Note:

This requires a second mechanic or accelerator pedal must be supported against steering wheel with spring-loaded expanding rod.

- Adjust throttle cable by re-positioning locking element at rubber grommet of support bracket such that full-throttle position is reached at injection pump.
- Release accelerator pedal/remove expanding rod.

6.3 - Removing, installing and adjusting cable for cold starting aid - Vehicles with TD engine



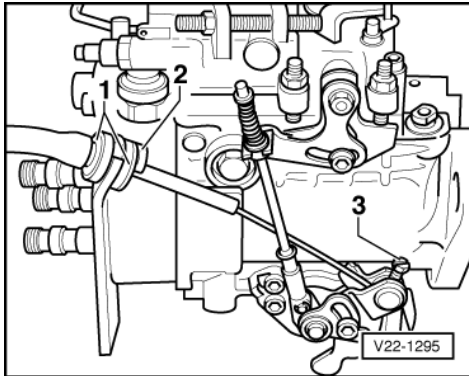
- 1 Clamping sleeve
- 2 Circlip
- 3 Packing plate
- 4 Rubber bush
- 5 Packing plate
- 6 Cable for cold starting aid



- ♦ Adjusting => Fig. 32

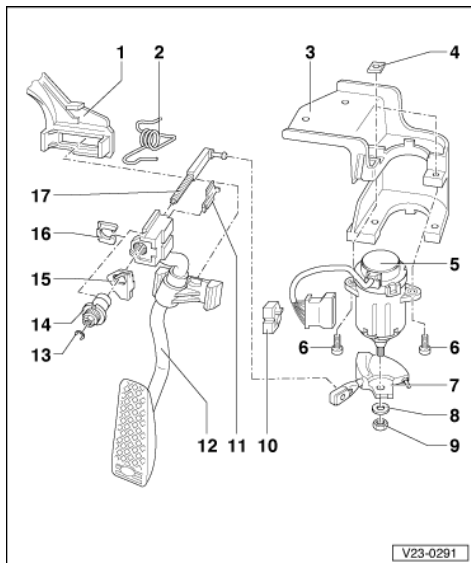
7 Securing nut**8 Actuator knob**

- ♦ Removing:
 - Press back retainer tab with screwdriver and pull off knob.



-> Fig.1 Adjusting cable for cold starting aid

- Insert cable for cold starting aid with packing plates -1- in rubber bush at support bracket.
- Secure cable with circlip -2-.
- Move lever for cold starting aid at injection pump to rest position.
- Pull wire taut and secure it with bolt in clamping sleeve -3-.

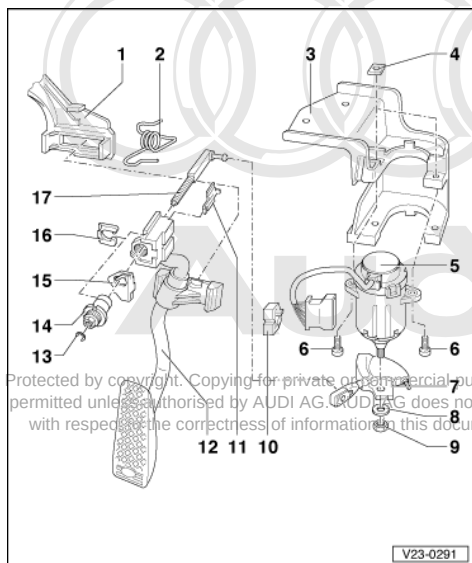
6.4 - Accelerator mechanism - Vehicles with TDI engine

- 1 Pedal bracket
- 2 Torsion spring
- 3 Bracket
- 4 Square nut
- 5 Accelerator position sender -G79
 - ♦ Checking:

=> Diesel direct injection and glow plug system ä 02.94; Repair Group 23; Checking control unit input variables
 Checking control unit input variables

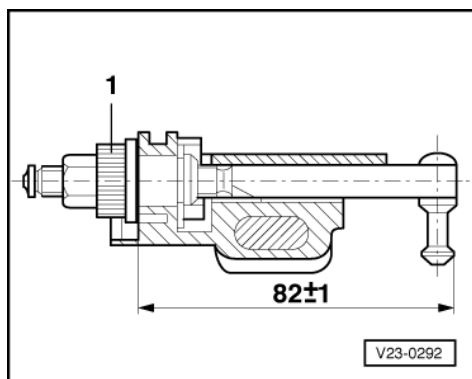
=> Diesel direct injection and glow plug system 03.94 ä; Repair Group 23; Checking control unit input variables
 Checking control unit input variables

- ♦ Installing and adjusting => Page **33**



- 6 Hexagon socket-head bolt, 10 Nm
- 7 Cable cam
- 8 Washer
- 9 10 Nm
- 10 Clip
- 11 Retaining spring
- 12 Accelerator pedal
- 13 Circlip
- 14 Adjusting bolt
- 15 Detent spring
- 16 Circlip
- 17 Pin

6.5 - Installing and adjusting accelerator position sender -G79 - Vehicles with TDI engine

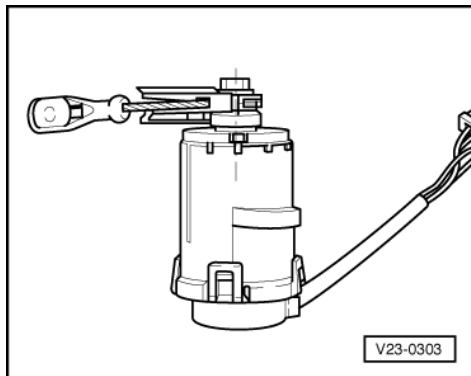


Note:

Replacement of accelerator position sender -G79 involves removing accelerator pedal.



- -> Check adjustment dimension at accelerator pedal.
- If necessary, set dimension 82 ± 1 mm at adjusting bolt -1-.



- -> Fit cable cam in correct attachment position at accelerator position sender -G79.
- Edge of cable cam must coincide with edge at housing
- Screw sender to bracket and attach connector with clip.
- Press home torsion spring in pedal bracket.
- Insert accelerator pedal in pedal bracket until lugs engage and then tension torsion spring.
- Attach eye of cable cam to pin of accelerator pedal. Make sure eye is positioned in cable cam recess.
- Perform precision adjustment => Page 34 .

Precision adjustment of accelerator position sender -G79

Note:

The accelerator position sender -G79 contains a kick-down switch, the function of which is only required for vehicles with automatic gearbox.

Vehicles with manual gearbox:

- Set accelerator pedal at adjusting bolt such that pressure point of kick-down switch is just attained when accelerator pedal makes contact with floor panel stop.
- To do so, depress accelerator pedal by hand until floor panel stop is reached.
- If stop is reached before pressure point (significant resistance) is felt:
- Turn adjusting bolt clockwise until pressure point is just attained when accelerator pedal makes contact with floor panel stop.
- If pressure point is attained before reaching floor panel stop:
- Turn adjusting bolt anti-clockwise until pressure point is just attained when accelerator pedal makes contact with floor panel stop.

Vehicles with automatic gearbox:

- Set accelerator pedal at adjusting bolt such that pressure point of kick-down switch is fully attained when accelerator pedal makes contact with floor panel stop.
- To do so, depress accelerator pedal by hand until floor panel stop is reached.
- If stop is reached before pressure point (significant resistance) is felt:
- Turn adjusting bolt clockwise until pressure point is fully attained when accelerator pedal makes contact with floor panel stop.
- If pressure point is attained before reaching floor panel stop:

- Turn adjusting bolt anti-clockwise until pressure point is fully attained when accelerator pedal makes contact with floor panel stop.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.