

Maintenance

Audi A3 Limousine China 2014 ➤

Audi A3 Sportback China 2014 ➤

Edition 06.2016



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Maintenance

Heading

1. General information
2. Preparations
3. Maintenance



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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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1 General information

(AIGG000763; Edition 06.2016)

Change history ⇒ [page 1](#)

Engine number ⇒ [page 2](#)

Vehicle identification number ⇒ [page 4](#)

Vehicle data sticker ⇒ [page 4](#)

Warnings for high-voltage vehicles ⇒ [page 5](#)

1.1 --- Change history ---

N o.	Date	Chapter	Changes made
7	30.05.2016	Roof insert - panorama sunroof: cleaning and lubricating ⇒ page 68	Note added regarding new lubricant
		Spark plugs: renewing ⇒ page 100	Procedure modified to include: Lubricating ignition coils
		Reducing agent (AdBlue®): filling up tank completely ⇒ page 138	Note added regarding procedure
		Charging socket: checking for dirt and damage ⇒ page 146	Additions made to checking procedure
6	02.11.2015	Various chapters on stock vehicles	New chapter
		Various chapters on Delivery Inspection	New chapter
		Overview of engines	Chapter deleted. An overview of engines can be found in the Workshop Manual under ⇒ Power unit; Rep. gr. 00 ; Technical data
		Reducing agent (AdBlue®): filling up tank completely ⇒ page 138	AdBlue refuelling system VAS 6960 added as alternative filling device
		Fuel tank: adding fuel additive ⇒ page 137	Chapter updated
5	26.05.2015	Battery: checking that battery and battery cables are securely fitted ⇒ page 29	RS 3 version added
		Battery: checking electrolyte level ⇒ page 34	RS 3 version added
		Battery: connecting to a stationary battery charging unit for sustained charging ⇒ page 37	RS 3 version added
		Engine, gearbox, final drive and steering: checking for leaks and damage ⇒ page 64	Procedure modified to include: Removing noise insulation for certain service procedures
		Roof insert - panorama sunroof: cleaning and lubricating ⇒ page 68	List of required tools modified
		Headlights: checking for correct adjustment ⇒ page 76	List of required tools modified
		Engine oil: renewing oil filter ⇒ page 92	Procedure for 1.6 ltr. TDI/2.0 ltr. TDI modified to include: Unfastening alternator wiring from engine block and opening oil drain plug for sealing cap
		Engine oil: checking oil level and correcting if necessary ⇒ page 98	Version added
		Cooling system: checking anti-freeze and coolant level, and correcting if necessary ⇒ page 112	Note added warning against overfilling coolant expansion tank
		Cooling system for high-voltage system: checking anti-freeze protection and coolant level, and correcting if necessary ⇒ page 114	New chapter
		Dust and pollen filter: renewing ⇒ page 126	List of required tools modified

N o.	Date	Chapter	Changes made
		Fuel tank: adding fuel additive ➔ page 137	Procedure modified
		Charging socket: checking for dirt and damage ➔ page 146	New chapter



Note

For greater clarity, only the last three updates to the document are listed.

1.2 Engine number



Note

The engine number consists of the engine code letters (3 or 4 characters) and the serial number.

3-cyl. petrol engine 1.0 ltr. TFSI ➔ [page 2](#)

4-cyl. petrol engine 1.2 ltr. TFSI/1.4 ltr. TFSI/1.4 ltr. TFSI g-tron/
1.4 ltr. TFSI e-tron ➔ [page 2](#)

4-cyl. petrol engine 1.8 ltr. TFSI/2.0 ltr. TFSI ➔ [page 3](#)

5-cyl. petrol engine 2.5 ltr. TFSI ➔ [page 3](#)

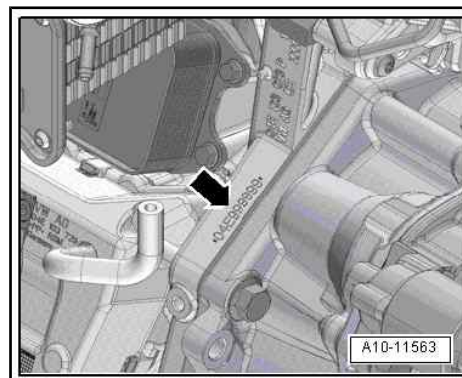
4-cyl. diesel engine 1.6 ltr. TDI/2.0 ltr. TDI ➔ [page 4](#)

1.2.1 3-cyl. petrol engine 1.0 ltr. TFSI

The engine number is stamped on the left side at the joint between the engine and the gearbox -arrow-.

The engine number is also given on the sticker on the toothed belt cover (top).

In addition, the engine code letters are listed on the vehicle data sticker ➔ [page 4](#) .



1.2.2 4-cyl. petrol engine 1.2 ltr. TFSI/1.4 ltr. TFSI/1.4 ltr. TFSI g-tron/1.4 ltr. TFSI e-tron

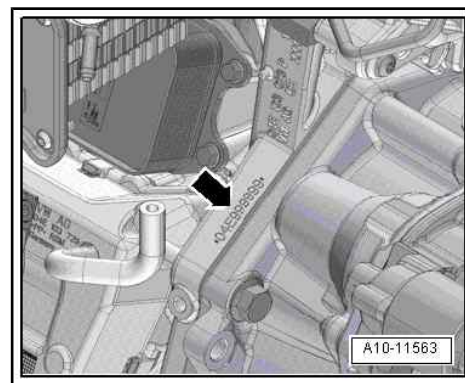


DANGER

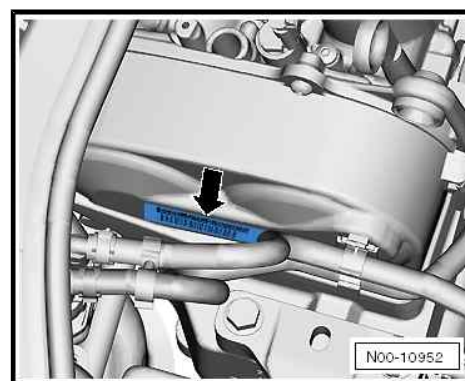
Risk of fatal injury if high-voltage components are damaged.

- ◆ Observe warnings for high-voltage system:
- ◆ Handling high-voltage wires ➔ [page 8](#) .
- ◆ For work in the vicinity of high-voltage components ➔ [page 7](#) .

The engine number is stamped on the left side at the joint between the engine and the gearbox -arrow-.



The engine number is also listed on the sticker on the toothed belt cover (top) -arrow-.



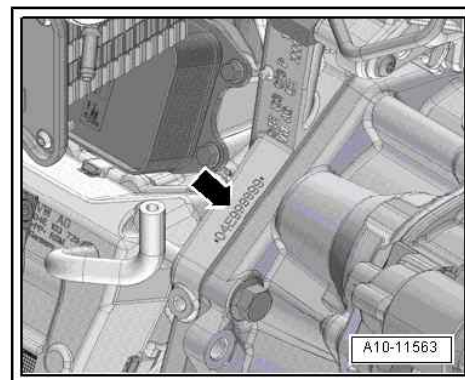
In addition, the engine code letters are listed on the vehicle data sticker ➤ [page 4](#) .

1.2.3 4-cyl. petrol engine 1.8 ltr. TFSI/2.0 ltr. TFSI

The engine number is stamped on the left side at the joint between the engine and the gearbox -arrow-.

The engine number is also given on the sticker on the timing chain cover (top).

In addition, the engine code letters are listed on the vehicle data sticker ➤ [page 4](#) .



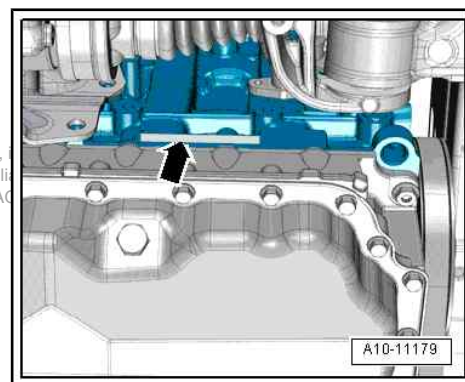
1.2.4 5-cyl. petrol engine 2.5 ltr. TFSI

The engine number is stamped at the joint between the cylinder block and the sump (top section) at the rear -arrow-.

The engine number is also given on the sticker on the timing chain cover (top).

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In addition, the engine code letters are listed on the vehicle data sticker ➤ [page 4](#) .

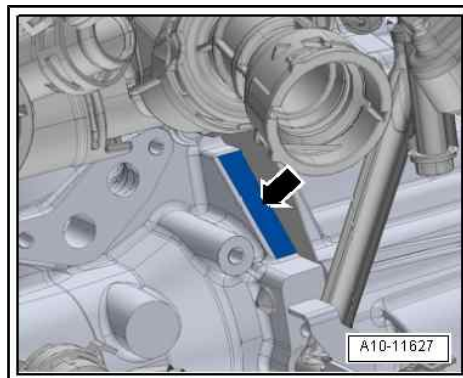


1.2.5 4-cyl. diesel engine 1.6 ltr. TDI/2.0 ltr. TDI

The engine number is stamped on the left side at the joint between the engine and the gearbox -arrow-.

The engine number is also given on the sticker on the toothed belt cover (top).

In addition, the engine code letters are listed on the vehicle data sticker ➔ [page 4](#) .



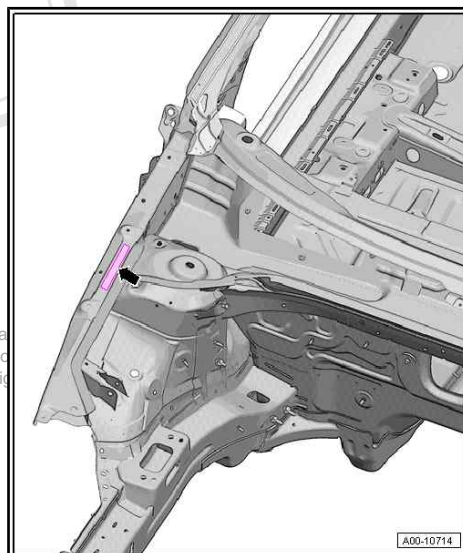
1.3 Vehicle identification number

Depending on the equipment and country-specific version, the vehicle identification number is located:

- ◆ On the vehicle data sticker ➔ [page 4](#)
- ◆ At the bottom left edge of the windscreen
- ◆ Stamped on the longitudinal member (right-side) near the top of the wheel housing -arrow-
- ◆ Optional: In the MMI under »Car systems«

The vehicle identification number consists of the following:

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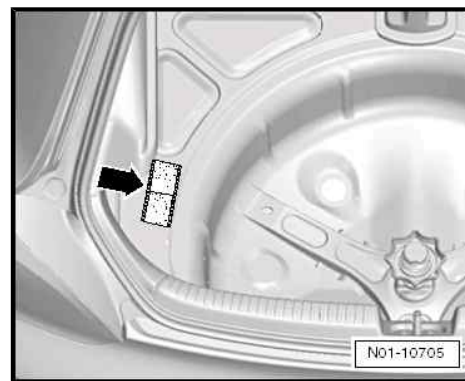


WAU	ZZZ	8V	Z	B	A / N	000 234
Manufacturer's mark	Filler characters	Type	Filler characters	Model year	Production location	Serial number

1.4 Vehicle data sticker

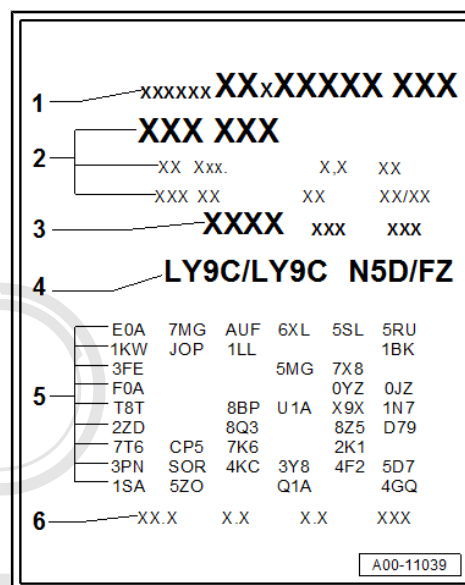
The vehicle data sticker is located:

- ◆ In the Service Schedule
- ◆ In the area of the spare wheel well under the floor covering -arrow-



The vehicle data sticker contains the following vehicle data:

- 1 - Vehicle identification number
- 2 - Vehicle model, manufacturer's code, engine type and power output, production month and year
- 3 - Engine and gearbox code letters (not specified on some export models)
- 4 - Paint number, interior equipment number
- 5 - Numbers for optional extras
- 6 - Fuel consumption: urban, extra urban, combined, CO2 (not specified on some export models)



1.5 Warnings for high-voltage vehicles

Overview of high-voltage components and wires ⇒ [page 5](#)

Working in the vicinity of high-voltage components ⇒ [page 7](#)

Handling high-voltage wires ⇒ [page 8](#)

Work that must be performed with the ignition switched on
⇒ [page 8](#)

Work that must be performed with the ignition switched off
⇒ [page 9](#)

1.5.1 Overview of high-voltage components and wires

The high-voltage system of the Audi A3 e-tron is comprised of the following components:

1 - Three-phase current drive - VX54-

- ☐ Electric drive motor - V141-
- ☐ Red warning label

2 - High-voltage battery charging socket 1 - UX4-

- ☐ LED module for charging socket 1 - L263-
- ☐ Immediate charge button - E766-
- ☐ Charge profile selector button - E808-
- ☐ High-voltage wire to control unit for high-voltage battery charging unit - J1050-
- ☐ Actuator for high-voltage charging socket lock 1 - F498-
- ☐ Temperature sender for charging socket 1 - G853-
- ☐ Potential equalisation line

3 - Electrical air conditioner compressor - V470-

- ☐ Red warning label

4 - Combustion engine

5 - Battery regulation control unit - J840-

- ☐ Potential equalisation line

6 - Hybrid battery unit - AX1-

- ☐ Potential equalisation line
- ☐ Red warning label

7 - High-voltage wiring

- ☐ High-voltage wire for electrical air conditioner compressor - P3-
- ☐ High-voltage wire for charging socket
- ☐ High-voltage wire for high-voltage battery charging unit - P25-

8 - High-voltage heater (PTC) - Z115-

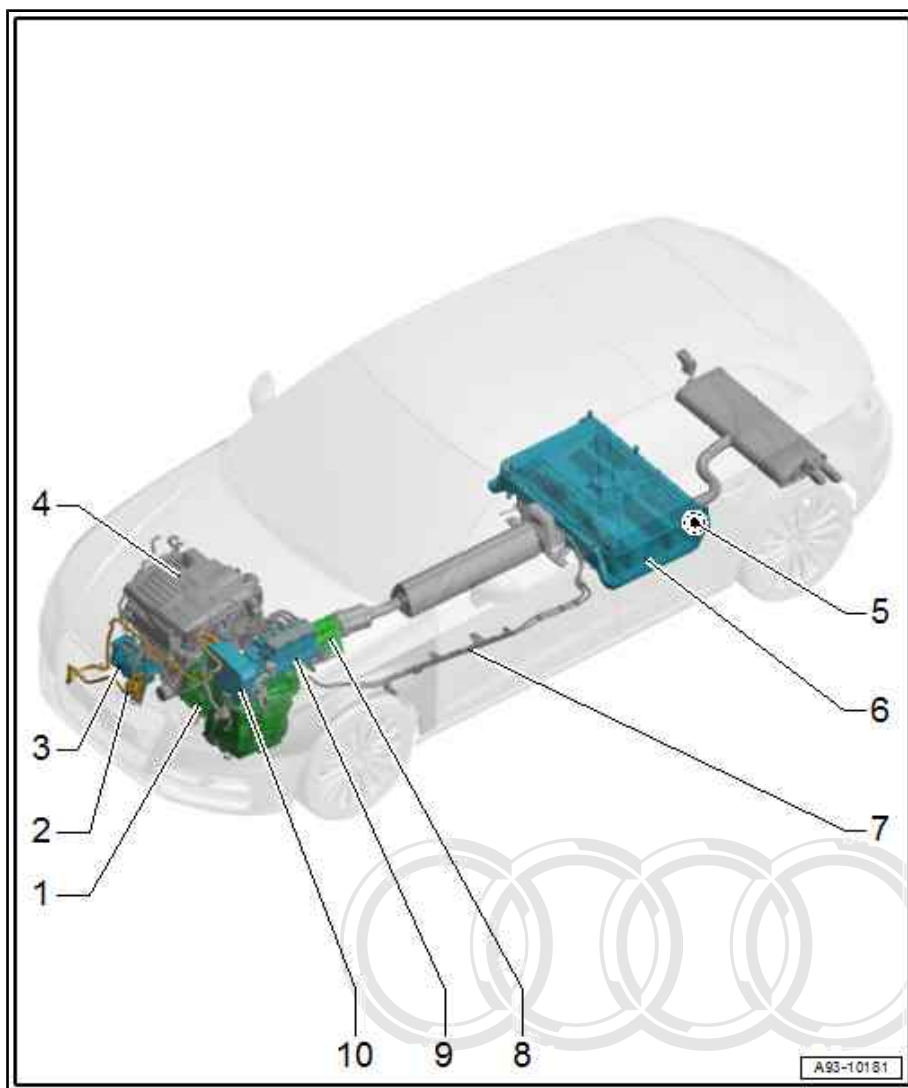
- ☐ High-voltage wire for high-voltage battery charging unit - P25-
- ☐ Red warning label

9 - Power and control electronics for electric drive - JX1-

- ☐ High-voltage wiring harness for drive motor - PX2-
- ☐ High-voltage wire for high-voltage battery charging unit - P25-
- ☐ High-voltage wiring harness for high-voltage battery - PX1-
- ☐ Air conditioner compressor fuse - S355-
- ☐ Potential equalisation line
- ☐ Red warning label

10 - Control unit for high-voltage battery charging unit - J1050-

- ☐ Potential equalisation line



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- ❑ Red warning label

1.5.2 Working in the vicinity of high-voltage components

DANGER

Risk of fatal injury if high-voltage components are damaged.

Observe the following when working in the vicinity of high-voltage components or wiring:

- ◆ It is not permitted to use cutting or forming tools, other sharp-edged tools or heat sources such as welding, brazing, soldering, hot air or thermal bonding equipment.
- ◆ Before starting work, visually inspect the high-voltage components in the areas involved.
- ◆ Before working in the engine compartment, visually inspect the power and control electronics for electric drive - JX1- , electric drive motor - V141- , air conditioner compressor - V470- and high-voltage wiring.
- ◆ Before working on the vehicle underbody, visually inspect the high-voltage wiring and covers.
- ◆ Before working on the rear section of the vehicle, visually inspect the high-voltage wiring and the electro-box with the maintenance connector for high-voltage system - TW - .
- ◆ Visually inspect all potential equalisation lines.

Check the following when making the visual inspection:

- ◆ There must be no external damage on any component.
- ◆ The insulation of the high-voltage wiring and potential equalisation lines must not be damaged.
- ◆ There must be no unusual deformation of the high-voltage wiring.
- ◆ All high-voltage components must be identified by a red warning sticker.



Note

- ◆ *Certain qualifications are required to perform different types of work on high-voltage vehicles ⇒ Basic information on high-voltage vehicles; Rep. gr. 00; Qualification of internal/external personnel .*
- ◆ *Distinguishing features of Audi high-voltage vehicles, description of high-voltage technology etc. ⇒ Basic information on high-voltage vehicles; Rep. gr. 00; Distinguishing features of Audi high-voltage vehicles .*
- ◆ *Overview of high-voltage components and wires ⇒ [page 5](#) .*

1.5.3 Handling high-voltage wires

WARNING

Handling high-voltage wires:

- Do not support yourself or tools on high-voltage wiring or associated components → this can damage the insulation.
- High-voltage wiring must not be excessively bent or kinked → this can damage the insulation.
- The round high-voltage connectors are colour-coded with an external coloured ring and are provided with mechanical coding or guide lugs. It is important to observe this coding when joining up the round high-voltage connectors, otherwise the connectors can be damaged.



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Note

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- ◆ *Distinguishing features of Audi high-voltage vehicles, description of high-voltage technology etc. ⇒ Basic information on high-voltage vehicles; Rep. gr. 00 ; Distinguishing features of Audi high-voltage vehicles .*
- ◆ *Overview of high-voltage components and wires ⇒ [page 5](#) .*

1.5.4 Work that must be performed with the ignition switched on

DANGER

When working on a vehicle with the ignition switched on or while the drive system is active, the engine can start unexpectedly and exhaust fumes can cause a health hazard in closed rooms. Moving parts can trap or draw in parts of the body and/or clothing (safety hazard).

Before switching on the ignition, perform the following steps:

- ◆ Move selector lever to position P
- ◆ Activate parking brake
- ◆ Switch off ignition
- ◆ Open bonnet
- ◆ Connect battery charger (e.g. charger - VAS 5095A-) to jump-start connections of 12 V electrical system
- ◆ Switch on ignition.



Note

- ◆ *Certain qualifications are required to perform different types of work on high-voltage vehicles ⇒ Basic information on high-voltage vehicles; Rep. gr. 00; Qualification of internal/external personnel.*
- ◆ *Distinguishing features of Audi high-voltage vehicles, description of high-voltage technology etc. ⇒ Basic information on high-voltage vehicles; Rep. gr. 00; Distinguishing features of Audi high-voltage vehicles.*
- ◆ *Overview of high-voltage components and wires ⇒ [page 5](#).*

1.5.5 Work that must be performed with the ignition switched off



WARNING

Safety hazard: the engine can start unexpectedly.

Before carrying out general work on a vehicle with high-voltage electrical system, switch off the ignition and remove the ignition key from the vehicle.



Note

- ◆ *Certain qualifications are required to perform different types of work on high-voltage vehicles ⇒ Basic information on high-voltage vehicles; Rep. gr. 00; Qualification of internal/external personnel.*
- ◆ *Distinguishing features of Audi high-voltage vehicles, description of high-voltage technology etc. ⇒ Basic information on high-voltage vehicles; Rep. gr. 00; Distinguishing features of Audi high-voltage vehicles.*
- ◆ *Overview of high-voltage components and wires ⇒ [page 5](#).*

2 Preparations

Vehicle: raising ⇒ [page 10](#)

Engine cover panel: removing and installing ⇒ [page 13](#)

Noise insulation: removing and installing ⇒ [page 15](#)

Window regulators: activating automatic open/close function
⇒ [page 17](#)

Vehicle diagnostic tester: connecting ⇒ [page 18](#)

2.1 Vehicle: raising



WARNING

Risk of damage to vehicle due to incorrect use of lifting platform.

- ◆ Do not exceed the permissible lifting capacity of the lifting platform.
- ◆ The vehicle should be lifted only at the points shown in the illustration.
- ◆ Position support plates so that they are aligned centrally below the lifting points.
- ◆ Ensure sufficient clearance between low-mounted vehicle components and the lifting platform.

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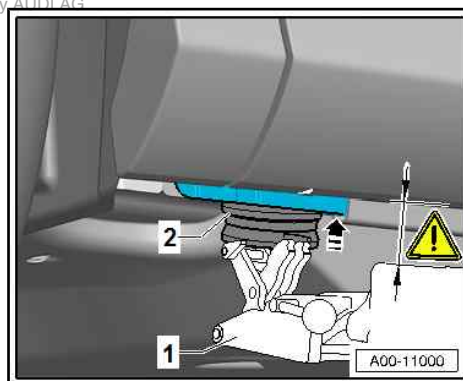


Note

Applies to S models and RS models: Extend all support plates -2- far enough so that the lifting arm of the lifting platform does not touch the vehicle trim.

All vehicles except A3 e-tron and A3 g-tron ⇒ [page 11](#)

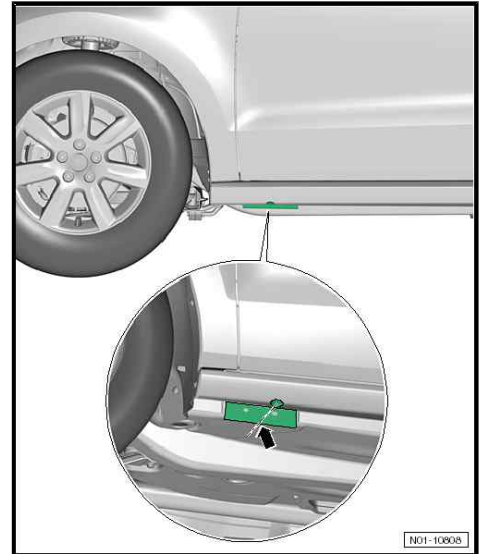
A3 e-tron and A3 g-tron ⇒ [page 12](#)



2.1.1 All vehicles except A3 e-tron and A3 g-tron

Procedure:

- Front: Position support plates of lifting platform under lifting point on side member -arrow-.

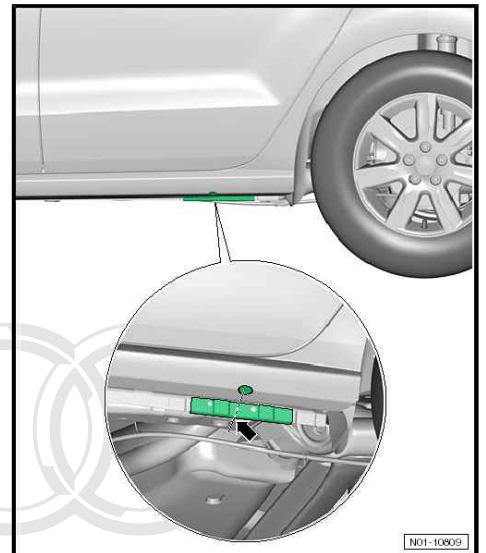


- Rear: Position support plates of lifting platform under lifting point on side member -arrow-.



Note

The location of the lifting points is indicated by markings stamped on the side member trim.

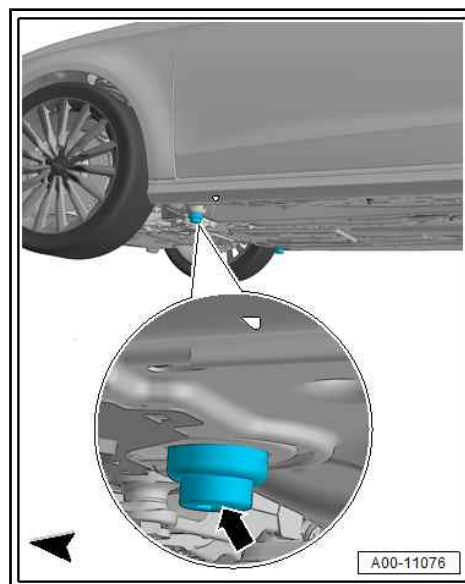


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2.1.2 A3 e-tron and A3 g-tron

Procedure:

- Front: Position support plates of lifting platform under plastic mountings -arrow- on underbody.

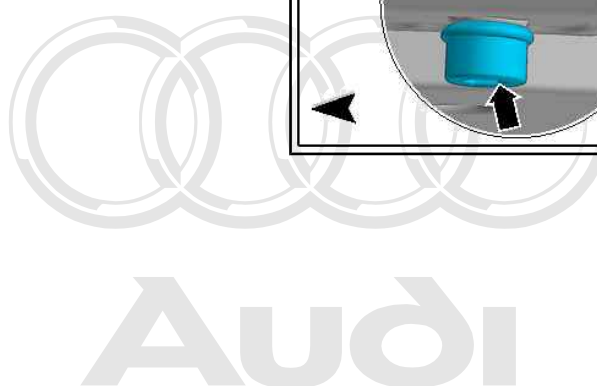
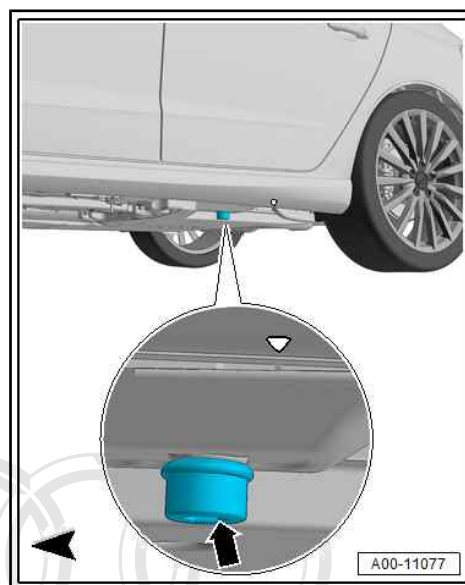


- Rear: Position support plates of lifting platform under plastic mountings -arrow- on underbody.



Note

The location of the lifting points is indicated by markings stamped on the side member trim.



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2.2 Engine cover panel: removing and installing

4-cyl. petrol engine 1.2 ltr. TFSI/1.4 ltr. TFSI/1.4 ltr. TFSI g-tron
⇒ [page 13](#)

4-cyl. petrol engine 1.4 ltr. TFSI e-tron ⇒ [page 13](#)

4-cyl. petrol engine 1.8 ltr. TFSI ⇒ [page 14](#)

4-cyl. petrol engine 2.0 ltr. TFSI (version 1) ⇒ [page 14](#)

4-cyl. petrol engine 2.0 ltr. TFSI (version 2) ⇒ [page 14](#)

5-cyl. petrol engine 2.5 ltr. TFSI ⇒ [page 15](#)

4-cyl. diesel engine 1.6 ltr. TDI/2.0 ltr. TDI ⇒ [page 15](#)

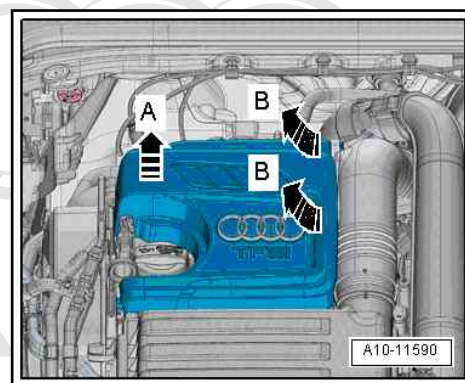
2.2.1 4-cyl. petrol engine 1.2 ltr. TFSI/1.4 ltr. TFSI/1.4 ltr. TFSI g-tron

Procedure for removing:

- Pull off engine cover panel in direction of -arrow A- and take out towards right -B-.

Procedure for installing:

- Install in reverse sequence.



2.2.2 4-cyl. petrol engine 1.4 ltr. TFSI e-tron

Procedure for removing:

- Carefully pull engine cover panel off retaining pins one after another -arrows-.

Procedure for installing:

- Position engine cover panel on retaining pins and then use your hands to press it onto retaining pins, one after the other.



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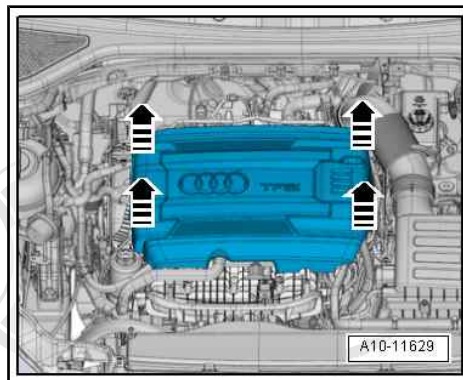
2.2.3 4-cyl. petrol engine 1.8 ltr. TFSI

Procedure for removing:

- Carefully pull engine cover panel off retaining pins one after another -arrows-.

Procedure for installing:

- Position engine cover panel on retaining pins and then use your hands to press it onto retaining pins, one after the other.



2.2.4 4-cyl. petrol engine 2.0 ltr. TFSI (version 1)

Procedure for removing:

- Carefully pull engine cover panel off retaining pins one after another -arrows-.

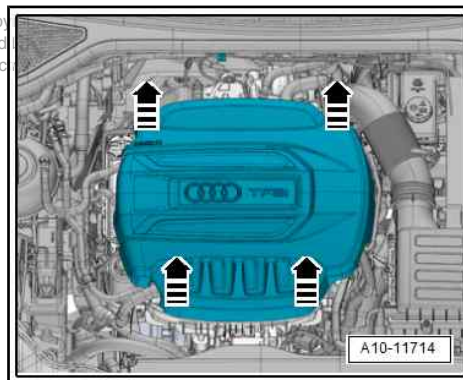
Procedure for installing:

- Position engine cover panel on retaining pins and then use your hands to press it onto retaining pins, one after the other.



Note

There is more than one version of the engine cover panel for the 4-cylinder 2.0 ltr. TFSI petrol engine ➔ [page 14](#) .



2.2.5 4-cyl. petrol engine 2.0 ltr. TFSI (version 2)

Procedure for removing:

- Carefully pull engine cover panel off retaining pins one after another -arrows-.

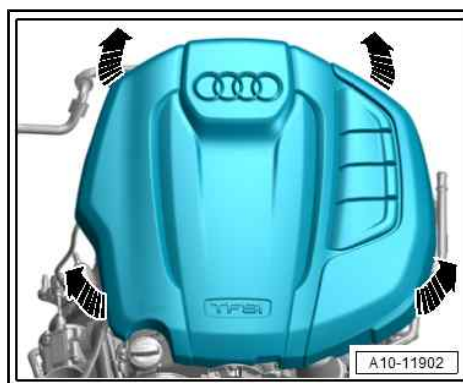
Procedure for installing:

- Position engine cover panel on retaining pins and then use your hands to press it onto retaining pins, one after the other.



Note

There is more than one version of the engine cover panel for the 4-cylinder 2.0 ltr. TFSI petrol engine ➔ [page 14](#) .



2.2.6 5-cyl. petrol engine 2.5 ltr. TFSI

- Carefully pull engine cover panel off retaining pins one after another -arrows-.

Procedure for installing:

- Position engine cover panel on retaining pins and then use your hands to press it onto retaining pins, one after the other.



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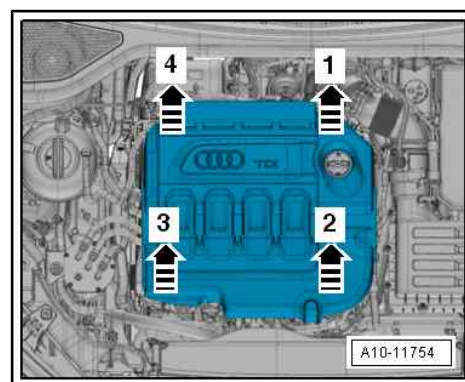
2.2.7 4-cyl. diesel engine 1.6 ltr. TDI/2.0 ltr. TDI

Procedure for removing:

- Carefully pull engine cover panel off retaining pins one after another -arrows-.

Procedure for installing:

- Position engine cover panel on retaining pins and then use your hands to press it onto retaining pins, one after the other.



2.3 Noise insulation: removing and installing

DANGER

Risk of fatal injury if high-voltage components are damaged.

- ◆ Observe warnings for high-voltage system:
- ◆ For work in the vicinity of high-voltage components
⇒ [page 7](#) .

Noise insulation (front) ⇒ [page 15](#)

Noise insulation (rear): front-wheel drive vehicles ⇒ [page 16](#)

Noise insulation (rear): four-wheel drive vehicles ⇒ [page 17](#)

2.3.1 Noise insulation (front)

Special tools and workshop equipment required

- ◆ Torque wrench - V.A.G. 1783- , measuring range 2 to 10 Nm

Table of tightening torques for installation:

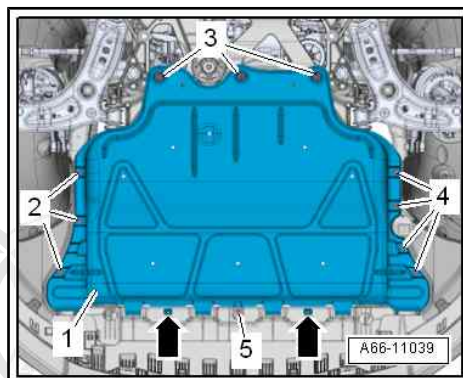
Component/fastener	[Nm]
Bolt -2-, -4-, -5-	2
Bolt -3-	6

Procedure for removing:

- Unscrew bolts -2-, -3-, -4- and -5- from noise insulation.
- Release catches -arrows- and detach noise insulation -1- towards rear. This disengages guide tabs on noise insulation.
- Remove noise insulation (front).

Procedure for installing:

Install in reverse sequence. Note tightening torques (see table of tightening torques for installation ⇒ [page 15](#)).



Note

- ♦ Be sure that you feel the catches engage when installing.
- ♦ On vehicles with supplementary heater, opening of exhaust pipe must be routed vertically through grommet in noise insulation.

2.3.2 Noise insulation (rear): front-wheel drive vehicles

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Special tools and workshop equipment required

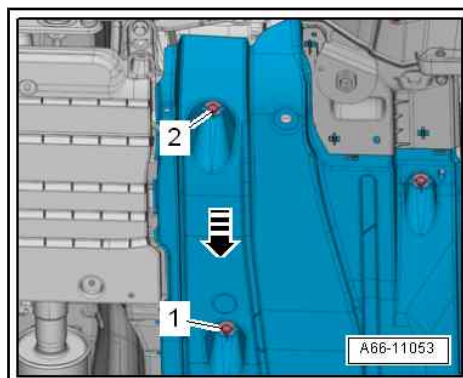
- ♦ Torque screwdriver - V.A.G 1624- , measuring range 1 to 5 Nm
- ♦ Or: torque screwdriver - VAS 6494- , measuring range 1.5 to 3 Nm

Table of tightening torques for installation:

Component/fastener	[Nm]
Nuts -1- and -2-	1.8

Procedure for removing:

- Remove nuts -1- and -2- and press underbody trim downwards slightly in direction of -arrow-.



- Release spreader rivets -arrows-.
- Remove noise insulation -1-.

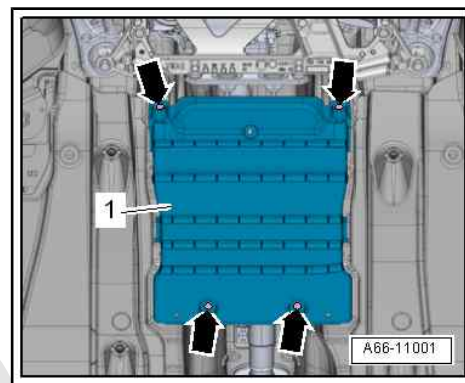
Procedure for installing:

Install in reverse sequence. Note tightening torques (see table of tightening torques for installation ➔ [page 16](#)).



Note

On vehicles with supplementary heater, opening of exhaust pipe must be routed vertically through grommet in noise insulation.



2.3.3 Noise insulation (rear): four-wheel drive vehicles

Special tools and workshop equipment required

- ◆ Torque screwdriver - V.A.G 1624- , measuring range 1 to 5 Nm
- ◆ Or: torque screwdriver - VAS 6494- , measuring range 1.5 to 3 Nm

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Table of tightening torques for installation:

Component/fastener	[Nm]
Bolts -1- and -3-	2

Procedure for removing:

- Release spreader rivets -arrows-.
- Remove bolts -1- and -3-.
- Remove noise insulation -2-.

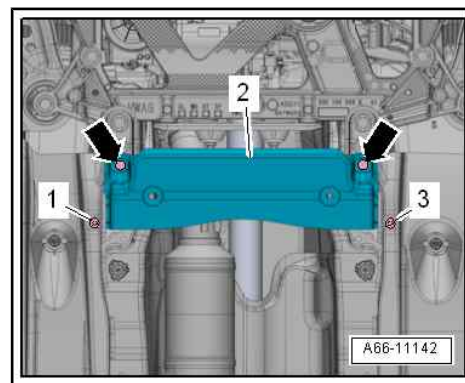
Procedure for installing:

Install in reverse sequence. Note tightening torques (see table of tightening torques for installation ➔ [page 17](#)).



Note

On vehicles with supplementary heater, opening of exhaust pipe must be routed vertically through grommet in noise insulation.



2.4 Window regulators: activating automatic open/close function



DANGER

Risk of injury as engine of high-voltage vehicle can start unexpectedly!

- ◆ Observe warnings for high-voltage system:
- ◆ For work that must be performed with the ignition switched on ➔ [page 8](#) .

If the vehicle battery was disconnected, the automatic open/close function for the electric windows must be reactivated.

Procedure:

- Pull up on window regulator switch until windows are completely closed.
- Release switch and pull on it again for at least one second.
- Repeat procedure with all window regulators.

2.5 Vehicle diagnostic tester: connecting



WARNING

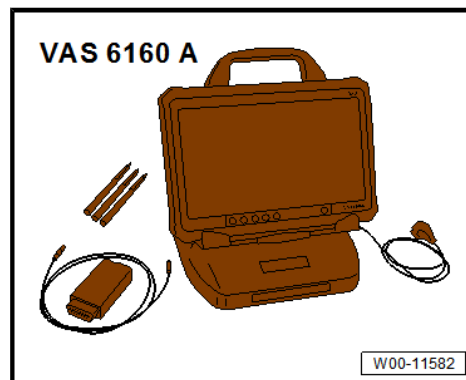
Risk of injury as engine of high-voltage vehicle can start unexpectedly!

- ◆ **Observe warnings for high-voltage system:**
- ◆ **For work that must be performed with the ignition switched on ⇒ [page 8](#).**

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Special tools and workshop equipment required

- ◆ Diagnosis system - VAS 6160 A-

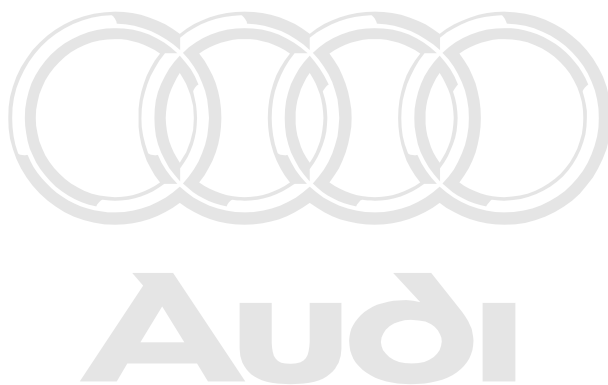


- ◆ Remote diagnosis head - VAS 5054A-
- ◆ Or: Diagnosis interface - VAS 5055-

Procedure:

- Plug connector for remote diagnosis head - VAS 5054A- into diagnostic connection in vehicle.
- Switch on diagnosis system - VAS 6160 A- .
- Switch on ignition.
- Follow the menu on the screen to start the desired functions.





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3 Maintenance

Display instruments: setting time and date ➔ [page 147](#)

Battery: checking that battery and battery cables are securely fitted ➔ [page 29](#)

Battery: determining and recording state of charge (SOC) ➔ [page 41](#)

Battery: connecting stationary battery charging unit (min. 30A, charging voltage max. 14.8 V on IV characteristic curve) ➔ [page 37](#)

Battery: checking electrolyte level ➔ [page 34](#)

Battery: reading out status and sending diagnostic log ➔ [page 28](#)

Axles (front and rear): checking components for play, secure attachment and damage, and checking protective boots ➔ [page 61](#)

Front passenger airbag: checking key switch on / off and setting to "on" ➔ [page 81](#)

Tyres (except spare wheel): checking tyre pressures and adjusting to 3.5 bar if necessary ➔ [page 55](#)

Tyres: checking tyre pressures and adjusting if necessary ➔ [page 54](#)

Tyres: checking condition and wear pattern, and checking and recording tread depth ➔ [page 53](#)

Owner's literature: checking that all documents are present ➔ [page 81](#)

Owner's literature: placing quick reference guide where it is visible to driver ➔ [page 81](#)

Brake system: checking condition of brake hoses, and checking that caps are fitted on bleeder screws ➔ [page 50](#)

Brake pads: checking thickness ➔ [page 51](#)

Brake fluid (vehicles older than 12 months): changing ➔ [page 50](#)

Brake fluid: checking fluid level ➔ [page 50](#)

Brake fluid: changing ➔ [page 45](#)

Brake discs: checking for surface rust and operating brakes to clean if necessary ➔ [page 52](#)

Checklist "Documentation of cleaning and care routine": checking availability ➔ [page 146](#)

Checklist "Documentation of cleaning and care routine": signing and placing in vehicle wallet ➔ [page 146](#)

Roof insert - panorama sunroof: checking, cleaning and lubricating ➔ [page 68](#)

Roof insert - sliding/tilting sunroof: cleaning and lubricating ➔ [page 66](#)

Roof insert: checking operation ➔ [page 65](#)

Diesel particulate filter: reading out ash deposit volume ➔ [page 23](#)

Dual clutch gearbox (S tronic): changing ATF fluid ➔ [page 147](#)

Dual clutch gearbox (S tronic): changing gear oil and renewing oil filter ➔ [page 147](#)

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Natural gas system: checking for damage and leaks
⇒ [page 128](#)

Natural gas tank: renewing ⇒ [page 148](#)

Filler connection for natural gas: checking condition and cleaning
if necessary ⇒ [page 133](#)

Event memory: reading out and erasing ⇒ [page 24](#)

Headlights and reversing lights, side lights, number plate lights,
turn signals, hazard warning lights: checking operation
⇒ [page 78](#)

Mirror hanger indicating defective battery: renewing battery on
affected vehicles ⇒ [page 45](#)

Vehicle doors: removing edge protection ⇒ [page 142](#)

Vehicle exterior: checking unprotected areas for dirt, and cleaning
if necessary ⇒ [page 142](#)

Vehicle exterior: removing protective film ⇒ [page 142](#)

Vehicle interior and exterior: checking for and documenting any
damage ⇒ [page 83](#)

Vehicle interior: checking that it is clean and cleaning if necessary
⇒ [page 83](#)

Vehicle interior: removing any objects other than those protecting
interior surfaces ⇒ [page 83](#)

Vehicle interior: removing protective covers for seats and carpet
⇒ [page 83](#)

Vehicle (from below): checking for damage ⇒ [page 65](#)

Vehicle key(s), wheel covers and owner's literature: checking
availability and recording number present ⇒ [page 85](#)

Vehicle key: removing from ignition lock ⇒ [page 84](#)

Vehicle key(s): checking operation and recording number of keys
given to customer ⇒ [page 84](#)

Bonnet arrester hook: lubricating ⇒ [page 74](#)

Cleaning and care: checking that required measures have been
carried out on time ⇒ [page 147](#)

Suspension struts on front and rear axle: removing locking ele-
ments ⇒ [page 58](#)

Car cover: renewing according to manufacturer's instructions
⇒ [page 143](#)

Luggage compartment cover and sun blind: checking that they
are rolled up and rolling up if necessary ⇒ [page 85](#)

Four-wheel drive coupling: changing oil ⇒ [page 147](#)

Glove box light, interior lighting and reading light: checking oper-
ation ⇒ [page 80](#)

High-voltage battery on electric vehicles and hybrid vehicles: de-
termining and recording state of charge (SOC) ⇒ [page 27](#)

High-voltage battery: charging ⇒ [page 27](#)

Vehicles parked outdoors: covering unprotected vehicles with
protective transport film and car cover (not for vehicles with con-
trol number 5K0) ⇒ [page 144](#)

Vehicles parked outdoors: locking ⇒ [page 144](#)

Interior mirror: calibrating compass ⇒ [page 148](#)

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Body: checking vehicle paintwork for damage and corrosion from below and with bonnet, rear lid and doors open ➔ [page 144](#)

Luggage compartment lighting: checking operation ➔ [page 79](#)

Luggage compartment: removing protective film and felt pieces ➔ [page 80](#)

Instrument cluster: resetting driver information system ➔ [page 148](#)

Instrument cluster: checking warning lamps ➔ [page 83](#)

Fuel tank: adding fuel additive ➔ [page 137](#)

Fuel filter: draining ➔ [page 136](#)

Fuel filter: renewing ➔ [page 134](#)

Coolant level: checking (fill level should be at top marking on coolant expansion tank; level may be above top marking, but not below it ➔ [page 112](#))

Cooling system for high-voltage system: checking anti-freeze protection and coolant level, and correcting if necessary ➔ [page 114](#)

Paintwork, trims, side windows and wiper blades: checking cleanliness ➔ [page 143](#)

Type 2 charging cable: checking that cable is present and complete ➔ [page 145](#)

Charging socket: checking for dirt and damage ➔ [page 146](#)

Charging system: checking that system is present and complete ➔ [page 145](#)

Air cleaner: renewing filter element and cleaning housing ➔ [page 118](#)

Engine, gearbox, final drive and steering: checking for leaks and damage ➔ [page 64](#)

Engine oil: draining ➔ [page 85](#)

Engine oil: extracting ➔ [page 91](#)

Engine oil: renewing oil filter ➔ [page 92](#)

Engine oil: filling up ➔ [page 97](#)

Engine oil: checking oil level and correcting if necessary ➔ [page 98](#)

Parking brake: releasing ➔ [page 53](#)

Road test ➔ [page 144](#)

Wheel bolts: tightening to specified torque ➔ [page 57](#)

Reducing agent (AdBlue®): filling up tank completely ➔ [page 138](#)

Tyre Pressure Loss Indicator: storing changed tyre pressures ➔ [page 56](#)

Tyre repair kit: checking that set is complete, and checking and recording expiry date ➔ [page 57](#)

Manual gearbox/automatic gearbox: selecting 1st gear/park ➔ [page 147](#)

Windscreen/rear window washer system: checking spray pattern and adjusting if necessary ➔ [page 75](#)

Wiper blades: checking for damage ➔ [page 76](#)



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- Headlights: checking for correct adjustment ➔ [page 76](#)
- Headlight washer system: checking operation ➔ [page 76](#)
- Service Schedule: affixing vehicle data sticker ➔ [page 82](#)
- Service Schedule: entering Delivery Inspection ➔ [page 82](#)
- Service interval display: resetting service ➔ [page 25](#)
- Seat belts: checking that retaining rivets are fitted, and checking locking action of automatic belt retractor ➔ [page 82](#)
- Horn: checking operation ➔ [page 80](#)
- Sun visors: checking that they are folded up and folding up if necessary ➔ [page 85](#)
- Stock vehicles: observing measures specified in Maintenance table for stock vehicles (see "Before handing vehicle over to customer") ➔ [page 145](#)
- Dust and pollen filter: renewing ➔ [page 126](#)
- Dust and pollen filter: renewing preliminary filter ➔ [page 126](#)
- Stock vehicle care management: deciding and recording date of next check ➔ [page 147](#)
- Transport mode: checking activation and activating if necessary ➔ [page 26](#)
- Transport mode: deactivating ➔ [page 25](#)
- Protective transport film and car cover: checking position and correcting if necessary ➔ [page 143](#)
- Protective transport film: renewing according to manufacturer's instructions ➔ [page 143](#)
- Rollover bars: checking function with convertible roof open ➔ [page 26](#)
- Underbody: checking trim, wheel housing liners, side members and pipes/wiring for damage, and checking that they are properly secured ➔ [page 65](#)
- First-aid kit: checking and recording expiry date ➔ [page 84](#)
- Warning triangle: checking availability ➔ [page 84](#)
- Toothed belt for camshaft drive and tensioning roller: renewing ➔ [page 148](#)
- Toothed belt for camshaft drive: renewing ➔ [page 148](#)
- Accessories: installing ➔ [page 146](#)
- Spark plugs: renewing ➔ [page 100](#)
- 3.1 Diesel particulate filter: reading out ash deposit volume**

Table of test values and procedure guidelines:

Engine	Measured value designation for diagnostic tester	Maximum value for ash deposit
4-cyl. diesel engine 1.6 ltr. TDI/ 2.0 ltr. TDI	Particulate filter, oil ash deposit mass	Oil ash deposit mass: 80 g

Procedure:

- Connect vehicle diagnostic tester ⇒ [page 18](#) .
- Select **Diagnosis** mode and begin diagnosis.
- Perform vehicle identification.
- De-select “Working with Guided Fault Finding” by removing **√** and press **Apply**.
- Continue to follow instructions on screen.
- Switch to “Control units” tab.
- Select control unit “01 — Engine electronics” and carry out following functions via right mouse button:
 - ◆ Identify control unit
 - ◆ Guided Functions
 - ◆ 01 - Read measured values
- Select desired measured value (see table of test values and procedure guidelines ⇒ [page 23](#)) by entering **√** and confirming with **OK**.
- Evaluate measured value and follow further instructions on screen.
- Perform the following measures according to the measured value:

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Result:

Measure:

Measured value < critical value

Vehicle can be driven for a further 30,000 km (19,000 miles).

Measured value ≥ critical value

Renew diesel particulate filter and reset measured value to zero ⇒ Engine; Rep. gr. 26 ; Emission control system; Removing and installing particulate filter .

3.2 Event memory: reading out and erasing



WARNING

Risk of injury as engine of high-voltage vehicle can start unexpectedly!

- ◆ Observe warnings for high-voltage system:
- ◆ For work that must be performed with the ignition switched on ⇒ [page 8](#) .

Procedure:

- Connect vehicle diagnostic tester ⇒ [page 18](#) .
- Select **Diagnosis** mode and begin diagnosis.
- Perform vehicle identification.
- Select “Working with Guided Fault Finding” by entering **√** and press **Apply**.

The control unit is then identified, and the event memory is interrogated. Observe notes and test conditions.

- Switch to “Control units” tab and call up “Event memory list” for an overview of all entries stored in event memory.
- Correct relevant faults and erase event memory.

 Note

The event memory is erased automatically if the Guided Fault Finding is closed correctly.

3.3 Service interval display: resetting service

 DANGER

Risk of injury as engine of high-voltage vehicle can start unexpectedly!

- ◆ Observe warnings for high-voltage system:
- ◆ For work that must be performed with the ignition switched on ➔ [page 8](#) .

Procedure:

- Connect vehicle diagnostic tester ➔ [page 18](#) .
- Select **Diagnosis** mode and begin diagnosis.
- Perform vehicle identification.
- De-select “Working with Guided Fault Finding” by removing **[V]** and press **[Apply]**.
- Switch to “Special functions” tab.
- Select service setting to be reset (e.g. “17 — Inspection”).
- Start program by selecting **Carry out check**.
- Continue to follow instructions on screen.

 Note

Please refer to the relevant Maintenance table for information on which service channel to reset and what data to enter.

3.4 Transport mode: deactivating

 DANGER

Risk of injury as engine of high-voltage vehicle can start unexpectedly!

- ◆ Observe warnings for high-voltage system:
- ◆ For work that must be performed with the ignition switched on ➔ [page 8](#) .

Procedure:

- Connect vehicle diagnostic tester ➔ [page 18](#) .
- Select **Diagnosis** mode and begin diagnosis.
- Perform vehicle identification.
- De-select “Working with Guided Fault Finding” by removing **[V]** and press **[Apply]**.
- Switch to “Special functions” tab and select following program:
 - ◆ 19 - Activating / deactivating transport mode

- Start program by selecting **Carry out check**.
- Continue to follow instructions on screen.



Note

- ♦ *The transport mode serves to maintain the vehicle's ability to start.*
- ♦ *When the vehicle is in transport mode, many functions, e.g. radio, are restricted or unavailable.*

3.5 Transport mode: checking activation and activating if necessary

Checking transport mode ➔ [page 26](#)

Activating transport mode ➔ [page 26](#)

3.5.1 Checking transport mode

Procedure:

- Switch on ignition.
- Check whether »Transport mode on« is shown in instrument cluster.
- If necessary, activate transport mode ➔ [page 26](#) .

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3.5.2 Activating transport mode

Procedure:

- Connect vehicle diagnostic tester ➔ [page 18](#) .
- Select **Diagnosis** mode and begin diagnosis.
- Perform vehicle identification.
- De-select "Working with Guided Fault Finding" by removing **V** and press **Apply**.
- Switch to "Special functions" tab and select following program:
 - ♦ 19 - Activating / deactivating transport mode
- Start program by selecting **Carry out check**.
- Continue to follow instructions on screen.



Note

- ♦ *The transport mode serves to maintain the vehicle's ability to start.*
- ♦ *When the vehicle is in transport mode, many functions, e.g. radio, are restricted or unavailable.*

3.6 Rollover bars: checking function with convertible roof open

Requirements:

- Convertible roof open

Removal steps:

- Remove both rollover bar trim pieces ⇒ Rep. gr. 55 ; Convertible roof compartment lid; Removing and installing trim for convertible roof compartment lid .

Procedure:

- Connect vehicle diagnostic tester ⇒ [page 18](#) .
- Select **Diagnosis** mode and begin diagnosis.
- Perform vehicle identification.
- De-select “Working with Guided Fault Finding” by removing **V** and press **Apply**.
- Switch to “Special functions” tab and select following program:
 - ◆ 15 - Final control diagnosis for rollover bars
- Start program by selecting **Carry out check**.
- Continue to follow instructions on screen.

Install in reverse sequence.

3.7 High-voltage battery: charging

The charging socket is located behind the Audi emblem on the radiator grille.

Requirements:

- Ignition switched off.

Procedure:

- Open cap on charging unit.
- Pull cap off charging socket.
- Plug in charging cable.
- Select **Immediate charge** to start charging.
- Check charging function using **status LED** on vehicle side of charging plug.

3.8 High-voltage battery on electric vehicles and hybrid vehicles: determining and recording state of charge (SOC)

Procedure:

- Switch on ignition.
- Read off charge level of high-voltage battery on instrument cluster.
- Use results of test to determine following measures:

State of charge (SOC):	Measure:
“≥ 1/4”	No further measures necessary.
“< 1/4”	Charge high-voltage battery ⇒ Electrical system; Rep. gr. 27 ; Battery; Charging battery .

- Record charge level in maintenance table.

3.9 High-voltage battery on electric vehicles and hybrid vehicles: charging to a state

of charge (SOC) of 3/4 according to manufacturer's instructions

Procedure:

- Charge battery to an SOC of 3/4 ⇒ Electrical system; Rep. gr. 27 ; Battery; Charging battery .

3.10 Battery: reading out status and sending diagnostic log

DANGER

Risk of injury as engine of high-voltage vehicle can start unexpectedly!

- ◆ Observe warnings for high-voltage system:
- ◆ For work that must be performed with the ignition switched on ⇒ [page 8](#) .

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Procedure:

- Connect vehicle diagnostic tester ⇒ [page 18](#) .
- Select **Diagnosis** mode and begin diagnosis.
- Perform vehicle identification.
- Select “Working with Guided Fault Finding” by entering **√** and press **Apply**.
- Switch to “Special functions” tab and select following program:
 - ◆ A - Battery check
- Start program by selecting **Carry out check**.
- Continue to follow instructions on screen.
- Use results of test to determine following measures:

Result on vehicle diagnostic test- Measure:

“Battery OK”	No further measures necessary.
“Charge battery”	Charge battery ⇒ Electrical system; Rep. gr. 27 ; Battery; Charging battery .
“Battery is no longer of the same quality as when shipped”	Renew battery after consulting with customer ⇒ Electrical system; Rep. gr. 27 ; Battery; Removing and installing battery .

- Switch to **Control units** tab.
- Press **X Diagnosis** button and close diagnosis program.
- Send off diagnosis log online.



Note

- ◆ A working network connection is necessary to send the diagnostic log file online.
- ◆ After the diagnosis is complete, you will receive confirmation that the test log was sent successfully.

3.11 Battery: checking that battery and battery cables are securely fitted

All vehicles except A3 e-tron and RS 3 ➔ [page 29](#)

A3 e-tron ➔ [page 30](#)

RS 3 ➔ [page 32](#)

3.11.1 All vehicles except A3 e-tron and RS 3

WARNING

Risk of injury due to loose battery clamp on positive terminal.

- ◆ Disconnect battery clamp from negative terminal and then tighten battery clamp on positive terminal.

Special tools and workshop equipment required

- ◆ Torque wrench - V.A.G 1410- , measuring range 4 to 20 Nm
- ◆ Or: torque wrench - VAS 6583- , measuring range 3 to 60 Nm

Table of tightening torques for installation:

Component/fastener	[Nm]
Nut on battery clamp	4
Bolt on retainer plate	15

The battery is located in the engine compartment.

Requirements:

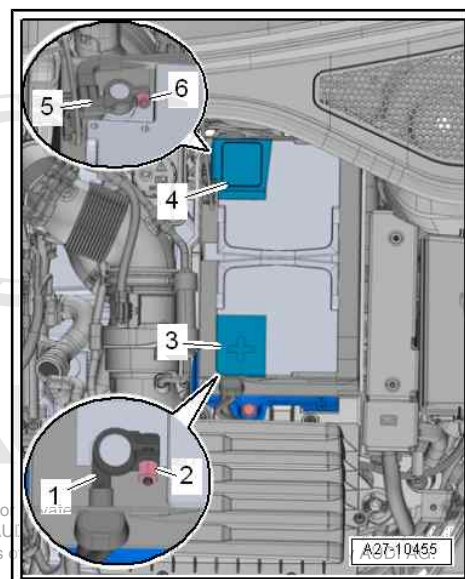
- Ignition switched off during test.

Removal steps:

- Open cover for heat insulation sleeve.
- Open battery terminal covers -3- and -4-.

Procedure:

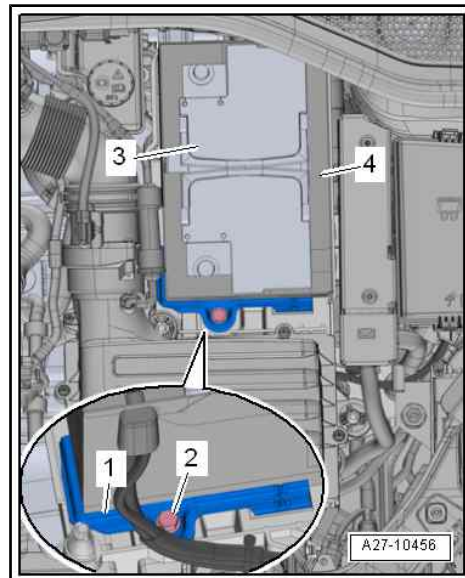
- Check by hand that battery clamps -1- and -5- are securely seated. If necessary, tighten nuts -2- and -6- of battery clamps -1- and -5- to specified torque (see table of tightening torques for installation ➔ [page 29](#)).



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- Check by hand that battery -3- is securely installed. If necessary tighten securing bolt -2- on retainer plate -1- to specified torque (see table of tightening torques for installation ⇒ [page 29](#)).

Install in reverse sequence.



3.11.2 A3 e-tron

WARNING

Risk of injury due to loose battery clamp on positive terminal.

- ◆ Disconnect battery clamp from negative terminal and then tighten battery clamp on positive terminal.

Special tools and workshop equipment required

- ◆ Torque wrench - V.A.G 1410- , measuring range 4 to 20 Nm
- ◆ Or: torque wrench - VAS 6583- , measuring range 3 to 60 Nm

Table of tightening torques for installation:

Component/fastener	[Nm]
Nuts for battery cover	9
Nuts on battery clamps	4
Nut on retainer plate	20

The battery is located in the luggage compartment.

Requirements:

- Ignition switched off during test.

Removal steps:

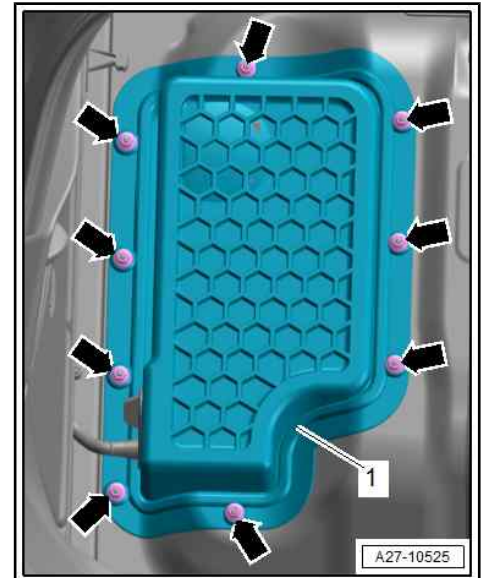
- Lift luggage compartment floor and secure in position.



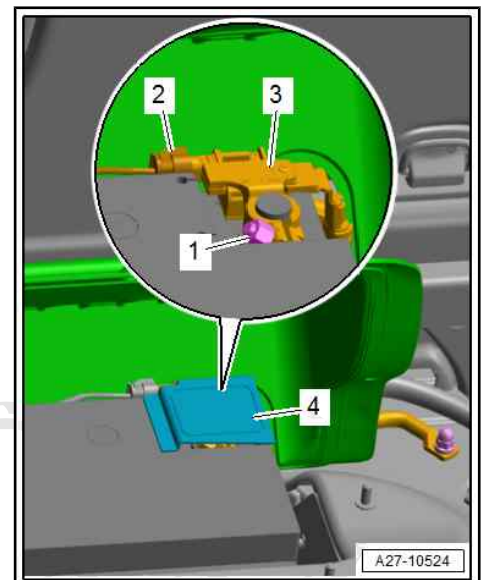
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- Unscrew nuts -arrows- for battery cover -1-.

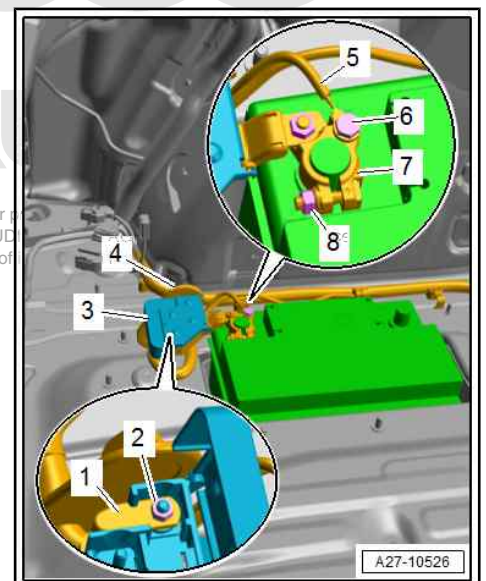
Procedure:



- Check by hand that battery terminal clamp -3- is securely seated. If necessary tighten nut -1- for battery terminal clamp to specified torque (see table of tightening torques for installation ➔ [page 30](#)).



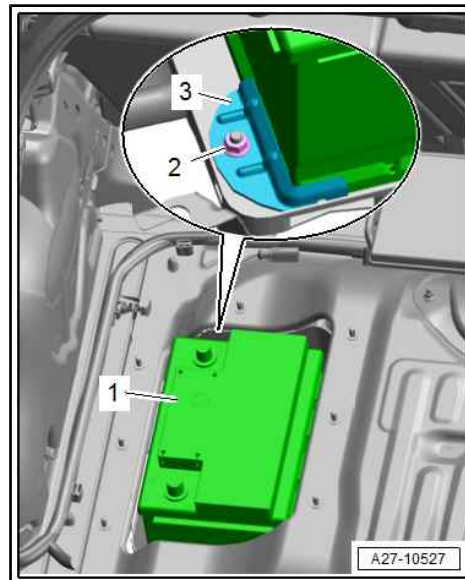
- Check by hand that battery terminal clamp -7- is securely seated. If necessary tighten nut -8- for battery terminal clamp to specified torque (see table of tightening torques for installation ➔ [page 30](#)).



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- Check by hand that battery -1- is securely installed. If necessary tighten securing nut -2- on retainer plate -3- to specified torque (see table of tightening torques for installation ⇒ [page 30](#)).

Install in reverse sequence. Note tightening torques (see table of tightening torques for installation ⇒ [page 30](#)).



3.11.3 RS 3

Special tools and workshop equipment required

- ◆ Torque wrench - V.A.G 1410- , measuring range 4 to 20 Nm
- ◆ Or: torque wrench - VAS 6583- , measuring range 3 to 60 Nm
- ◆ Or: torque wrench - V.A.G 1331- , measuring range 6 to 50 Nm

Table of tightening torques for installation:

Component/fastener	[Nm]
Nuts on battery clamps	6
Nut on retainer plate	20

The battery is located in the luggage compartment.

Requirements:

- Ignition switched off during test.

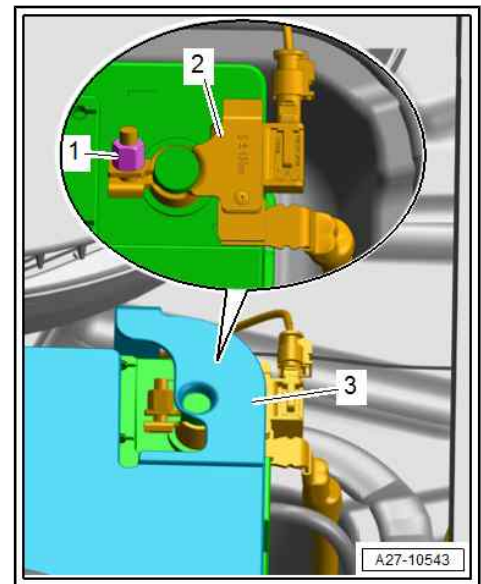
Removal steps:

- Lift luggage compartment floor and secure in position.
- Open battery terminal covers.

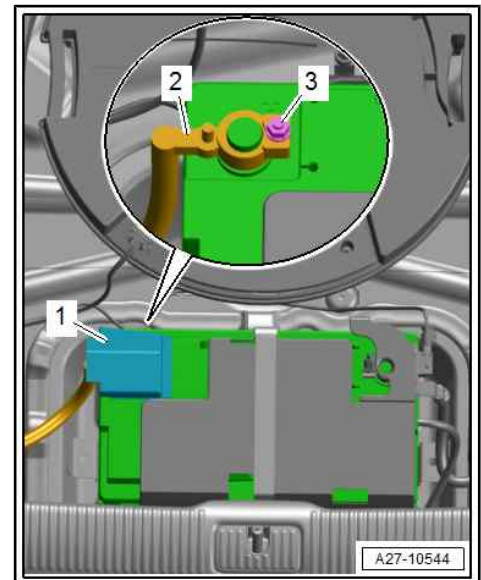
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Procedure:

- Check by hand that battery terminal clamp -2- is securely seated. If necessary tighten nut -1- for battery terminal clamp to specified torque (see table of tightening torques for installation ➤ [page 32](#)).

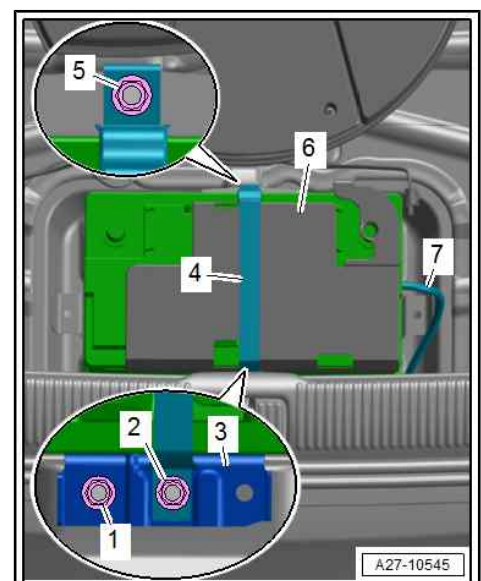


- Check by hand that battery terminal clamp -2- is securely seated. If necessary tighten nut -3- for battery terminal clamp to specified torque (see table of tightening torques for installation ➤ [page 32](#)).



- Check by hand that battery is securely installed. If necessary, tighten securing nuts -1- and -2- on retainer plate -3- to specified torque (see table of tightening torques for installation ➤ [page 32](#)).

Install in reverse sequence.



3.12 Battery: checking electrolyte level



Note

Batteries must not be opened.

Battery without magic eye: all models except RS 3 ⇒ [page 34](#)

Battery without magic eye: RS 3 ⇒ [page 34](#)

Battery with magic eye: all models except RS 3 ⇒ [page 35](#)

Battery with magic eye: RS 3 ⇒ [page 36](#)

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3.12.1 Battery without magic eye: all models except RS 3

The battery is located in the engine compartment.

Removal steps:

- Open cover for heat insulation sleeve.

Procedure:

- Check battery housing for the following:
 - ◆ Battery terminals are not corroded or damaged
 - ◆ Mechanical damage to battery housing and cover, indicated by electrolyte leakage or crystals at the damaged area
- Damaged batteries must be renewed.
- Check electrolyte level of all battery cells using markings on housing.
- If electrolyte level of one or more battery cells is below MIN marking: Renew battery.

Install in reverse sequence.



Note

- ◆ *A bright hand-held light helps to better see the MIN and MAX markings on the housing.*
- ◆ *If battery is difficult to see: Use a small mirror to check the electrolyte level (shine a bright hand-held light at a right angle onto the battery cells).*

3.12.2 Battery without magic eye: RS 3

The battery is located in the luggage compartment.

Removal steps:

- Lift luggage compartment floor and secure in position.

Procedure:

- Open cover for heat insulation sleeve.
- Check battery housing for the following:
 - ◆ Battery terminals are not corroded or damaged
 - ◆ Mechanical damage to battery housing and cover, indicated by electrolyte leakage or crystals at the damaged area
- Damaged batteries must be renewed.

- Check electrolyte level of all battery cells using markings on housing.
- If electrolyte level of one or more battery cells is below MIN marking: Renew battery.

Install in reverse sequence.



Note

- ◆ *A bright hand-held light helps to better see the MIN and MAX markings on the housing.*
- ◆ *If battery is difficult to see: Use a small mirror to check the electrolyte level (shine a bright hand-held light at a right angle onto the battery cells).*

3.12.3 Battery with magic eye: all models except RS 3



WARNING

Risk of explosion if magic eye is colourless or light yellow!

- ◆ **Do not attempt to jump-start vehicle.**
- ◆ **Do not check or charge battery.**
- ◆ **Renew battery.**

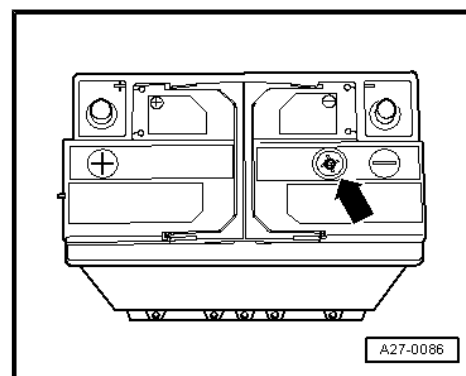
The battery is located in the engine compartment.

Removal steps:

- Open cover for heat insulation sleeve.

Procedure:

- Check battery housing for the following:
 - ◆ Battery terminals are not corroded or damaged
 - ◆ Mechanical damage to battery housing and cover, indicated by electrolyte leakage or crystals at the damaged area
- Damaged batteries must be renewed.
- Before checking electrolyte level: Tap magic eye -arrow- carefully with handle of a screwdriver.
- Read off battery electrolyte level according to colour display. Two different results are possible:



Colour of magic eye:

Black or green

Colourless or light yellow

Measure:

Electrolyte level OK: No further measures necessary

Electrolyte level too low: Battery must be renewed

Install in reverse sequence.



Note

- ◆ The magic eye is also referred to as an ALI (acid level indicator).
- ◆ The magic eye is only for use in determining the electrolyte level.
- ◆ During battery charging or vehicle operation, air bubbles can form underneath the magic eye which could falsify the colour display. Tap magic eye lightly to release any bubbles.

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3.12.4 Battery with magic eye: RS 3



WARNING

Risk of explosion if magic eye is colourless or light yellow!

- ◆ Do not attempt to jump-start vehicle.
- ◆ Do not check or charge battery.
- ◆ Renew battery.

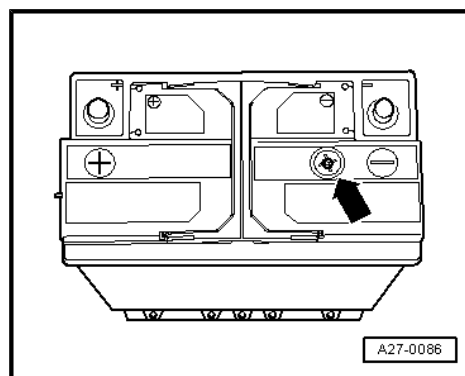
The battery is located in the luggage compartment.

Removal steps:

- Lift luggage compartment floor and secure in position.

Procedure:

- Check battery housing for the following:
 - ◆ Battery terminals are not corroded or damaged
 - ◆ Mechanical damage to battery housing and cover, indicated by electrolyte leakage or crystals at the damaged area
- Damaged batteries must be renewed.
- Before checking electrolyte level: Tap magic eye -arrow- carefully with handle of a screwdriver.
- Read off battery electrolyte level according to colour display. Two different results are possible:



Colour of magic eye:

Black or green
Colourless or light yellow

Measure:

Electrolyte level OK: No further measures necessary
Electrolyte level too low: Battery must be renewed

Install in reverse sequence.



Note

- ◆ The magic eye is also referred to as an ALI (acid level indicator).
- ◆ The magic eye is only for use in determining the electrolyte level.
- ◆ During battery charging or vehicle operation, air bubbles can form underneath the magic eye which could falsify the colour display. Tap magic eye lightly to release any bubbles.

3.13 Battery: connecting stationary battery charging unit (min. 30A, charging voltage max. 14.8 V on IV characteristic curve)



WARNING

Risk of injury if battery terminal clamps are connected incorrectly.

- ◆ Connect positive battery terminal clamp first, then connect negative battery terminal clamp.

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Only applies to vehicles intended for display.

All vehicles except A3 e-tron and RS 3 ⇒ [page 37](#)

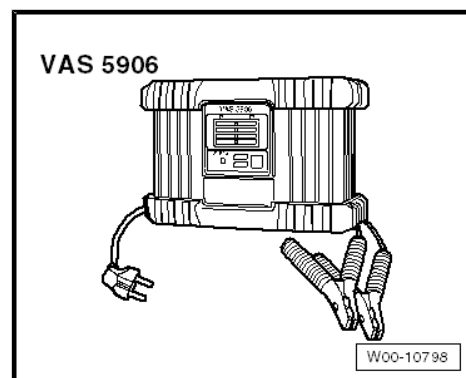
A3 e-tron ⇒ [page 39](#)

RS 3 ⇒ [page 40](#)

3.13.1 All vehicles except A3 e-tron and RS 3

Special tools and workshop equipment required

- ◆ Battery charger - VAS 5906-



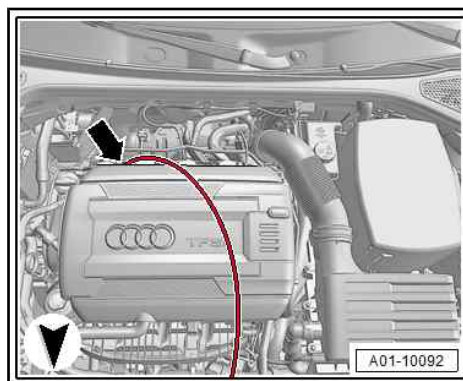
- ◆ Wire

Requirements:

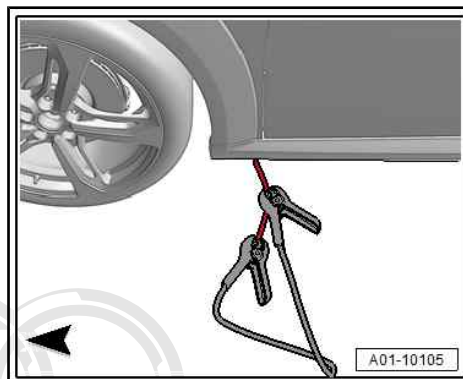
- Ignition switched off.

Procedure for connecting battery charger:

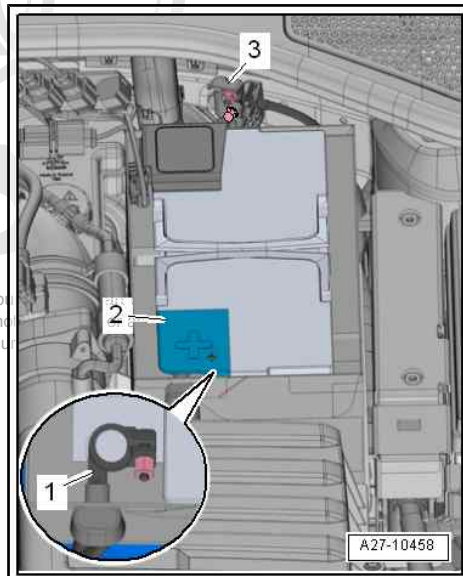
- Guide wire from above through engine compartment in area at rear right of engine cover panel -arrow- and guide out from underside of vehicle.



- Attach both charger clamps to wire (see -illustration-) and guide upwards into engine compartment.
- Open cover for heat insulation sleeve.



- Open battery terminal cover -2-.
- First connect charger clamp (+) to battery terminal (+) -1-, and ensure that charger clamp does not make contact with bonnet when it is closed.
- Then connect charger clamp (-) to earth point (-) -3- on body, and ensure that charger clamp does not make contact with bonnet when it is closed.
- Close cover of heat insulation sleeve as far as possible.
- Arrange wiring of battery charger - VAS 5906- neatly in engine compartment.
- Switch on battery charger - VAS 5906- and adjust settings as needed.
- Position battery charger - VAS 5906- under vehicle so that it is hidden from view as well as possible, ensuring that ventilation grille of charger is unobstructed.



Procedure for disconnecting battery charger:

Remove in reverse sequence.

3.13.2 A3 e-tron

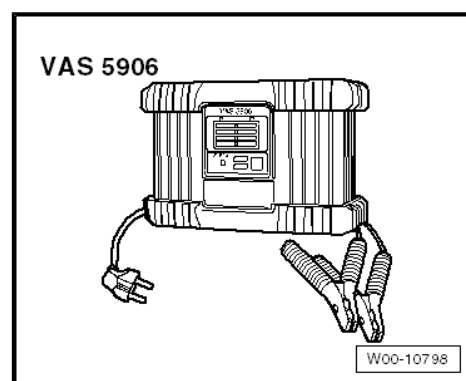
DANGER

Risk of fatal injury if high-voltage components are damaged.

- ◆ Observe warnings for high-voltage system:
- ◆ Handling high-voltage wires ⇒ [page 8](#) .
- ◆ For work in the vicinity of high-voltage components ⇒ [page 7](#) .

Special tools and workshop equipment required

- ◆ Battery charger - VAS 5906-



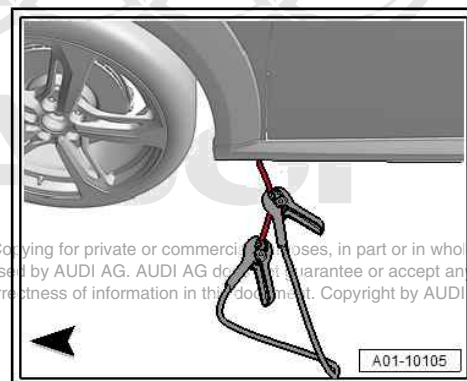
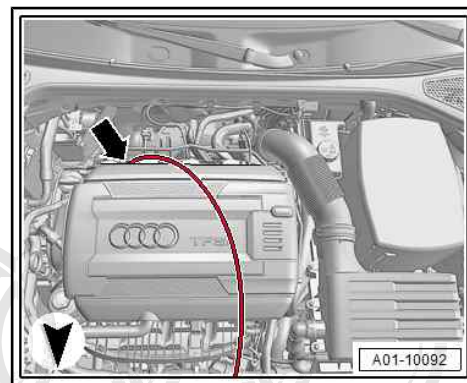
- ◆ Wire

Requirements:

- Ignition switched off.

Procedure for connecting battery charger:

- Guide wire from above through engine compartment in area at rear right of engine cover panel -arrow- and guide out from underside of vehicle.
- Attach both charger clamps to wire (see -illustration-) and guide upwards into engine compartment.
- Remove cover of electronics box and store it in glove box.

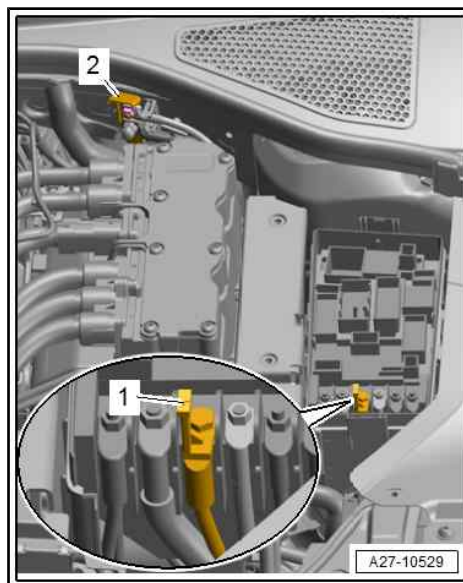


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- First connect charger clamp (+) to jump start connection (+) -1-, and ensure that charger clamp does not make contact with bonnet when it is closed.
- Then connect charger clamp (-) to earth point (-) -2- on body, and ensure that charger clamp does not make contact with bonnet when it is closed.
- Arrange wiring of battery charger - VAS 5906- neatly in engine compartment.
- Switch on battery charger - VAS 5906- and adjust settings as needed.
- Position battery charger - VAS 5906- under vehicle so that it is hidden from view as well as possible, ensuring that ventilation grille of charger is unobstructed.

Procedure for disconnecting battery charger:

Remove in reverse sequence.

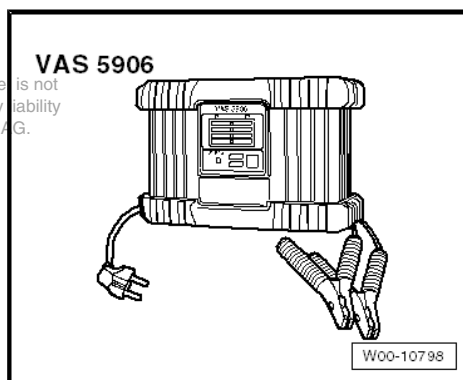


3.13.3 RS 3

Special tools and workshop equipment required

- ◆ Battery charger - VAS 5906-

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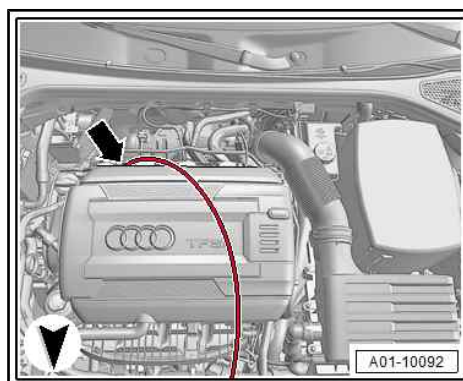
- ◆ Wire

Requirements:

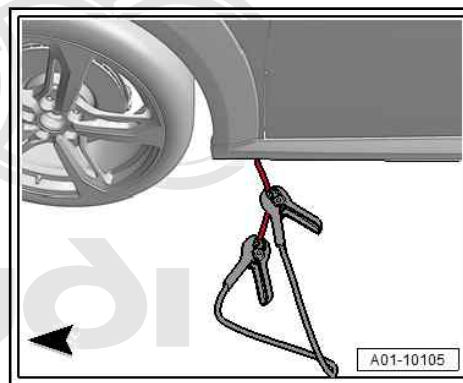
- Ignition switched off.

Procedure for connecting battery charger:

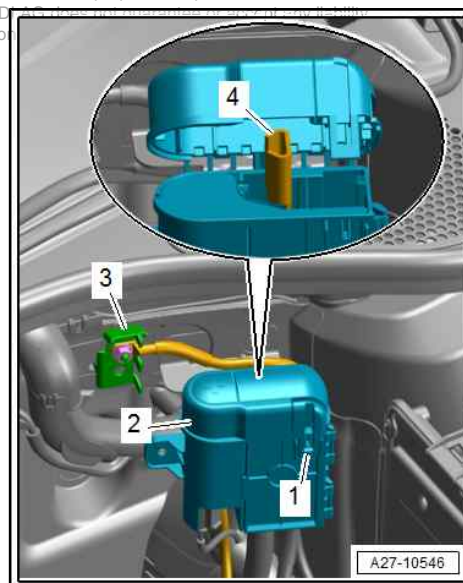
- Guide wire from above through engine compartment in area at rear right of engine cover panel -arrow- and guide out from underside of vehicle.



- Attach both charger clamps to wire (see -illustration-) and guide upwards into engine compartment.



- Release catch -1- and open cover for jump start connection (+) -2-.
- First connect charger clamp (+) to jump start connection (+) -4-, and ensure that charger clamp does not make contact with bonnet when it is closed.
- Then connect charger clamp (-) to earth point (-) -3- on body, and ensure that charger clamp does not make contact with bonnet when it is closed.
- Arrange wiring of battery charger - VAS 5906- neatly in engine compartment.
- Switch on battery charger - VAS 5906- and adjust settings as needed.
- Position battery charger - VAS 5906- under vehicle so that it is hidden from view as well as possible, ensuring that ventilation grille of charger is unobstructed.



Procedure for disconnecting battery charger:

Remove in reverse sequence.

3.14 Battery: determining and recording state of charge (SOC)

Vehicles with transport mode ON ➔ [page 41](#)

Vehicles with transport mode OFF: all vehicles except A3 e-tron and RS 3 ➔ [page 42](#)

Vehicles with transport mode OFF: A3 e-tron ➔ [page 42](#)

Vehicles with transport mode OFF: RS 3 ➔ [page 43](#)

3.14.1 Vehicles with transport mode ON

Procedure:

- Read off battery charge level on instrument cluster.
- Use results of test to determine following measures:

State of charge (SOC):	Measure:
"≥ 80% (12.5 V)"	No further measures necessary.
"SOC < 80% (12.5 V) und SOC ≥ 10% (11.6 V)"	Charge battery ➔ Electrical system; Rep. gr. 27 ; Battery; Charging battery .
"< 10% (11.6 V)"	Charge battery ➔ Electrical system; Rep. gr. 27 ; Battery; Charging battery , and attach mirror hanger for "Battery defective".

- Record charge level in maintenance table.



Note

If it is not possible to read off the state of charge in the instrument cluster, measure the battery's no load voltage ⇒ [page 44](#) .

3.14.2 Vehicles with transport mode OFF: all vehicles except A3 e-tron and RS 3

Special tools and workshop equipment required

- ◆ Battery tester - VAS 6161-

The battery is located in the engine compartment.

Procedure:

- Switch on battery tester - VAS 6161- and select “QC check, new vehicles”.
- Use battery tester - VAS 6161- to measure voltage between battery clamps.
- Use results of test to determine following measures:

Battery tester shows:

Measure:

“Battery Good”	No further measures necessary.
“Charge fully now”	Charge battery ⇒ Electrical system; Rep. gr. 27 ; Battery; Charging battery .
“Battery Faulty”	Charge battery ⇒ Electrical system; Rep. gr. 27 ; Battery; Charging battery , and attach mirror hanger for “Battery defective”.

- Record charge level in maintenance table.



Note

- ◆ *When using battery tester - VAS 6161- , ensure that the software is up to date.*
- ◆ *If it is not possible to measure the state of charge with battery tester - VAS 6161- , measure the battery's no load voltage ⇒ [page 44](#) .*

3.14.3 Vehicles with transport mode OFF: A3 e-tron

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Special tools and workshop equipment required

- ◆ Battery tester - VAS 6161-
- ◆ Torque wrench - V.A.G 1410- , measuring range 4 to 20 Nm
- ◆ Or: torque wrench - VAS 6583- , measuring range 3 to 60 Nm

Table of tightening torques for installation:

Component/fastener	[Nm]
Nuts for battery cover	9

The battery is located in the luggage compartment.

Removal steps:

- Lift luggage compartment floor and secure in position.
- Unscrew nuts -arrows- for battery cover -1-.

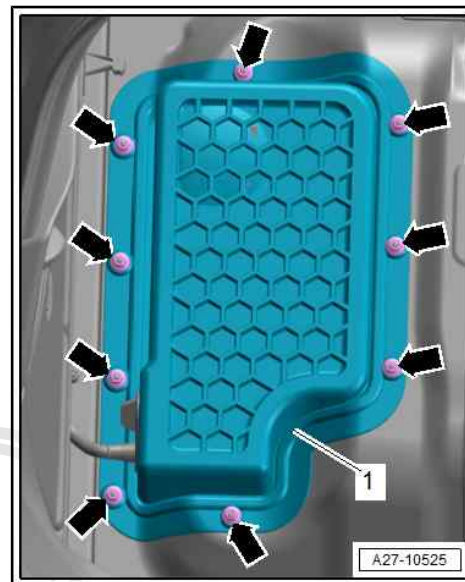
Procedure:

- Switch on battery tester - VAS 6161- and select “QC check, new vehicles”.
- Use battery tester - VAS 6161- to measure voltage between battery clamps.
- Use results of test to determine following measures:

Battery tester shows:	Measure:
“Battery Good”	No further measures necessary.
“Charge fully now”	Charge battery ⇒ Electrical system; Rep. gr. 27 ; Battery; Charging battery .
“Battery Faulty”	Charge battery ⇒ Electrical system; Rep. gr. 27 ; Battery; Charging battery , and attach mirror hanger for “Battery defective”.

- Record charge level in maintenance table.

Install in reverse sequence. Note tightening torques (see table of tightening torques for installation ⇒ [page 42](#)).



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- ◆ *When using battery tester - VAS 6161- , ensure that the software is up to date.*
- ◆ *If it is not possible to measure the state of charge with battery tester - VAS 6161- , measure the battery's no load voltage ⇒ [page 44](#) .*

3.14.4 Vehicles with transport mode OFF: RS 3

Special tools and workshop equipment required

- ◆ Battery tester - VAS 6161-

The battery is located in the luggage compartment.

Removal steps:

- Lift luggage compartment floor and secure in position.

Procedure:

- Switch on battery tester - VAS 6161- and select “QC check, new vehicles”.
- Use battery tester - VAS 6161- to measure voltage between battery clamps.
- Use results of test to determine following measures:

Battery tester shows:	Measure:
"Battery Good"	No further measures necessary.
"Charge fully now"	Charge battery ⇒ Electrical system; Rep. gr. 27 ; Battery; Charging battery .
"Battery Faulty"	Charge battery ⇒ Electrical system; Rep. gr. 27 ; Battery; Charging battery , and attach mirror hanger for "Battery defective".

– Record charge level in maintenance table.

Install in reverse sequence.



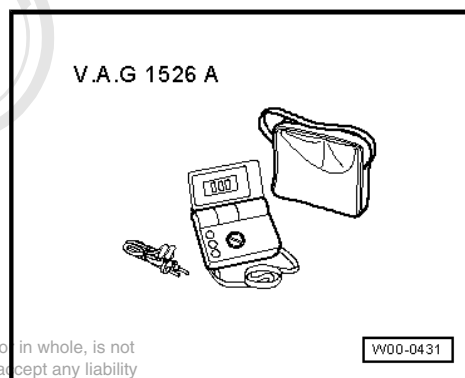
Note

- ◆ When using battery tester - VAS 6161- , ensure that the software is up to date.
- ◆ If it is not possible to measure the state of charge with battery tester - VAS 6161- , measure the battery's no load voltage ⇒ [page 44](#) .

3.14.5 Measuring no load voltage of battery

Special tools and workshop equipment required

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



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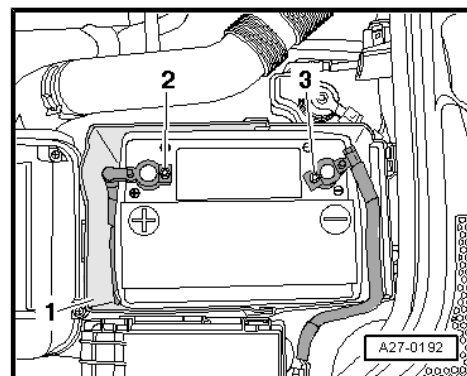
- ◆ Or: digital multimeter - V.A.G. 1715-

Requirements:

- Battery must not be placed under load from connected electrical equipment for at least 12 hours before test.
- Battery must not have been charged for at least 12 hours before test.
- Engine must remain off for at least 2 hours before test.
- Ignition switched off during test.

Procedure:

- Use hand-held multimeter - V.A.G. 1526 C- to measure voltage between battery clamps -2- and -3-.
- Use results of test to determine following measures:



State of charge (SOC):	Measure:
"≥ 12.5 V"	No further measures necessary.
"SOC < 12.5 V und SOC ≥ 11.6 V"	Charge battery ⇒ Electrical system; Rep. gr. 27 ; Battery; Charging battery .
"< 11.6 V"	Charge battery ⇒ Electrical system; Rep. gr. 27 ; Battery; Charging battery , and attach mirror hanger for "Battery defective".

- Record charge level in maintenance table.

Install in reverse sequence.

3.15 Mirror hanger indicating defective battery: renewing battery on affected vehicles

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Only for vehicles with mirror hanger for "Battery defective".

Procedure:

- Wait until shortly before vehicle delivery, then renew battery according to instructions in workshop manual ⇒ Rep. gr. 27 ; Removing and installing battery .

3.16 Brake fluid: changing

WARNING

Risk of accident if the brake pedal has too much free play.

- ◆ Make sure that the brakes work properly before the vehicle is driven on the road.

WARNING

Risk of injury due to caustic brake fluid.

- ◆ Avoid contact with skin.

CAUTION

Risk of damage due to improper handling of brake fluid.

- ◆ Avoid contact with vehicle paint.
- ◆ Avoid contact with liquids containing mineral oils (oil, petrol, cleaning agents).

Special tools and workshop equipment required

- ◆ Brake filling and bleeding equipment - VAS 5234-



- ◆ Tool set for brake bleeding - VAS 6564-



Table of test values and procedure guidelines:

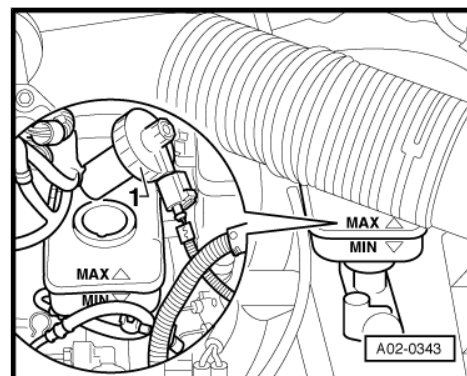
The value given in the table is for one brake caliper, i.e. if there are two bleeder screws on one caliper, the sum of the quantities discharged from both bleeder screws must equal the value given in the table.

Sequence of opening bleeder screws:		Quantity of brake fluid to discharge:
Brake calipers		
Front axle on driver's side	1.	0.20 ltr.
Front axle on front passenger's side	2.	0.20 ltr.
Rear axle on driver's side	3.	0.30 ltr.
Rear axle on front passenger's side	4.	0.30 ltr.
Clutch slave cylinder	5.	0.15 ltr.
⇒ Total quantity, automatic gearbox		1.00 ltr.
⇒ Total quantity, manual gearbox		1.15 ltr.

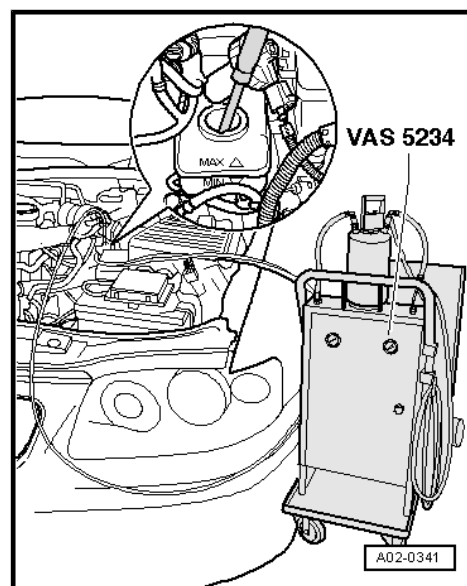
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Step 1 - connecting brake filling and bleeding equipment:

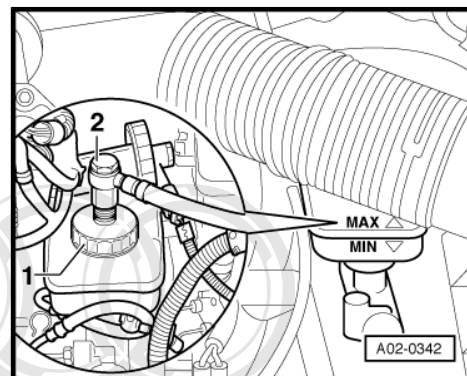
- Unscrew filler cap -1- from brake fluid reservoir.



- Use extraction hose included in brake filling and bleeding equipment - VAS 5234- to extract brake fluid from reservoir (with strainer installed) until fluid is level with bottom edge of strainer. Make sure that no more fluid flows back into reservoir from strainer after extracting fluid.



- Screw adapter -1- onto brake fluid reservoir.
- Connect filling hose -2- included with brake filling and bleeding equipment - VAS 5234- to adapter.
- Set pressure on brake filling and bleeding equipment - VAS 5234- (see operating instructions).



Step 2 - bleeding and filling brake system:

If there are two bleeder screws on each brake caliper, first bleed the inner, then the outer bleeder screw.

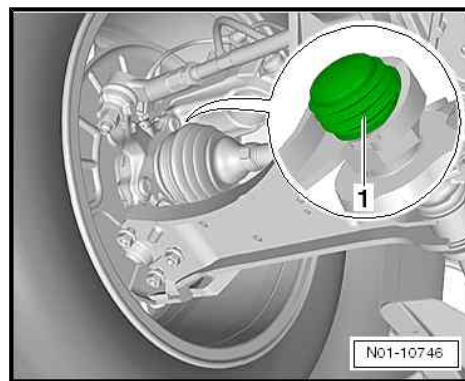
- Raise vehicle ➔ [page 10](#) .

Front axle:

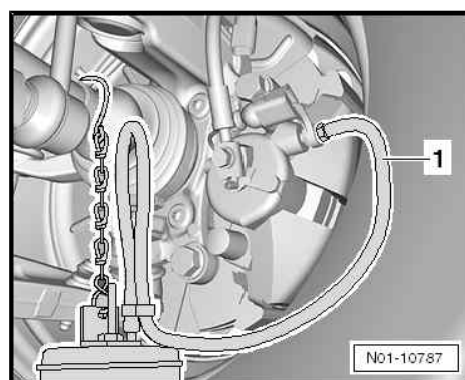


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- Brake caliper (driver's side): Remove cap(s) -1- from bleeder screw(s).

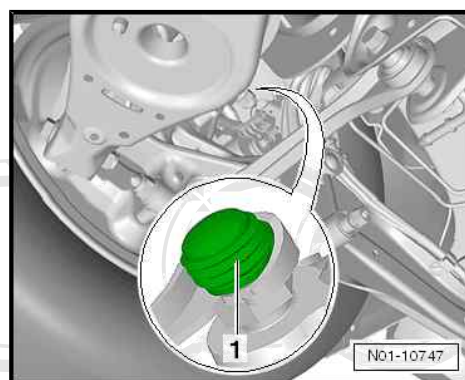


- Fit bleeder hose -1- attached to collector container onto bleeder screw from inside of rim.
- Open bleeder screw and allow brake fluid to discharge. Refer to table for correct quantity of brake fluid to discharge ⇒ [page 46](#) .
- Close bleeder screw.
- If there are two bleeder screws on each brake caliper: Repeat procedure with second bleeder screw.
- Refit cap on bleeder screw(s).
- Repeat procedure on passenger's side.

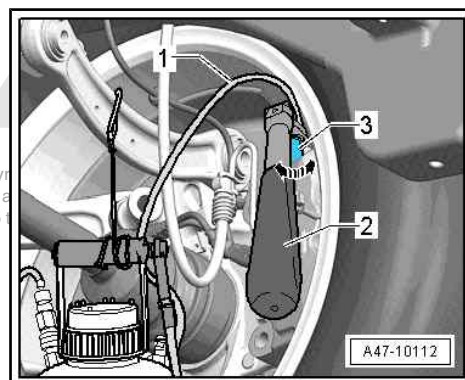


Rear axle:

- Brake caliper (driver's side): Remove cap(s) -1- from bleeder screw(s).
- Take reversible ratchet and appropriate socket from tool set for brake bleeding - VAS 6564- and fit together.



- Run bleeder hose -1- from inside of rim through reversible ratchet -2- and socket -3- and fit onto bleeder screw.
- Open bleeder screw with ratchet -2- and allow brake fluid to discharge. Refer to table for correct quantity of brake fluid to discharge ⇒ [page 46](#) .
- Close bleeder screw.



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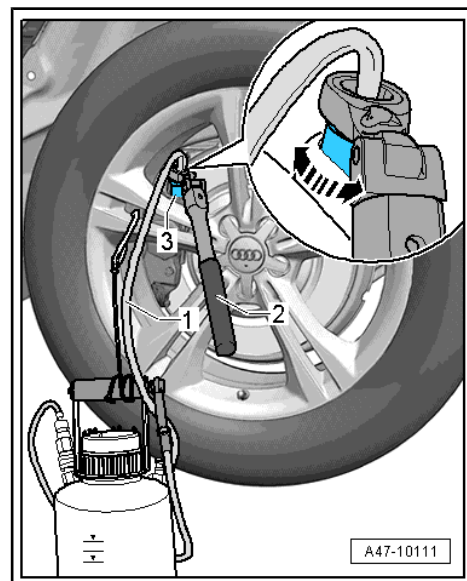
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- If there are two bleeder screws on each brake caliper: Working from outside of rim, apply reversible ratchet -2- and socket -3- and repeat procedure.
- Refit cap on bleeder screw(s) on brake caliper.
- Repeat procedure on passenger's side.

Step 3 - bleeding clutch slave cylinder

Only for vehicles with manual gearbox

- Remove components necessary for access; refer to ➤ **Manual gearbox, Rep. gr. 30, Clutch mechanism, Bleeding clutch mechanism**.
- Fit bleeder hose attached to collector container -1- onto bleeder screw of clutch slave cylinder.
- Open bleeder screw and allow correct amount of brake fluid to flow out (see table of test values and procedure guidelines ➤ [page 46](#)).
- Close bleeder screw and fit cap.



Step 4 - final steps:

- Close filling lever of brake filling and bleeding equipment - VAS 5234-.
- Detach filling hose from adapter.
- Unscrew adapter from brake fluid reservoir.
- Check brake fluid level and adjust if necessary (depending on brake pad wear) ➤ [page 50](#).
- Screw cap onto brake fluid reservoir.
- Operate clutch pedal several times.
- Check pedal pressure and free travel: No more than $\frac{1}{3}$ of total pedal travel.
- Make sure that the brakes work properly before the vehicle is driven on the road.
- If free travel of brake pedal is greater than specified, or if brake function is impaired: Check brake system for leaks and renew brake fluid again.



Note

- ◆ *The bleeder hose must fit tightly on the bleeder screw to prevent air from entering the brake system.*
- ◆ *In the case of certain wheel combinations, the wheels may have to be removed.*
- ◆ *With the aid of the tool set for brake bleeding - VAS 6564- , the rear brakes or, depending on version, the front and rear brakes can be bled without having to remove the wheels.*
- ◆ *Use genuine Audi brake fluid; see Electronic parts catalogue (ETKA).*
- ◆ *Do not reuse brake fluid.*
- ◆ *Always observe the relevant environmental regulations for disposal of brake fluid.*

3.17 Brake fluid (vehicles older than 12 months): changing

Only applies to vehicles older than 12 months (from date of manufacture).

Procedure:

- Change brake fluid ⇒ [page 45](#) .

3.18 Brake fluid: checking fluid level

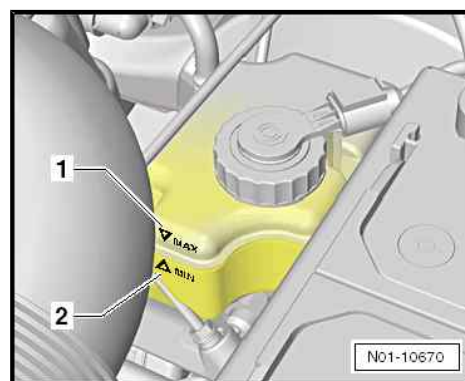
Table of test values and procedure guidelines:

Type of service:	Fluid level specification:
Delivery Inspection	Fluid level must be at MAX marking.
Brake fluid change	Fluid level must be between MAX marking and MIN marking according to wear level of brake pads.

Checking the brake system for leaks is a repair measure and should be charged separately.

Procedure:

- Evaluate brake fluid level according to markings -1- and -2- on brake fluid reservoir.
- Perform the following measures according to the results of the check:



Fluid level:	Evaluation/measure:
Above MAX marking	Extract brake fluid.
Below specified level	Carry out brake system leak test ⇒ Brake system; Rep. gr. 47 ; Hydraulic system; Leak test .



Note

When the vehicle is in use, the fluid level drops due to wear and automatic adjustment of the brake pads.

3.19 Brake system: checking condition of brake hoses, and checking that caps are fitted on bleeder screws

Requirements:

- Brake hoses must not touch any components when steering is on full lock.
- Brake hoses must not be twisted.

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Procedure:

- Check that all brake hoses are secured properly; when doing so, ensure that the conditions listed are met:
- Check all brake hoses for abrasion, porosity, blistering and cracking.
- Check that brake connections are seated correctly, and check for corrosion and leaks.
- If faults are found on brake hoses: Repair/renew relevant component.
- Check that caps are fitted and secured on bleeder screws of all brake calipers.
- Renew any missing caps.

3.20 Brake pads: checking thickness

Special tools and workshop equipment required

- ◆ Test pin - T40139- : Use the side with the thin probe (brake symbol) to measure brake pad thickness.

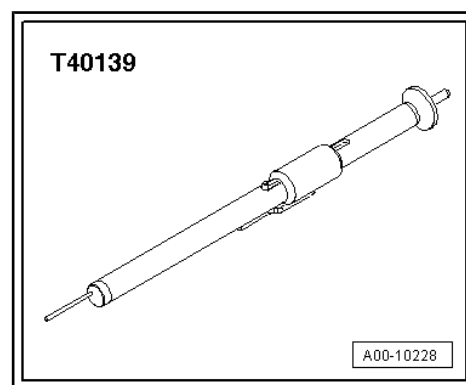


Table of test values and procedure guidelines:

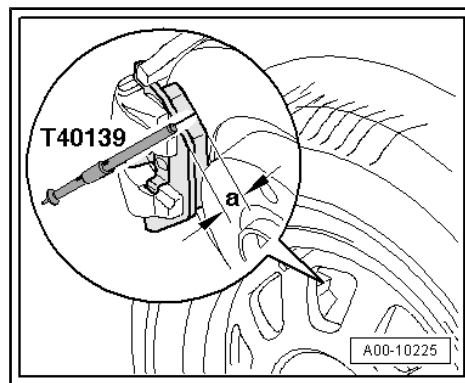
Axle	Brake pad wear limit including backplate and damper plate [mm]
Front axle	10
Rear axle	9

Check only the thickness of the outer brake pads.

Procedure:

- Before you begin: Push sliding ring towards tip of test pin as far as it will go.
- Bring tip of test pin into contact with brake disc.
- Slide test pin towards brake pad until test pin makes contact with backplate of brake pad.

- Remove test pin and read off brake pad wear value -a- from scale on tool.
- Repeat procedure for all wheels.
- If brake pad thickness has reached wear limit (see table of test values and procedure guidelines ➔ [page 51](#)): Renew brake pads ➔ Brake system; Rep. gr. 46; Removing and installing brake pads.



Note

- ◆ *When removing the test gauge, take care not to move the sliding ring. This would give an incorrect measurement.*
- ◆ *Note where the test gauge makes contact on the rear of the brake pad and include the thickness of the damper plate in the calculation if necessary.*
- ◆ *In the case of certain wheel combinations, the wheels must be removed.*

3.21 Brake discs: checking for surface rust and operating brakes to clean if necessary

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Checking brake discs ➔ [page 52](#)

Operating brakes to clean brake discs ➔ [page 52](#)

3.21.1 Checking brake discs

Procedure:

- Check outside of all brake discs for surface rust.
- If necessary, operate brakes to clean brake discs ➔ [page 52](#).



Note

The brake discs can be damaged irreparably if surface rust is not removed at the specified intervals.

3.21.2 Operating brakes to clean brake discs

Procedure:

- Accelerate vehicle to 40 km/h, then brake gently to 10 km/h (do this five times).
- Accelerate vehicle to 40 km/h, then brake sharply to a standstill (do this five times).



Note

The wheels should not spin or lock during acceleration and braking.

3.22 Parking brake: releasing

Mechanical parking brake ⇒ [page 53](#)

Electromechanical parking brake ⇒ [page 53](#)

3.22.1 Mechanical parking brake

Procedure:

- Release parking brake.

3.22.2 Electromechanical parking brake

Procedure:

- Press brake pedal, then press switch for electromechanical parking brake.

3.23 Tyres: checking condition and wear pattern, and checking and recording tread depth

Special tools and workshop equipment required

- ◆ Test pin - T40139- : Use the side with the thick probe and shoulder (scale marked with tyre symbol) to measure tread depth.

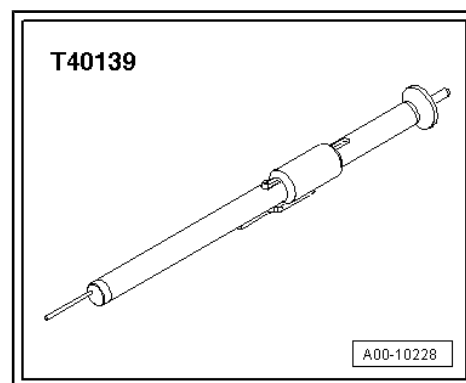


Table of test values and procedure guidelines:

Country-specific regulations for minimum tread depth apply; for countries not listed, evaluate values according to the country's specifications.

Country	Minimum tread depth [mm]
EU countries	1.6 ¹⁾
Brazil	1.6
China	1.6
India	1.6
Japan	1.6
Norway	1.6 ¹⁾
Russia	1.6
Switzerland	1.6
Turkey	1.6
Ukraine	1.6 ¹⁾
USA	1.6

1) Larger values for winter tyres where these are mandatory

Performing wheel alignment is a repair measure and should be charged separately.

Step 1 - checking condition:

- Check for and remove any foreign bodies in tyre tread.
- Check all tyres for following types of damages:
 - ◆ Cuts, cracks, tears
 - ◆ Scuffing or flattened areas on tyre tread
 - ◆ Porous sidewalls
 - ◆ Blisters on sidewalls
- If damage is found: Renew tyres.

Step 2 - checking tyre wear pattern:

- Check tyre wear pattern of front wheels; check for the following:
 - ◆ Feathering on tread indicating possible incorrect toe setting
 - ◆ One-sided tread wear indicating possible incorrect camber
 - If the above types of wear are found: Check wheel alignment to determine the cause.
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Step 3 - checking tread depth:

- Measure tread depth on all tyres (including spare tyre) at several points using test pin - T40139- . Uneven tread depth indicates damage.
- Record average measurement for each tyre in Maintenance table.
- If minimum tread depth has been reached (as specified for your country; see table of test values and procedure guidelines ⇒ [page 53](#)): Renew tyre.



Note

Vehicles with four-wheel drive must be fitted with tyres with the same tread pattern. Otherwise the centre differential may be damaged.

3.24 Tyres: checking tyre pressures and adjusting if necessary



Note

The tyre valves must be sealed with valve caps. Otherwise, dirt could enter the valve, which will then become blocked and will no longer seal properly.

Front and rear axles ⇒ [page 55](#)

Spare wheel and temporary spare wheel ⇒ [page 55](#)

3.24.1 Front and rear axle

The tyre pressure specifications are listed on the sticker on the inside of the driver's door.

Tyre sizes not listed: See Wheel/tyre guide for tyre pressure specification ⇒ Rep. gr. 44 ; Tyre pressures .

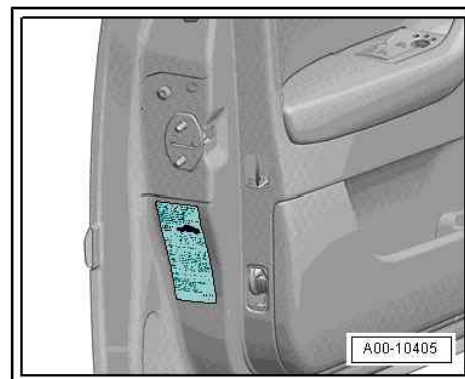
Procedure:

- Check tyre pressure of all tyres.
- If necessary, adjust to correct tyre pressures.



Note

The tyre pressures listed only apply to cold tyres. When the tyres are warm, the actual pressures will be higher, but must not be reduced.



3.24.2 Spare wheel and temporary spare wheel

The following parameters apply to the tyre pressure specifications:

- Spare wheel with standard-size tyre: Inflate to maximum tyre pressure indicated on tyre pressure sticker.
- Temporary spare wheel: The correct tyre pressure is indicated on the sidewall.

Procedure:

- Check tyre pressure of spare wheel/temporary spare wheel.
- If necessary, adjust to correct tyre pressures.



Note

Depending on equipment version, there may only be a tyre repair kit supplied; see Maintenance table.

3.25 Tyres (except spare wheel): checking tyre pressures and adjusting to 3.5 bar if necessary



Note

The tyre valves must be sealed with valve caps. Otherwise, dirt could enter the valve, which will then become blocked and will no longer seal properly.

Procedure:

- Check tyre pressure of all tyres.
- If necessary, adjust tyre pressure to 3.5 bar and record pressure in maintenance table.

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3.26 Tyre Pressure Loss Indicator: storing changed tyre pressures



WARNING

Risk of injury as engine of high-voltage vehicle can start unexpectedly!

- ◆ Observe warnings for high-voltage system:
- ◆ For work that must be performed with the ignition switched on ⇒ [page 8](#).

The Tyre Pressure Loss Indicator must be initialised after every time the tyre pressures are changed or the tyres are renewed.

Storing tyre pressures via MMI ⇒ [page 56](#)

Storing tyre pressures via driver information system
⇒ [page 56](#)

3.26.1 Storing tyre pressures via MMI

Requirements:

- The inflation pressures of all tyres must be adjusted to the correct values before the pressures are stored.

Procedure:

- Switch on ignition and activate MMI.
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- Press function selector button **CAR**.
- Select control button »Systems«/»Car systems« and navigate through following menu structure:
 - ◆ Servicing & checks
 - ◆ Tyre pressure monitoring
 - ◆ Store tyre pressures
- Use MMI rotary pushbutton to store tyre pressures.



Note

- ◆ *There are other methods of saving the tyre pressures
⇒ [page 56](#).*
- ◆ *You can switch between sets of wheels saved in the system
as often as you wish without re-initialising the system.*

3.26.2 Storing tyre pressures via driver information system

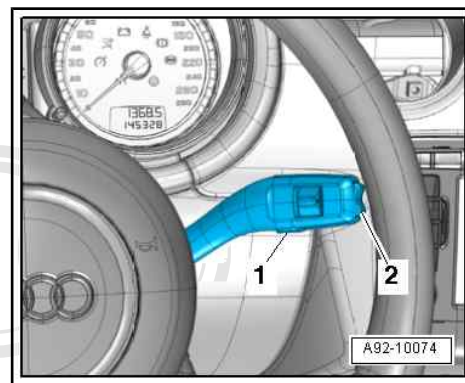
Requirements:

- The inflation pressures of all tyres must be adjusted to the correct values before the pressures are stored.

Procedure:

- Switch on ignition.

- Press **RESET** button -1- on windscreen wiper lever.
- Using function selector button -2- on windscreen wiper lever, navigate through following menu structure in driver information system:
 - ◆ Store tyre pressures
 - ◆ Store now
- Press **RESET** button -1- on windscreen wiper lever to store tyre pressures.



i Note

- ◆ *There are other methods of saving the tyre pressures
⇒ [page 56](#).*
- ◆ *You can switch between sets of wheels saved in the system
as often as you wish without re-initialising the system.*

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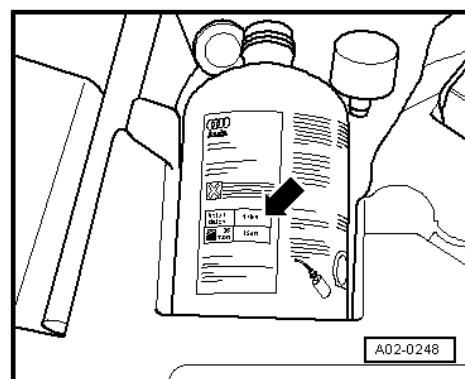
3.27 Tyre repair kit: checking that set is complete, and checking and recording expiry date

Applies to all vehicles except A3 e-tron: The tyre repair kit is located in the spare wheel well.

Applies to A3 e-tron: The tyre repair kit is located behind the luggage compartment side trim (right-side).

Procedure:

- Check that the following components of the tyre repair kit are present:
 - ◆ Compressor
 - ◆ Tyre filler bottle incl. filler hose
- Take out the bottle and check the expiry date (printed on bottle -arrow-).
- Record expiry date in Maintenance table.
- If expiry date has been exceeded or if bottle has already been used: Renew tyre filler bottle.



3.28 Wheel bolts: tightening to specified torque

Special tools and workshop equipment required

- ◆ Torque wrench - V.A.G 1332- , measuring range 40 to 200 Nm
- ◆ Or: torque wrench - V.A.G 1576- , measuring range 80 to 400 Nm

Table of test values and procedure guidelines:

Fastener	Tightening torque [Nm]
Wheel bolt	120

The adapter for loosening and tightening anti-theft wheel bolts is included in the vehicle tool kit.

Procedure:

- Tighten wheel bolts in a diagonal sequence to specified torque (see table of test values and procedure guidelines ➔ [page 57](#)).
- If adapter for anti-theft wheel bolts was used: Put adapter back in tool kit.

3.29 Suspension struts on front and rear axle: removing locking elements



Note

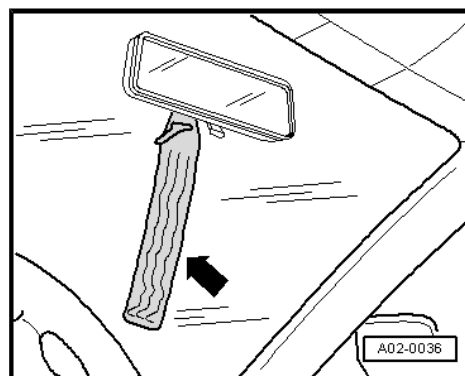
- ◆ *These vehicles are identified by a coloured tag fixed to the mirror -arrow-.*
- ◆ *It is not necessary to remove the wheels to perform this operation.*

Suspension struts on front axle: locking elements ➔ [page 58](#)

Suspension struts on front axle: spring inserts ➔ [page 59](#)

Suspension struts on rear axle ➔ [page 59](#)

Pressing in bump stop ➔ [page 60](#)



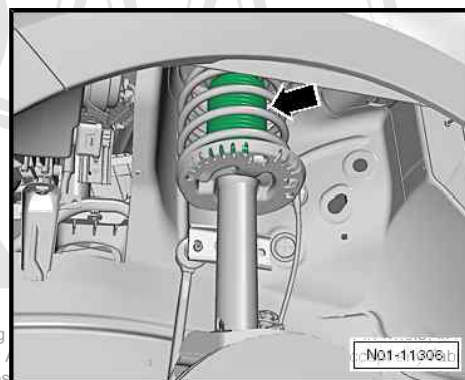
3.29.1 Suspension struts on front axle: locking elements

Requirements:

- Vehicle suspension extended

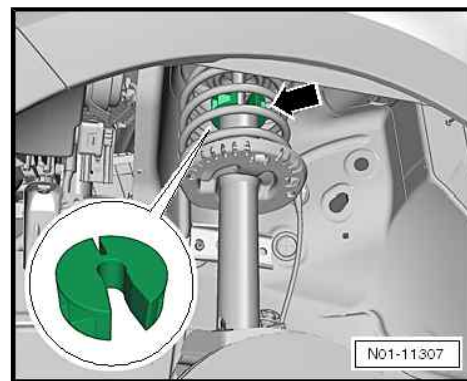
Procedure:

- Push boot -arrow- upwards.



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- Push large visible locking element -arrow- off piston rod.
- Gently feel all around boot to locate two other locking elements and use boot to slide them down piston rod.
- Push two smaller locking elements off piston rod.
- Then check boot all around and press out any dents.
- Finally, check that boot is securely fastened in axial bearing and is positioned correctly: The boot must turn freely around the rotating axis of the axial bearing. If this is not the case, pull boot all around out of axial bearing to the next stop.
- When all locking elements have been removed from vehicle: Remove tag on interior mirror.



 Note

- ◆ Do not use any tools to remove the locking elements, as the boots will otherwise be damaged.
- ◆ There are several versions of the locking elements for the front axle ➔ [page 58](#).

3.29.2 Suspension struts on front axle: spring inserts

Requirements:

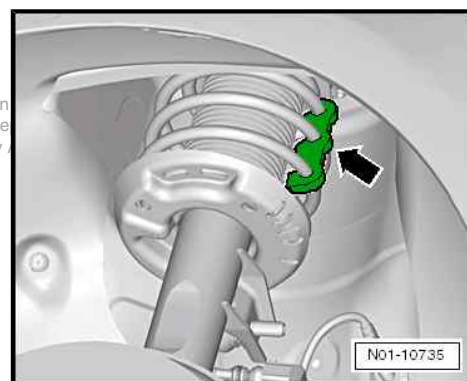
- Vehicle suspension extended

Procedure:

- Press spring inserts -arrow- off coil spring.
- When all locking elements have been removed from vehicle: Remove tag on interior mirror.

 Note

There are several versions of the locking elements for the front axle ➔ [page 58](#).



3.29.3 Suspension struts on rear axle

Special tools and workshop equipment required

- ◆ Assembly paste - G 052 109 A2-

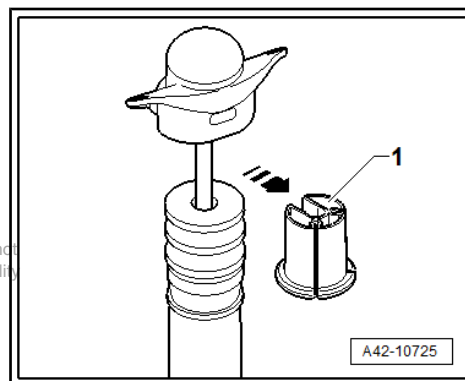
Requirements:

- Vehicle suspension extended

Procedure:

- Push locking elements -1- off piston rod in direction of -arrow-.
- When all locking elements have been removed from vehicle: Remove tag on interior mirror.

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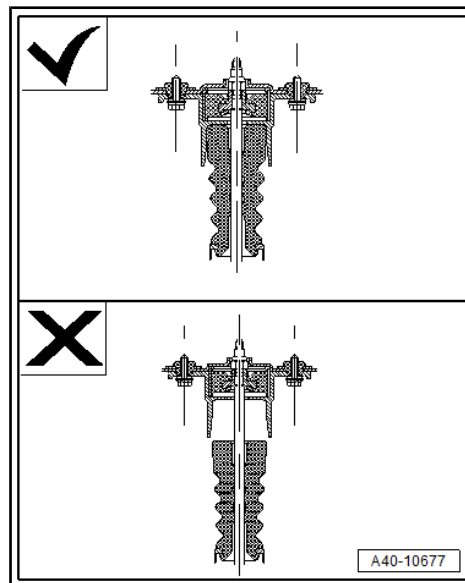


- After road test: Check that bump stops are firmly seated in shock absorber mountings.
- If necessary, press any loose bump stops into shock absorber mountings ⇒ [page 60](#) .



Note

The bump stops of the suspension struts are pressed into the shock absorber mountings due to the compression movements during the road test.



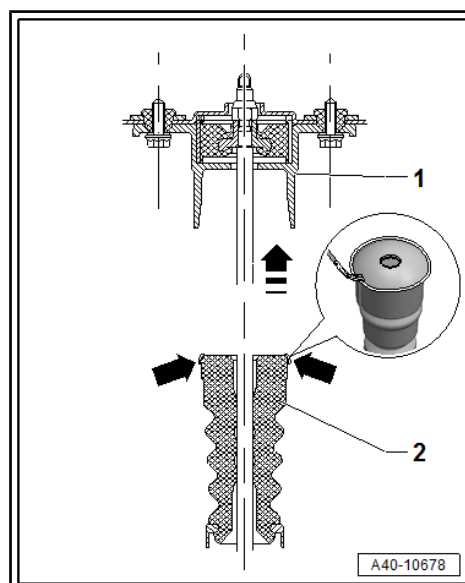
3.29.4 Pressing in bump stop

Special tools and workshop equipment required

- ◆ Soap-based lubricant, e.g. tyre assembly paste

Procedure:

- Remove coarse dirt from top edge of loose bump stop and coat with tyre assembly paste.
- Press loose bump stop firmly into shock absorber mounting by hand.



3.30 Axles (front and rear): checking components for play, secure attachment and damage, and checking protective boots

The following applies to all components shown below:

- There must be no noticeable or visual play.
- As a rule you can identify damage to the boots/drive shaft boots by emerging grease.
- Check that retaining rings and spring-type clips are seated correctly.

Front axle ➔ [page 61](#)

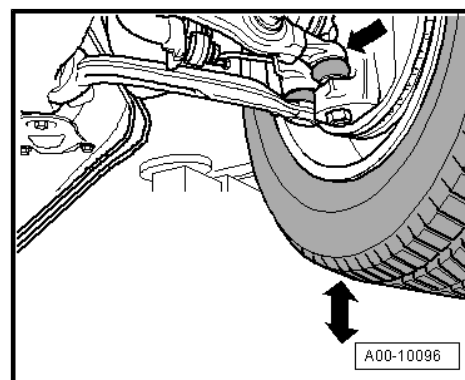
Rear axle: multi-link suspension ➔ [page 63](#)

Rear axle: torsion beam axle ➔ [page 64](#)

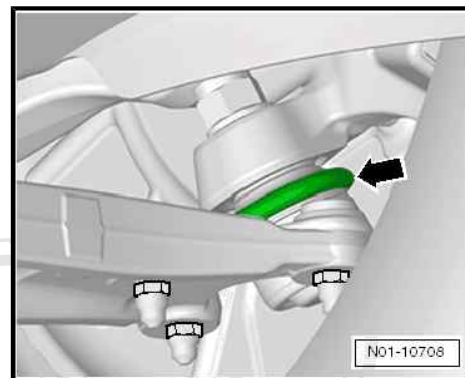
3.30.1 Front axle

Lower links:

- Check relative movement between wheel bearing housing and lower links.

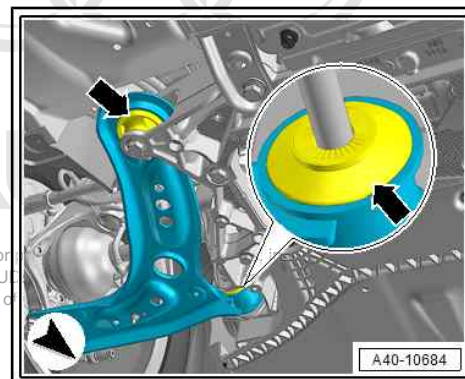


- Lower link: Check boot -arrow- of swivel joint all around for damage and make sure it is seated correctly.
- Check swivel joint for play.



- Check both bonded rubber bushes of lower link -arrows- for play.

Track rod ball joint:

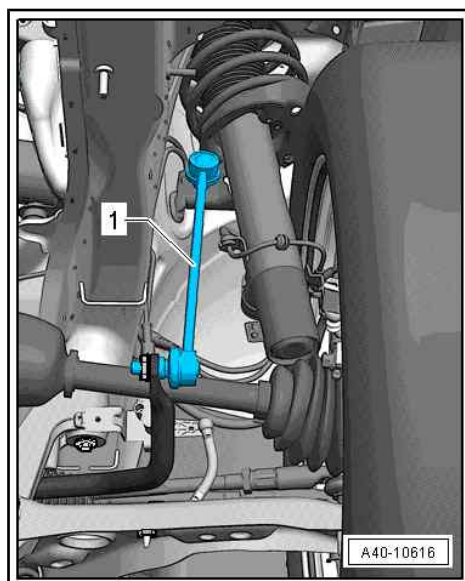
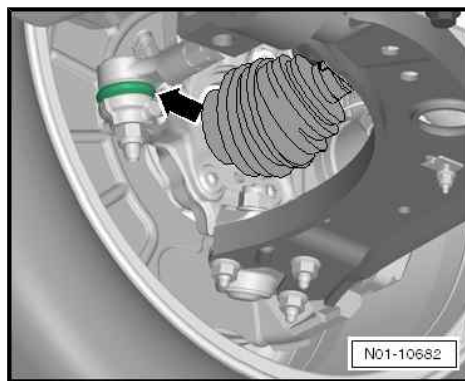


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- Check boot -arrow- for track rod joint all around for damage and make sure it is seated correctly.
- Check play at track rod ball joint.

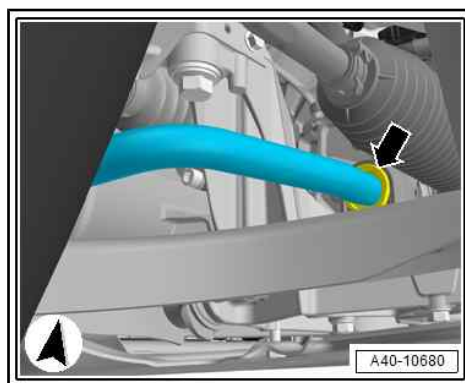
Coupling rod and anti-roll bar:

- Check play at coupling rod -1-.

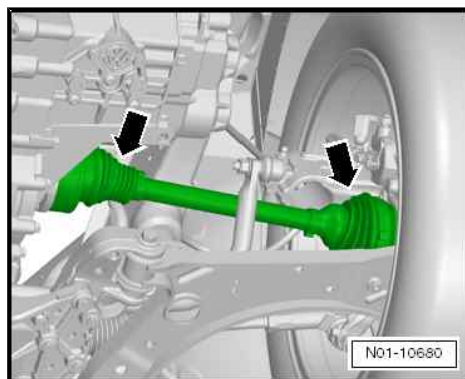


- Check anti-roll bar bush -arrow- for damage.

Drive shaft and steering rack:

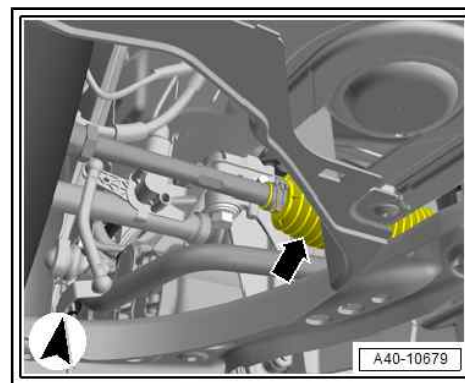


- With steering turned: Check drive shaft boots -arrows- all around for damage and make sure they are seated correctly.



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- Check boot -arrow- of steering rack all around for damage and correct seating.
- Repeat checks for components on opposite side of vehicle.
- If faults are found on any of the above components: Renew relevant component.



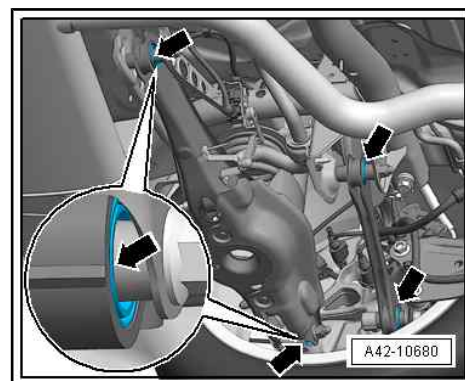
3.30.2 Rear axle: multi-link suspension

Lower transverse link and track rod:

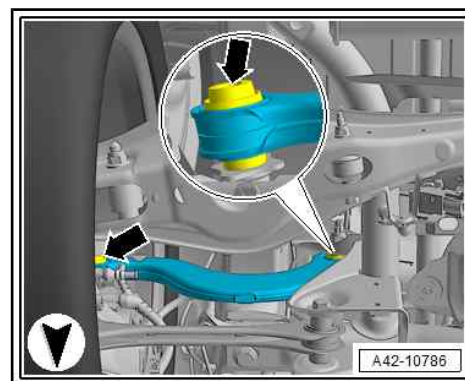
- Check relative movement between wheel bearing housing and transverse links.
- Check bonded rubber bushes of lower transverse link and track rod -arrows- for play.

Upper transverse link:

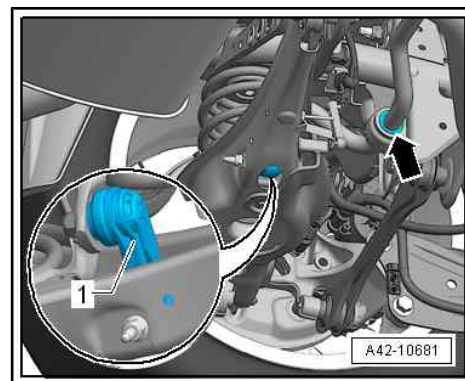
- Check bonded rubber bushes of upper transverse link -arrows- for play.



Coupling rod and anti-roll bar:



- Check play at coupling rod -1-.
- Check anti-roll bar bush -arrow- for damage.



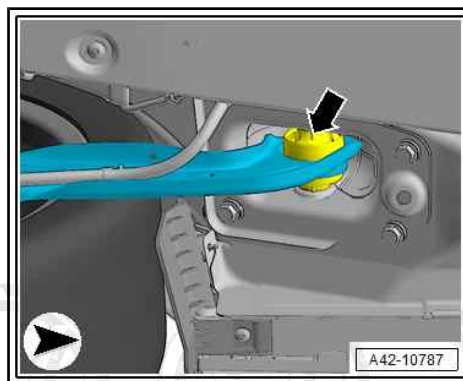
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Trailing arm:

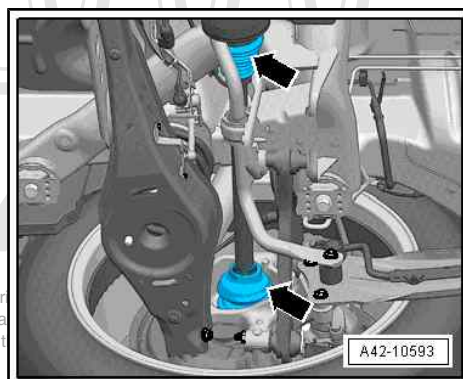
- Check play at bonded rubber bush of trailing arm -arrow-.

Drive shaft:

Only applies to vehicles with four-wheel drive.



- Check drive shaft boots -arrow- all around for damage and make sure they are seated correctly.
- Repeat checks for components on opposite side of vehicle.
- If faults are found on any of the above components: Renew relevant component.



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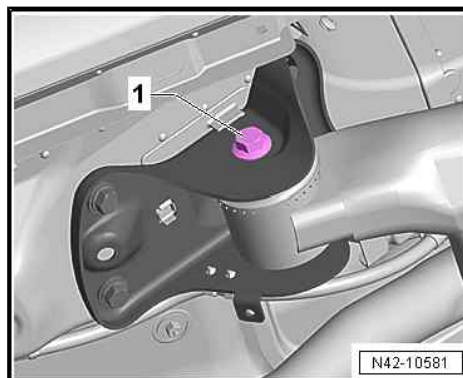
3.30.3 Rear axle: torsion beam axle

Wheel bearing unit:

- Check relative movement between wheel bearing unit and wheel.

Axle beam:

- Check play at bonded rubber bushes of axle beam -1-.
- Repeat checks for components on opposite side of vehicle.
- If faults are found on any of the above components: Renew relevant component.



3.31 Engine, gearbox, final drive and steering: checking for leaks and damage

DANGER

Risk of fatal injury if high-voltage components are damaged.

- ◆ Observe warnings for high-voltage system:
- ◆ For work in the vicinity of high-voltage components
⇒ [page 7](#).

Applies to vehicles up to and including model year 2014: For inspection every 60,000 km (38,000 miles)/4 years, remove noise insulation.

Applies to vehicles from model year 2015 onwards: Remove noise insulation for every inspection.

Removal steps:

- If necessary, remove noise insulation ➔ [page 15](#) .

Procedure:

- Check engine and engine ancillaries from below for leaks and damage.
- Check radiator and cooling circuit for leaks and damage.
- Check refrigerant circuit for damage (check air conditioner compressor, condenser and refrigerant lines including connections).
- Check gearbox, final drive and steering for leaks and damage.
- If faults are found: repair or renew relevant component.

3.32 Vehicle (from below): checking for damage

Procedure:

- Check underbody carefully and thoroughly for damage and loose fasteners.
- If faults are found: Renew missing fastener or damaged component.

3.33 Underbody: checking trim, wheel housing liners, side members and pipes/wiring for damage, and checking that they are properly secured

Procedure:

- Check all underbody trim panels and wheel housing liners for tears and cracks.
- Use your hands to check that all underbody trim panels and wheel housing liners are secured correctly and check for missing fasteners.
- Inspect side members for deformations.
- Check visible area of pipes/wiring and connections for damage and ensure they are secured correctly.
- If faults are found: Renew missing fastener or damaged component.

3.34 Roof insert: checking operation

 DANGER

Risk of injury as engine of high-voltage vehicle can start unexpectedly!

◆ **Observe warnings for high-voltage system:**

◆ **For work that must be performed with the ignition switched on ➔ [page 8](#) .**

Only applies to equipment version with sliding/tilting sunroof.

Cleaning and lubricating the roof insert is a repair measure and should be charged separately.

Procedure:

- Open and close roof system completely and check for unusual noises and stiffness/sticking.
- If there is unusual noise or stiffness/sticking: Clean and lubricate roof insert ⇒ [page 66](#) .

3.35 Roof insert - sliding/tilting sunroof: cleaning and lubricating

DANGER

Risk of injury as engine of high-voltage vehicle can start unexpectedly!

- ◆ **Observe warnings for high-voltage system:**
- ◆ **For work that must be performed with the ignition switched on ⇒ [page 8](#) .**

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Special tools and workshop equipment required

- ◆ Lubricating paste - G 060 751 A2-
- ◆ Krytox lubricating paste - G 052 141 A2-
- ◆ Cleaning solution - D 009 401 04-
- ◆ Industrial vacuum cleaner, e.g. wet/dry vacuum cleaner - VAS 5128-
- ◆ Commercially available paintbrush: approx. 15 mm wide and bent by approx. 40° using workshop equipment
- ◆ Fine-pored sponge (e.g. a piece of household sponge without a scouring surface)

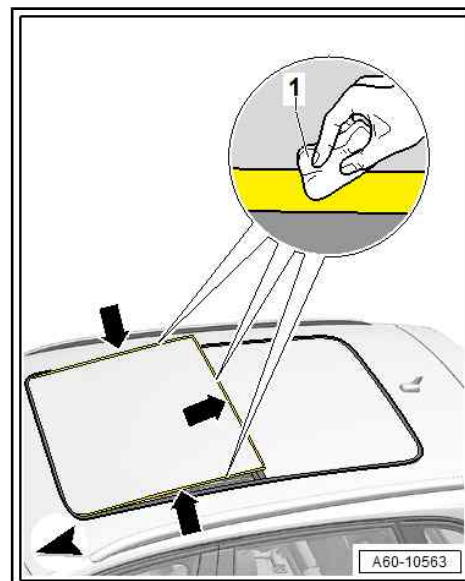
Cleaning and lubricating the roof insert is a repair measure and should be charged separately.

Protect vehicle interior from becoming dirty.

Step 1 - cleaning and lubricating glass panel seal:

- Tilt open glass panel at rear.
- Remove all accessible grease and dirt residue from glass panel seal using cleaning solution - D 009 401 04- and a lint-free cloth.

- Use a fine-pored sponge -1- to lubricate sides and rear of glass panel seal -arrows- with Krytox lubricating paste - G 052 141 A2- . Make sure that no coarse residue remains visible after applying lubricant.
- Open glass panel completely.
- Using cleaning solution - D 009 401 04- and a lint-free cloth, remove any grease or dirt residue from front of glass panel seal in area that has not been lubricated yet.

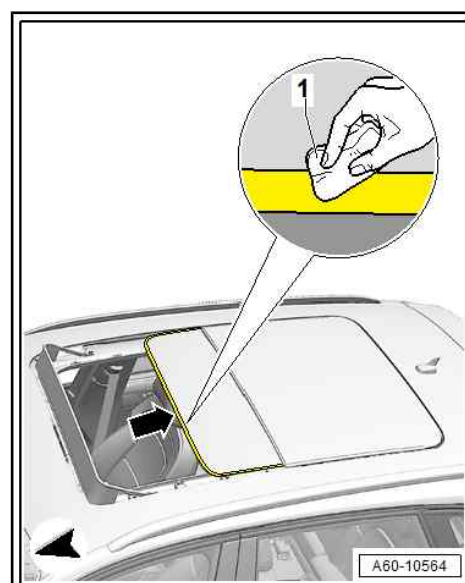


- Use a fine-pored sponge -1- to lubricate glass panel seal at front -arrow- with Krytox lubricating paste - G 052 141 A2- . Make sure that no coarse residue remains visible after applying lubricant.

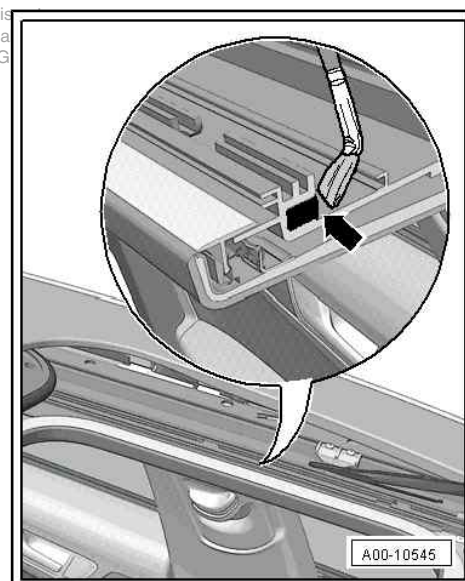
Step 2 - cleaning and lubricating guide rails:

Glass panel opened completely.

- First use an industrial vacuum cleaner to remove any loose residue from guide rails.
- Remove grease and dirt from guide rails with a lint-free cloth.

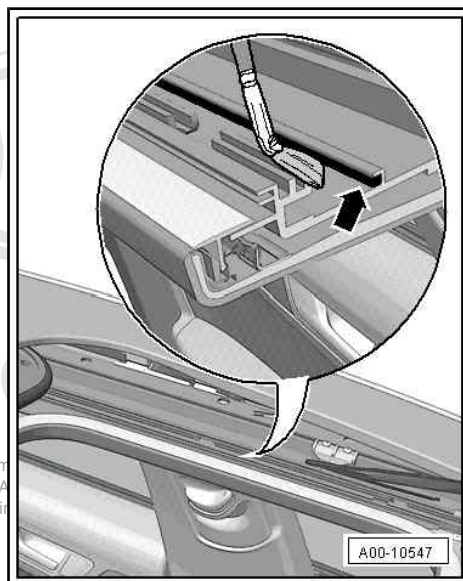


- Use a paintbrush to lubricate inside of guide rail -arrow- with lubricating paste - G 060 751 A2-

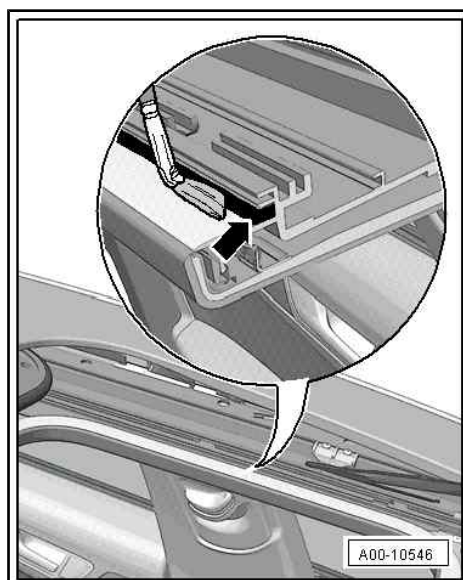


- Use a paintbrush to lubricate outside of guide rail -arrow- with lubricating paste - G 060 751 A2- .

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- Use a paintbrush to lubricate side guide rail of sliding headliner -arrow- with lubricating paste - G 060 751 A2- .
- Remove surplus lubricant on guide rails with a lint-free cloth.
- Repeat procedure on opposite side of vehicle.
- Open and close roof system completely and check again for surplus lubricant.



3.36 Roof insert - panorama sunroof: checking, cleaning and lubricating

DANGER

Risk of injury as engine of high-voltage vehicle can start unexpectedly!

- ◆ Observe warnings for high-voltage system:
- ◆ For work that must be performed with the ignition switched on ⇒ [page 8](#) .

CAUTION

Risk of damage to roof insert if locking element of guide piece is disengaged.

- ◆ Guide piece must not be cleaned or lubricated.

Special tools and workshop equipment required

- ◆ Lubricating paste - G 060 751 A2-

- ◆ Krytox lubricating paste - G 052 141 A2-
- ◆ Cleaning solution - D 009 401 04-
- ◆ Industrial vacuum cleaner, e.g. wet/dry vacuum cleaner - VAS 5128-
- ◆ Commercially available paintbrush: approx. 15 mm wide and bent by approx. 40° using workshop equipment
- ◆ Fine-pored sponge (e.g. a piece of household sponge without a scouring surface)



Note

First carry out a visual check to determine which type of sunroof is fitted on the vehicle.

- Open glass panel completely.
- Carry out a visual check to determine which type of grease has been used in area of guide rails.
- ◆ White/grey grease G 060 751 A2: Clean and lubricate according to method used to date (description below)
- ◆ No white/grey grease: Open and close sunroof completely; this must not produce any vibrations or noises (rattling, squeaking, clicking) other than those of normal operation.



Note

Please refer to TPI if normal operating sounds are accompanied by other noises or vibrations on a sunroof version with new spray-on grease.

Cleaning and lubricating the roof insert is a repair measure and should be charged separately.

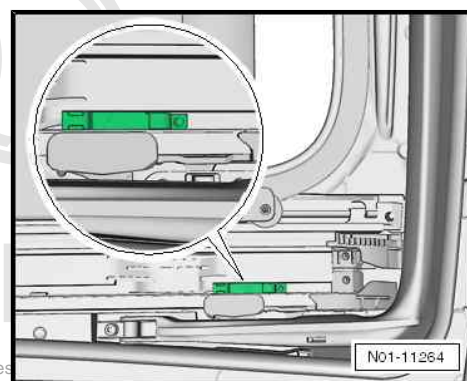
Protect vehicle interior from becoming dirty.

If locking element of guide piece -illustration- becomes unintentionally unlocked during cleaning or lubricating: Do not operate panorama sunroof. Lock guide piece ➔ [page 74](#) .

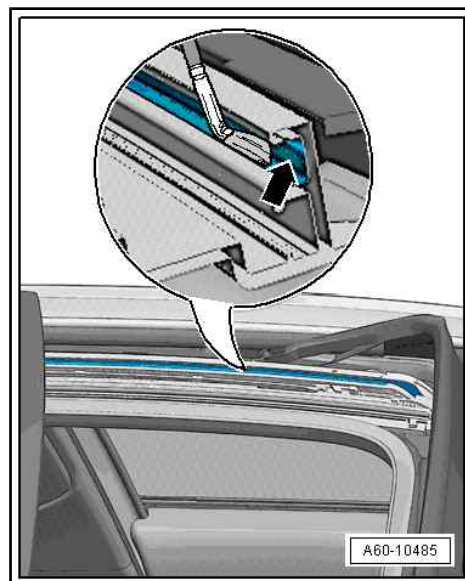
Only applies to sunroof version with white/grey grease G 060 751 A2:

Step 1 - cleaning and lubricating guide rail:

- Open sunroof sun blind completely.
- Open glass panel completely.
- First use an industrial vacuum cleaner to remove any loose residue from guide rail.
- Remove grease and dirt from guide rail with a lint-free cloth.



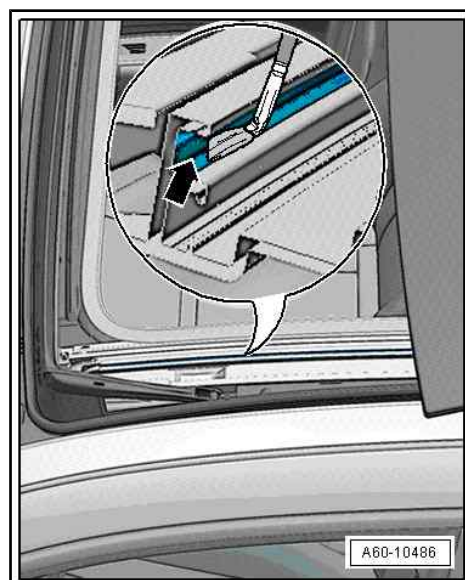
- Use a paintbrush to lubricate outer guide rail -arrow- with lubricating paste - G 060 751 A2- .



- Use a paintbrush to lubricate inner guide rail -arrow- with lubricating paste - G 060 751 A2- .
- Remove surplus lubricant on guide rails with a lint-free cloth.
- Repeat procedure on opposite side of vehicle.

Step 2 - cleaning and lubricating slider from inside:

- Close glass panel just far enough so that wind deflector is still completely extended.
- Remove grease and dirt from slider with a lint-free cloth.

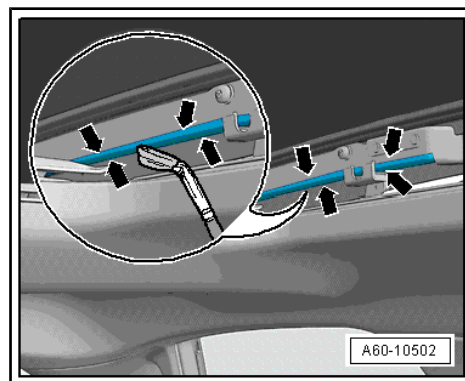


- Use a paintbrush to lubricate slider from inside -arrows- with lubricating paste - G 060 751 A2- .
- Remove surplus lubricant from slider with a lint-free cloth.
- Repeat procedure on opposite side of vehicle.

Step 3 - cleaning and lubricating slotted guide for glass panel from inside:

Glass panel should be closed just far enough so that wind deflector is still completely extended.

- Remove grease and dirt from slotted guide for glass panel with a lint-free cloth.

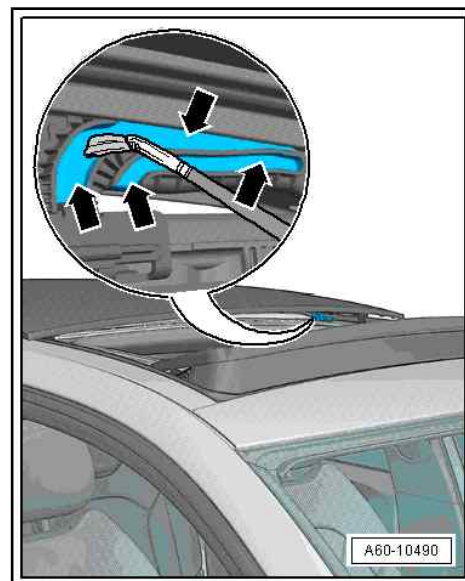


- Use a paintbrush to lubricate slotted guide for glass panel from inside -arrows- with lubricating paste - G 060 751 A2- .
- Remove surplus lubricant from slotted guide with a lint-free cloth.
- Repeat procedure on opposite side of vehicle.

Step 4 - cleaning and lubricating slider from outside:

- Open glass panel completely.
- Remove grease and dirt from slider with a lint-free cloth.

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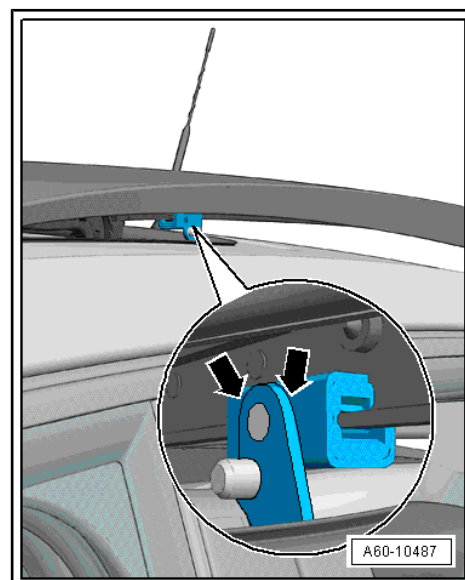
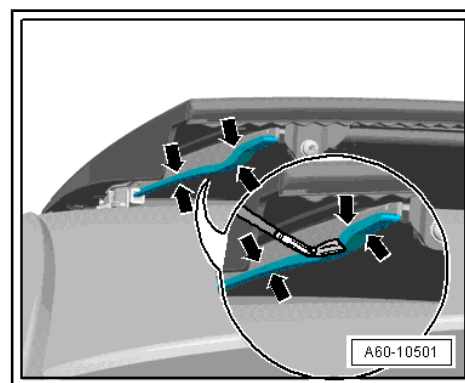


- Use a paintbrush to lubricate slider from outside -arrows- with lubricating paste - G 060 751 A2- .
- Remove surplus lubricant from slider with a lint-free cloth.
- Repeat procedure on opposite side of vehicle.

Step 5 - cleaning and lubricating glass panel mechanism:

Glass panel opened completely.

- Remove grease and dirt from glass panel mechanism with a lint-free cloth.
- Use a paintbrush to apply lubricating paste - G 060 751 A2- to friction surfaces -arrows- of mounting for glass panel mechanism.



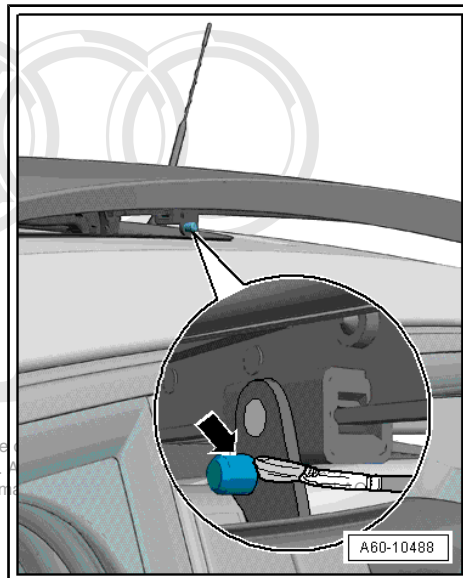
- Use a paintbrush to lubricate tilt lever -arrow- for glass panel mechanism with lubricating paste - G 060 751 A2- .
- Remove excess lubricant from mounting and tilt lever for glass panel mechanism with a lint-free cloth.
- Repeat procedure on opposite side of vehicle.

Step 6 - cleaning and lubricating outside of slotted guide for glass panel:

Glass panel opened completely.

- Remove grease and dirt from slotted guide for glass panel with a lint-free cloth.

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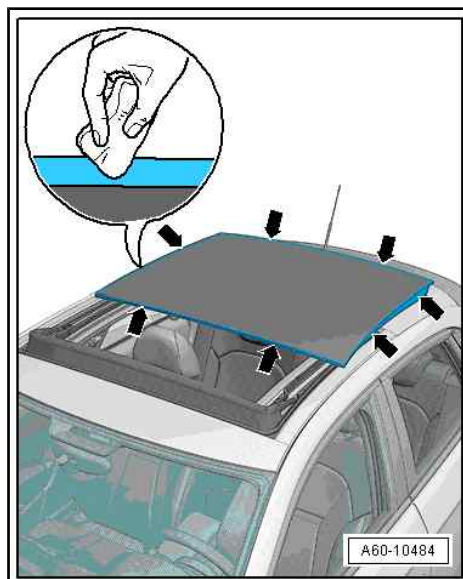
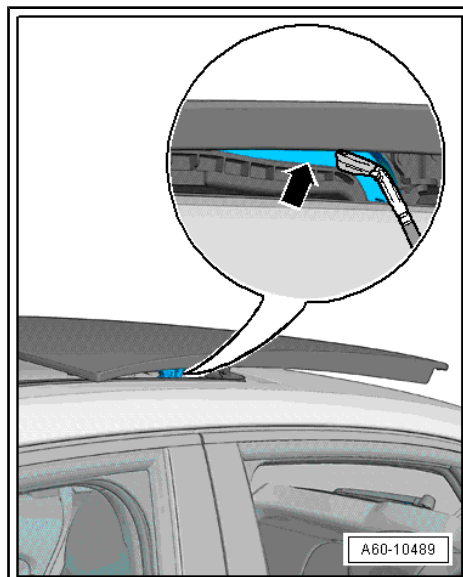


- Use a paintbrush to lubricate slotted guide for glass panel from outside -arrow- with lubricating paste - G 060 751 A2- .
- Remove surplus lubricant from slotted guide for glass panel with a lint-free cloth.
- Repeat procedure on opposite side of vehicle.
- Open and close roof system completely and check again for surplus lubricant at all lubricating locations.

Step 7 - cleaning and lubricating glass panel:

Glass panel opened completely.

- Remove grease and dirt from edges of glass panel -arrows- using cleaning solution - D 009 401 04- and a lint-free cloth.

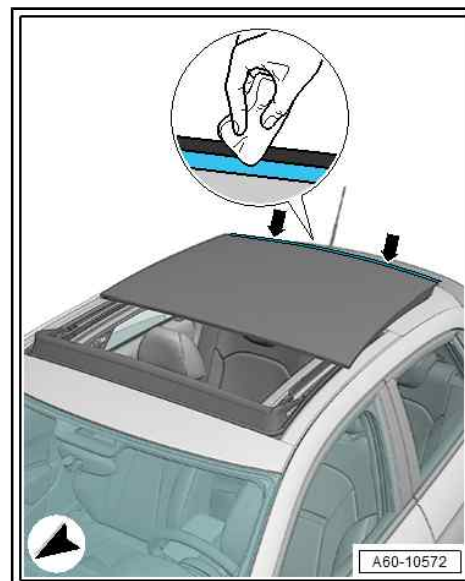


- Use a fine-pored sponge to lubricate rear edge of glass panel seal -arrows- with Krytox lubricating paste - G 052 141 A2- . Make sure that no coarse residue remains visible.

Step 8 - cleaning and lubricating roof frame seal:

Glass panel opened completely.

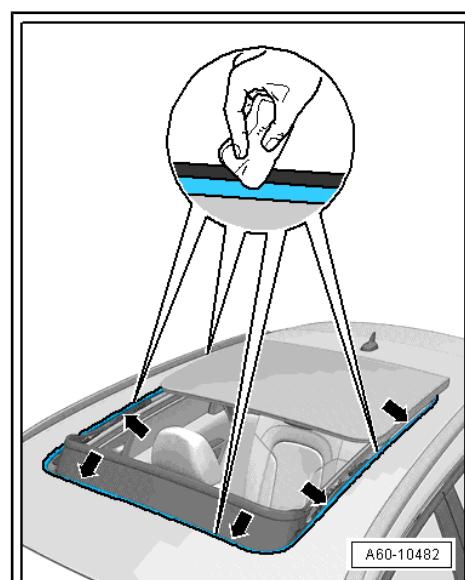
- Remove grease and dirt from seal for roof frame using cleaning solution - D 009 401 04- and a lint-free cloth.



- Use a fine-pored sponge to lubricate roof frame seal -arrows- with Krytox lubricating paste - G 052 141 A2- . Make sure that no coarse residue remains visible.

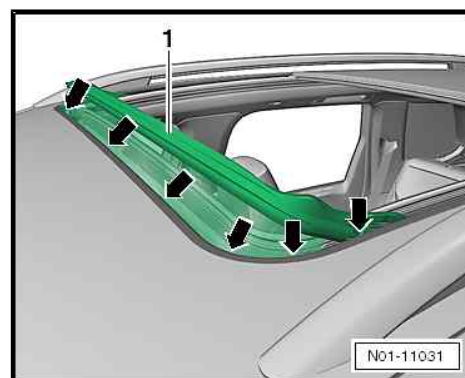
Step 9 - cleaning wind deflector:

Glass panel opened completely.



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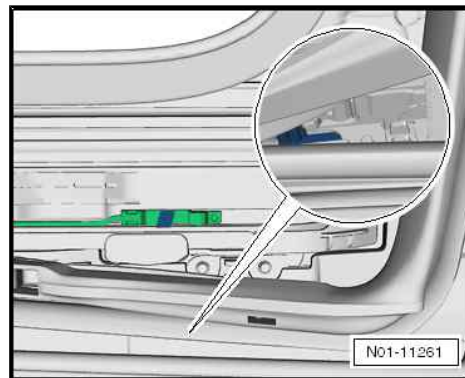
- Clean screen and frame of wind deflector -1- using a sponge and soap solution.
- Use an industrial vacuum cleaner to remove any loose residue from wind deflector slot -arrows-.
- Close glass panel completely.



3.36.1 Locking guide piece

Procedure:

- Carefully press down lever of guide piece (shown in -green-).
- Use a screwdriver to slide locking element -blue- from side over lever -green-.



3.37 Bonnet arrester hook: lubricating

Special tools and workshop equipment required

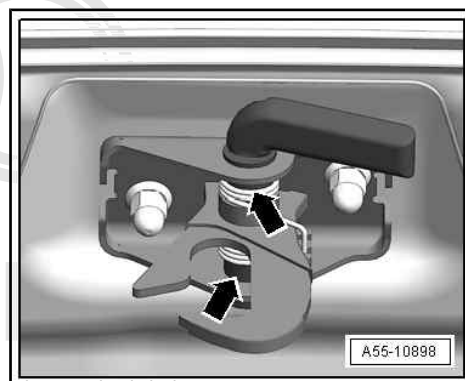
- ◆ Universal spray oil - G 000 115 A2-

Requirements:

- The vehicle must be at least at room temperature.

Procedure:

- First clean all lubricating points with a lint-free cloth.
- Lubricate arrester hook with universal spray oil - G 000 115 A2- at points marked -arrows-.
- Operate moving parts several times so that the lubricant is able to penetrate.
- Remove surplus lubricant with cloth.



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3.38 Windscreen/rear window washer system: checking spray pattern and adjusting if necessary

Checking spray pattern on windscreen ⇒ [page 75](#)

Checking spray pattern on rear window ⇒ [page 75](#)

Adjusting windscreen washer jets ⇒ [page 75](#)

Adjusting rear window washer jets ⇒ [page 76](#)

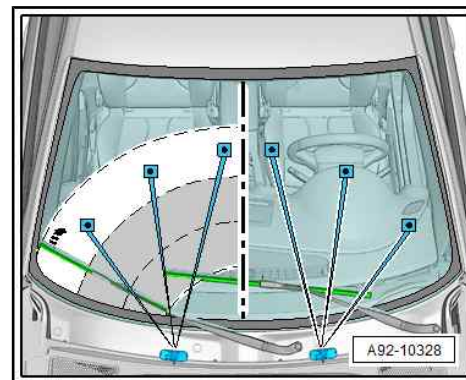
3.38.1 Checking spray pattern on windscreen

The spray pattern must meet the following specifications:

- Evenly distributed, symmetrical spray pattern
- Uniform, precise jets of water
- Jet unit (passenger's side): Water from all washer jets makes contact within upper third of wiper area -illustration-
- Jet unit (driver's side): Spray pattern symmetrically opposite that of jet unit on passenger's side

Procedure:

- Operate windscreen washer system and check spray pattern.
- If spray pattern is not as specified, adjust windscreen washer jets ⇒ [page 75](#) .



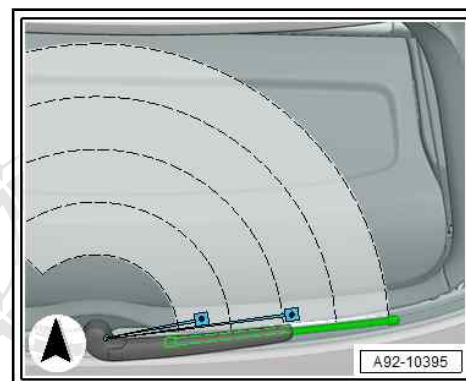
3.38.2 Checking spray pattern on rear window

The spray pattern must meet the following specifications:

- Water from both spray jets makes contact just above wiper blade
- Uniform, precise jets of water
- Water from inner spray jet makes contact within approx. first quarter of wiper blade length -illustration-
- Water from outer spray jet makes contact approx. at or just beyond centre of wiper blade length -illustration- (third quarter)

Procedure:

- Operate rear window washer system and check spray pattern.
- If spray pattern is not as specified, adjust windscreen washer jets ⇒ [page 76](#) .



3.38.3 Adjusting windscreen washer jets

Special tools and workshop equipment required

- ◆ Commercially available adjusting tool (e.g. adjusting tool - T10127-) or suitable needle

Procedure:

- Use adjusting tool to align washer jets as required according to specification.
- If the spray pattern still does not correspond to the specification, clean washer jets ⇒ Electrical system; Rep. gr. 92 ; Windscreen wiper system; Adjusting and cleaning washer jets .

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3.38.4 Adjusting rear window washer jets

Special tools and workshop equipment required

- ◆ Commercially available adjusting tool (e.g. adjusting tool - T10127-) or suitable needle

Procedure:

- Use adjusting tool to align washer jets as required according to specification.
- If the spray pattern still does not correspond to the specification, clean washer jets ⇒ Electrical system; Rep. gr. 92 ; Rear window wiper system; Adjusting washer jets .

3.39 Wiper blades: checking for damage

Step 1 - service position:

- Switch off ignition.
- Press windscreen wiper lever downwards briefly.

Step 2 - checking:

- Lift windscreen wipers and check each wiper blade for tears, cuts, abraded areas or other damage.
- Repeat check on rear window.
- If you find damage: Renew relevant wiper blade. Windscreen wiper system ⇒ Electrical system; Rep. gr. 92 ; Windscreen wiper system; Removing and installing wiper blade ; rear window wiper system ⇒ Electrical system; Rep. gr. 92 ; Rear window wiper system; Removing and installing wiper blade

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3.40 Headlight washer system: checking operation

Not all vehicles are equipped with a headlight washer system (depending on equipment version).

Procedure:

- Operate headlight washer system and check function.
- If water jet does not contact headlight: Renew relevant washer jets ⇒ Electrical system; Rep. gr. 92 ; Headlight washer system; Removing and installing washer jets .



Note

The headlight washer jets are set by the manufacturer and therefore cannot be adjusted.

3.41 Headlights: checking for correct adjustment

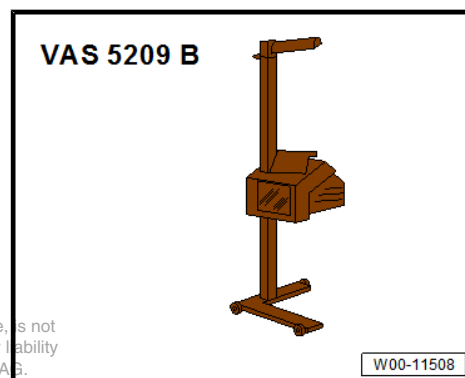
DANGER

Risk of injury as engine of high-voltage vehicle can start unexpectedly!

- ◆ Observe warnings for high-voltage system:
- ◆ For work that must be performed with the ignition switched on ⇒ **page 8** .

Special tools and workshop equipment required

- ◆ Headlight adjustment unit - VAS 5209B-



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- ◆ Or: headlight adjustment unit - VAS 621 001-

Performed as part of an inspection, this check is merely an abbreviated form of the headlight adjustment check required, for example, after a repair, and does not take the place of a full headlight adjustment check.

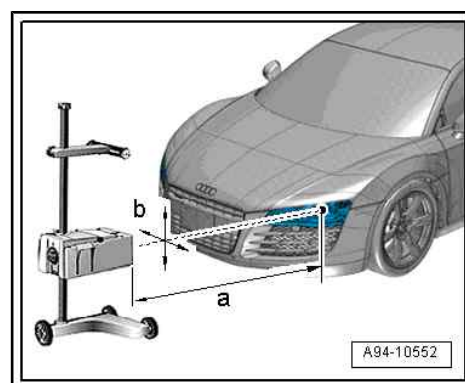
Do not adjust the vehicle load or the tyre pressures for this procedure.

Do not adjust the headlights to their basic setting using the vehicle diagnostic tester.

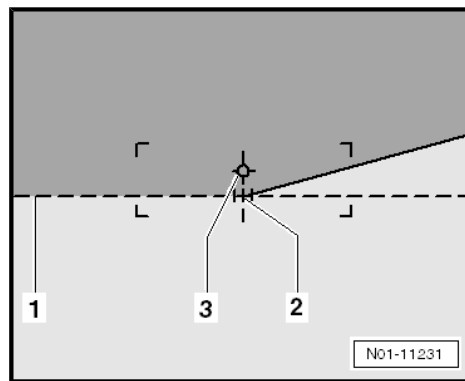
Checking and adjusting the headlights according to the instructions in the Workshop Manual is a repair measure and must be charged separately.

Procedure:

- For vehicles with manually adjustable headlight range control: Use manual adjuster to set to basic setting.
- Activate dipped headlights.
- Align headlight adjustment unit parallel to vehicle and position it centrally in front of headlight at a distance of 30 to 70 cm -distance a-; deviation from centre of light emission surface must not exceed 3 cm -distance b-.



- Adjust dip setting of headlight adjustment unit so that beam of headlight falls on test screen according to following parameter: Horizontal light-dark border should coincide with setting line -1-.
- Read off dip setting of headlight adjuster.
- Repeat procedure on opposite side.
- Compare dip setting on left and right sides.
- If they deviate 2.0% or more from one another: Check and adjust headlight setting according to procedure specified in Workshop Manual ➔ Electrical system; Rep. gr. 94 ; Headlights; Adjusting headlights .



3.42 Headlights and reversing lights, side lights, number plate lights, turn signals, hazard warning lights: checking operation



WARNING

Risk of injury as engine of high-voltage vehicle can start unexpectedly!

- ◆ Observe warnings for high-voltage system:
- ◆ For work that must be performed with the ignition switched on ➔ [page 8](#) .

Check the lights/signals listed below from the outside to ensure they function properly.

Procedure:

- Activate side lights and check that the following exterior lights function properly:
 - ◆ Side lights (front)
 - ◆ Side lights (rear)
 - ◆ If applicable: additional tail light under open rear lid
- Switch on ignition.
- Check operation of daytime running lights (front).
- Operate right turn signal, left turn signal and hazard warning lights, and check that corresponding turn signal lamps at front, rear and side function properly.
- Activate dipped headlights and check that the following exterior lights function properly:
 - ◆ Dipped headlights
 - ◆ Taillights
 - ◆ Number plate lights
- Use appropriate switch to activate fog lights and check that they function properly.
- Check that main beam headlights function properly.
- Operate brakes and check function of all brake lights.
- Engage reverse gear and check that all reversing lights function properly. This model is fitted with two reversing lights.

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- Use appropriate switch to activate rear fog lights and check that they function properly. This model is fitted with two rear fog lights.
- Renew any defective bulbs.



Note

It is possible to deactivate the daytime running lights intentionally via the appropriate MMI setup menu.

3.43 Luggage compartment lighting: checking operation

All vehicles except A3 Saloon and A3 Cabriolet ⇒ [page 79](#)

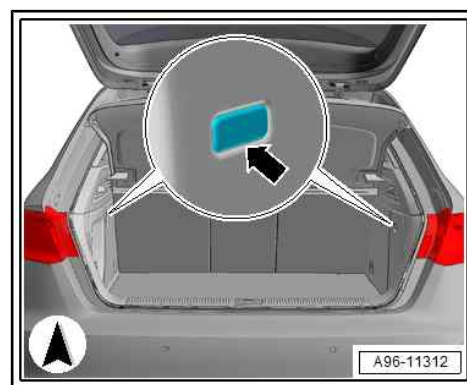
A3 Saloon ⇒ [page 79](#)

A3 Cabriolet ⇒ [page 80](#)

3.43.1 All vehicles except A3 Saloon and A3 Cabriolet

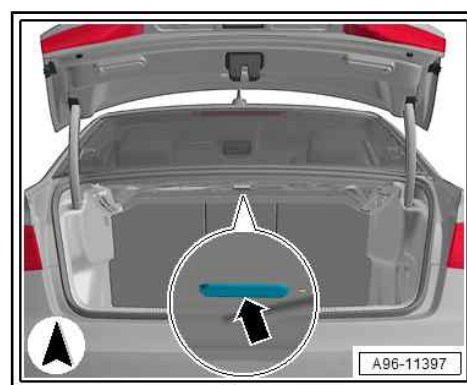
Procedure:

- Check that luggage compartment lights shown -arrows- function properly.



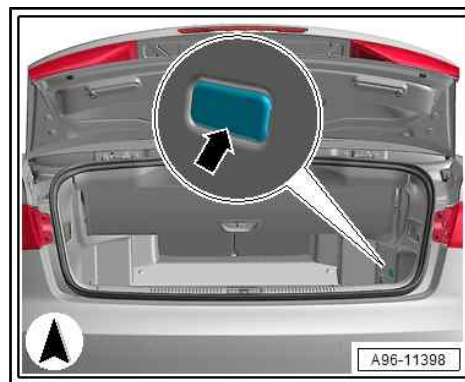
3.43.2 A3 Saloon

- Check that luggage compartment light shown -arrow- functions properly.



3.43.3 A3 Cabriolet

- Check that luggage compartment light shown -arrow- functions properly.



3.44 Luggage compartment: removing protective film and felt pieces

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- Remove protective film and felt pieces carefully and completely from luggage compartment.

3.45 Glove box light, interior lighting and reading light: checking operation

DANGER

Risk of injury as engine of high-voltage vehicle can start unexpectedly!

- ◆ Observe warnings for high-voltage system:
- ◆ For work that must be performed with the ignition switched on ➔ [page 8](#) .

Procedure:

- Open glove box and check that glove box light functions properly.
- Use the appropriate switches to activate the following interior lights and check that the lights function properly:
 - ◆ Interior lights in headliner at front
 - ◆ If fitted: interior lights in headliner at rear



Note

Checking the ambient lighting is NOT part of the inspection.

3.46 Horn: checking operation

DANGER

Risk of injury as engine of high-voltage vehicle can start unexpectedly!

- ◆ Observe warnings for high-voltage system:
- ◆ For work that must be performed with the ignition switched on ➔ [page 8](#) .

Procedure:

- Switch on ignition.
- Operate horn and check proper function of treble horn and bass horn.



Note

Perform this check outdoors, e.g. when driving the vehicle to the workshop or during a road test.

3.47 Front passenger airbag: checking key switch on / off and setting to "on"



DANGER

Risk of injury as engine of high-voltage vehicle can start unexpectedly!

- ◆ Observe warnings for high-voltage system:
- ◆ For work that must be performed with the ignition switched on ➔ **page 8**.

Switch for "Airbag ON/OFF" is located in glove box -arrow-.

Procedure:

- Turn switch to "AIRBAG OFF" position.
- Switch ignition on and wait for vehicle to complete initial system check.
- Check that "PASSENGER AIRBAG OFF" display lights up in instrument cluster.
- Switch off ignition.
- Turn switch to "AIRBAG ON" position.
- Switch ignition on and wait for vehicle to complete initial system check.
- Check that "PASSENGER AIRBAG OFF" disappears.
- Switch off ignition.



Note

The amount of time needed for the vehicle system check varies depending on the model and equipment.

3.48 Owner's literature: checking that all documents are present

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Procedure:

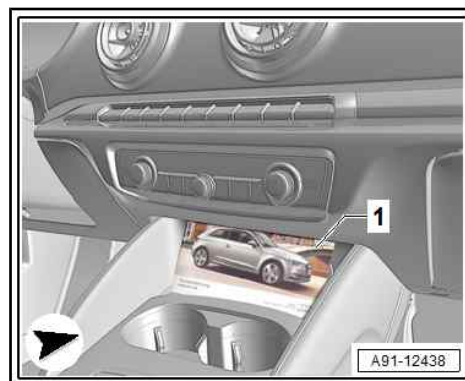
- Check that all parts of owner's literature are present, and prepare them for handover to customer.

3.49 Owner's literature: placing quick reference guide where it is visible to driver

The service wallet is located in the vehicle's glove box.

Procedure:

- Take quick reference guide out of service wallet and place it in area -1- under air conditioner operating unit.



3.50 Service Schedule: affixing vehicle data sticker

The vehicle data sticker can be found in the supplied pack.

Procedure:

- Remove vehicle data sticker from supplied pack.
- Affix vehicle data sticker in Service Schedule under “Warranty entitlement record”.

3.51 Service Schedule: entering Delivery Inspection

The field for documenting the Delivery Inspection can be found on page 2 of the Service Schedule.

Procedure:

- Apply stamp of Audi Workshop.
- Enter date of work carried out.
- Mark relevant field(s).

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Note

Only for markets not using the Digital Service Schedule.

3.52 Seat belts: checking that retaining rivets are fitted, and checking locking action of automatic belt retractor

Procedure:

For all seat belts installed:

- Check that retaining rivets/clips are fitted.
- Check locking action of automatic belt retractors when belt is unrolled abruptly.



Note

If the seat belt is securing an object (e.g. child seat), do not release the seat belt. Only check the locking action when the belt is buckled; it is not necessary to check the retaining rivet/clip in this case.

3.53 Vehicle interior: removing protective covers for seats and carpet

Procedure:

- Remove protective covers for seats and carpet carefully and completely from vehicle interior.

3.54 Vehicle interior: checking that it is clean and cleaning if necessary

Procedure:

Check that the following items are clean (clean them if necessary):

- ◆ Front seats
- ◆ Rear seat bench
- ◆ Interior trim
- ◆ Carpets
- ◆ Floor mats
- ◆ Windows/windscreen

3.55 Vehicle interior: removing any objects other than those protecting interior surfaces

Procedure:

- Remove any objects from vehicle other than those which are protecting interior surfaces.

3.56 Vehicle interior and exterior: checking for and documenting any damage

Procedure:

- Check interior of vehicle for damage and document any damage found.
- Check exterior of vehicle for damage and document any damage found.

3.57 Instrument cluster: checking warning lamps

Reading out the event memory is a repair measure and should be charged separately.

Procedure:

- Start engine and wait for vehicle to complete initial system check.
- Check whether warning lamps light up in instrument cluster.
- Switch off engine.
- If relevant warning lamps light up: Read out event memory
⇒ [page 24](#) .



Note

The amount of time needed for the vehicle system check varies depending on the model and equipment.

3.58 Warning triangle: checking availability

Procedure:

- Check that warning triangle(s) is/are present.

3.59 First-aid kit: checking and recording expiry date

The first-aid kit is located either under the front passenger's seat or in the storage compartment in the door trim (on vehicles with factory-supplied fire extinguisher).

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Procedure:

- Take out first-aid kit and check expiry date printed on kit.
- Record expiry date in Maintenance table.
- If expiry date has passed: Renew first-aid kit.

3.60 Vehicle keys: checking operation and recording number of keys given to customer

Procedure:

- Open key ring to check each key individually.
- Start engine with each key individually.
- Record number of keys which have been matched and handed over in Maintenance table.
- If a vehicle key has not been matched: Re-match all keys to vehicle using Guided Function of vehicle diagnostic tester via online tool GeKo.
- If there is reason to suspect improper use (e.g. missing key): See current notices from AUDI AG under "Technical information ► Anti-theft protection" on ServiceNet.



Note

- ◆ *Only the key being checked may be inside the vehicle. Place all other keys out of transmission range.*
- ◆ *If the key has not been matched, the engine will turn off after a few seconds. In addition, the warning lamp for the immobiliser or the display "SAFE" will appear in the instrument cluster, depending on the vehicle equipment.*

3.61 Vehicle key: removing from ignition lock

Only applies to vehicles with ignition lock.

Procedure:

- Remove vehicle key from ignition lock.

3.62 Vehicle key(s), wheel covers and owner's literature: checking availability and recording number present

Procedure:

- Check whether there are keys for the vehicle and record number of keys in maintenance table.
- Check whether there are wheel covers for the vehicle and record number of wheel covers in maintenance table.
- Check whether owner's literature is in place and record number of copies in maintenance table.
- Wait until shortly before vehicle delivery to renew any missing components.

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3.63 Sun visors: checking that they are folded up and folding up if necessary

Procedure:

- Check that sun visors are folded up, and fold them up if necessary.

3.64 Luggage compartment cover and sun blind: checking that they are rolled up and rolling up if necessary

Procedure:

- If a luggage compartment cover is fitted, check that it is rolled up (roll it up if necessary).
- Check that sun blinds are folded up (fold them up if necessary).

3.65 Engine oil: draining



Note

- ◆ *Oil should always be changed when engine is warm.*
- ◆ *Always observe the relevant environmental regulations for disposal.*
- ◆ *Keep components clean.*

3-cyl. petrol engine 1.0 ltr. TFSI ➔ [page 85](#)

4-cyl. petrol engine 1.2 ltr. TFSI/1.4 ltr. TFSI/1.4 ltr. TFSI g-tron/
1.4 ltr. TFSI e-tron ➔ [page 87](#)

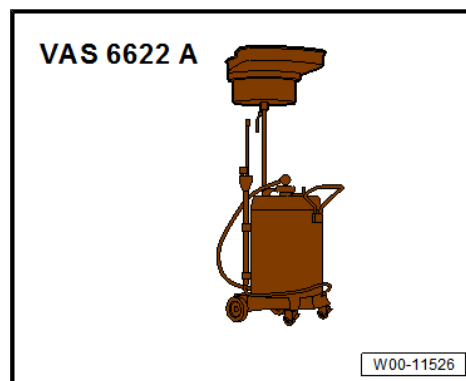
5-cyl. petrol engine 2.5 ltr. TFSI ➔ [page 88](#)

4-cyl. diesel engine 1.6 ltr. TDI/2.0 ltr. TDI ➔ [page 89](#)

3.65.1 3-cyl. petrol engine 1.0 ltr. TFSI

Special tools and workshop equipment required

- ◆ Used oil collection and extraction unit - V.A.S 6622 A-



- ◆ Torque wrench - V.A.G 1331- , measuring range 6 to 50 Nm
- ◆ Or: torque wrench - VAS 6583- , measuring range 3 to 60 Nm
- ◆ Or: torque wrench - VAS 5820- , measuring range 20 to 100 Nm

Table of tightening torques for installation:

Component/fastener	[Nm]
Oil drain plug on sump	30

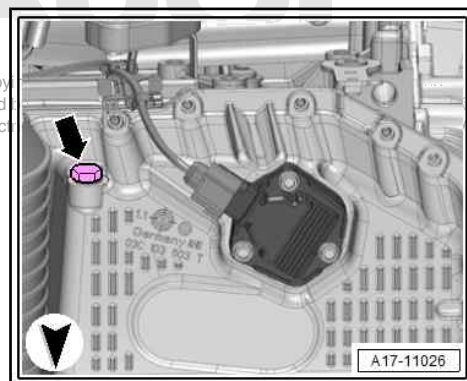
Removal steps:

- Remove noise insulation ➔ [page 15](#) .

Procedure:

- Place oil drip tray under engine sump.
- Unscrew oil drain plug of sump -arrow-.
- Drain engine oil from sump.
- Renew seal for oil drain plug.
- Screw oil drain plug into sump and tighten to specified torque (see table of tightening torques for installation ➔ [page 86](#)).

Continue installation in reverse sequence.



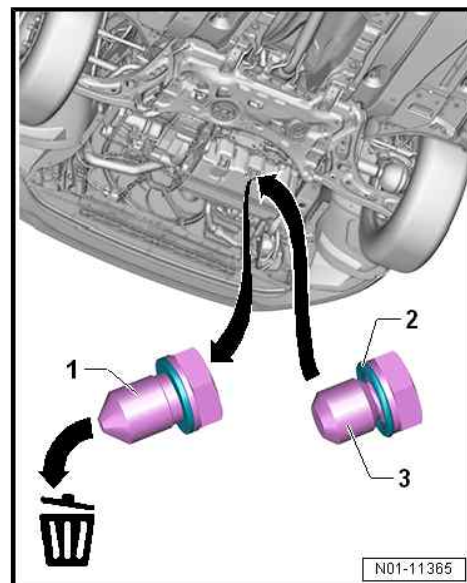
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Note

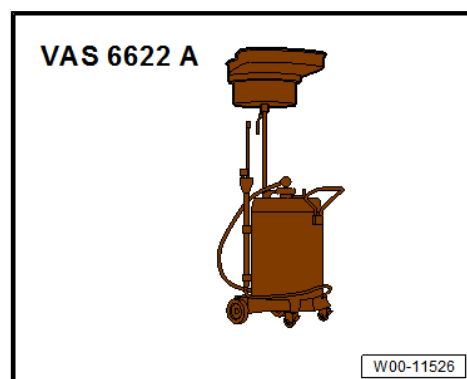
Applies to oil drain plug with captive seal -1-: After first oil change, replace with an oil drain plug -3- with exchangeable seal -2-.



3.65.2 4-cyl. petrol engine 1.2 ltr. TFSI/1.4 ltr. TFSI/1.4 ltr. TFSI g-tron/1.4 ltr. TFSI e-tron

Special tools and workshop equipment required

- ◆ Used oil collection and extraction unit - V.A.S 6622 A-



- ◆ Torque wrench - V.A.G 1331- , measuring range 6 to 50 Nm

Table of tightening torques for installation:

Component/fastener	[Nm]
Oil drain plug on sump	30

Removal steps:

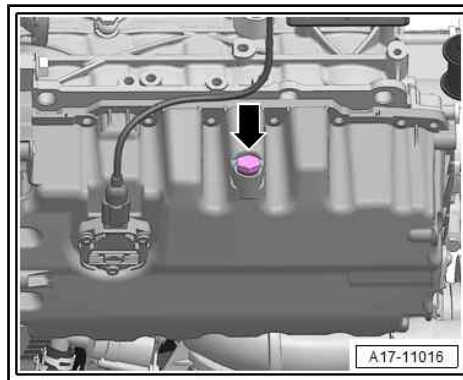
- Remove noise insulation ⇒ [page 15](#) .

Procedure:

- Place oil drip tray under engine sump

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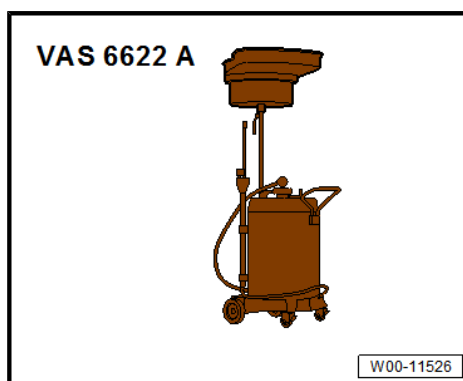
- Unscrew oil drain plug of sump -arrow-.
- Drain engine oil from sump.
- Renew seal for oil drain plug.
- Screw oil drain plug into sump and tighten to specified torque (see table of tightening torques for installation ➔ [page 87](#)).



3.65.3 5-cyl. petrol engine 2.5 ltr. TFSI

Special tools and workshop equipment required

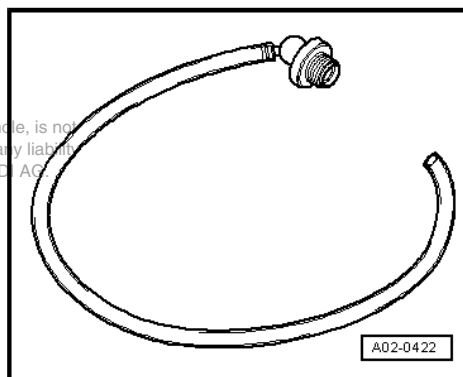
- ◆ Used oil collection and extraction unit - V.A.S 6622 A-



- ◆ Oil drain adapter - T 40057-



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- ◆ Torque wrench - V.A.G 1331- , measuring range 6 to 50 Nm
- ◆ Or: torque wrench - VAS 6583- , measuring range 3 to 60 Nm
- ◆ Or: torque wrench - VAS 5820- , measuring range 20 to 100 Nm

Table of tightening torques for installation:

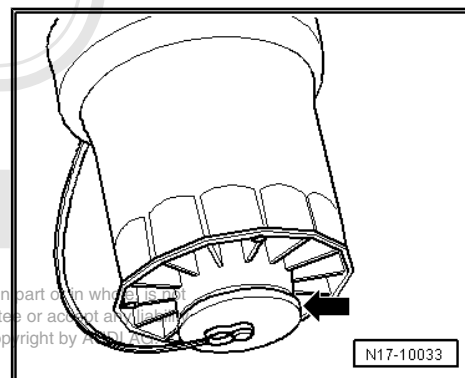
Component/fastener	[Nm]
Oil drain plug on sump	25

Removal steps:

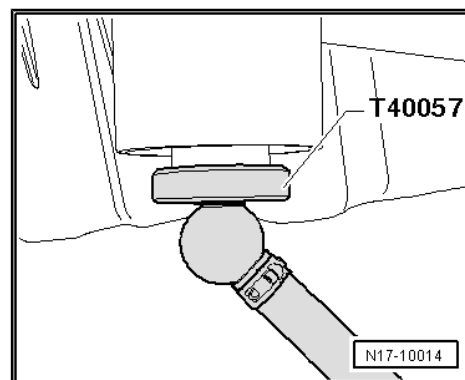
- Remove noise insulation ➔ [page 15](#) .

Procedure:

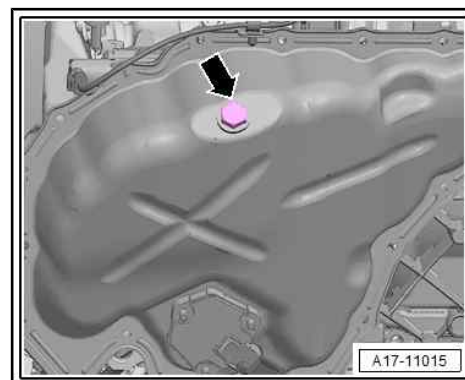
- Unscrew protective cap -arrow- from oil filter housing.
- Place oil drip tray under engine sump.
- Hold hose from oil drain adapter -T40057- into used oil collection and extraction unit .



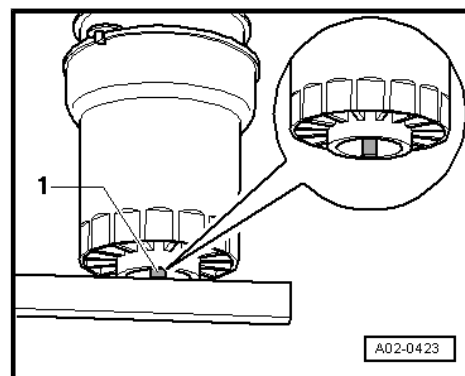
- Screw oil drain adapter - T40057- into oil filter housing. This opens a valve in oil filter housing, and oil will then be drained.
- Drain engine oil from oil filter housing.



- Remove oil drain plug -arrow- from sump and drain engine oil.



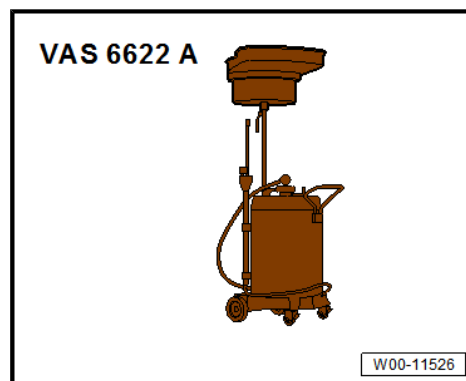
- Unscrew oil drain adapter - T 40057- from oil filter housing and check that base valve -1- is flush and level.
- Screw protective cap back onto oil filter housing.
- Renew seal for oil drain plug.
- Screw oil drain plug into sump and tighten to specified torque (see table of tightening torques for installation ➔ [page 88](#)).



3.65.4 4-cyl. diesel engine 1.6 ltr. TDI/2.0 ltr. TDI

Special tools and workshop equipment required

- ◆ Used oil collection and extraction unit - V.A.S 6622 A-



- ◆ Torque wrench - V.A.G 1331- , measuring range 6 to 50 Nm
- ◆ Torque wrench - V.A.G 1410- , measuring range 4 to 20 Nm

Table of tightening torques for installation:

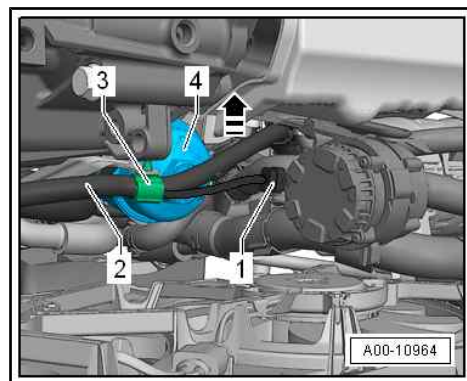
Component/fastener	[Nm]
Oil drain plug on sump	30
Oil drain plug on sealing cap	5

Removal steps:

- Remove noise insulation ⇒ [page 15](#) .
- Unplug connector -1- for run-on pump.
- Unclip wiring for alternator -2- at clip -3-, unfasten from engine block and pivot in direction of -arrow-.

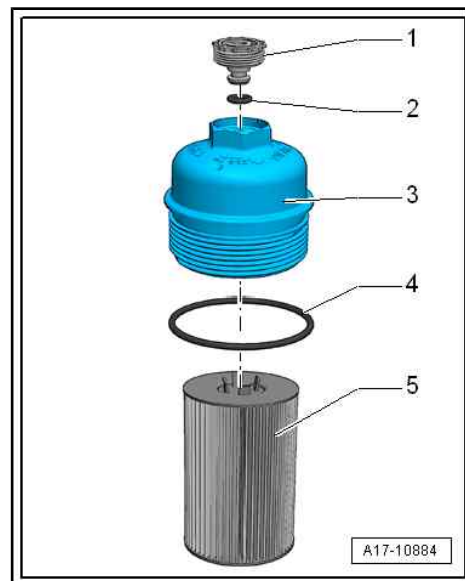
Procedure:

- Place oil drip tray under engine sump and oil filter.

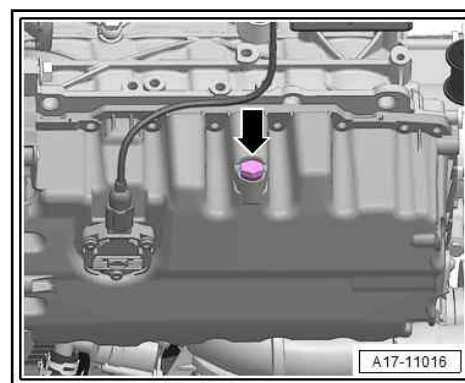


- Unscrew oil drain plug -1- on sealing cap -3- and drain off engine oil from oil filter housing.

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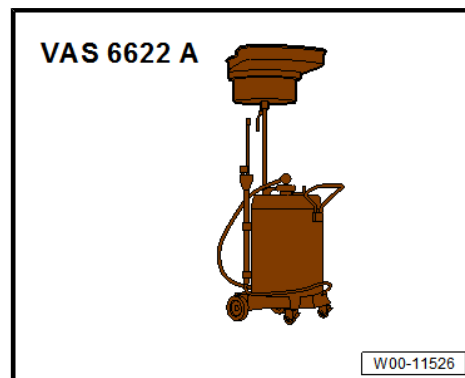
- Unscrew oil drain plug of sump -arrow-.
- Drain engine oil from sump.
- Renew O-ring for oil drain plug for sump.
- Re-install both oil drain plugs and tighten to specified torque (see table of tightening torques for installation ➔ [page 90](#)).



3.66 Engine oil: extracting

Special tools and workshop equipment required

- ◆ Used oil collection and extraction unit - V.A.S 6622 A-



Procedure:

- Pull oil dipstick/sealing plug out of guide tube.
- Insert extraction probe of oil extraction unit into guide tube. Use flexible extraction probe with largest possible diameter and insert without using any significant force. Otherwise the tip can become diverted on the bottom of the sump and a large amount of used oil will remain in the engine.
- Extract engine oil completely. Observe operating instructions for extraction unit.

- Finally, install oil dipstick/sealing plug.



Note

- ◆ *Oil should always be changed when engine is warm.*
- ◆ *Always observe the relevant environmental regulations for disposal.*
- ◆ *Keep components clean.*

3.67 Engine oil: renewing oil filter

3-cyl. petrol engine 1.0 ltr. TFSI ➔ [page 92](#)

4-cyl. petrol engine 1.2 ltr. TFSI/1.4 ltr. TFSI/1.4 ltr. TFSI g-tron/
1.4 ltr. TFSI e-tron ➔ [page 93](#)

4-cyl. petrol engine 1.8 ltr. TFSI/2.0 ltr. TFSI ➔ [page 94](#)

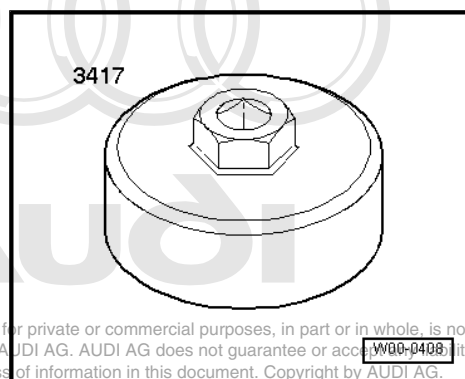
4-cyl. petrol engine 2.5 ltr. TFSI ➔ [page 95](#)

4-cyl. diesel engine 1.6 ltr. TDI/2.0 ltr. TDI ➔ [page 96](#)

3.67.1 3-cyl. petrol engine 1.0 ltr. TFSI

Special tools and workshop equipment required

- ◆ Oil filter tool - 3417-



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- ◆ Hazet strap wrench - 2171-1-
- ◆ Torque wrench - V.A.G 1331- , measuring range 6 to 50 Nm
- ◆ Or: torque wrench - V.A.G 1410- , measuring range 4 to 20 Nm
- ◆ Or: torque wrench - VAS 6583- , measuring range 3 to 60 Nm
- ◆ Or: torque wrench - VAS 5820- , measuring range 20 to 100 Nm

Table of tightening torques for installation:

Component/fastener	[Nm]
Oil filter cartridge	20

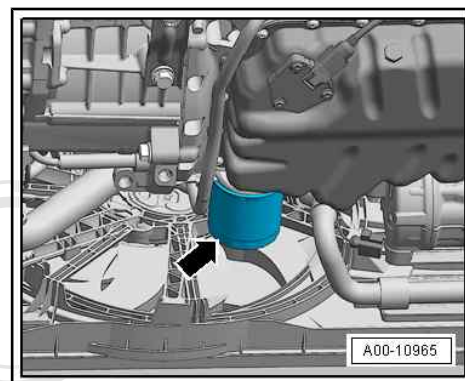
Requirements:

- Engine oil drained.

Procedure:

- Use Hazet strap wrench - 2171-1- or oil filter tool - 3417- to slacken oil filter -arrow- and then remove it.
- Clean sealing surface for oil filter at engine.
- Lubricate rubber seal on new oil filter cartridge with engine oil.
- Fit new oil filter cartridge and tighten to specified torque (see table of tightening torques for installation ⇒ [page 92](#)).

Continue installation in reverse sequence.



3.67.2 4-cyl. petrol engine 1.2 ltr. TFSI/1.4 ltr. TFSI/1.4 ltr. TFSI g-tron/1.4 ltr. TFSI e-tron

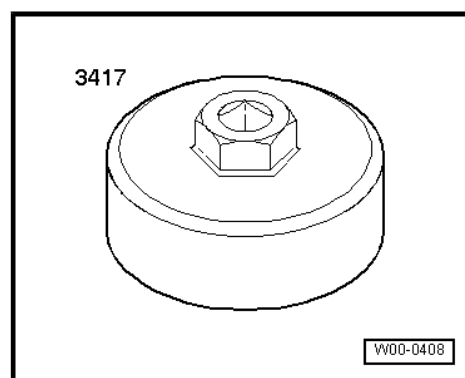
⚠ DANGER

Risk of fatal injury if high-voltage components are damaged.

- ◆ Observe warnings for high-voltage system:
- ◆ For work in the vicinity of high-voltage components ⇒ [page 7](#) .

Special tools and workshop equipment required

- ◆ Oil filter tool - 3417-



- ◆ Or: Hazet strap wrench - 2171-1-
- ◆ Torque wrench - V.A.G. 1410- , measuring range 4 to 20 Nm
- ◆ Or: torque wrench - V.A.G 1331- , measuring range 6 to 50 Nm
- ◆ Or: torque wrench - VAS 6583- , measuring range 3 to 60 Nm
- ◆ Or: torque wrench - VAS 5820- , measuring range 20 to 100 Nm

Table of tightening torques for installation:

Component/fastener	[Nm]
Oil filter cartridge	20

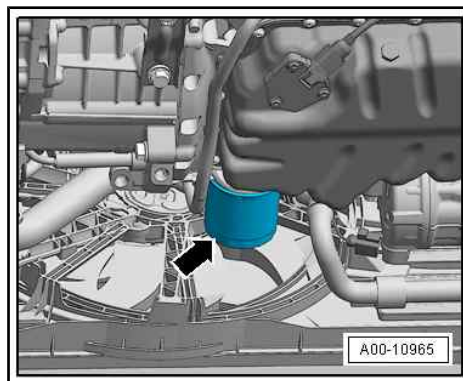
Requirements:

- Engine oil drained.

Procedure:

- Use Hazet strap wrench - 2171-1- or oil filter tool - 3417- to slacken oil filter -arrow- and then remove it.
- Clean sealing surface for oil filter at engine.
- Lubricate rubber seal on new oil filter cartridge with engine oil.
- Fit new oil filter cartridge and tighten to specified torque (see table of tightening torques for installation ⇒ [page 93](#)).

Continue installation in reverse sequence.



3.67.3 4-cyl. petrol engine 1.8 ltr. TFSI/2.0 ltr. TFSI

Special tools and workshop equipment required

- ◆ Torque wrench - V.A.G 1331- , measuring range 6 to 50 Nm
- ◆ Or: torque wrench - VAS 6583- , measuring range 3 to 60 Nm
- ◆ Or: torque wrench - VAS 5820- , measuring range 20 to 100 Nm

Table of tightening torques for installation:

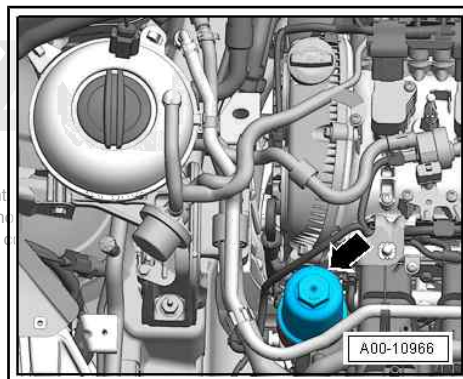
Component/fastener	[Nm]
Sealing cap	25

Removal steps:

- Remove engine cover panel ⇒ [page 13](#) .

Procedure:

- Loosen sealing cap -arrow- using socket (32 mm) . This causes a valve to open.
- Wait a few minutes to allow engine oil to drain from filter housing into crankcase.
- Completely remove sealing cap. Make sure that no engine oil drips onto engine.

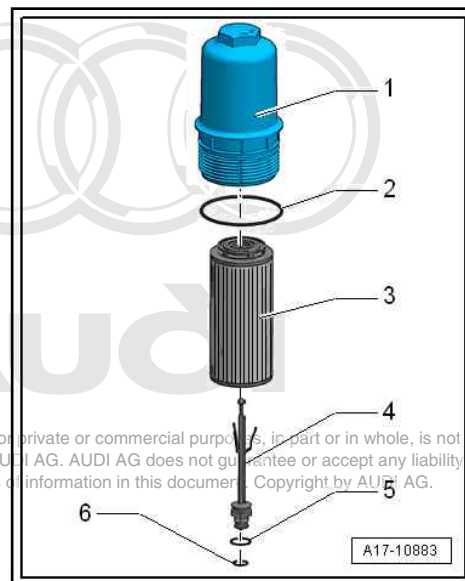


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- Pull oil filter element -3- and O-ring -2- out of sealing cap -1-.
- Clean sealing surfaces of sealing cap -1-.
- Lightly lubricate new O-ring -2- with engine oil and insert O-ring.
- Fit new oil filter element -3- in sealing cap -1-.
- Screw sealing cap -1- into oil filter housing and tighten it to specified torque using socket (32 mm) (see table of tightening torques for installation ➤ [page 94](#)).

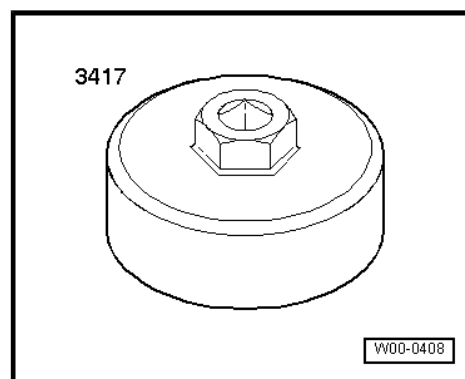
Continue installation in reverse sequence.



3.67.4 5-cyl. petrol engine 2.5 ltr. TFSI

Special tools and workshop equipment required

- ◆ Oil filter tool - 3417-



- ◆ Hazet strap wrench - 2171-1-
- ◆ Torque wrench - V.A.G 1331- , measuring range 6 to 50 Nm
- ◆ Or: torque wrench - VAS 6583- , measuring range 3 to 60 Nm
- ◆ Or: torque wrench - VAS 5820- , measuring range 20 to 100 Nm

Table of tightening torques for installation:

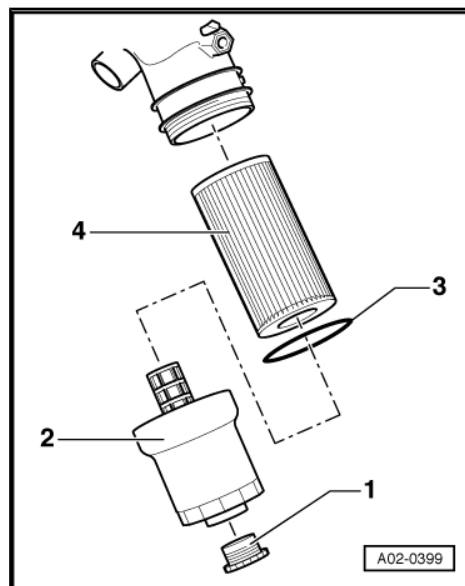
Component/fastener	[Nm]
Sealing cap	25

Requirements:

- Engine oil drained.

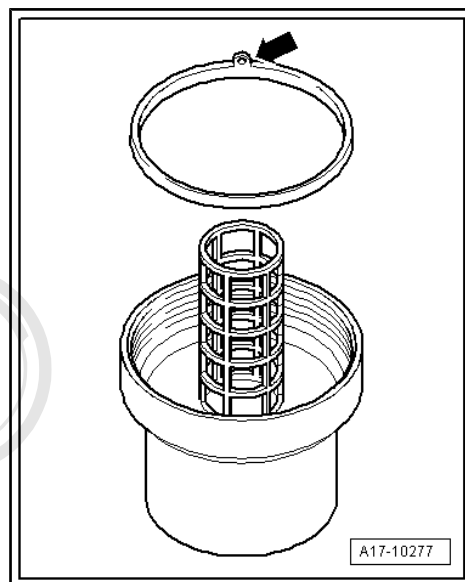
Procedure:

- Using oil filter tool - 3417- or Hazet strap wrench - 2171-1- , loosen and unscrew oil filter housing -2-.
- Remove oil filter element -4- and seal -3-.
- Clean sealing surface on oil filter housing.



- Lightly lubricate new seal with engine oil and insert into oil filter housing. Note position of service tab on seal -arrow-. Flat side of seal profile must face outwards.
- Fit new filter element in oil filter housing.
- Screw oil filter housing into mounting on crankcase and tighten to specified torque using oil filter tool - 3417- (see table of tightening torques for installation ➔ [page 95](#)).

Continue installation in reverse sequence.



3.67.5 4-cyl. diesel engine 1.6 ltr. TDI/2.0 ltr. TDI

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Special tools and workshop equipment required

- ♦ Torque wrench - VAS 6583- , measuring range 3 to 60 Nm

Table of tightening torques for installation:

Component/fastener	[Nm]
Sealing cap on oil filter	25
Oil drain plug on sealing cap	5

Requirements:

- Engine oil drained.

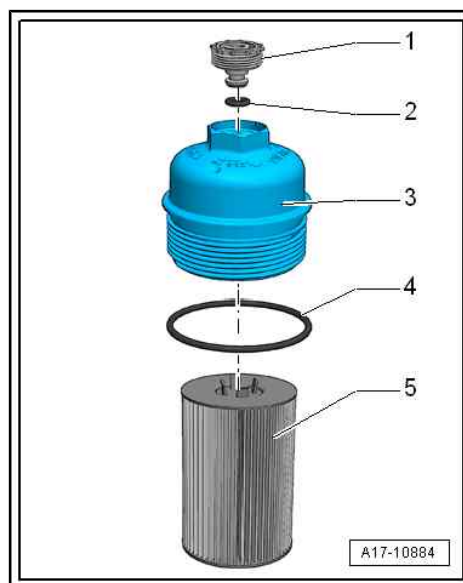
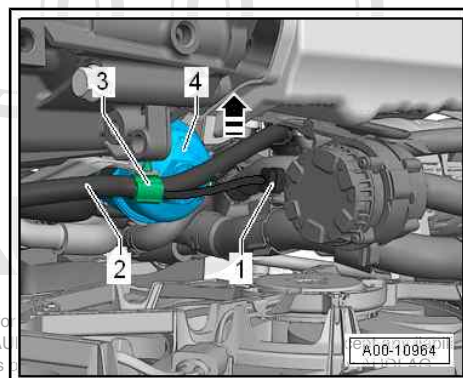
Removal steps:

- Unplug connector -1- for run-on pump.
- Unclip wiring for alternator -2- at clip -3-, unfasten from engine block and pivot in direction of -arrow-.

Procedure:

- Unscrew oil drain plug -1- on sealing cap -3-.
- Loosen and remove sealing cap -3- using socket (32 mm) .
- Pull oil filter element -5- and O-ring -4- out of sealing cap -3-.
- Clean sealing surfaces of sealing cap -3-.
- Lightly lubricate new O-rings -4- and -2- with engine oil and insert O-rings.
- Fit new oil filter element -5- in sealing cap -3-.
- Use socket (32 mm) to screw sealing cap -3- into oil filter housing and tighten it to specified torque (see table of tightening torques for installation ➔ [page 96](#)).
- Screw oil drain plug -1- into sealing cap and tighten to specified torque (see table of tightening torques for installation ➔ [page 96](#)).

Continue installation in reverse sequence.



3.68 Engine oil: filling up

CAUTION

Risk of engine damage if the engine is revved too soon after changing the oil!

- ◆ The engine must only run at idling speed as long as the oil pressure warning lamp in the instrument cluster is on.
- ◆ Increase the engine speed only after the warning lamp has gone out.

Special tools and workshop equipment required

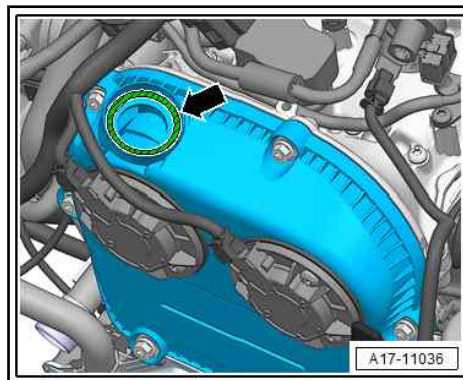
- ◆ Oil filler funnel - VAS 6842-



Refer to ELSA maintenance table for engine-specific oil capacities and oil grades.

Procedure:

- Fill up engine oil using oil filler funnel - VAS 6842- .
- Then check oil level and adjust if necessary ➔ [page 98](#) .
- For all 4-cylinder petrol engines 1.8 ltr./2.0 ltr. TFSI with oil filler neck on timing chain cover: Clean sealing surface -arrow- on inside of oil filler neck with a lint-free cloth before screwing on filler cap.



3.69 Engine oil: checking oil level and correcting if necessary

CAUTION

Risk of damage to catalytic converter if engine oil level is too high!

♦ Drain engine oil until level meets specification.

Required conditions for all engines:

- Engine oil temperature at least 60 °C.
- Wait a few minutes after switching off the engine to allow the oil to flow back into the sump.
- Vehicle must be level (horizontal).

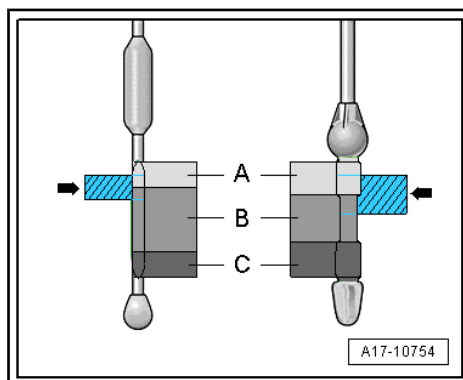
Checking oil level with dipstick (version 1) ➔ [page 98](#)

Checking oil level with dipstick (version 2) ➔ [page 99](#)

3.69.1 Checking oil level with dipstick (version 1)

Procedure:

- Pull out dipstick and wipe it off with a clean cloth.
- Re-insert dipstick into guide tube as far as it will go.
- Pull oil dipstick out again and read off oil level on marked area.
- Evaluate oil level and determine any necessary measures accordingly:



Oil level:	Evaluation/measure:
Marked area -arrow-	Optimum oil level.
Area A	Oil must not be topped up.
Area B	Oil can be topped up.
Area C	Oil must be topped up.

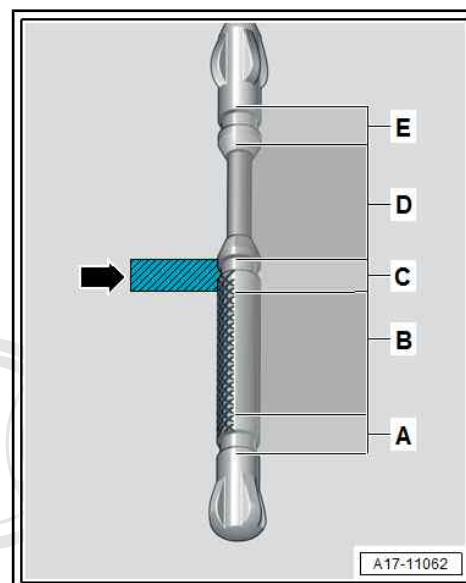
 Note

There is more than one version of the oil dipstick ➔ [page 99](#).

3.69.2 Checking oil level with dipstick (version 2)

Procedure:

- Pull out dipstick and wipe it off with a clean cloth.
- Re-insert dipstick into guide tube as far as it will go.
- Pull oil dipstick out again and read off oil level on marked area.
- Evaluate oil level and determine any necessary measures accordingly:



Oil level:	Evaluation/measure:
Marked area -arrow-	Optimum oil level.
Area E	Oil must be extracted.
Areas C and D	Oil must not be topped up.
Area B	Oil can be topped up.
Area A	Oil must be topped up.

 Note

There is more than one version of the oil dipstick ➔ [page 98](#).

3.70 Spark plugs: renewing

3-cyl. petrol engine 1.0 ltr. TFSI ⇒ [page 100](#)

4-cyl. petrol engine 1.2 ltr. TFSI/1.4 ltr. TFSI/1.4 ltr. TFSI g-tron/
1.4 ltr. TFSI e-tron ⇒ [page 102](#)

4-cyl. petrol engine 1.8 ltr. TFSI/2.0 ltr. TFSI (version 1)
⇒ [page 104](#)

4-cyl. petrol engine 2.0 ltr. TFSI (version 2) ⇒ [page 107](#)

5-cyl. petrol engine 2.5 ltr. TFSI ⇒ [page 109](#)

Lubricating ignition coils ⇒ [page 111](#)

3.70.1 3-cyl. petrol engine 1.0 ltr. TFSI

Special tools and workshop equipment required

- ◆ Spark plug socket and extension - 3122B-



- ◆ Puller - T10530-



- ◆ Release tool - T 10527-



- ◆ Torque wrench - V.A.G 1331- , measuring range 6 to 50 Nm
- ◆ Or: torque wrench - VAS 6583- , measuring range 3 to 60 Nm

Table of tightening torques for installation:

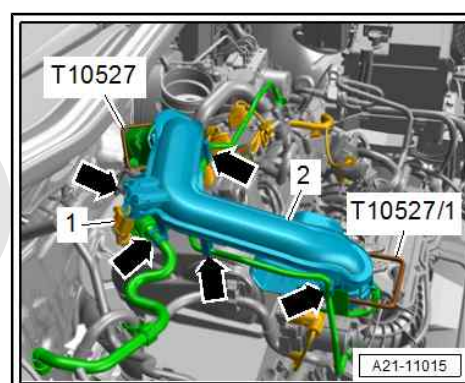
Component/fastener	[Nm]
Spark plugs	30
Securing bolts for connector rail	8

Removal steps:

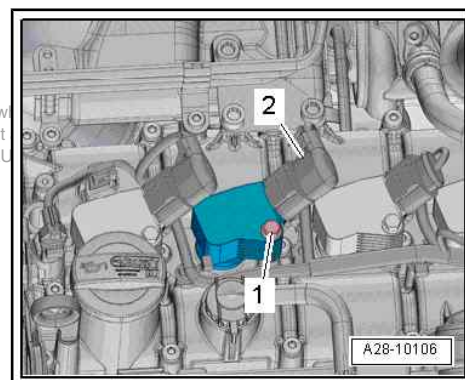
- Remove air cleaner housing ⇒ Rep. gr. 24 ; Air cleaner; Removing and installing air cleaner housing .

Step 1 - removing spark plugs:

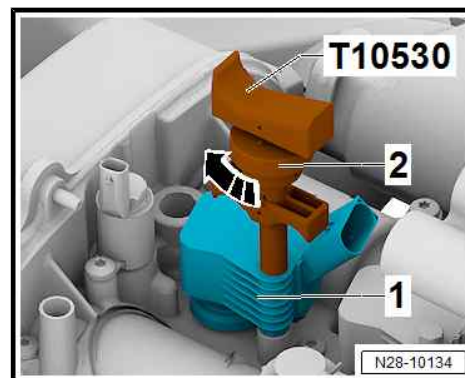
- Unplug electrical connector -1- at air pipe -2-.
- Move hoses -arrows- clear at air pipe -2-.
- Release catch using release tool - T 10527- and remove air pipe.



- Push ignition coil connector -2- towards ignition coil, release retainer and detach connector from ignition coil.
- Move connector -2- slightly to one side. Make sure that wiring is not kinked or damaged.
- Unscrew bolts -1- for ignition coils.



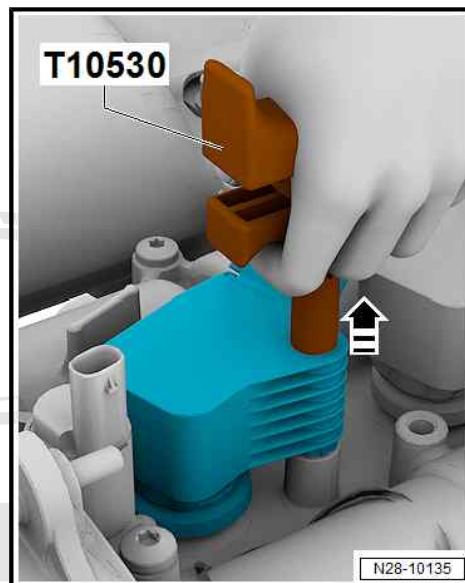
- Insert puller - T10530- into hole -1- of ignition coil and turn knurled nut -2- clockwise until puller is secured in place.



- Carefully pull ignition coil out upwards using puller - T10530- .
- Repeat removal procedure with all other ignition coils.
- Unscrew spark plugs using spark plug socket and extension - VAS 3122B- .

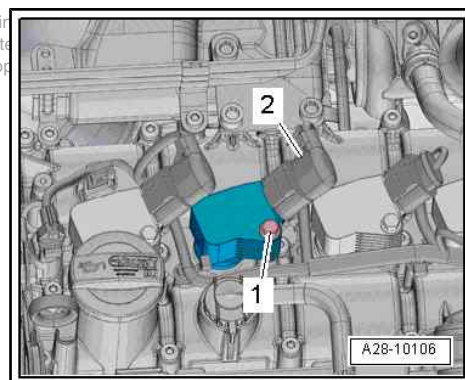
Step 2 - installing spark plugs:

- Install new spark plugs using spark plug socket and extension - VAS 3122B- and tighten to specified torque (see table of tightening torques for installation ➔ [page 101](#)).
- Lubricate ignition coils ➔ [page 111](#) .
- Fit all ignition coils loosely into spark plug apertures and align with connectors of connector rail.
- Push ignition coils evenly onto spark plugs by hand (do not attempt to knock in coils with any kind of tool).



- Tighten bolts -1- for ignition coils to specified torque (see table of tightening torques for installation ➔ [page 101](#)).
- Plug in connector -2- on each ignition coil until it engages.

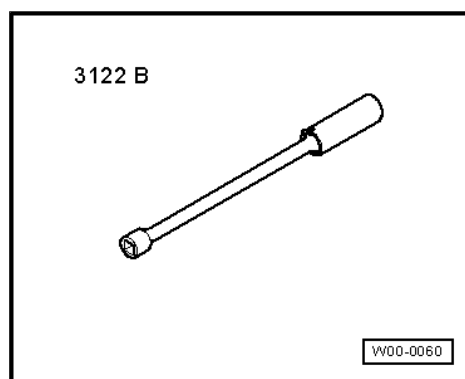
Continue installation in reverse sequence.



3.70.2 4-cyl. petrol engine 1.2 ltr. TFSI/1.4 ltr. TFSI/1.4 ltr. TFSI g-tron/1.4 ltr. TFSI e-tron

Special tools and workshop equipment required

- ◆ Spark plug socket and extension - 3122B-



◆ Puller - T10530-



◆ Torque wrench - V.A.G 1331- , measuring range 6 to 50 Nm

◆ Or: torque wrench - VAS 6583- measuring range 3 to 60 Nm

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Table of tightening torques for installation:

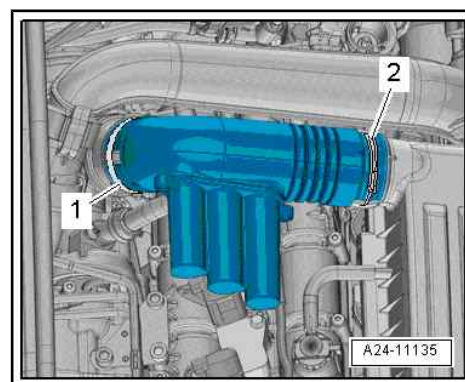
Component/fastener	[Nm]
Spark plugs	30
Bolt for ignition coil	8

Removal steps:

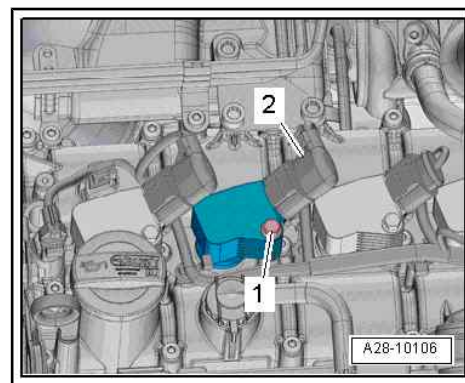
- If fitted: Remove engine cover panel ➔ [page 13](#) .

Step 1 - removing spark plugs:

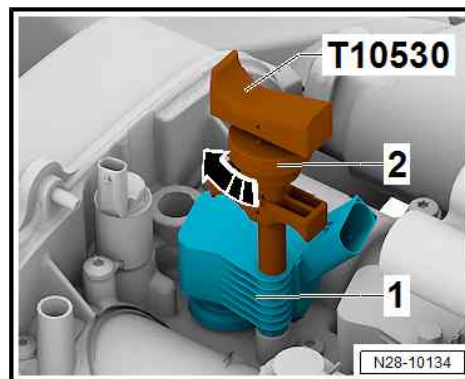
- Loosen hose clips -1- and -2- and remove air pipe.



- Push ignition coil connector -2- towards ignition coil, release retainer and detach connector from ignition coil.
- Move connector -2- slightly to one side. Make sure that wiring is not kinked or damaged.
- Unscrew bolts -1- for ignition coils.



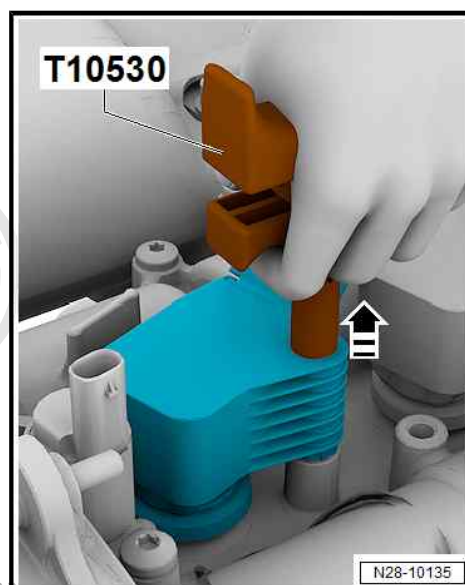
- Insert puller - T10530- into hole -1- of ignition coil and turn knurled nut -2- clockwise until puller is secured in place.



- Carefully pull ignition coil out upwards using puller - T10530- .
- Repeat removal procedure with all other ignition coils.
- Unscrew spark plugs using spark plug socket and extension - VAS 3122B- .

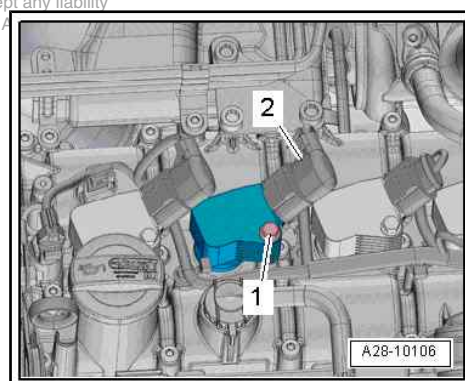
Step 2 - installing spark plugs:

- Install new spark plugs using spark plug socket and extension - VAS 3122B- and tighten to specified torque (see table of tightening torques for installation ➔ [page 103](#)).
- Lubricate ignition coils ➔ [page 111](#) .
- Fit all ignition coils loosely into spark plug apertures and align with connectors of connector rail.
- Push ignition coils evenly onto spark plugs by hand (do not attempt to knock in coils with any kind of tool).



- Tighten bolts -1- for ignition coils to specified torque (see table of tightening torques for installation ➔ [page 103](#)).
- Plug in connector -2- on each ignition coil.

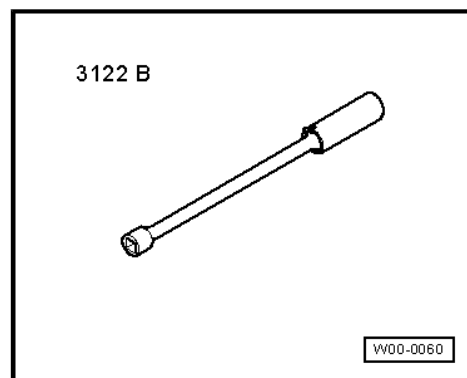
Continue installation in reverse sequence.



3.70.3 4-cyl. petrol engine 1.8 ltr. TFSI/2.0 ltr. TFSI (version 1)

Special tools and workshop equipment required

- ◆ Spark plug socket and extension - 3122B-



- ◆ Puller - T10530-



- ◆ Torque wrench - V.A.G 1331- , measuring range 6 to 50 Nm
- ◆ Or: torque wrench - VAS 6583- , measuring range 3 to 60 Nm

Table of tightening torques for installation:

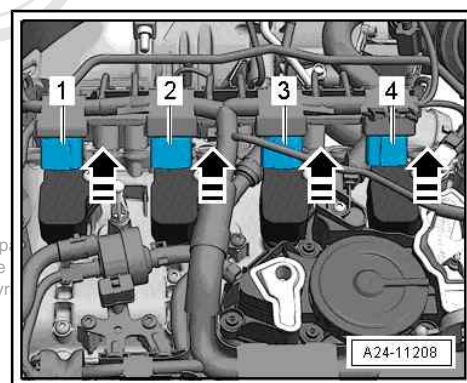
Component/fastener	[Nm]
Spark plugs	30
Bolt for ignition coil	10

Removal steps:

- Remove engine cover panel ➔ [page 13](#) .

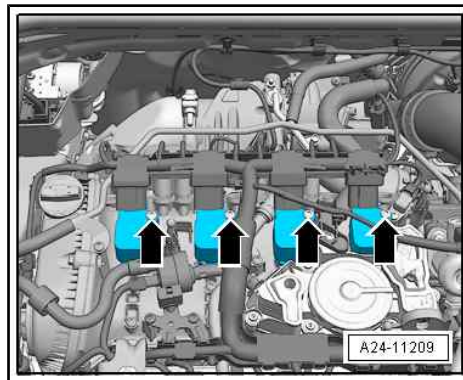
Step 1 - removing spark plugs:

- Release connectors -1-, -2-, -3- and -4- for ignition coils and unplug all connectors from ignition coils at the same time.
- Place electrical connectors slightly to one side. Make sure that wiring is not kinked or damaged.

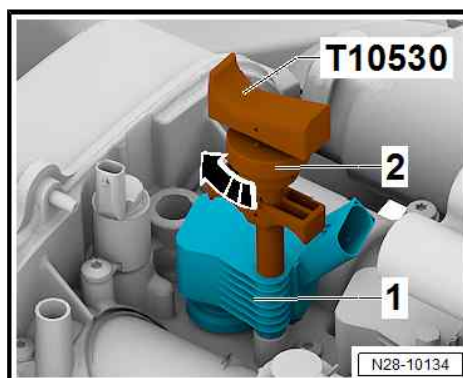


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- Unscrew bolts -arrows- for ignition coils.



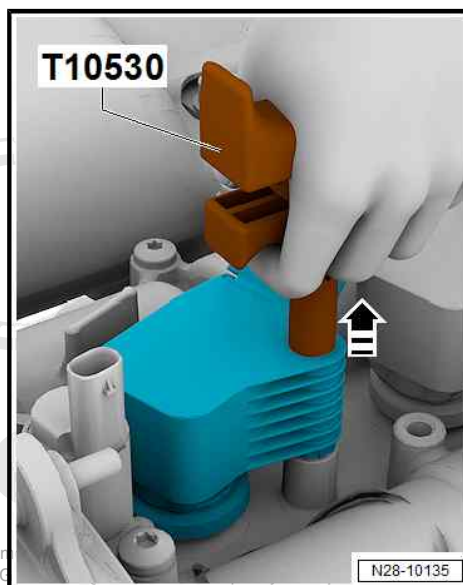
- Insert puller - T10530- into hole -1- of ignition coil and turn knurled nut -2- clockwise until puller is secured in place.



- Carefully pull ignition coil out upwards using puller - T10530- .
- Repeat removal procedure with all other ignition coils.
- Unscrew spark plugs using spark plug socket and extension - VAS 3122B- .

Step 2 - installing spark plugs:

- Install new spark plugs using spark plug socket and extension - VAS 3122B- and tighten to specified torque (table ⇒ [page 105](#)).
- Lubricate ignition coils ⇒ [page 111](#) .
- Fit all ignition coils loosely into spark plug apertures and align with connectors of connector rail.
- Push ignition coils evenly onto spark plugs by hand (do not attempt to knock in coils with any kind of tool).



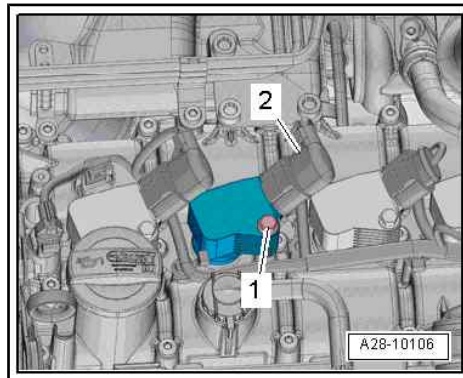
- Tighten bolts -1- for ignition coils to specified torque (see table of tightening torques for installation ⇒ [page 105](#)).
- Plug in connector -2- on each ignition coil.

Continue installation in reverse sequence.



Note

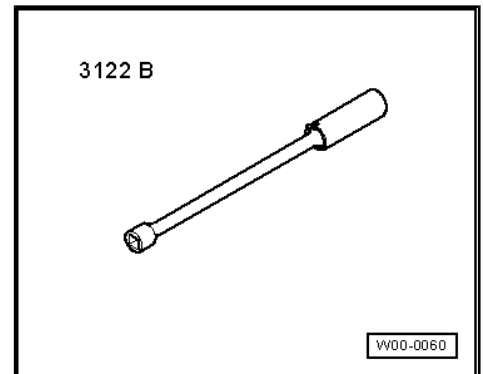
There are additional spark plug versions for the 4-cylinder petrol engine 2.0 ltr. TFSI ⇒ [page 107](#) .



3.70.4 4-cyl. petrol engine 2.0 ltr. TFSI (version 2)

Special tools and workshop equipment required

- ◆ Spark plug socket and extension - 3122B-



- ◆ Puller - T10530-



- ◆ Torque wrench - V.A.G 1331- , measuring range 6 to 50 Nm
- ◆ Or: torque wrench - VAS 6583- , measuring range 3 to 60 Nm

Table of tightening torques for installation:

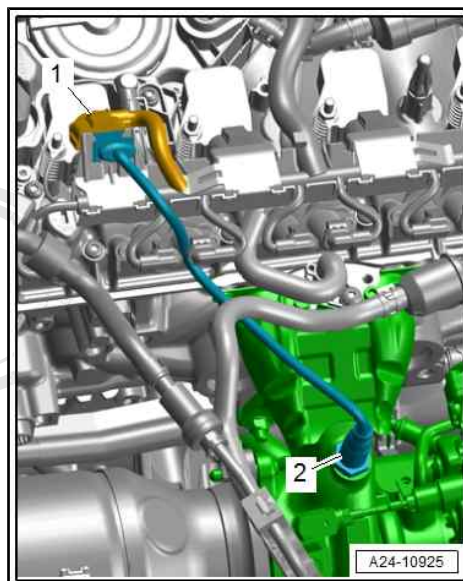
Component/fastener	[Nm]
Spark plugs	30
Centre hex studs for ignition coils	10
Nut for earth wire	9

Removal steps:

- Remove engine cover panel ➔ [page 13](#) .

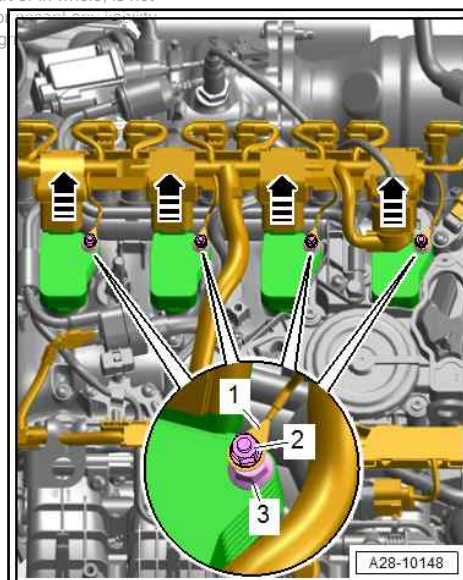
- Unplug electrical connector -1- for Lambda probe - G39- .

Step 1 - removing spark plugs:

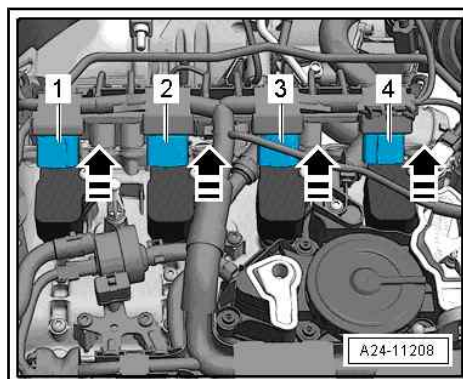


- If fitted: Unscrew nuts -2- and move earth wire -1- clear.

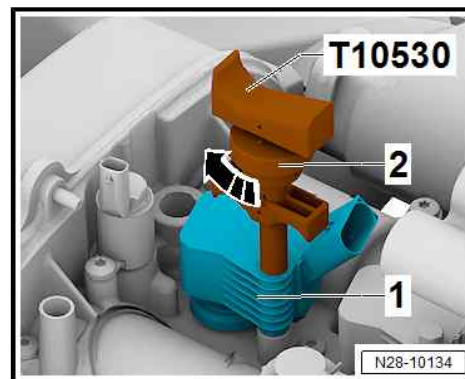
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- Push ignition coil connectors -1-, -2-, -3- and -4- towards ignition coils, release retainers and detach connectors from ignition coils.
- Place connectors slightly to one side. Make sure that wiring is not kinked or damaged.
- Unscrew centre hex studs for ignition coils.



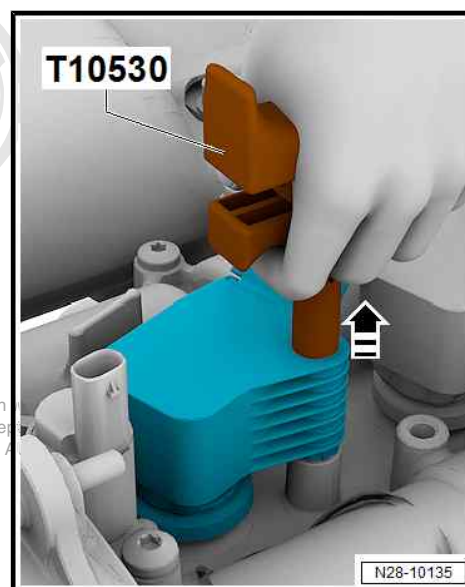
- Insert puller - T10530- into hole -1- of ignition coil and turn knurled nut -2- clockwise until puller is secured in place.



- Carefully pull ignition coil out upwards using puller - T10530- .
- Repeat removal procedure with all other ignition coils.
- Unscrew spark plugs using spark plug socket and extension - VAS 3122B- .

Step 2 - installing spark plugs:

- Install new spark plugs using spark plug socket and extension - VAS 3122B- and tighten to specified torque (see table of tightening torques for installation ➔ [page 107](#)).
- Lubricate ignition coils ➔ [page 111](#) .
- Fit all ignition coils loosely into spark plug apertures and align with connectors of connector rail.
- Push ignition coils evenly onto spark plugs by hand (do not attempt to knock in coils with any kind of tool).
- Tighten centre hex studs for ignition coils to specified torque (see table of tightening torques for installation ➔ [page 107](#)).
- Plug in connector on each ignition coil until it engages.



Continue installation in reverse sequence. Note tightening torques (see table of tightening torques for installation ➔ [page 107](#)).



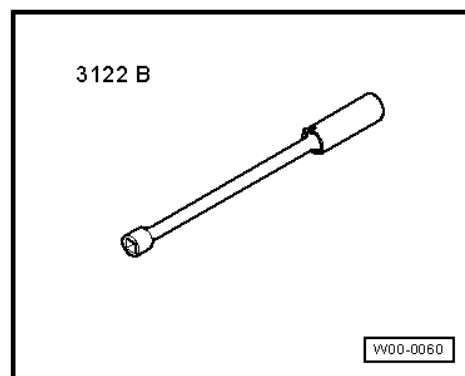
Note

There are additional spark plug versions for the 4-cylinder petrol engine 2.0 ltr. TFSI ➔ [page 104](#) .

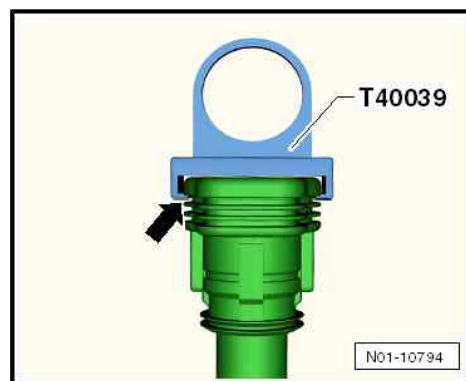
3.70.5 5-cyl. petrol engine 2.5 ltr. TFSI

Special tools and workshop equipment required

- ◆ Spark plug socket and extension - 3122B-



◆ Puller - T40039-



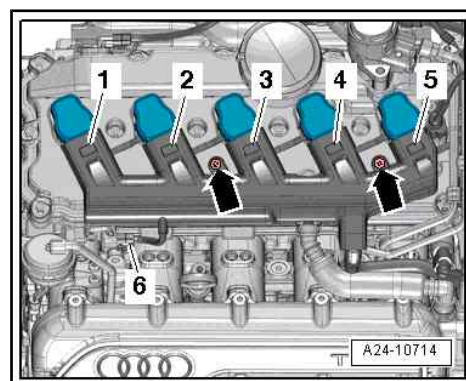
◆ Torque wrench - VAS 6583- , measuring range 3 to 60 Nm

Table of tightening torques for installation:

Component/fastener	[Nm]
Spark plugs	30
Bolts securing ignition coil	5

Step 1 - removing spark plugs:

- Unplug electrical connector -6- for Hall sender 3 - G300- .
- Unscrew bolts -arrows- for connector rail.
- Release connectors for ignition coils -1-, -2-, -3-, -4- and -5- and unplug all connectors from ignition coils at the same time.
- Place connector rail slightly to one side. Make sure that wiring is not kinked or damaged.



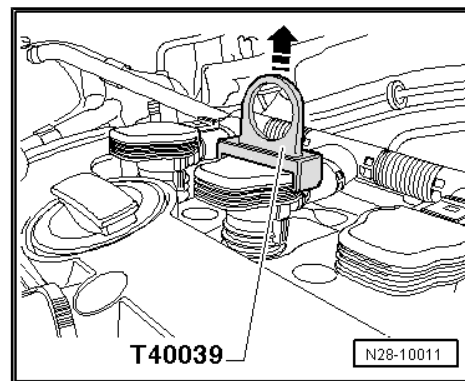
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- Position puller - T40039- on thick rib at top of ignition coils and detach all ignition coils from spark plugs one after the other in direction of -arrow-.
- Unscrew spark plugs from cylinder head using spark plug socket - VAS 3122B- .

Step 2 - installing spark plugs:

- Install new spark plugs using spark plug socket and extension - VAS 3122B- and tighten to specified torque (table [⇒ page 110](#)).
- Lubricate ignition coils [⇒ page 111](#) .
- Fit all ignition coils loosely into spark plug apertures and align with connectors of connector rail.
- Push ignition coils evenly onto spark plugs by hand (do not attempt to knock in coils with any kind of tool).
- Push ignition coils evenly onto spark plugs by hand (do not attempt to knock in coils with any kind of tool).
- Plug in electrical connector for Hall sender 3 - G300- .
- Install connector rail, screwing in securing bolts to specified torque (see table of tightening torques for installation [⇒ page 110](#)).

Continue installation in reverse sequence.



3.70.6 Lubricating pencil-type ignition coils

Special tools and workshop equipment required

- ◆ Spark plug connector grease - G 052 141 A2-

Procedure:

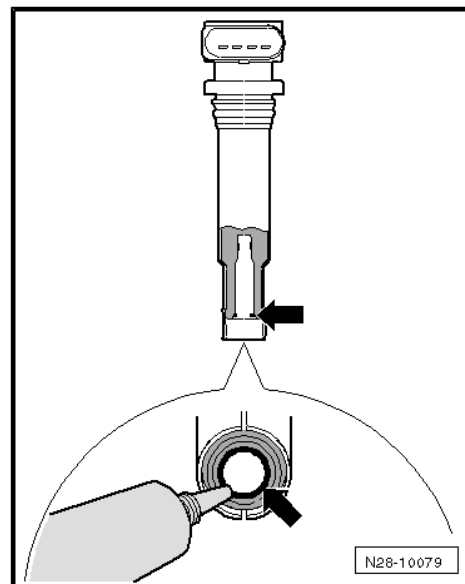
- Apply a bead of spark plug connector grease - G 052 141 A2- (1 to 2 mm thick) around circumference of sealing hose -arrow- of ignition coil.

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Note

New ignition coils are already lubricated when they are delivered; it is not necessary to lubricate them again when installing.



3.71 Coolant level: checking (fill level should be at top marking on coolant expansion tank; level may be above top marking, but not below it)

DANGER

Risk of fatal injury if high-voltage components are damaged.

- ◆ Observe warnings for high-voltage system:
- ◆ For work in the vicinity of high-voltage components
⇒ [page 7](#) .

WARNING

Coolant expansion tank under pressure - risk of injuries!

- ◆ Only open coolant expansion tank when engine is cold.

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Note

- ◆ *Coolant additives may only be mixed with distilled water, as the effectiveness of the coolant and the corrosion protection it provides are greatly influenced by the quality of the water with which the coolant is mixed. To ensure an adequate water quality, the coolant additive should be mixed with distilled water.*
- ◆ *For approved coolant additives, refer to Electronic parts catalogue (ETKA).*
- ◆ *G13 and G12++ may be mixed together.*
- ◆ *Coolant additives G13 and G12++ may be mixed with coolant additives G11, G12 and G12+, though this may result in decreased corrosion protection.*
- ◆ *G12 and G11 may NOT be mixed together.*
- ◆ *Do not reuse coolant.*
- ◆ *Only water/coolant additive may be used as lubricant for coolant hoses.*
- ◆ *It is permissible to operate the vehicle if the coolant level is above the MAX marking on the coolant expansion tank (this is by technical design). Do NOT extract coolant.*
- ◆ *The A3 e-tron has a second separate coolant circuit for the high-voltage system.*

Checking coolant level and anti-freeze ⇒ [page 112](#)

Filling up coolant ⇒ [page 114](#)

3.71.1 Checking coolant level and anti-freeze

Special tools and workshop equipment required

◆ Refractometer - T10007 A-

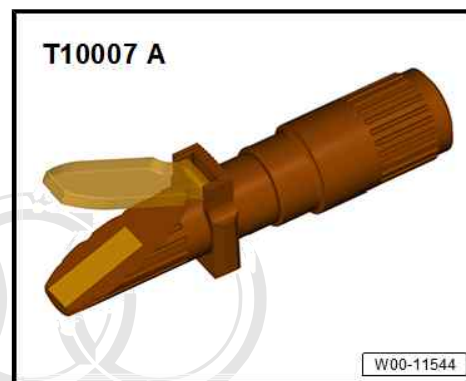


Table of test values and procedure guidelines:

Type of service:	Coolant level specification:
Delivery Inspection	Coolant at level of top marking.
Inspection	Coolant level between bottom and top markings

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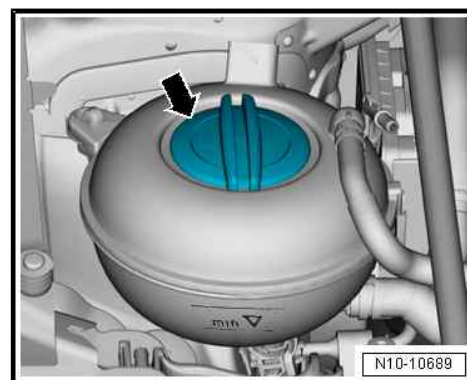
Checking the coolant system for leaks is a repair measure and should be charged separately.

Requirements:

- Anti-freeze protection must be guaranteed to -25 °C (in countries with an arctic climate to -36 °C); note specification in Maintenance table.
- The proportion of coolant additive must not exceed 55 % (gives anti-freeze protection down to -48 °C); beyond this concentration the frost protection and the cooling efficiency are reduced again.
- The vehicle must be parked on a level surface.

Step 1 - checking coolant level:

- Check coolant level (according to marking -illustration-) in coolant expansion tank with engine cold.
- If coolant level is too low: Add required amount (using correct mixture ratio) ➔ [page 114](#) .
- If fluid losses are greater than can be reasonably expected: First use a leak test to determine the cause ➔ Engine; Rep. gr. 19 ; Cooling system/coolant; Checking cooling system for leaks .



Step 2 - checking anti-freeze:

- Use a pipette to place a drop of coolant on glass of refractometer - T10007 A- . Light-dark border will now be clearly visible through refractometer.
- Check level of anti-freeze protection using corresponding scale on refractometer; to do so, read off value on light-dark border.
- If anti-freeze protection level does not meet specification in Maintenance table: Perform following measures:

Anti-freeze protection level: Evaluation/measure:

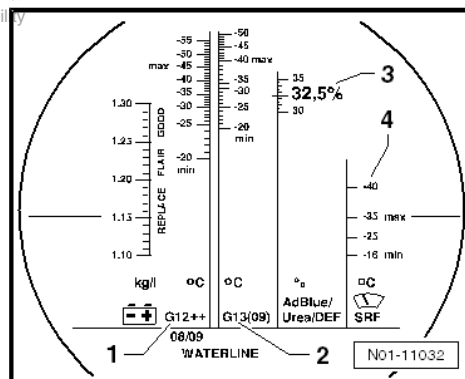
- > Specification Depending on deviation from specification, remove a small amount of coolant and replace it with distilled water. Repeat procedure until coolant mixture meets correct specification.
 - < Specification Depending on deviation from specification, remove a small amount of coolant and replace it with coolant additive. Repeat procedure until coolant mixture meets correct specification.
- Check coolant additive concentration once more following road test.

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Note

- ◆ The refractometer - T10007 A- must be used to determine the current anti-freeze concentration.
- ◆ Scale -1- on the refractometer applies to coolant additives G11, G12, G12+ and G12++.
- ◆ Scale -2- refers only to coolant additive G13.
- ◆ If more than one type of coolant additive has been used: Always use the scale for G13 to determine the anti-freeze protection.
- ◆ The temperature indicated on the refractometer - T10007 A- corresponds to the temperature at which the first ice crystals can form in the coolant.
- ◆ It is essential that anti-freeze be used in the cooling system all year round. In the correct concentration, coolant additives prevent scaling and frost and corrosion damage, and also raise the boiling point of the coolant.
- ◆ Because of its high boiling point, the coolant improves engine reliability under heavy loads in countries with tropical climates.



3.71.2 Filling up coolant

Table of test values and procedure guidelines:

Frost protection to:	Coolant additive:	Water:
-25 °C	approx. 40 %	approx. 60 %
-36 °C	approx. 50 %	approx. 50 %

Procedure:

- Add required amount (using mixture ratio according to anti-freeze protection specification in Maintenance table). Use the table as a reference for the coolant mixture ratio.



Note

Small quantities of coolant can simply be topped up. Use the cooling system charge unit - VAS 6096- to add larger quantities of coolant.

3.72 Cooling system for high-voltage system: checking anti-freeze protection and

coolant level, and correcting if necessary



DANGER

Risk of fatal injury if high-voltage components are damaged.

- ◆ Observe warnings for high-voltage system:
- ◆ For work in the vicinity of high-voltage components
⇒ [page 7](#).



WARNING

Coolant expansion tank under pressure - risk of injuries!

- ◆ Only open coolant expansion tank when engine is cold.



Note

- ◆ *Coolant additives may only be mixed with distilled water, as the effectiveness of the coolant and the corrosion protection it provides are greatly influenced by the quality of the water with which the coolant is mixed. To ensure an adequate water quality, the coolant additive should be mixed with distilled water.*
- ◆ *For approved coolant additives, refer to Electronic parts catalogue (ETKA).*
- ◆ *G13 and G12++ may be mixed together.*
- ◆ *Coolant additives G13 and G12++ may be mixed with coolant additives G11, G12 and G12+, though this may result in decreased corrosion protection.*
- ◆ *G12 and G11 may NOT be mixed together.*
- ◆ *Do not reuse coolant.*
- ◆ *Only water/coolant additive may be used as lubricant for coolant hoses.*
- ◆ *Renew seal after opening coolant expansion tank for high-voltage system; refer to Electronic parts catalogue (ETKA).*

Checking coolant level ⇒ [page 115](#)

Checking anti-freeze ⇒ [page 116](#)

Filling up coolant ⇒ [page 118](#)

3.72.1 Checking coolant level



WARNING

Risk of fatal injury if high-voltage components are damaged.

- ◆ **Service and repairs on the cooling system for the high-voltage area (e.g. topping up coolant or checking anti-freeze protection) may only be performed by specially trained staff.**

Table of test values and procedure guidelines:

Type of service:	Coolant level specification:
Delivery Inspection	Coolant level at or above edge of weld seam

Type of service:	Coolant level specification:
Oil Change Service and Inspection with Oil Change	Coolant at level of MAX marking.

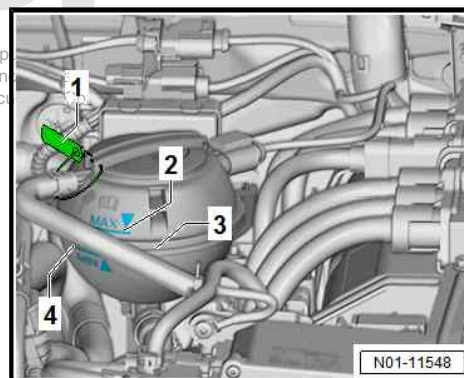
Checking the coolant system for leaks is a repair measure and should be charged separately.

Requirements:

- The vehicle must be parked on a level surface.

Procedure:

- Check coolant level (according to marking -2-) in coolant expansion tank for high-voltage system with engine cold.
- If coolant level is too low, take the following steps:

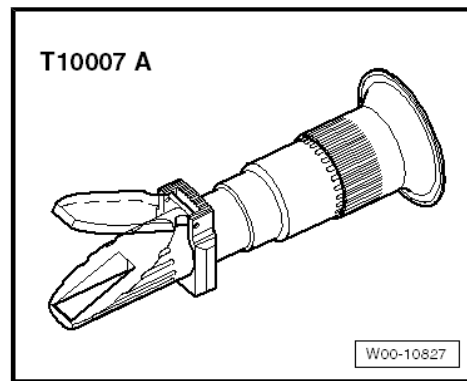


Type of service:	Current coolant level:	Evaluation/measure:
Delivery Inspection	Coolant level between MIN marking and weld seam	Remove seal, fill up coolant (using correct mixture ratio) to MAX marking ⇒ page 118 and renew seal.
	Coolant level below MIN marking	Remove seal, perform leak test (⇒ Engine; Rep. gr. 19 ; Coolant system/coolant; Checking cooling system for leaks), fill up coolant to MAX marking (using correct mixture ratio) ⇒ page 118 and renew seal.
Only for first Oil Change Service	Coolant level between MIN and MAX markings	Remove seal, fill up coolant (using correct mixture ratio) to MAX marking ⇒ page 118 , check anti-freeze ⇒ page 116 and renew seal.
	Coolant level below MIN marking	Remove seal, perform leak test (⇒ Engine; Rep. gr. 19 ; Coolant system/coolant; Checking cooling system for leaks), fill up coolant to MAX marking (using correct mixture ratio) ⇒ page 118 , check anti-freeze ⇒ page 116 and renew seal.
For all other services (Oil Change Service, Inspection with Oil Change)	Coolant level below MAX marking	Remove seal, perform leak test (⇒ Engine; Rep. gr. 19 ; Coolant system/coolant; Checking cooling system for leaks), fill up coolant to MAX marking (using correct mixture ratio) ⇒ page 118 , check anti-freeze ⇒ page 116 and renew seal.

3.72.2 Checking anti-freeze

Special tools and workshop equipment required

◆ Refractometer - T10007 A-



Requirements:

- Anti-freeze protection must be guaranteed to -25 °C (in countries with an arctic climate to -36 °C); note specification in Maintenance table.
- The proportion of coolant additive must not exceed 55 % (gives anti-freeze protection down to -48 °C); beyond this concentration the frost protection and the cooling efficiency are reduced again.

Procedure:

- Use a pipette to place a drop of coolant from coolant expansion tank for high-voltage system on glass of refractometer - T10007 A-. Light-dark border will now be clearly visible through refractometer.
- Check level of anti-freeze protection using corresponding scale on refractometer; to do so, read off value on light-dark border.
- If anti-freeze protection level in coolant expansion tank for high-voltage system does not meet specification in Maintenance table: Perform following measures:

Anti-freeze protection level: Evaluation/measure:

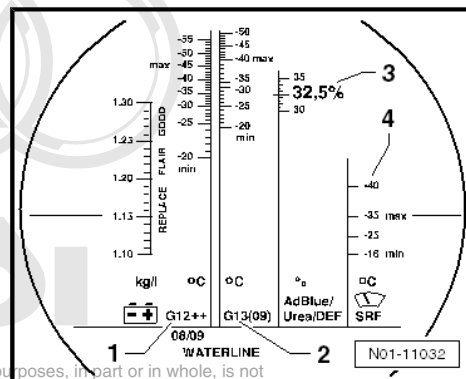
- | | |
|-----------------|---|
| > Specification | Depending on deviation from specification, remove a small amount of coolant and replace it with distilled water. Repeat procedure until coolant mixture meets correct specification. |
| < Specification | Depending on deviation from specification, remove a small amount of coolant and replace it with coolant additive. Repeat procedure until coolant mixture meets correct specification. |
- Check coolant additive concentration once more following road test.

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Note

- ◆ *The refractometer - T10007 A- must be used to determine the current anti-freeze concentration.*
- ◆ *Scale -1- on the refractometer applies to coolant additives G11, G12, G12+ and G12++.*
- ◆ *Scale -2- refers only to coolant additive G13.*
- ◆ *If more than one type of coolant additive has been used: Always use the scale for G13 to determine the anti-freeze protection.*
- ◆ *The temperature indicated on the refractometer - T10007 A- corresponds to the temperature at which the first ice crystals can form in the coolant.*
- ◆ *It is essential that anti-freeze be used in the cooling system all year round. In the correct concentration, coolant additives prevent scaling and frost and corrosion damage, and also raise the boiling point of the coolant.*
- ◆ *Because of its high boiling point, the coolant improves engine reliability under heavy loads in countries with tropical climates.*



3.72.3 Filling up coolant

Table of test values and procedure guidelines:

Frost protection to:	Coolant additive:	Water:
-25 °C	approx. 40 %	approx. 60 %
-36 °C	approx. 50 %	approx. 50 %

Procedure:

- Add required amount (using mixture ratio according to anti-freeze protection specification in Maintenance table). Use the table as a reference for the coolant mixture ratio.



Note

Small quantities of coolant can simply be topped up. Use the cooling system charge unit - VAS 6096- to add larger quantities of coolant.

3.73 Air cleaner: renewing filter element and cleaning housing



Note

- ◆ *Use only silicone-free lubricants when installing intake hoses.*
- ◆ *Secure all hose connections with hose clips (same as original equipment); see Electronic parts catalogue (ETKA).*

Air cleaner housing: cleaning ➔ [page 126](#)

3-cyl. petrol engine 1.0 ltr. TFSI ➔ [page 119](#)

4-cyl. petrol engine 1.2 ltr. TFSI/1.4 ltr. TFSI/1.4 ltr. TFSI g-tron/
1.4 ltr. TFSI e-tron ➔ [page 120](#)

4-cyl. petrol engine 1.8 ltr. TFSI/2.0 ltr. TFSI (version 1)
➔ [page 122](#)

4-cyl. petrol engine 2.0 ltr. TFSI (version 2) ➔ [page 123](#)

5-cyl. petrol engine 2.5 ltr. TFSI ➔ [page 124](#)

4-cyl. diesel engine 1.6 ltr. TDI/2.0 ltr. TDI ➔ [page 125](#)

3.73.1 3-cyl. petrol engine 1.0 ltr. TFSI

Special tools and workshop equipment required

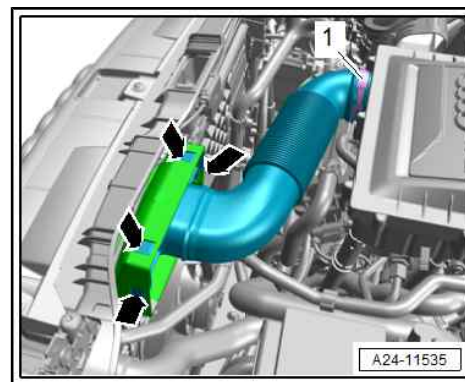
- ◆ Torque screwdriver - VAS 6494- , measuring range 1.5 to 3 Nm
- ◆ Or: torque screwdriver - VAG 1624- , measuring range 1 to 5 Nm
- ◆ Torque wrench - V.A.G 1783- , measuring range 2 to 10 Nm

Table of tightening torques for installation:

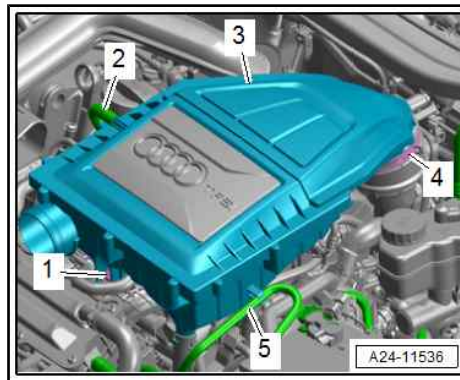
Component/fastener	[Nm]
Securing bolt for air cleaner (top section)	1.5
Securing bolt for air filter element	2
Bolt for air cleaner (bottom section)	9

Step 1 - removing air filter element:

- Release hose clip -1- and detach air pipe.



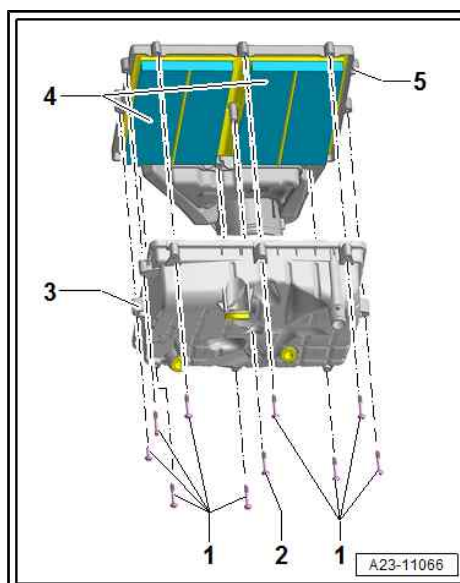
- Disconnect vacuum hose -2- from air cleaner housing.
- Unclip vacuum hose -5- from air cleaner housing.
- Release hose clip -4- and detach air pipe.
- Remove bolt -1- from air cleaner (bottom section).
- Lift air cleaner housing -3- all the way off retaining pins.
- Turn air cleaner housing 180° and set down in this position.



- Remove securing bolts -1- and -2- from air cleaner (bottom section) -3-.
- Detach air cleaner (top section) -5- and take out air filter element -4-.

Step 2 - installing air filter element:

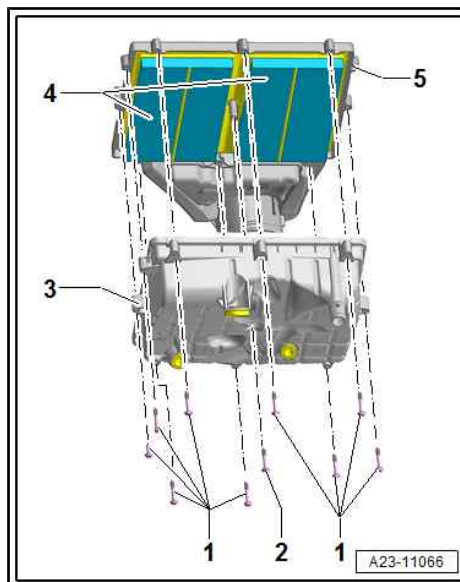
- Check for dirt in housing and water drains and clean if necessary ⇒ [page 126](#).



- Insert new air filter element -4- centrally in mounting in air cleaner (top section) -5-.
- Fit air cleaner (top section) -5- onto air cleaner (bottom section) -3- without applying any significant force. Ensure that top and bottom sections of air cleaner are flush.

- Fit securing bolts -1- and -2- and tighten to specified torque (see table of tightening torques for installation ⇒ [page 119](#)).
- Fit air cleaner housing centrally onto retaining pins and press it on.
- Attach air pipe to air cleaner (top section) and fit hose clip -4-.

Continue installation in reverse sequence. Note tightening torques (see table of tightening torques for installation ⇒ [page 119](#)).



3.73.2 4-cyl. petrol engine 1.2 ltr. TFSI/1.4 ltr. TFSI/1.4 ltr. TFSI g-tron/1.4 ltr. TFSI e-tron

Special tools and workshop equipment required

- ♦ Torque screwdriver - VAS 6494- , measuring range 1.5 to 3 Nm

- ◆ Or: torque screwdriver - VAG 1624- , measuring range 1 to 5 Nm

Table of tightening torques for installation:

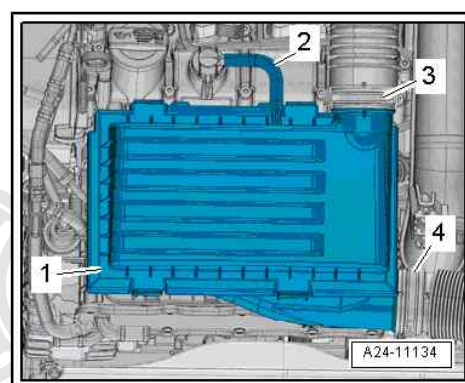
Component/fastener:	[Nm]
Bolts for air cleaner (bottom section)	1.5

Removal steps:

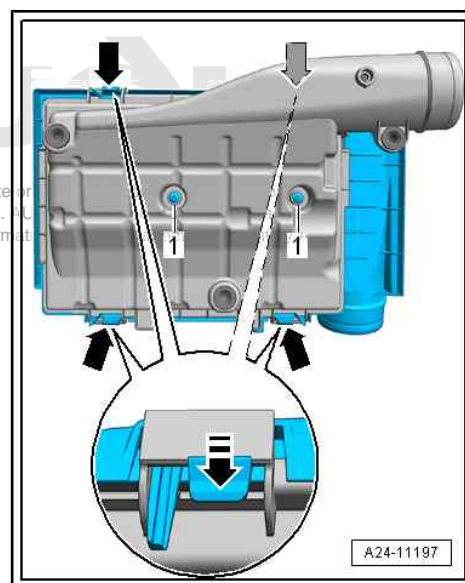
- If fitted: Remove engine cover panel ➔ [page 13](#) .

Step 1 - removing air filter element:

- If fitted: Disconnect vacuum hose -2- from air cleaner (top section) -1-.
- Release hose clips -3- and -4- and detach air pipe.
- Lift air cleaner housing -1- all the way off retaining pins.
- Turn air cleaner housing -1- 180° and set down in this position.



- Remove securing bolts -1- from air cleaner (bottom section).
- Carefully release retainers -arrows- at air cleaner (top section) one after the other (risk of breaking retainers).
- Detach air cleaner (top section) and take out air filter element.

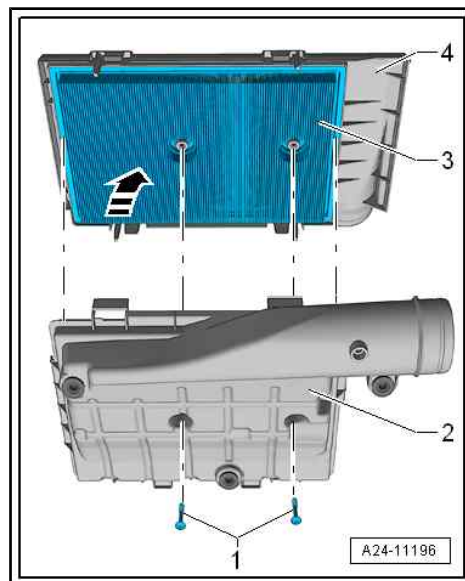


Step 2 - installing air filter element:

- Check for dirt in housing and water drains and clean if necessary ➔ [page 126](#) .

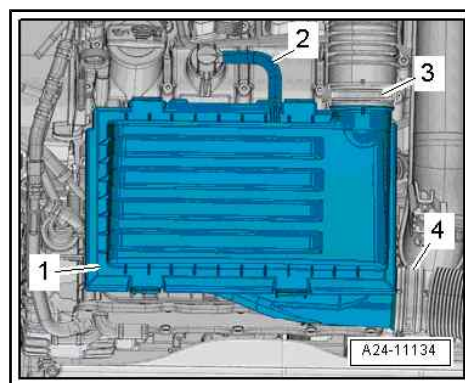
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- Insert new air filter element -3- centrally in mounting in air cleaner (top section) -4-.
- Fit air cleaner (top section) -4- onto air cleaner (bottom section) -2- without applying any significant force. Ensure that top and bottom sections of air cleaner are flush.
- Fit securing bolts -1- and tighten to specified torque (see table of tightening torques for installation ⇒ [page 121](#)).



- Attach air pipes -3- and -4- to air cleaner (top section) -1- and fit hose clip.
- Fit air cleaner housing -1- centrally onto retaining pins and press in.

Continue installation in reverse sequence.



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3.73.3 4-cyl. petrol engine 1.8 ltr. TFSI/2.0 ltr. TFSI (version 1)

Special tools and workshop equipment required

- ◆ Torque screwdriver - VAS 6494- , measuring range 1.5 to 3 Nm
- ◆ Or: torque screwdriver - VAG 1624- , measuring range 1 to 5 Nm

Table of tightening torques for installation:

Component/fastener:	[Nm]
Bolts for air cleaner (top section)	1.5

Step 1 - removing air filter element:

- Pull vacuum hose -1- off air cleaner (top section).
- Remove securing bolts -arrows- and lift air cleaner (top section) together with all air ducts to one side.
- Take out filter element -2- and snow screen -3- (if fitted). Snow screen is not installed in all vehicles.

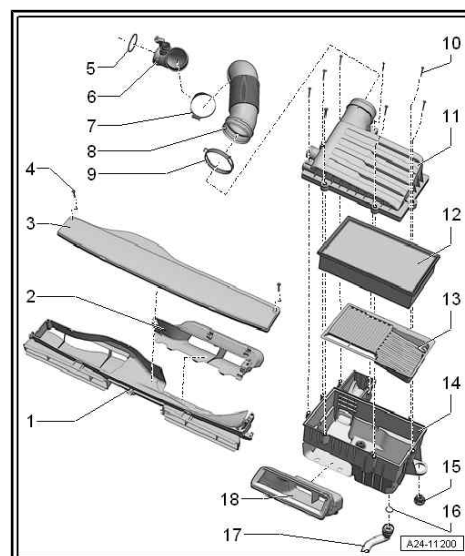
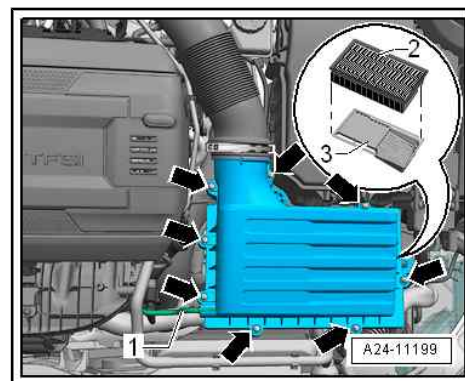
Step 2 - installing air filter element:

- Check for dirt in housing and water drains and clean if necessary ➔ [page 126](#) .
- If fitted: clean snow screen -13- and insert into air cleaner (bottom section) -14-.
- Insert new air filter element -12- centrally in mounting in air cleaner (bottom section) -14-.
- Fit air cleaner (top section) -11- onto air cleaner (bottom section) -14- without applying any significant force. Ensure that top and bottom sections of air cleaner are flush.
- Fit securing bolts in air cleaner (top section) and tighten to specified torque (see table of tightening torques for installation ➔ [page 122](#)).
- Attach vacuum hose to air cleaner (top section).



Note

There is more than one version of the air cleaner for the 4-cylinder 2.0 ltr. TFSI petrol engine ➔ [page 123](#) .



3.73.4 4-cyl. petrol engine 2.0 ltr. TFSI (version 2)

Special tools and workshop equipment required

- ◆ Torque screwdriver - VAS 6494- , measuring range 1.5 to 3 Nm
- ◆ Torque screwdriver - VAG 1624- measuring range 1 to 5 Nm
- ◆ Or: torque wrench - V.A.G. 1783- , measuring range 2 to 10 Nm
- ◆ Or: torque wrench - VAS 6583- , measuring range 3 to 60 Nm

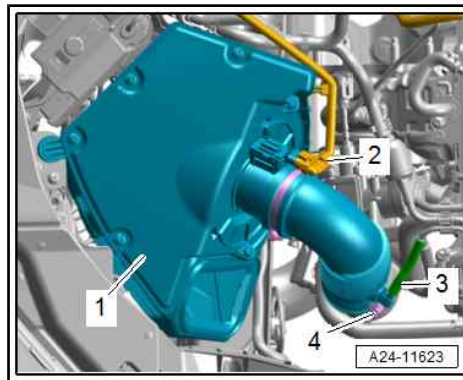
Table of tightening torques for installation:

Component/fastener:	[Nm]
Bolts for air cleaner (top section)	3.5
Securing bolts for air filter element	1.5

Step 1 - removing air filter element:

- Release hose clip -4- and detach air pipe.
- Unplug electrical connector -2- for air mass meter - G70- .

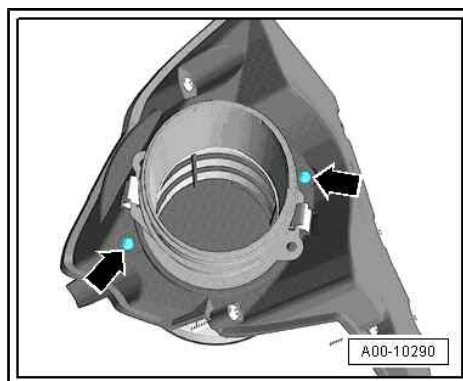
- Pull vacuum hose -3- off air cleaner (top section).
- Remove securing bolts and detach air cleaner (top section) -1-.



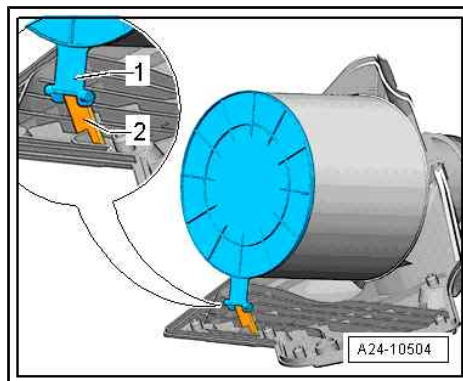
- Take out filter element by unscrewing both bolts -arrows-.

Step 2 - installing air filter element:

- Check for dirt in housing and water drains and clean if necessary ⇒ [page 126](#) .



- Insert new air filter element centrally in mounting in air cleaner (top section). Tab of air filter element -1- must rest against tab of air cleaner (top section) -2-.
- Place top section of air cleaner onto bottom section of air cleaner without applying any significant force. Ensure that top and bottom sections of air cleaner are flush.
- Fit securing bolts in air cleaner (top section) and tighten to specified torque (see table of tightening torques for installation ⇒ [page 123](#)).
- Plug electrical connector for air mass meter - G70- back in.
- Attach vacuum hose to air cleaner (top section).



Continue installation in reverse sequence.



Note

There is more than one version of the air cleaner for the 4-cylinder 2.0 ltr. TFSI petrol engine ⇒ [page 122](#) .

3.73.5 5-cyl. petrol engine 2.5 ltr. TFSI

Special tools and workshop equipment required

- ◆ Torque wrench - V.A.G 1783- , measuring range 2 to 10 Nm
- ◆ Or: torque screwdriver - V.A.G 1624- , measuring range 1 to 5 Nm
- ◆ Or: torque wrench - VAS 6583- , measuring range 3 to 60 Nm

Table of tightening torques for installation:

Component/fastener:	[Nm]
Securing bolts for air cleaner (top section)	3

Removal steps:

- Remove engine cover panel ➤ [page 13](#) .

Step 1 - removing air filter element:

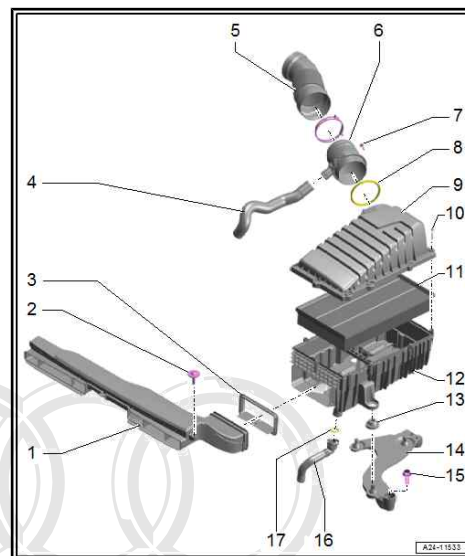
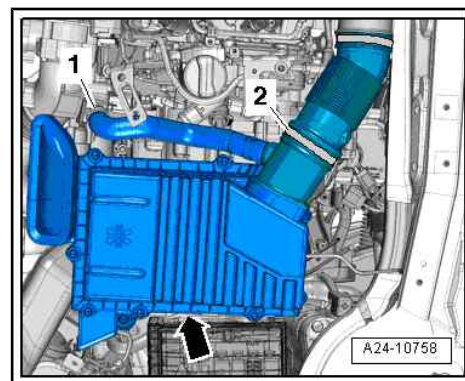
- Remove securing bolts and lift air cleaner (top section) -arrow- together with all air ducts -2- and vacuum hose -1- to one side.
- Take out filter element.

Step 2 - installing air filter element:

- Check for dirt in housing and water drains and clean if necessary ➤ [page 126](#) .

- Insert new air filter element -11- centrally in mounting in air cleaner (bottom section) -12-.
- Fit air cleaner (top section) -9- onto air cleaner (bottom section) without applying any significant force. Ensure that top and bottom sections of air cleaner are flush.
- Fit securing bolts -10- in air cleaner (top section) and tighten to specified torque (see table of tightening torques for installation ➤ [page 124](#)).

Continue installation in reverse sequence.



3.73.6 4-cyl. diesel engine 1.6 ltr. TDI/2.0 ltr. TDI

Special tools and workshop equipment required

- ◆ Torque screwdriver - VAS 6494- , measuring range 1.5 to 3 Nm
- ◆ Or: torque screwdriver - VAG 1624- , measuring range 1 to 5 Nm

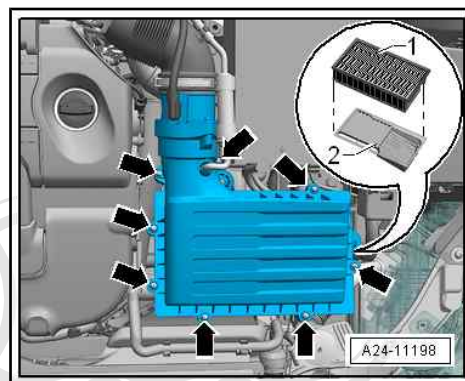
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Table of tightening torques for installation:

Component/fastener:	[Nm]
Bolts for air cleaner (top section)	1.5

Step 1 - removing air filter element:

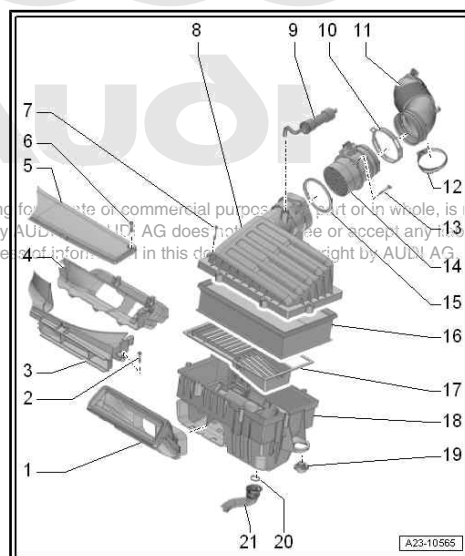
- Remove securing bolts -arrows- and lift air cleaner (top section) together with all air ducts to one side.
- Take out filter element -1- and snow screen -2- (if fitted). Snow screen is not installed in all vehicles.



Step 2 - installing air filter element:

- Check for dirt in housing and water drains and clean if necessary ➔ [page 126](#) .

- If fitted: clean snow screen and insert into air cleaner (bottom section) -18-.
- Insert new filter element -16- centrally in mounting in air cleaner (bottom section) -18-.
- Fit air cleaner (top section) -8- onto air cleaner (bottom section) -18- without applying any significant force. Ensure that top and bottom sections of air cleaner are flush.
- Fit securing bolts in air cleaner (top section) and tighten to specified torque (see table of tightening torques for installation ➔ [page 125](#)).



3.73.7 Cleaning air cleaner housing

Procedure:

- Remove any loose dirt or leaves out of air cleaner housing (top and bottom sections).
- Check whether water drain hose in air cleaner (bottom section) is dirty or blocked and clean if necessary.



Note

- ◆ When cleaning air cleaner housing with compressed air: Cover air mass meter with a clean cloth.
- ◆ On vehicles for cold countries, the snow screen in the intake section must also be cleaned; see specification in ELSA Maintenance table.

3.74 Dust and pollen filter: renewing

Special tools and workshop equipment required

- ◆ Hook - T40207-
- ◆ Cover plate - T 10532-

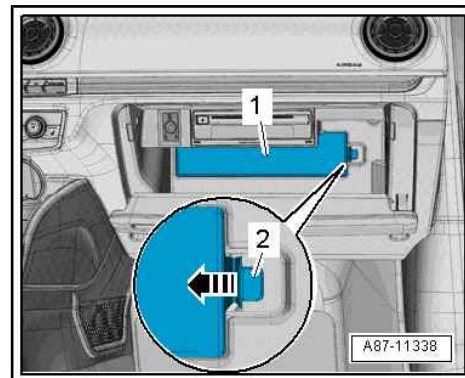
The dust and pollen filter is located in the glove box.

Removal steps:

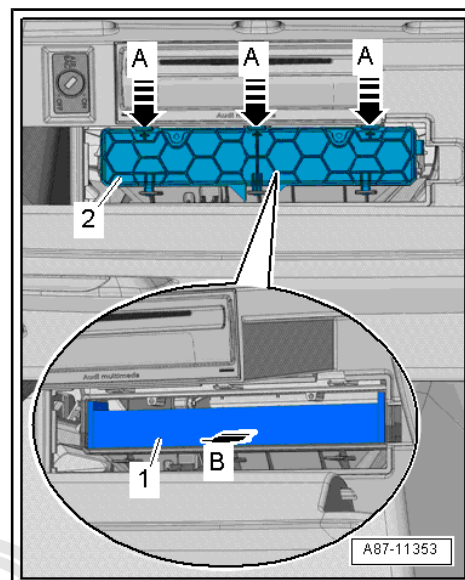
- On vehicles with special equipment used by driving schools:
Remove pedal cluster if necessary; see installation instructions for equipment for driving schools.

Step 1 - removing filter element:

- Clean out glove box and line with paper.
- Release retainer -2- in direction of -arrow- and take out service cover -1-.



- Carefully release retaining tabs in direction of -arrows A- and swing cover -2- towards rear.

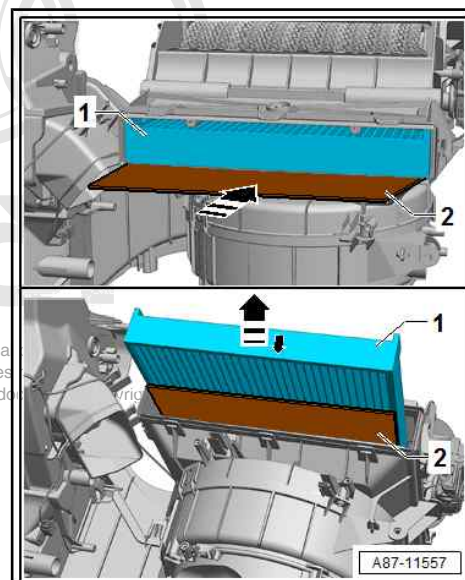


- Insert cover plate - T 10532- -2- under dust and pollen filter -1- into slot as far as stop.
- Using hook - T40207- , pull out dust and pollen filter -1- in direction of -arrow- (hold cover plate - T 10532- -2- in place in slot when doing so).

Step 2 - installing filter element:

- Clean aperture with a vacuum cleaner before fitting new filter element.
- Fit filter element correctly: direction of flow is indicated with arrows on filter.

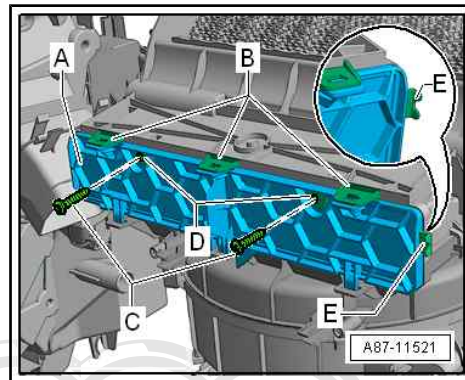
Continue installation in reverse sequence.





Note

- ◆ If the retainers -B- for the cover -A- are broken off on the heating and air conditioning unit or on the service cover, the service cover can also be secured to the heating and air conditioning unit using two self-tapping screws -C- (e.g. 3.5 x 16 mm or 4.0 x 16 mm; see Electronic parts catalogue ETKA). To do so, drill holes (4.5 mm diameter) in the cover -A- at both attaching points marked -D-.
- ◆ The cover -A- may have a hook -E- which can be used instead of hook - T40207- to remove the dust and pollen filter.



3.75 Natural gas system: checking for damage and leaks

DANGER

Risk of explosion due to escaped natural gas!

- ◆ Keep any ignition sources away from the vicinity of the natural gas system.
- ◆ If you suspect a leak, follow the steps described immediately ⇒ [page 133](#) .
- ◆ Service and repairs on the natural gas system may only be performed by specially trained staff.

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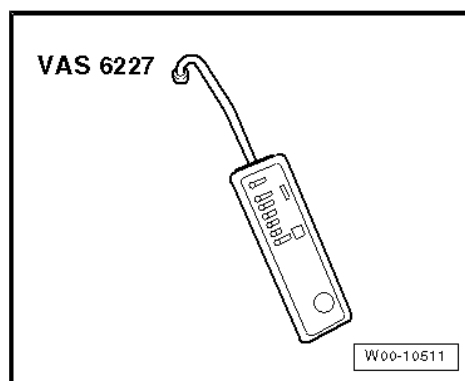
WARNING

Risk of suffocation due to escaped natural gas!

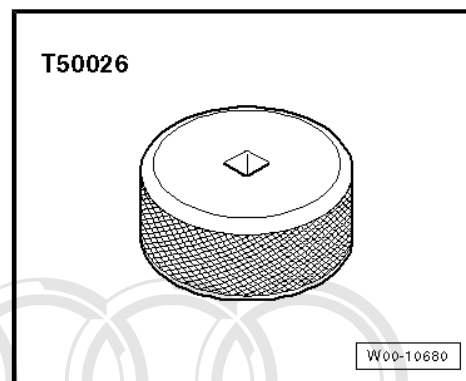
- ◆ If you suspect a leak, follow the steps described immediately ⇒ [page 133](#) .
- ◆ Service and repairs on the natural gas system may only be performed by specially trained staff.

Special tools and workshop equipment required

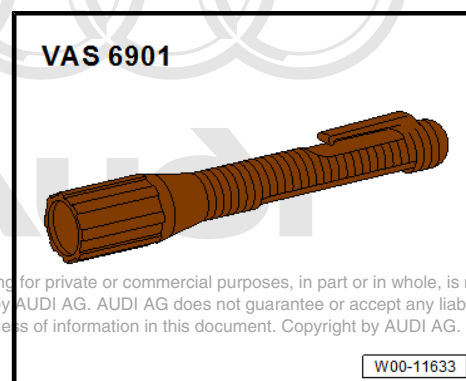
- ◆ Gas leak detector - VAS 6227-



◆ Hand wheel - T50026-



◆ Explosion-proof LED battery lamp - VAS 6901-



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◆ Torque wrench - V.A.G 1783- , measuring range 2 to 10 Nm

Natural gas can escape from pressurised natural gas tanks.

Natural gas is highly flammable and forms flammable air-vapour mixtures.

Natural gas is NOT odourless: it has been mixed with strong-smelling additives.

Natural gas can cause drowsiness and respiratory damage if inhaled. In high concentrations there is a danger of suffocation due to lack of oxygen.

Requirements:

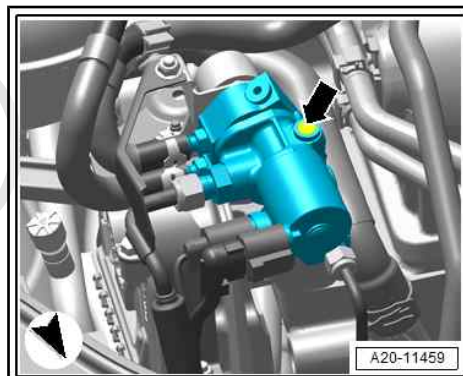
- All areas of natural gas system that require testing must be accessible.
- Exhaust emissions warning lamp must not light up in dash panel insert.
- Natural gas tank must be at least 80% full.
- Ensure that the work area is free of draughts when performing the leak test with the gas leak detector. A draught over 1.8 km/h (slow gust of air) will cause incorrect measurement results.

Removal steps:

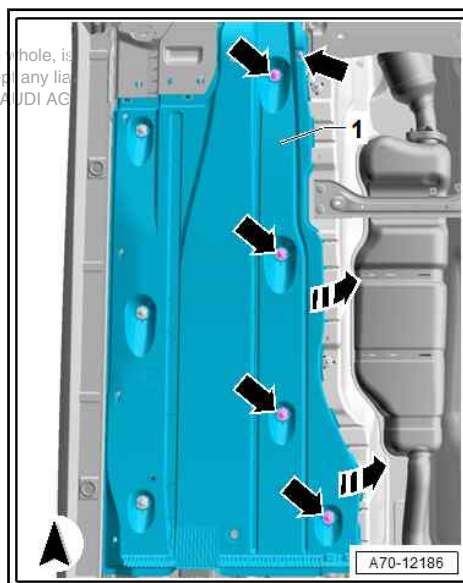
- Remove engine cover panel ⇒ [page 13](#) .
- Remove air cleaner housing ⇒ Engine; Rep. gr. 24 ; Air cleaner; Removing and installing air cleaner housing .
- Detach underbody trim for natural gas tank ⇒ General body repairs, exterior; Rep. gr. 66 ; Underbody trim; Removing and installing underbody trim .

Step 1 - checking for damage:

- Check components of natural gas system in engine compartment for damage.
- In addition, check that rubber plug of pressure relief valve -arrow- is fitted on gas pressure regulator.
- Check luggage compartment floor and natural gas tank cover on body (under luggage compartment floor) for damage.
- Check condition of natural gas filler connection and clean it if necessary.
- Raise vehicle ➔ [page 10](#) .



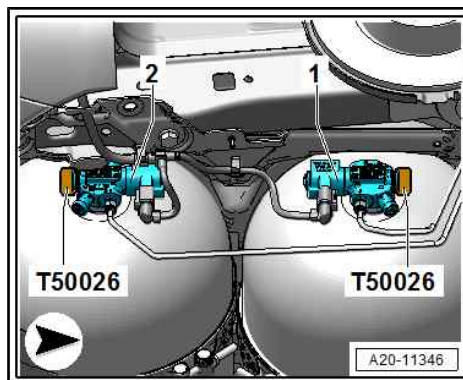
- Remove inner nuts -arrows- of underbody trim (centre right) so that natural gas line is visible underneath.
- Read factory label of natural gas tank to check expiry date.
- If expiry date has passed: Renew natural gas tank ➔ Rep. gr. 20 ; Fuel tank; Removing and installing natural gas fuel tank .
- Check visible area of both natural gas tanks for damage.
- Check entire natural gas system for damage from below, and ensure that components are properly secured.
- Renew any damaged components.
- Re-install underbody trim (centre right). Tighten securing nuts to 2 Nm.



Step 2 - setting gas system to operating status:

The system must be filled with natural gas in order to check for leaks.

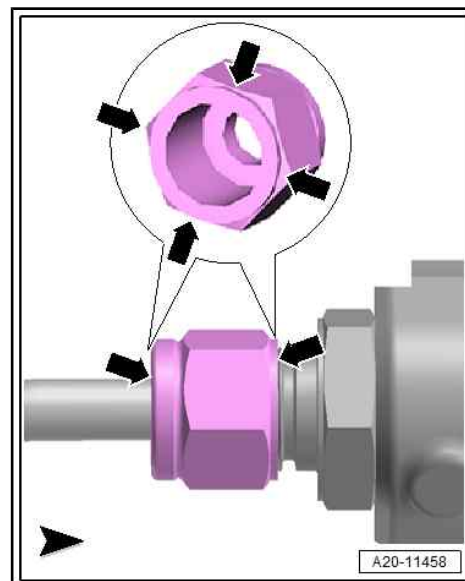
- Using hand wheel - T50026- , ensure that both mechanical shut-off valves -N361- -1- and -N362- -2- are fully open.
- Start engine to set pressure levels in gas system to operating status.
- Switch engine off again.



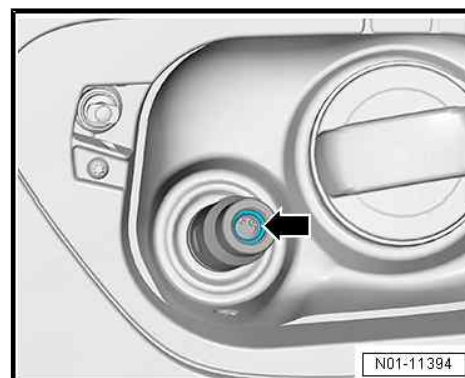
Step 3 - checking for leaks:

When performing the leak test with the gas leak detector - VAS 6227- :

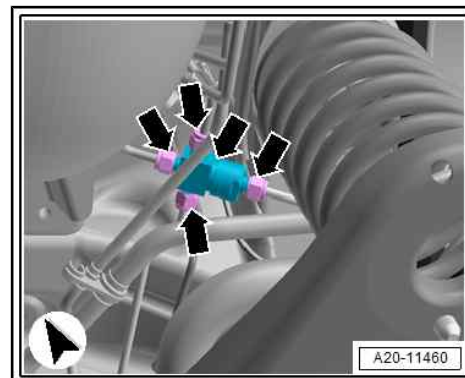
- ◆ Check for leaks all around all threaded connections of the gas system several times (from each 90° angle) and at all joints -arrows-.
- ◆ The tester head must be no further than 5 mm from the area/ component being checked. Measurements are not possible at distances greater than 5 mm.
- ◆ Gas leak detector can only detect whether there is natural gas in the ambient air.
- ◆ The results of the test using the gas leak detector are only satisfactory if the green LED for »O.K.« lights up.
- ◆ If a yellow or red LED lights up, a leak detector spray must be used to verify definitively whether gas is actually escaping from the vehicle system. When using the leak detector spray, bubbles must not emerge from the sprayed area during a test period of three minutes.



- Check natural gas filler connection for leaks in area of opening -arrow- with filler cap removed.

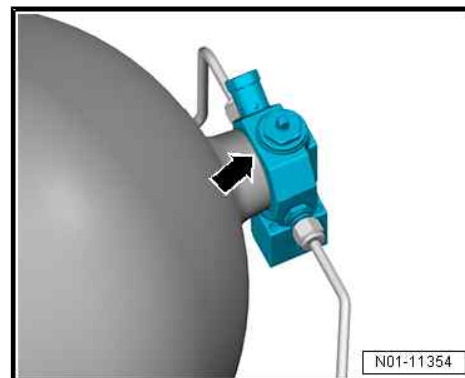


- Check for leaks at connecting piece adjoining non-return valve -arrow- and at all threaded connections -arrows- to gas lines.

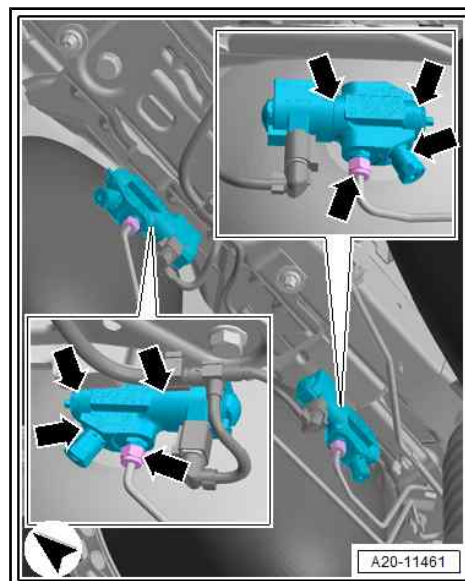


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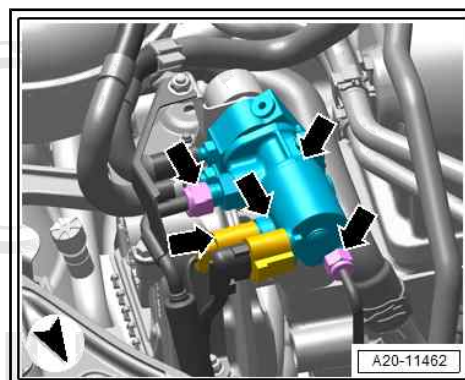
- Check for leaks at threaded connections -arrow- for fuel tank shut-off valve 1 - N361- and fuel tank shut-off valve 2 - N362- on respective natural gas tank.



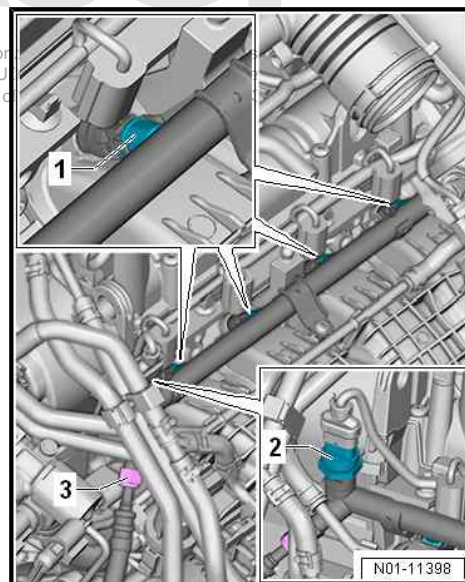
- Check for leaks at both fuel tank shut-off valves -N361- and -N362- , at threaded connections for mechanical shut-off valve -arrow- and for thermal fuse -arrow-, as well as at threaded connections for electromagnetic valve and for natural gas line -arrows-.



- Check for leaks at gas pressure regulator in area of high-pressure pipe and low-pressure pipe connections -arrows-, at threaded connection of high-pressure valve for gas mode -N372- -arrow- and at threaded connection and electrical connector for tank pressure sensor -G400- -arrows-.



- Check for leaks at gas rail in area of connection for flexible low-pressure pipe -3-, at threaded connection and electrical connector for gas rail sensor -G401- -2- and at all gas injection valves -1-.
- Any leaking components must be renewed and then checked as part of a gas system inspection.



Install in reverse sequence.



Note

- ◆ *As a general rule, the inspection procedure for natural gas vehicles can be performed at any work station. Work on the natural gas system itself may only be carried out at a work station for natural gas vehicles!*
- ◆ *The work described here does not replace the country-specific gas system inspection.*
- ◆ *Maintain order and cleanliness when working on the natural gas system.*

3.75.1 Immediate action required if a leak is suspected

Special tools and workshop equipment required

- ◆ Hand wheel - T50026-



Procedure:

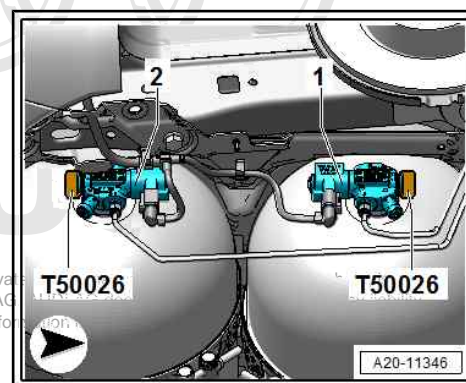
- Use hand wheel - T50026- to close both tank shut-off valves -1- and -2- manually.
- Ventilate the work area.
- Immediately inform staff with special gas system training to determine how to proceed.



Note

If natural gas continues to escape (noticeable odour) after the fuel tank shut-off valves have been closed, the vehicle must be moved outdoors and marked accordingly.

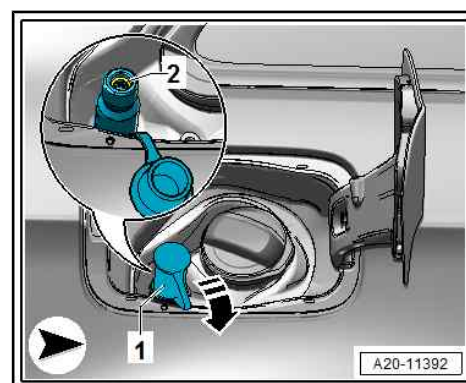
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3.76 Filler connection for natural gas: checking condition and cleaning if necessary

Procedure:

- Open tank flap and check condition of cap -1-.
- Remove cap in direction of -arrow-.
- Ensure that seal -2- is present and check its condition.
- If damage is found: Renew seal.
- Check filler connection for natural gas on outside and inside for dirt and damage.
- If filler connection is dirty: clean with compressed air and/or a dry cloth. This will not damage filler connection.



3.77 Fuel filter: renewing

All diesel engines ⇒ [page 134](#)

4-cyl. petrol engine 1.4 ltr. TFSI (E100 with engine code letters CWLA) ⇒ [page 135](#)

3.77.1 All diesel engines

Special tools and workshop equipment required

- ◆ Torque wrench - V.A.G 1783- , measuring range 2 to 10 Nm
- ◆ Or: torque screwdriver - V.A.G 1624- , measuring range 1 to 5 Nm
- ◆ Or: torque wrench - V.A.G 1410- , measuring range 4 to 20 Nm
- ◆ Or: torque wrench - VAS 6854- , measuring range 5 to 13 Nm

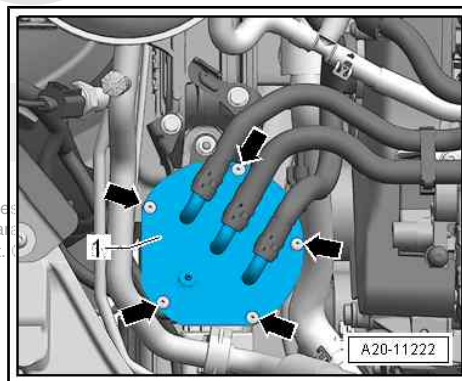
Table of tightening torques for installation:

Fastener	Tightening torque [Nm]
Securing bolts for housing cover	5

The fuel filter is located in the engine compartment.

Step 1 - removing:

- Unscrew bolts -arrows- and lift cover of filter housing -1- to one side (fuel hoses remain connected).

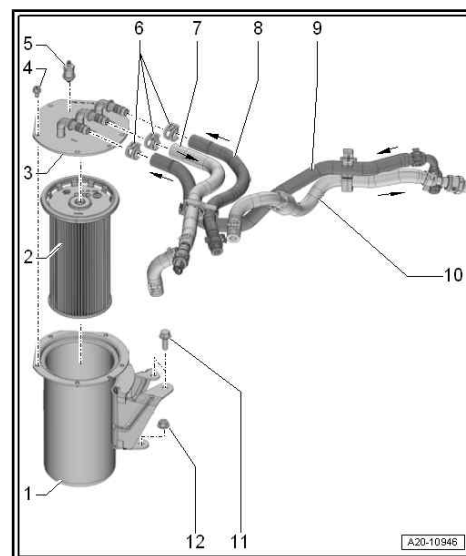


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- Take filter element -2- out of fuel filter housing -1-.

Step 2 - installing:

- Insert new filter element -2- in filter housing -1- so that it is centred.
- Fit and align cover of filter housing.
- Fit bolts for cover of filter housing and tighten to specified torque (see table of tightening torques for installation ⇒ [page 134](#)).
- Then bleed fuel system ⇒ Engine; Rep. gr. 23 ; Injection system; Filling/bleeding fuel system .



3.77.2 4-cyl. petrol engine 1.4 ltr. TFSI (E100 with engine code letters CWLA)

WARNING

Fuel is hot and under pressure - risk of injuries!

- ◆ Wear protective gloves.
- ◆ Wear safety goggles.
- ◆ Allow connections of fuel lines to cool down.
- ◆ Place cloths around connections and loosen them carefully.

This maintenance item only applies to certain countries: Note specification in Maintenance table.

Special tools and workshop equipment required

- ◆ Torque wrench - V.A.G 1783- , measuring range 2 to 10 Nm
- ◆ Or: torque screwdriver - V.A.G 1624- , measuring range 1 to 5 Nm

Table of tightening torques for installation:

Fastener	Tightening torque [Nm]
Securing bolt for bracket	3

The fuel filter is located on the outside of the fuel tank on the right.

Step 1 - removing fuel filter:

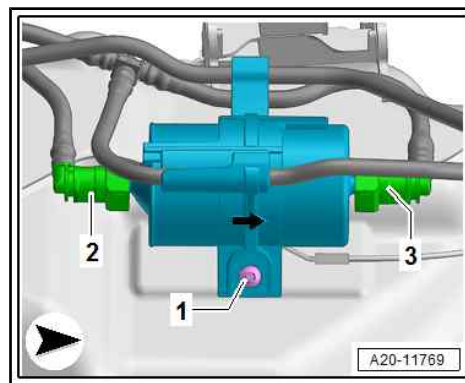
- Observe the safety precautions when working on the fuel system ⇒ Fuel supply system, petrol engines; Rep. gr. 00 ; Safety precautions; Safety precautions when working on the fuel system .

- Unscrew bolt -1-.
- Place drip tray under fuel filter cartridge.
- Press quick-release fasteners of fuel hoses -2- and -3- and disconnect fuel hoses.
- Take out fuel filter in direction of travel.

Step 2 - installing fuel filter:

Install in reverse sequence. Note tightening torques (see table of tightening torques for installation ➔ [page 135](#)).

Flow direction for fuel filter cartridge is indicated by an arrow on filter housing.



3.78 Fuel filter: draining

WARNING

Fuel is hot and under pressure - risk of injuries!

- ◆ Wear protective gloves.
- ◆ Wear safety goggles.
- ◆ Loosen draining valve carefully.

Special tools and workshop equipment required

- ◆ Torque wrench - V.A.G 1783- , measuring range 2 to 10 Nm
- ◆ Or: torque wrench - V.A.G 1410- , measuring range 4 to 20 Nm
- ◆ Or: torque wrench - VAS 6854- , measuring range 5 to 13 Nm
- ◆ Or: torque screwdriver - V.A.G 1624- , measuring range 1 to 5 Nm
- ◆ Diesel-resistant hose with appropriate diameter: must not slip off draining valve under system pressure.
- ◆ Container for collecting fluid

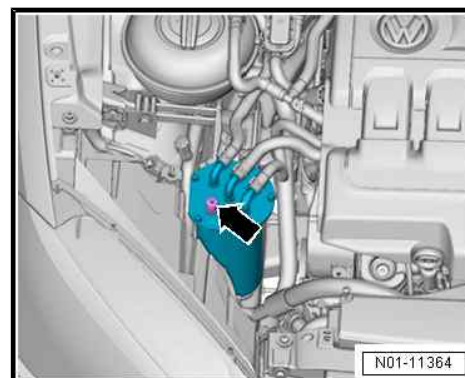
Table of tightening torques for installation:

Fastener	Tightening torque [Nm]
Draining valve	5

The fuel filter is located in the engine compartment.

Procedure:

- Attach hose to draining valve -arrow- for cover of fuel filter housing. Place opposite end of hose in appropriate container.
- Start the engine. System pressure is necessary for draining fuel filter.
- Open draining valve slowly until water begins to drain.
- When diesel fuel begins to drain: Screw draining valve back in.
- Turn off engine and disconnect hose from draining valve.
- Tighten draining valve to specified torque (see table of tightening torques for installation ➔ [page 136](#)).



3.79 Fuel tank: adding fuel additive

Special tools and workshop equipment required

- ◆ Multi-purpose additive for petrol fuels - G 001 770 A2-
- ◆ Or: Multi-purpose additive for petrol fuel - G 001 780 M3-

Table of test values and procedure guidelines:

China, Middle East	Russia	India
VW 507 53 B: Applies to all petrol engines	VW 507 53 B: Applies to all petrol engines VW 507 53 A: Applies to all petrol engines except g-tron and E85 flexible fuel	VW 507 53 B: Applies to all petrol engines VW 507 53 A: Applies to all petrol engines except g-tron and E85 flexible fuel
Multi-purpose additive for petrol fuels - G 001 780 M3-	Multi-purpose additive for petrol fuels - G 001 780 M3- Multi-purpose additive for petrol fuels - G 001 770 A2-	Multi-purpose additive for petrol fuels - G 001 780 M3- Multi-purpose additive for petrol fuels - G 001 770 A2-

This maintenance item only applies to certain countries: Note specification in Maintenance table.

Procedure:

- Follow measuring guidelines on fuel additive container and add fuel additive to fuel tank according to current fuel tank level.



Note

- ◆ *Use only fuel additives that correspond to the standard VW 507 53 A or VW 507 53 B.*
- ◆ *After adding fuel additive, it is very important to tell the customer to fill up the fuel tank.*

3.80 Reducing agent (AdBlue®): filling up tank completely

WARNING

Risk of injury due to contact with reducing agent!

- ◆ Do not kink lines of filling device.
- ◆ If you come into contact with this liquid: Rinse it off immediately with plenty of water and contact a medical professional.

CAUTION

Risk of damage to trim and body components due to contact with reducing agent!

- ◆ Do not kink lines of filling device.
- ◆ Clean the affected areas with clean water and a cotton cloth.
- ◆ Remove any crystallised reducing agent using warm water and a sponge.



Note

- ◆ The reducing agent is statutory for vehicles with SCR system.
- ◆ The reducing agent is used for the after-treatment of exhaust gases of diesel-engined vehicles, i.e. to reduce the level of nitrogen oxides.
- ◆ The reducing agent is not a diesel additive and must not be filled into the diesel fuel tank.
- ◆ Do not add any additives to the reducing agent, and do not dilute it with water.
- ◆ Only use the reducing agent as supplied in its original container.
- ◆ In addition, please observe the reducing agent manufacturer's notices on usage and storage.
- ◆ Both filling device for AdBlue - VAS 6542- and AdBlue refuelling system - VAS 6960- can be used to fill up the reducing agent.

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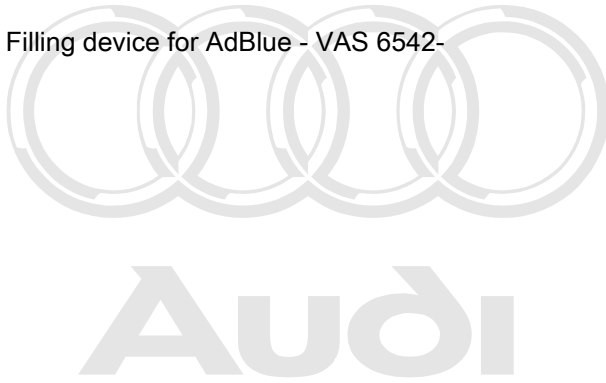
Filling up reducing agent (AdBlue®) using filling device for AdBlue - VAS 6542- ⇒ [page 138](#)

Filling up reducing agent (AdBlue®) using AdBlue refuelling system - VAS 6960- ⇒ [page 141](#)

3.80.1 Filling up reducing agent (AdBlue®) using filling device for AdBlue - VAS 6542-

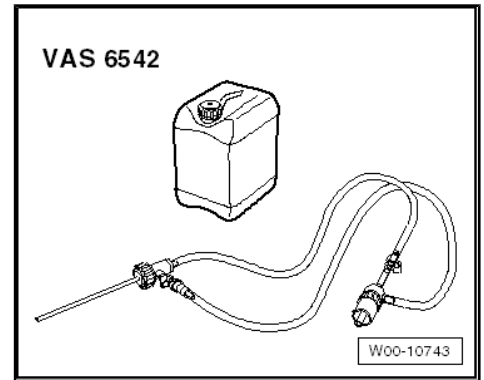
Special tools and workshop equipment required

◆ Filling device for AdBlue - VAS 6542-

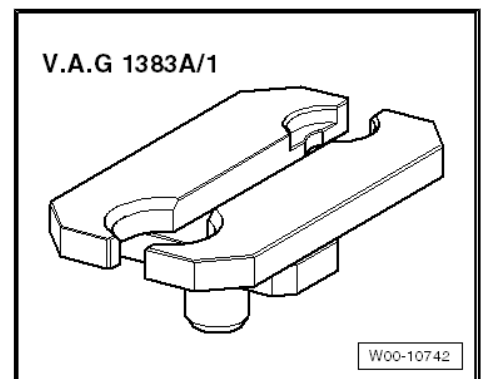


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◆ Engine and gearbox jack - VAS 6931-



◆ Mounting plate - V.A.G 1383A/1-



◆

Components of filling device -VAS 6542-

1 - Breather connection for reducing agent container

2 - Union nut for reducing agent container

3 - Cut-off valve for breather line

4 - Quick-release coupling on breather line

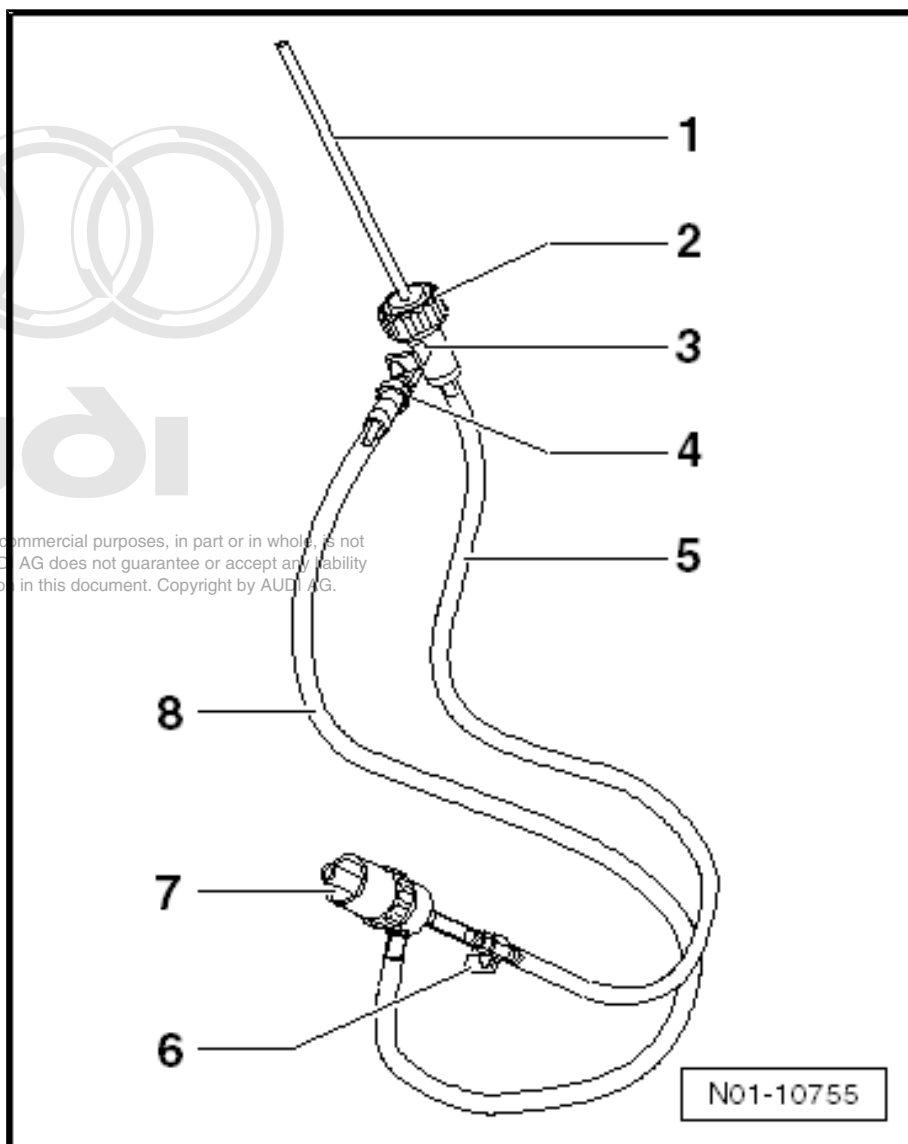
5 - Filler line

6 - Cut-off valve for filler line

7 - Union nut for tank filler neck

8 - Breather line

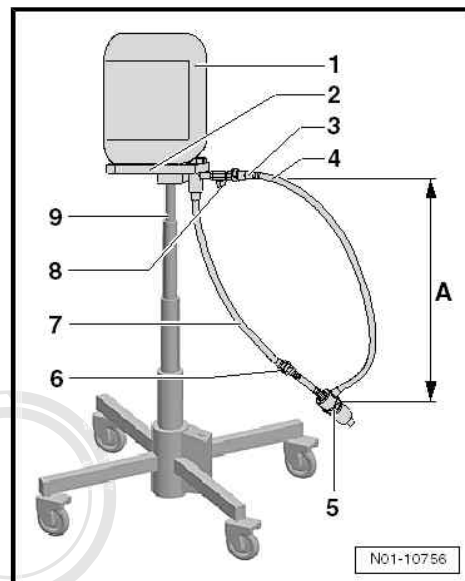
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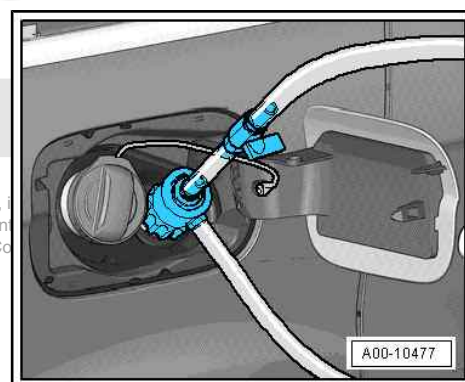
Procedure:

- Open tank flap and unscrew cap of reducing agent tank.
- Clean filler neck of tank for reducing agent with a lint-free cotton cloth soaked with water.
- Close cut-off valves of breather and filler lines of filling device for AdBlue - VAS 6542- .
- Apply filling device for AdBlue - VAS 6542- to reducing agent container (see Electronic parts catalogue, ETKA) and screw it on as far as stop.

- Position reducing agent container on engine and gearbox jack - VAS 6931- with mounting plate - V.A.G 1383A/1- . The difference in height of the reducing agent container and the filler neck of the tank for reducing agent must be between 60 - 80 cm -dimension A-.



- Position filling device for AdBlue - VAS 6542- on filler neck on vehicle and screw it on as far as stop.
- Open cut-off valve for breather line.
- Open cut-off valve for filler line and fill reducing agent tank of vehicle completely. Tank is completely full when container contracts and bleeder line fills with liquid.
- Close cut-off valve for filler line.
- Close cut-off valve for breather line.
- Disconnect quick-release coupling on breather line and let any excess liquid flow into a suitable container.
- Unscrew filling device for AdBlue - VAS 6542- from tank filler neck.
- Clean filler neck of reducing agent tank and filler cap with a lint-free cotton cloth soaked with water.
- Screw filler cap onto reducing agent tank.
- Take container off mounting plate and put it on the floor.
- Open cut-off valve on filler line and let remaining liquid drain back into container.
- Unscrew filling device for AdBlue - VAS 6542- from container.



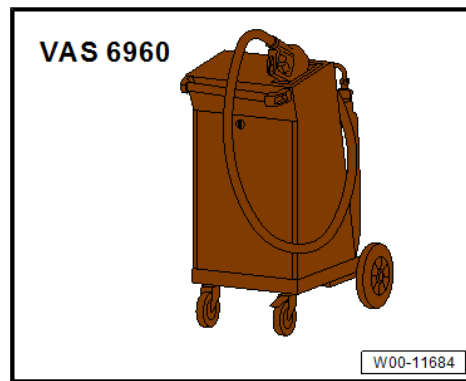
Note

It is possible to overfill the reducing agent tank when using a filling device which operates using gravity. When filling the tank using VAS 6542 (or other filling device which operates in the same way), disconnect it from the vehicle immediately once filling is completed.

3.80.2 Filling up reducing agent (AdBlue®) using AdBlue refuelling system - VAS 6960-

Special tools and workshop equipment required

◆ AdBlue refuelling system - VAS 6960-



Procedure:

- Open tank flap and unscrew filler cap for reducing agent tank.
- Clean filler neck of tank for reducing agent with a lint-free cotton cloth soaked with water.
- Insert nozzle of AdBlue refuelling system - VAS 6960- into filler neck of reducing agent tank.
- Operate nozzle to fill up reducing agent completely.
- Remove nozzle from filler neck of reducing agent tank.
- Clean filler neck of reducing agent tank and filler cap with a lint-free cotton cloth soaked with water.
- Screw filler cap onto reducing agent tank.



Note

- ◆ *Observe operating instructions for AdBlue refuelling system - VAS 6960-.*
- ◆ *Nozzle of AdBlue refuelling system - VAS 6960- switches off automatically when maximum fill level is reached.*

3.81 Vehicle doors: removing edge protection

Procedure:

- Carefully remove edge protection from all vehicle doors.

3.82 Vehicle exterior: checking unprotected areas for dirt, and cleaning if necessary

Procedure:

- Check unprotected areas of vehicle exterior not covered by car cover or protective transport film for dirt/soiling.
- Clean any dirty areas.

3.83 Vehicle exterior: removing protective film

Procedure:

- Remove protective film carefully and completely.

3.84 Protective transport film and car cover: checking position and correcting if necessary

Procedure:

- Check, and if necessary, correct position of car cover on vehicle body.
- Check, and if necessary, correct position of protective transport film.

3.85 Protective transport film: renewing according to manufacturer's instructions

Procedure:

- Go to "<http://www.tesa.com/extranet>" and log in using the following details:
 - ◆ Login / E-mail: Bodyguard 50530
 - ◆ Password: PflegeVW
- Order protective transport film, adding the following note:
 - ◆ For Audi vehicles
 - ◆ Ordering number: APS 277 140 (1400 mm)
- Apply new protective transport film according to manufacturer's instructions.



Note

- ◆ *Do not apply protective transport film to vehicles with PR number "5K0" on the windscreen; these have been ordered intentionally without film.*
- ◆ *On vehicles with a fabric convertible roof, do not remove the protective transport covering put in place at the factory.*

3.86 Car cover: renewing according to manufacturer's instructions

Procedure:

- Remove car cover.
- Cover vehicle with a new car cover according to manufacturer's instructions.

3.87 Paintwork, trims, side windows and wiper blades: checking cleanliness

Procedure:

- Check that exterior paintwork, trims, side windows and wiper blades are clean.
- Clean any dirty components.

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3.88 Body: checking vehicle paintwork for damage and corrosion from below and with bonnet, rear lid and doors open

Procedure:

- Open all vehicle doors, bonnet and rear lid.
- Check vehicle paintwork on inside and outside of body for damage and corrosion.
- Rectify defects of any kind (repair measure).

3.89 Vehicles parked outdoors: locking

Procedure:

- Use vehicle key to lock vehicle if it is parked outdoors.

3.90 Vehicles parked outdoors: covering unprotected vehicles with protective transport film and car cover (not for vehicles with control number 5K0)

Procedure:

- Apply protective transport film ⇒ [page 143](#) .

- Cover vehicle with car cover ⇒ [page 143](#) .
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Note

Do not apply protective transport film to vehicles with PR number "5K0" on the windscreen; these have been ordered intentionally without film.

3.91 Road test

Procedure:

- The following points must be checked during the road test:
 - ◆ Engine: performance, misfiring, idling speed, acceleration, starting behaviour (engine cold and warm), engine noise
 - ◆ Clutch: pulling away, pedal pressure, odours, noise due to load change
 - ◆ Manual gearbox: ease of operation, gear lever position, gearbox noise
 - ◆ Automatic gearbox: selector lever position, shift lock / ignition key lock, gearbox noise, kickdown, shift behaviour, instrument cluster display
 - ◆ Brake pedal and handbrake: operation, travel and effectiveness, pulling to one side, response (delayed braking), juddering, squeal
 - ◆ ABS function: pulsing must be felt at the brake pedal when performing ABS-controlled braking.
 - ◆ Steering: operation, steering free play, steering wheel centralised when wheels are in straight-ahead position, moving off line when travelling straight
 - ◆ Imbalance: wheels, drive shafts
 - ◆ Wheel bearings: noises

- ◆ Roof insert: unusual noise during operation
- ◆ Horn: checking
- ◆ Hybrid vehicles: check electrical operation by pressing EV button, charging function in overrun phases



Note

To what extent all of these can be checked depends on vehicle equipment and local conditions (urban/country).

3.92 Stock vehicles: observing measures specified in Maintenance table for stock vehicles (see “Before handing vehicle over to customer”)

This maintenance item only applies to stock vehicles.

Procedure:

- Before handing vehicle over to customer: Check whether the following three measures for stock vehicles (as specified in the Maintenance table) are due, and carry them out as necessary:
 - ◆ For vehicles older than 12 months (from date of manufacture): Renew brake fluid ⇒ [page 45](#) .
 - ◆ For vehicles with a defective battery: Renew battery ⇒ Electrical system; Rep. gr. 27 ; Battery; Removing and installing battery; Removing and installing battery, vehicles without high-voltage system .
 - ◆ Check brake discs for surface rust; if necessary, operate brakes to remove rust according to manufacturer's instructions.
- Record measures performed in maintenance table for stock vehicles.

3.93 Type 2 charging cable: checking that cable is present and complete

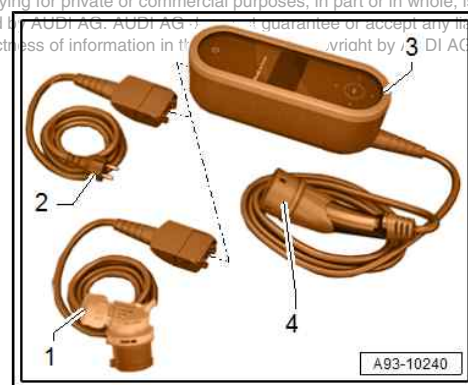
Procedure:

- Check that type 2 charging cable is present and complete.

3.94 Charging system: checking that system is present and complete

Check that all of the following charging system components are present:

- ◆ -1- Charging cable with connector for industrial power sockets
- ◆ -2- Charging cable with connector for domestic power outlets
- ◆ -3- Display and operating unit
- ◆ -4- Charging cable with vehicle connector



3.95 Charging socket: checking for dirt and damage

The charging socket is located behind the Audi emblem on the radiator grille.

Requirements:

- Ignition switched off.

Procedure:

- Open cover on charging unit.
- Pull cap off charging socket.
- Check that cap is present.
- Check charging socket for:
 - ◆ Dirt/contamination/smoke residue
 - ◆ Damage/deformation
 - ◆ Secure fit on body
- If necessary, clean charging socket.
- Renew any damaged components.

3.96 Accessories: installing

Procedure:

- If included with vehicle, place the following accessories in vehicle tool kit:
 - ◆ Adapter for anti-theft wheel bolts
 - ◆ Puller
 - ◆ Plastic clip



Note

- ◆ *The available accessories may vary according to model, equipment and market.*
- ◆ *Depending on the vehicle model, the accessories may be found in the luggage compartment, glove box or supplied pack.*

3.97 Check list "Documentation of cleaning and care routine": checking availability

Procedure:

- Check that checklist "Documentation of cleaning and care routine" is in glove box. 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.
- If missing, place checklist "Documentation of cleaning and care routine" in glove box.

3.98 Check list "Documentation of cleaning and care routine": signing and placing in vehicle wallet

Procedure:

- Sign checklist "Documentation of cleaning and care routine" and place it in vehicle wallet.

3.99 Cleaning and care: checking that required measures have been carried out on time

Procedure:

- Check that all cleaning and care measures due previously were carried out on time.
- Carry out and document any cleaning and care which is due.

3.100 Stock vehicle care management: deciding and recording date of next check

Procedure:

- Decide date of next check with person in charge of stock vehicle care management.
- Record chosen date in maintenance table.

3.101 Front final drive: changing gear oil

Procedure:

- Change gear oil according to Workshop Manual ⇒ Rep. gr. 39 ; Gear oil; Draining and filling gear oil .

3.102 Display instruments: setting time and date

Procedure:

- Change settings of display instruments: Refer to Operating Manual for radio/sound system/MMI system.

3.103 Manual gearbox/automatic gearbox: selecting 1st gear/park

Procedure:

Vehicles with manual gearbox: Select 1st gear.

Vehicles with automatic gearbox: Select park.

3.104 Dual clutch gearbox (S tronic): changing ATF

Procedure:

- Change ATF according to Workshop Manual ⇒ ; Rep. gr. 34 ; ATF; Draining and filling ATF .

3.105 Dual clutch gearbox (S tronic): changing gear oil and renewing oil filter

Procedure:

- Change gear oil according to Workshop Manual ⇒ ; Rep. gr. 34 ; Gear oil; Draining and filling gear oil .
- Change gear filter according to Workshop Manual ⇒ ; Rep. gr. 34 ; Gear oil circuit; Removing and installing gear oil filter .

3.106 Four-wheel drive coupling: changing oil

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Procedure:

- Change oil for four-wheel drive coupling according to Workshop Manual ⇒ ; Rep. gr. 39 .

3.107 Interior mirror: calibrating compass

DANGER

Risk of injury as engine of high-voltage vehicle can start unexpectedly!

- ◆ Observe warnings for high-voltage system:
- ◆ For work that must be performed with the ignition switched on ⇒ **page 8** .

Procedure:

- Calibrate compass according to Workshop Manual ⇒ General body repairs, interior; Rep. gr. 68 ; Interior mirror; Calibrating digital compass .

3.108 Instrument cluster: resetting driver information system

Procedure:

- Reset single journey memory and total journey memory of driver information system; refer to vehicle Owner's Manual.

3.109 Toothed belt for camshaft drive: renewing

Procedure:

- Renew toothed belt for camshaft drive according to specifications in Workshop Manual ⇒ ; Rep. gr. 15 ; Toothed belt drive; Removing and installing toothed belt .

3.110 Toothed belt for camshaft drive and tensioning roller: renewing

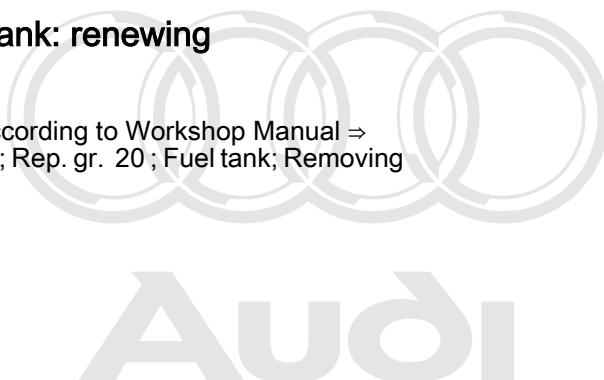
Procedure:

- Renew toothed belt for camshaft drive according to specifications in Workshop Manual ⇒ ; Rep. gr. 15 ; Toothed belt drive; Removing and installing toothed belt .
- Renew tensioning roller according to Workshop Manual ⇒ ; Rep. gr. 15 ; Toothed belt drive; Exploded view - toothed belt .

3.111 Natural gas tank: renewing

Procedure:

- Renew natural gas tank according to Workshop Manual ⇒ Fuel supply system - g-tron; Rep. gr. 20 ; Fuel tank; Removing and installing fuel tank .



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