Maintenance

Audi TT 2007

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Maintenance

Heading

1. Overview of engines
2. Delivery Service
3. Description of work
4. Type plate, vehicle identification number
5. Lifting the vehicle
6. Tow-starting/towing
7. Vehicle tests carried out as part of inspection services and maintenance

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.

Contents

1 Overview of engines

Petrol engines

Engines ⇒	Petrol engines			
Engine code	**BWA**	**CDLA**	**CDLB**	**BUB**
Capacity	2.0 ltr.	2.0 ltr.	2.0 ltr.	3.2 ltr.
No. of cylinders / valves per cylinder	4/4	4/4	4/4	6/4
Exhaust emissions standard	EU IV	EU IV	EU IV	EU IV
Power output (kW at rpm)	147 / 5100 - 6000	195 / 6000	199 / 6000	184 / 6333
Torque (Nm at rpm)	280 / 1800 - 5000	350 / 2500 … 5250	350 / 2500 … 5250	320 / 2500
Bore (∅ mm)	82.5	82.5	82.5	84.0
Stroke (mm)	92.8	92.8	92.8	95.5
Compression ratio	10.5:1	9.8:1	9.8:1	10.85:1
Fuel injection / ignition	TFSI	TFSI	TFSI	MPI
RON at least	98 unleaded [1)]	98 unleaded [1)]	98 unleaded [1)]	98 unleaded [1)]

[1)] Unleaded RON 95 can also be used, but will result in a slight loss of power.

Engines ⇒	Petrol engines				
Engine code	**CCZA**	**CESA**	**CDAA**	**CDMA**	**CEPA**
Capacity	2.0 ltr.	2.0 ltr.	1.8 ltr.	2.0 ltr.	2.5 ltr.
No. of cylinders / valves per cylinder	4/4	4/4	4/4	4/4	5/4
Exhaust emissions standard	EU V	EU V	EU V	EU IV	EU V
Power output (kW at rpm)	147 / 5100 - 6000	155 / 4300 - 6000	118 / 4500 - 6200	195 / 6000	250 / 5400 - 6500
Torque (Nm at rpm)	280 / 1800 - 5000	350 / 1600 - 4200	250 / 1500 - 4500	350 / 2500 … 5250	450 / 1600 - 5300
Bore (∅ mm)	82.5	82.5	82.5	82.5	82.5
Stroke (mm)	92.8	92.8	84.1	92.8	92.8
Compression ratio	9.8:1	9.8:1	9.8:1	9.8:1	10:1
Fuel injection / ignition	TFSI	TFSI	TFSI	TFSI	TFSI
RON at least	98 unleaded [1)]	98 unleaded [1)]	95 unleaded	98 unleaded [1)]	98 unleaded [1)]

[1)] Unleaded RON 95 can also be used, but will result in a slight loss of power.

Diesel engines

Engines ⇒	Diesel engines	
Engine code	**CBBB**	**CFGB**
Capacity	2.0 ltr.	2.0 ltr.
No. of cylinders / valves per cylinder	4/4	4/4

Engines ⇒	Diesel engines	
Engine code	**CBBB**	**CFGB**
Exhaust emissions standard	EU V	EU V
Power output (kW at rpm)	125 / 4200	125 / 4200
Torque (Nm at rpm)	350 / 1750 - 2500	350 / 1750 - 2500
Bore (∅ mm)	81	81
Stroke (mm)	95.5	95.5
Compression ratio	16.5 :1	16.5 :1
Fuel injection / ignition	TDI CR II	TDI CR II
CN at least	51	51
Diesel particulate filter	X	X

1) Unleaded RON 95 can also be used, but will result in a slight loss of power.

2 Delivery Service

Work to be completed	Page
In the case of stock vehicles: performing steps specified in maintenance table “stock vehicles”	ELSA maintenance table
Battery: checking that battery cables are securely fitted	⇒ page 9
Battery: checking no load voltage	⇒ page 6
Data memory: reading out	⇒ page 23
Service interval display: resetting	⇒ page 50
Instrument cluster: setting the language	⇒ page 28
Daytime running lights: activating (see MMI Operating Manual)	
Fuse for headlight washer system: fitting	⇒ page 53
Transport mode: deactivating	⇒ page 56
Transport locks: removing locking elements for suspension struts	⇒ page 57
Cap for suspension strut protective tube: greasing	⇒ page 5
G17 additive: adding into tank	⇒ page 21
Clock: setting	⇒ page 58
Front passenger's airbag: checking key switch on / off, must be set to “on” (see Owner's Manual)	
Ignition keys: checking operation. Enter the number of ignition keys which have been checked and handed over to the customer: ____	⇒ page 22
Service Schedule: removing vehicle data sticker from supplied pack on front passenger's side and sticking into Service Schedule under “Warranty entitlement record” Entering record of Delivery Service	
Owner's literature: checking that it is complete and preparing for handover to customer	
Cooling system: coolant must be filled to max. level	⇒ page 26
Engine: checking oil level and topping up if necessary	⇒ page 44
Headlight washer system: fitting fuse	⇒ page 53
Navigation system: releasing eject button	⇒ page 44
Brake system: brake fluid must be filled to max. level	⇒ page 18
Wheel bolts: tightening to specified torque	⇒ page 46
Radio or radio/navigation system: disposing of label with serial number and fixed code number (supplied pack on front passenger's side) after entering fixed code number	
Radio and radio/navigation system: activating anti-theft coding by entering fixed code number	⇒ page 44
Tyre pressure on all 4 wheels and spare wheel: checking (note: 3.5 bar when car leaves factory) Saving pressures in tyre pressure monitoring system	⇒ page 14 ⇒ page 46

Work to be completed	Page
Accessories: installing (components stored in luggage compartment, glove box, supplied pack); keep puller or plastic clip in vehicle tool kit.	
Vehicle (from below): checking for damage (without removing noise insulation)	
Protective seat covers, plastic sheeting for carpet: removing	
Floor mats: fitting	
Cleanliness of vehicle interior: checking front and rear seats, interior trim, carpeting/mats, windows	
Cleanliness of vehicle exterior: checking paintwork, trims, windows, wiper blades	
Transport protection: removing protective edge strips on doors	
Interior mirror with compass: calibrating (if “C” is displayed on mirror)	⇒ Rep. Gr. 68
Road test and reset DIS	⇒ page 45

3 Description of work

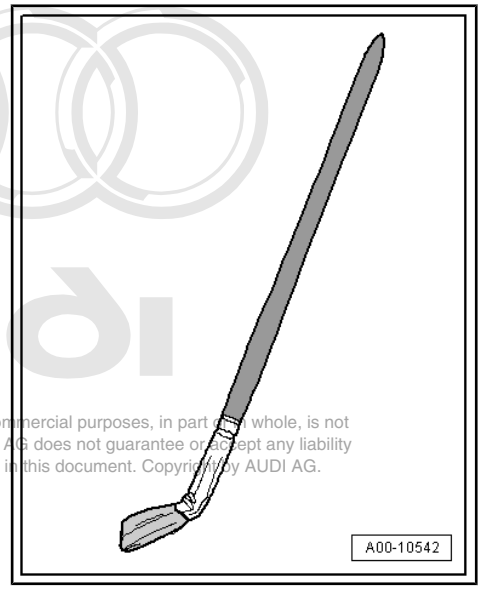
The following chapters describe the work steps necessary for performing the services listed in the maintenance tables.

Please refer to the relevant maintenance table for information on when a service is due.

3.1 Cap for suspension strut protective tube: greasing

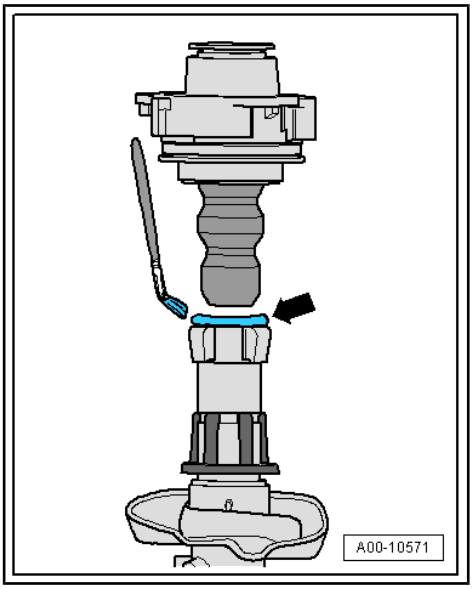
Special tools and workshop equipment required

- Lubricant G 000 405 A2



- Brush

Coat contact surface -arrow- of plastic cap at suspension strut protective tube with G 000 405 A2.



Note

After removing the spring inserts/spacers and greasing the cap for the suspension strut protective tube, make sure that the boot is correctly seated in the suspension strut mounting and at the shock absorber tube.

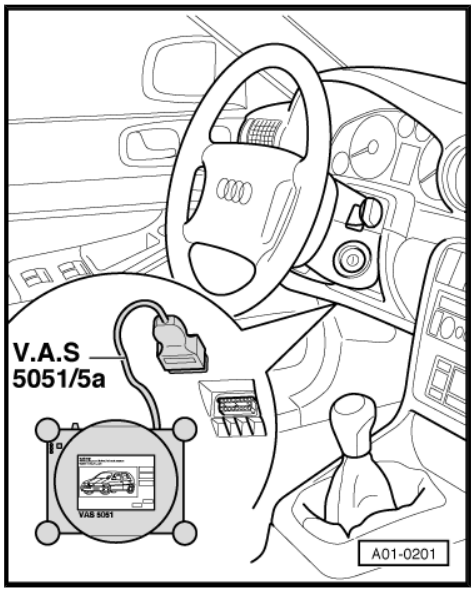
3.2 Reading out: measured value block 32

Note

Only applies in certain countries. For the countries affected, refer to maintenance table.

– Carry out the following steps, one after the other.

- Connect -VAS 5051/5052-
- Self-diagnosis
- Engine electronics
- Measured value blocks
- Select measured value block 32
- Display zone 2 (4-cyl. engines)
- Display zones 2 and 4 (V6 and V8 engines)



Note

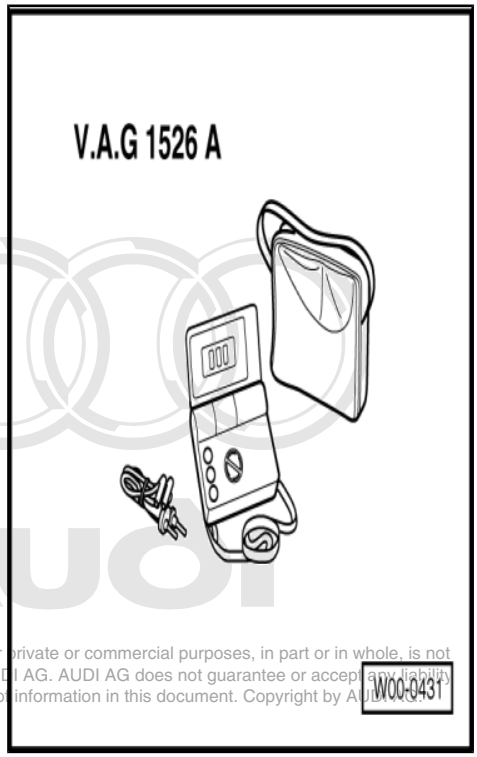
Add four times as much G17 additive ⇒ page 21 if there is a deviation of > 15% in the values.

3.3 Battery: checking "no load" voltage before engine is started for first time

3.3.1 Special tools and workshop equipment required

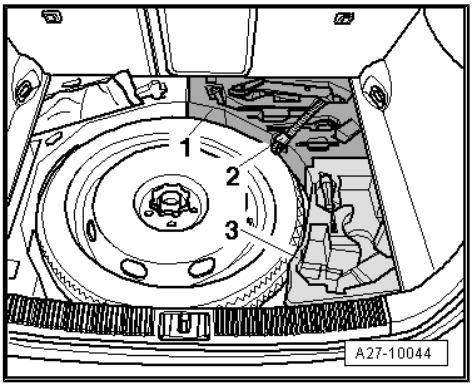
- Hand-held multimeter -V.A.G 1526C-

– Ensure that the following rules are observed, otherwise correct measurements cannot be guaranteed.

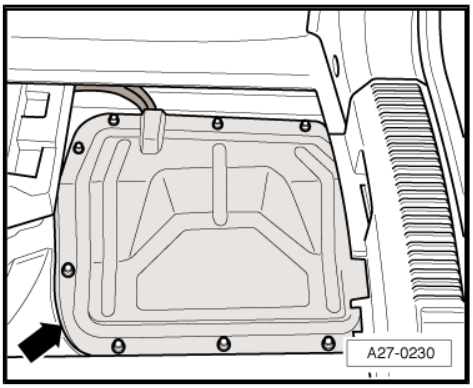


- The battery must not be placed under load from connected electrical equipment for at least 12 hours before the test.
- The battery must not be charged for at least 12 hours before test.

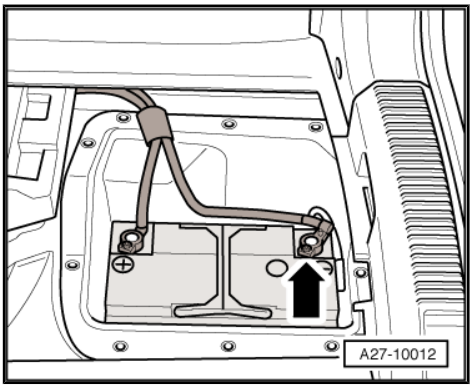
Remove rear moulded insert -3- for tools below luggage compartment floor covering.



– Detach cover -arrow- for battery compartment.



– Detach moulded insert above battery.



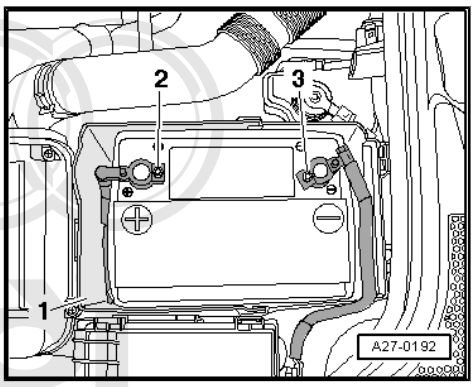
– With ignition switched off, measure voltage between battery clamps -2- and -3-.

1 - If the tester indicates 12.5 V or more, then the battery is OK.

2 - If the tester indicates 12.2 to 12.5 V the battery must be charged ⇒ Rep. Gr. 27 .

3 - If the tester indicates between 11.6 and 12.2 V proceed as follows: Charge battery ⇒ Rep. Gr. 27 . After charging battery allow to stand with no load for 24 hours. Then carry out battery test / battery load test ⇒ page 9 .

4 - If tester indicates 11.6 V or less the battery must be renewed ⇒ Rep. Gr. 27 .



WARNING

Always adhere to correct procedure, otherwise measurements will be falsified.

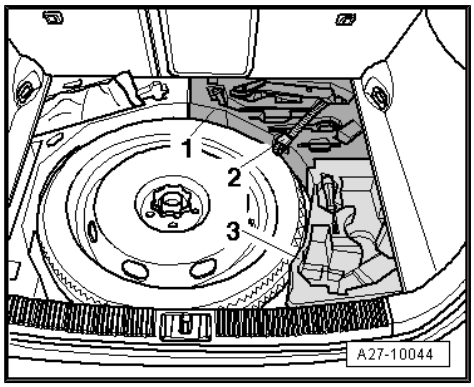
3.4 Battery: checking

3.4.1 Batteries with “magic eye”

The battery is located in the luggage compartment (rear right).

– Switch off the ignition and remove the ignition key from the lock.

– Remove rear moulded insert -3- for tools below luggage compartment floor covering.

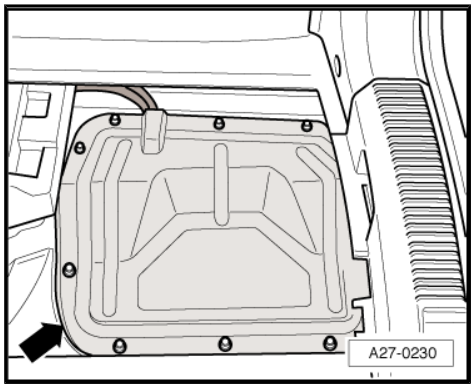


Note

-Item 1- and -item 2- can be disregarded.

– Detach cover -arrow- for battery compartment.

– Detach moulded insert above battery.



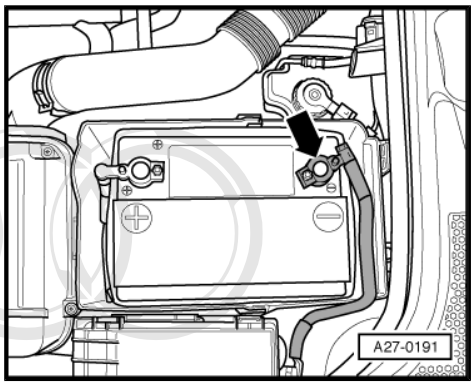
♦ The magic eye -arrow- indicates the electrolyte level and the charge level of the battery to be checked.

♦ Three different colours are used as indicators:

– Green → the battery is sufficiently charged.

– Black → no charge or charge too low

– Colourless or yellow → critical electrolyte level has been reached. Battery must be renewed.



3.4.2 Battery with sealing plugs

♦ A visual check of the battery is sufficient for batteries with clearly visible external min. and max. marks.

♦ The electrolyte level must be above the minimum marking, but must not exceed the maximum marking.

♦ If the external min. and max. marks on the battery are not clearly visible or if the electrolyte level cannot be checked properly due to an opaque battery housing, the sealing plugs must be unscrewed. It is then possible to visually check the electrolyte level from the inside.

♦ The electrolyte level must align with the marking inside the battery (plastic moulding). This corresponds to the max. marking on the outside.

Note

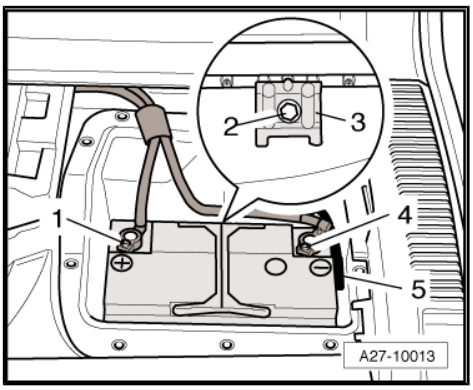
If electrolyte level is too low, the cell plates dry out, resulting in a loss of battery capacity (loss of power). The cell plates must be fully covered by electrolyte (sulphuric acid) in order to prevent corrosion of plates, plate bridges and cell connectors. Corrosion of these parts will impair battery function and make it unreliable. It will be rendered unusable.

WARNING

If the electrolyte level is below the min. marking the battery must be renewed! ⇒ Rep. Gr. 27

3.5 Battery: checking that battery cables are securely fitted

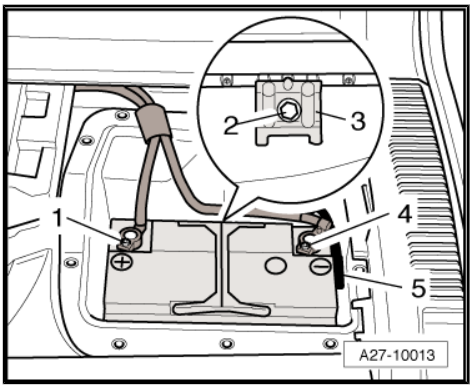
– Check that battery clamps are securely fitted. If necessary, tighten nuts -1- and -4-.



WARNING

If the battery clamp on the positive terminal is not fitted securely, disconnect the battery earth strap from the battery negative terminal first to avoid possible accidents.

– Check that battery is securely installed. If necessary tighten securing bolt -2- on retainer plate -3-.

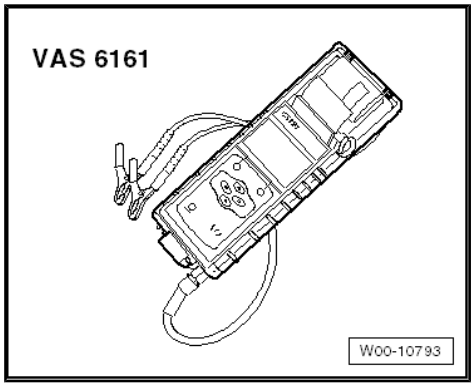


Tightening torque	Nm
Battery clamps to battery terminals	5
Bolt on retainer plate	22

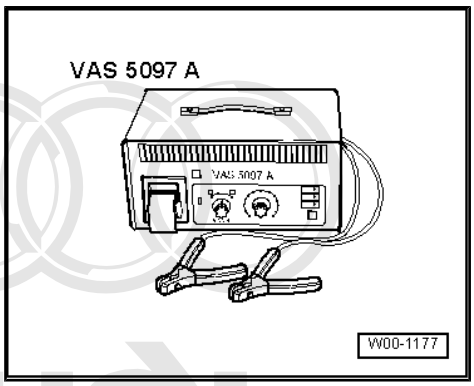
3.6 Battery: performing battery test

Special tools and workshop equipment required

- Battery tester -VAS 6161- (with printer)



- Battery tester -VAS 5097 A-



Note

- *During battery test with battery tester -VAS 6161- (with printer), battery earth wire does not have to be disconnected.*
- *It is not necessary to remove the battery when using battery tester -VAS 5097A- . The battery does not have to be disconnected.*

3.6.1 Performing battery test using battery tester -VAS 6161- (with printer)

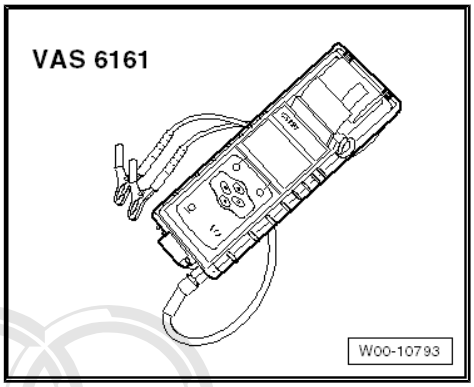
- The battery tester with printer -VAS 6161- no longer puts the battery under load, but works by measuring the dynamic conductivity. For this reason it is possible to perform several measurements without re-charging the battery.
- "No-load" voltage measurement can be performed without delay.
- All battery types are stored in the tester. These data can be updated.
- The battery bar code can be directly read off with the optionally available 2D scanner.
- The integrated temperature sensor improves the quality of measurements.
- The data can be stored on an SD card.

Note

For more information on the battery tester -VAS 6161- (with printer), refer to the tester's ⇒ operating instructions .

Special tools and workshop equipment required

- Battery tester (with printer) -VAS 6161-



Note

For instructions on how to use the battery tester -VAS 6161- refer to its ⇒ operating instructions .

Procedure:

- The battery temperature must be at least +10 °C.

WARNING

Risk of injury due to electrolyte.

- *The accident prevention procedures must be observed when handling electrolyte.*
- *Wear eye protection and protective clothing.*
- *Sealing plugs of batteries which are not maintenance-free must be firmly screwed in when measuring voltage under load.*

Risk of explosion due to a discharged battery with "magic eye".

- *If the "magic eye" is colourless or light yellow, do not test or charge the battery. Do not attempt to jump-start the vehicle! There is a danger of explosion if you test or charge the battery or jump-start the vehicle! The battery must be renewed.*

– Switch off ignition and all electrical equipment.

– On vehicles with "magic eye" check colour of "magic eye".

– Switch on battery tester -VAS 6161- (with printer).

– Connect red test clamp "+" of battery tester to positive battery terminal or jump start terminal in engine compartment.

– Connect black test clamp "–" of battery tester to negative battery terminal or jump start terminal in engine compartment.

Note

Make sure the test clamps make proper contact.

– Select one of the following functions:

- Maintenance test

- ♦ Service test
- ♦ Warranty test

Maintenance test

- – Select “Maintenance test” from the menu.
- – Connect scanner and scan in vehicle identification number.
- – Select connection point: “at battery post” or “at jump start post”.
- – Select vehicle model.
- – Scan in battery's bar code.
- – Determine temperature by holding temperature sensor at a distance of approx. 5 cm over battery or jump start post until a constant temperature is displayed.
- – Start test.
- – If required, print out test log.

Service test

- – Select “Service test” from the menu.
- – Select vehicle model.
- – Determine temperature by holding temperature sensor at a distance of approx. 5 cm over battery until a constant temperature is displayed.
- – Select battery type: “Regular”, “AGM”, “2*6V” or “Gel”.
- – Select rating units: “CCA”, “JIS”, “DIN”, “SAE”, “IEC” or “EN”.
- – Start test.
- – If required, print out test log.

Warranty test

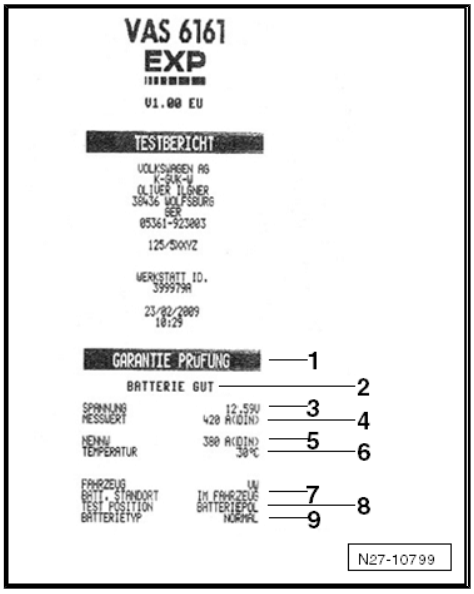
- – Select “Warranty test” from the menu.
- – Select fitting location: “in vehicle” or “out of vehicle”.
- – Select vehicle model.
- – Determine temperature by holding temperature sensor at a distance of approx. 5 cm over battery until a constant temperature is displayed.
- – Select battery type: “Regular”, “AGM”, “2*6V” or “Gel”.
- – Select corresponding rating using arrow buttons.
- – Start test.
- – If required, print out test log.

Note

The test log is required for warranty processing.

- – Switch off battery tester.
- – Detach test clamps.

Test result on printout:



1 - Test mode
2 - Test result
3 - Measured voltage
4 - Measured nominal value of battery
5 - Nominal value of battery set on tester
6 - Temperature measured above battery
7 - Fitting location of battery
8 - Position of battery clamp set on tester
9 - Selected battery type

Result of maintenance test	Measures
Battery good	Battery OK
Charge battery	Charge battery
Charge battery instantly	Charge battery completely and repeat test. Faults can occur if battery is not completely charged when test is repeated
Mark as defect	Mark as “defect” and remove from vehicle
Check tester connection	Remove battery and repeat test
Battery frozen	Thaw battery and repeat test
Check connection	Connect cable directly to battery and not to jump-start terminal

Result of service test and warranty test	Measures
Battery good	Battery OK
Battery good - recharge	Charge battery completely
Replace battery	Remove battery and repeat test. Result "Replace battery" can arise if cables do not make proper contact
Bad cell - replace	Renew battery
Battery frozen	Thaw battery and repeat test
Check connection	Connect cable directly to battery and not to jump-start terminal

– Renew battery ⇒ Rep. Gr. 27 .

Note

If the battery has to be renewed, observe disposal regulations.

3.6.2 Performing battery load test using VAS 5097 A

– Switch off ignition.
– Read operating instructions for battery tester.

– Connect the clamps of the test leads to battery terminals as described in operating instructions for the tester.

The clamps must make good contact with the battery terminals.

– As the load current differs depending on the battery, the current must be set on the tester according to battery capacity ⇒ Operating instructions for battery test equipment.

– Perform a battery load test as described in the operating instructions.

Please note the test results shown on the display of the tester.

Display on battery tester	Delivery Inspection	Inspection Service LongLife Service
Battery Very Good	Battery OK	Battery OK
Battery Good	Battery OK	Battery OK
Battery Sufficient	Renew battery	Charge battery[1)]
Battery Not Good	Renew battery	Charge battery[1)]
Battery Faulty	Renew battery	Renew battery[2)]
Cannot be tested	Renew battery	Renew battery[2)]

1) - Perform battery load test again after recharging the battery. If tester shows “Battery Good” after charging, battery is OK. However, if tester still shows “Battery Not Good”, battery must be renewed.

2) - Agree battery replacement with customer.

– Renew battery ⇒ Rep. Gr. 27 .

Notes on battery load test:

The battery voltage will decrease during the test due to the high load (high current flow).

If a battery is in working order battery voltage will only drop to minimum voltage.

If the battery is defective or only insufficiently charged, battery voltage will very quickly drop below minimum voltage.

After carrying out the load test the voltage will remain at this low level for quite a while; voltage will only rise again slowly.

3.7 Tyres: checking condition, wear pattern, tread depth and correcting tyre pressures

Note

All tyres and wheels (front and rear) must be of same type and size. On four-wheel drive vehicles you must also ensure that all tyres are made by the same manufacturer and have the same tread pattern.

Delivery Inspection

– Check tyre tread surfaces and sidewalls for damage and remove any foreign bodies.

Inspection Service

– Check tyres for scuffing, one-sided wear, porous sidewalls, cuts and fractures.

WARNING

Any defects must be reported to the customer.

Checking tyre wear pattern

– The wear pattern of the front tyres indicates, for example, whether the toe and camber have to be checked.

- Feathering on tread indicates incorrect toe setting.
- One-sided tread wear is usually due to incorrect camber.

Note

If the above types of wear are found, check wheel alignment to determine the cause (repair measure).

Checking tyre tread depth

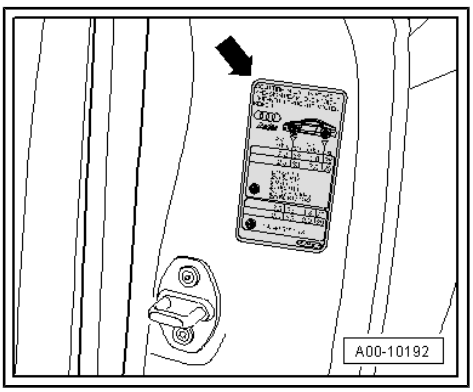
- Minimum depth: 1.6 mm

Note

- *This figure may vary for individual countries due to different legislation.*
- *If the tread depth is approaching the minimum permissible tread depth, the customer must be informed.*

3.7.1 Inflating to correct pressures

The correct inflation pressures are listed on the sticker inside the B-pillar.



Note

Please note that the tyre pressures listed on the sticker apply to cold tyres. When the tyres are warm, the actual pressures will be higher, but must not be reduced.

3.7.2 Spare wheel

- Collapsible spare wheel

The correct tyre pressure is indicated on the sidewall.

3.8 Brake system: visual check for leaks and damage

– Check following components for leaks and damage:

- Brake master cylinder
- Brake servo
- ABS hydraulic unit
- Brake calipers

– Ensure that brake hoses are not twisted.
– Make sure that brake hoses do not touch any components when steering is on full lock.
– Check brake hoses for porosity, blistering and brittleness.
– Check brake hoses and pipes for chafing.
– Check brake pipe connections and mountings for correct seating, leaks and corrosion.

WARNING

Any faults found must be rectified (repair measure).

3.9 Lights: checking function

– The following components must be checked:

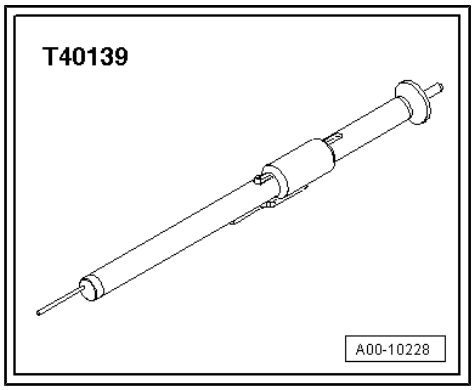
- Front lights: side lights, dipped beam, main beam, front fog lights, turn signals, hazard warning lights
- Tail light cluster: brake lights (incl. 3rd brake light), rear lights, reversing lights, rear fog light, number plate light, turn signals, hazard warning lights
- Horn, glove box light and luggage compartment light

3.10 Brake pads: checking thickness

Special tools and workshop equipment required

- Test pin T40139

Test pin



Before using the test gauge to check the pad thickness, push the sliding ring towards the tip of the gauge as far as it will go.

Then insert the test gauge through the wheel rim and bring the tip of the gauge into contact with the brake disc. Then slide the body of the gauge uniformly towards the brake pad until the gauge makes contact with the backplate of the brake pad.

Then take out the test pin and read off the value on the scale marked with the brake symbol.

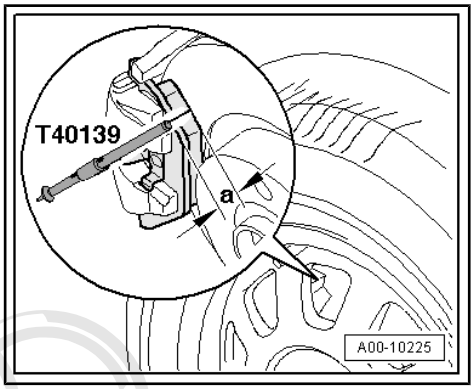
Note

- *When removing the test pin, take care not to move the sliding ring. This would give an incorrect measurement.*
- *The second scale on the test pin (with the tyre symbol) can be used for checking tread depth.*

Front disc brake pads:

a - Pad thickness including backplate

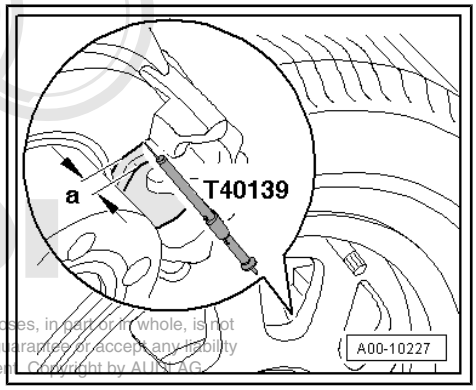
- Wear limit: 7



Rear disc brake pads:

a - Pad thickness including backplate

- Wear limit: 7



WARNING

When brake pad thickness (including backplate) is down to 7, the brake pads have reached their wear limit and must be renewed (repair measure). The customer must be informed.

Note

- *On some vehicles (fitted with aftermarket rims) it may not be possible to insert the test pin through the wheel rim and bring it into contact with the brake disc or the brake pad, due to the shape of the rim. In this case proceed as follows:*
- *Determine thickness of outer pads by checking visually (using electric torch through cut-out in rim).*
- *Determine thickness of inner pads by checking visually (with help of electric torch and mirror).*

3.11 Brake fluid level (depends on brake pad wear): checking

Note

Only use new genuine VW/Audi brake fluid, refer to ETKA.

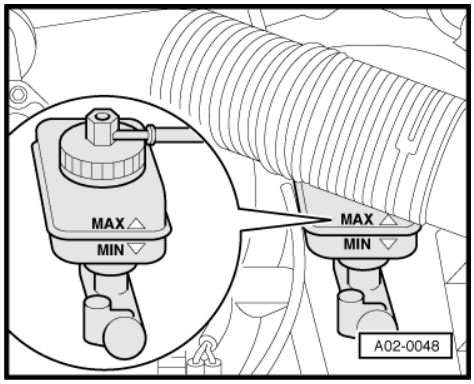
WARNING

- ***Brake fluid is poisonous. It also has caustic properties and must therefore not be allowed to come into contact with paintwork.***
- ***Brake fluid is hygroscopic, i.e. it absorbs moisture from the surrounding air. It must therefore always be stored in air-tight containers.***

– Note the following:

3.11.1 Delivery Inspection

- The fluid level must be at the MAX mark.



Note

The fluid level must not exceed the MAX marking, otherwise the fluid will overflow.

3.12 Brake fluid: changing

Note

Only use new genuine VW/Audi brake fluid, refer to ETKA.

Changing brake fluid with brake filling and bleeding equipment -VAS 5234-

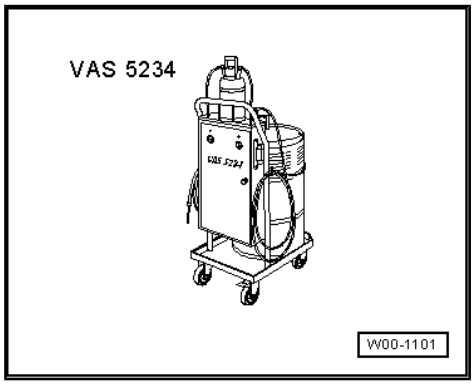
WARNING

- *Brake fluid must on no account come into contact with liquids containing mineral oils (oil, petrol, cleaning agents). Mineral oils damage the plugs and sleeves in the brake system.*
- *Brake fluid is poisonous and must under no circumstances be sucked through a tube using the mouth. Because of its caustic properties it must also not come into contact with paintwork.*
- *Brake fluid is hygroscopic, i.e. it absorbs moisture from the surrounding air. It must therefore always be stored in airtight containers.*
- *Always observe the relevant environmental regulations for disposal.*

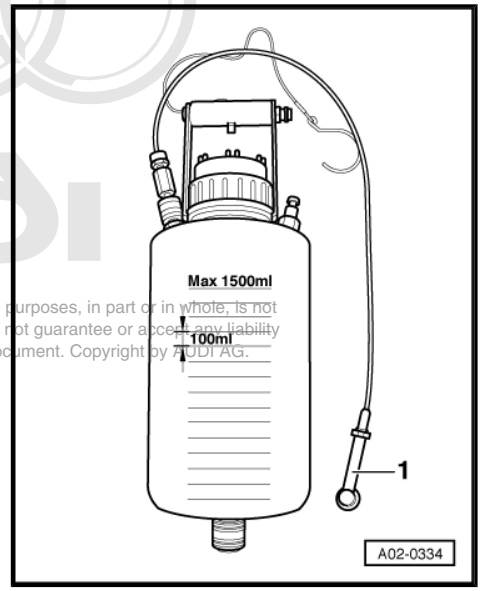
3.12.1 Changing brake fluid with brake filling and bleeding equipment -VAS 5234-

Special tools and workshop equipment required

- Brake filling and bleeding equipment -VAS 5234-



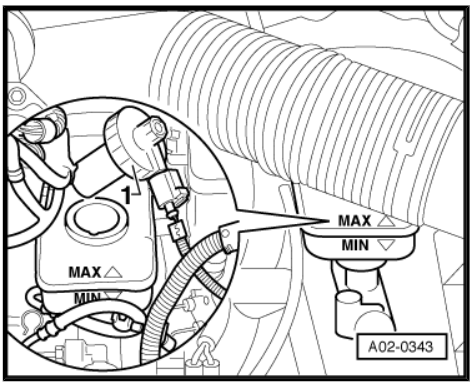
- Container for collecting used fluid



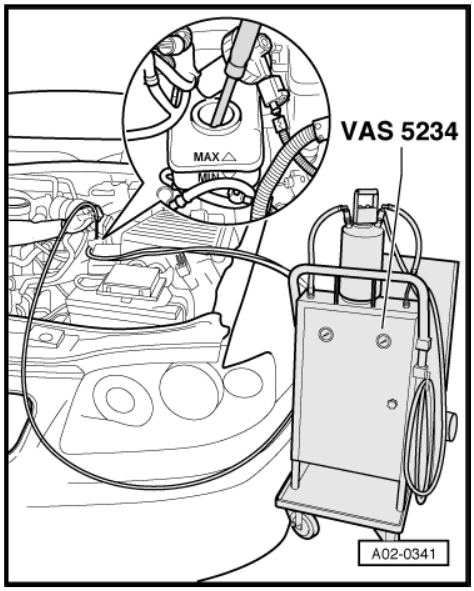
Note

- *The brake fluid reservoir must always be adequately filled to ensure that no air can enter the brake system from the reservoir.*
- *The strainer in the brake fluid reservoir must not be removed.*
- *Observe the instructions given in the operating manual for the brake filling and bleeding equipment -VAS 5234- .*

– Unscrew cap -1- from brake fluid reservoir.



– Use extraction hose included in brake filling and bleeding equipment -VAS 5234- to extract as much brake fluid as possible.

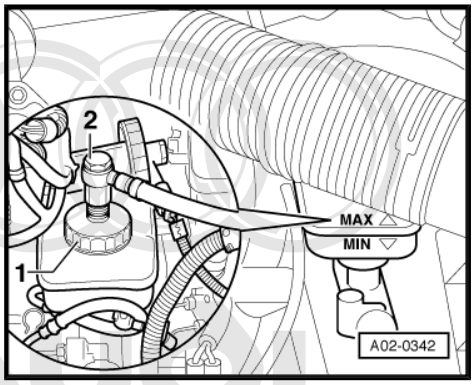


WARNING

Do not reuse the old brake fluid that has been extracted.

– Connect adapter -1- to brake fluid reservoir.

– Connect filling hose -2- included with brake filling and bleeding equipment -VAS 5234- to adapter.

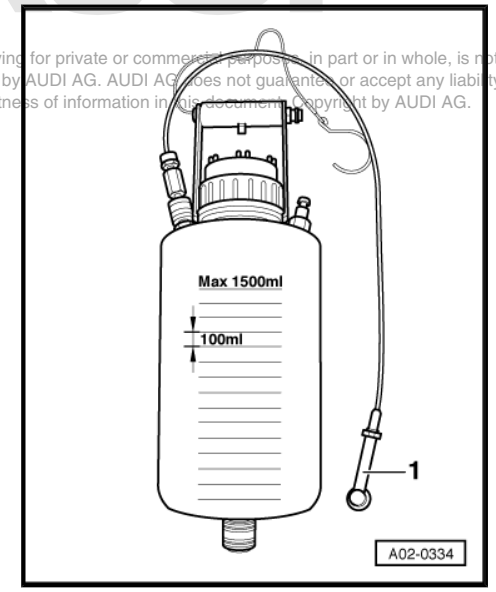


Vehicles with manual gearbox:

– Remove cap from bleeder screw on clutch slave cylinder.

– Connect bleeder hose -1- attached to collector bottle to bleeder screw on clutch slave cylinder, open bleeder screw and let approx. 100 ml flow out. Close bleeder screw and fit cap back on.

– Repeatedly depress the clutch pedal.

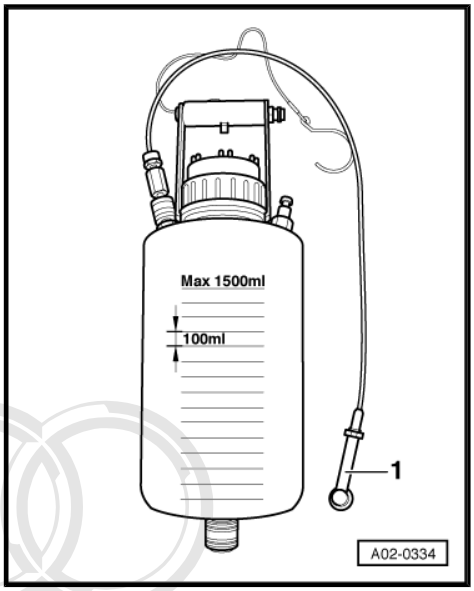


Continuation for all vehicles:

– Remove caps from bleeder screws.

– Connect bleeder hose -1- attached to collector bottle to bleeder screw (front left), open bleeder screw and allow approx. 200 ml of brake fluid to flow out. Close bleeder screw.

– Repeat the procedure on the other front side of the vehicle.
– Connect bleeder hose -1- attached to collector bottle to bleeder screw (rear left), open bleeder screw and allow approx. 200 ml of brake fluid to flow out. Close bleeder screw.
– Repeat the procedure on the other rear side of the vehicle.
– Fit caps back on bleeder screws on brake calipers.
– Move filling lever on brake filling and bleeding equipment - VAS 5234- to position -B- (see operating instructions).
– Detach filling hose from adapter.
– Unscrew adapter from brake fluid reservoir.
– Screw cap onto brake fluid reservoir.
– Check brake fluid level and correct as necessary.
– Check pedal pressure and free play of brake pedal. Free play: no more than $^1/_3$ of pedal travel



3.12.2 Table - sequence for changing brake fluid / quantities

Front left	200 ml
Front right	200 ml
Rear left	200 ml
Rear right	200 ml
Clutch slave cylinder	200 ml
Total quantity	1000 ml

3.13 S tronic gearbox: changing oil and renewing oil filter

– Change gear oil ⇒ Rep. Gr. 00 ; Direct shift gearbox .

3.14 Electric windows: checking positions

The electric window regulators “forget” their current positions and the automatic open/close function when the battery is disconnected.

– Activate the automatic open/close function as follows:
– Switch on ignition.
– Close the windows all the way to their top positions using the window switches.
– Then operate all window switches again for at least one second in the “close” direction to activate the automatic one-touch function.
– Press switch to open window. The side window should move all the way down automatically.

3.15 G17 additive: adding

Note

Only applies in certain countries. For the countries affected, refer to maintenance table.

- When adding G17 additive into the tank, the ratio must be 10 ml of additive per 10 litres of fuel.
- The following table lists the quantities to be added depending on the fuel level indicated on the fuel gauge.

Mixture ratio:

Indicated on fuel gauge	G17 fuel additive
approx. 1/4	approx. 15 ml
approx. 1/2	approx. 30 ml
approx. 3/4	approx. 45 ml
approx. 1/1	approx. 60 ml

Note

- *The quantities listed in the table refer to a fuel tank with a capacity of 60 litres.*
- *If the fuel level in the fuel tank is other than quoted in the table, add additive in steps of 10 ml additive per 10 litres of fuel.*

3.16 Ignition keys: checking operation

– Open key ring to check each key individually.

– Insert one ignition key after the other into ignition lock and start engine with each key.

– If the engine switches off automatically after approx. 3 seconds and the odometer display shows “safe” the ignition key has not been matched to the immobiliser.

– Repair measure: Guided Fault Finding (matching ignition keys).

– Make a note in the delivery record of the number of ignition keys which have been checked and handed over.

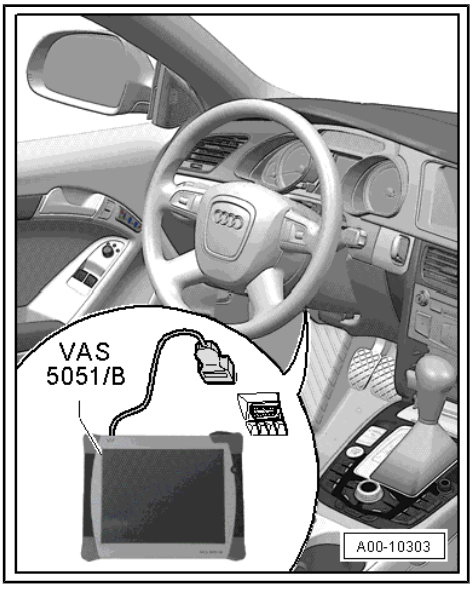
3.17 Diesel particulate filter: reading out ash deposit mass

Note

Engines affected: see Maintenance table.

– Carry out the following steps, one after the other.

- Connect VAS 5051 or 5052.
- Guided Functions
- Read measured values
- Oil ash deposits
- Maximum value for ash deposit mass (4-cyl. engines): 60 g



Note

If ash deposit mass is <= 60 g the vehicle can be driven for a further 30,000 km (19,000 miles).

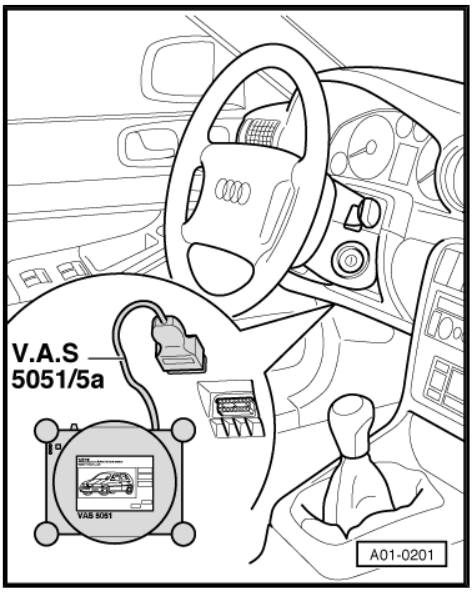
WARNING

If ash deposit mass value is 60 g or greater for 4-cyl. engines, the diesel particulate filter must be renewed.

3.18 Data memory: interrogating with vehicle diagnostic, testing and information system -VAS 5051/ 5052-

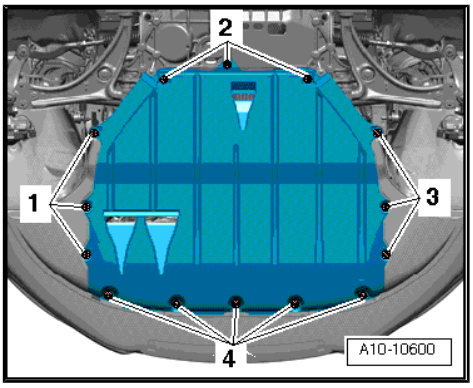
– Carry out the following steps, one after the other.

- Connect VAS 5051 or 5052.
- Vehicle Self-Diagnosis
- Gateway - Fitting list
- Read out control units for which entries have been made in fault memory.
- Eliminate relevant faults (when approved by customer).



3.19 Noise insulation: removing and installing

– Remove noise insulation -fasteners 1 ... 4-.



3.20 Haldex coupling: changing oil

– Change oil: ⇒ Rep. Gr. 39 .

3.21 Poly V-belt: renewing

Vehicles with 4-cyl. petrol engine 2.0 ltr. TFSI:

– Removing and installing poly V-belt ⇒ Rep. Gr. 13

Vehicles with 6-cyl. petrol engine 3.2 ltr. MPI:

– Removing and installing poly V-belt ⇒ Rep. Gr. 13

Vehicles with 5-cyl. petrol engine 2.5 ltr. TFSI:

– Removing and installing poly V-belt ⇒ Rep. Gr. 13

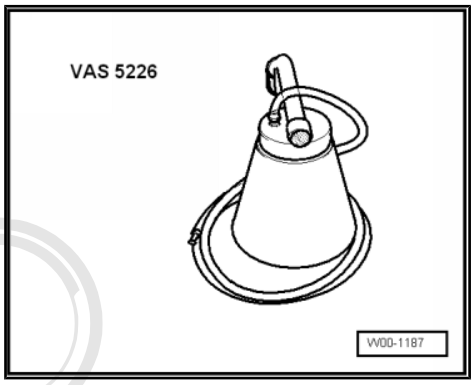
Vehicles with 4-cyl. diesel engine 2.0 ltr. TDI CR:

– Removing and installing poly V-belt ⇒ Rep. Gr. 13

3.22 Fuel filter: renewing (2.0 ltr. TDI CR)

Special tools and workshop equipment required

♦ Diesel extractor -VAS 5226-



Note

♦ *Please ensure that no diesel fuel makes contact with the coolant hoses.*

♦ *If necessary, clean hoses immediately.*

♦ *Observe disposal regulations.*

♦ *Follow the procedure shown below:*

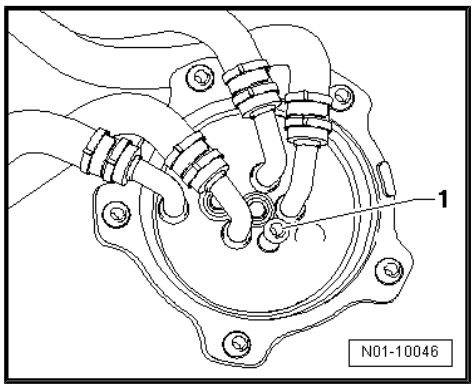
– Unscrew bolt from drain pipe -1-.

– Attach diesel extractor -VAS 5226- to connection.

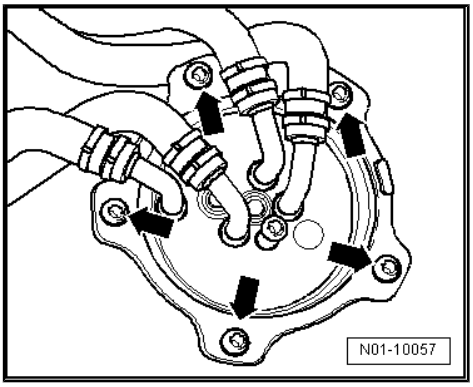
– Use diesel extractor -VAS 5226- to draw off about 100 ml of diesel fuel.

– Renew seal and screw bolt into drain pipe.

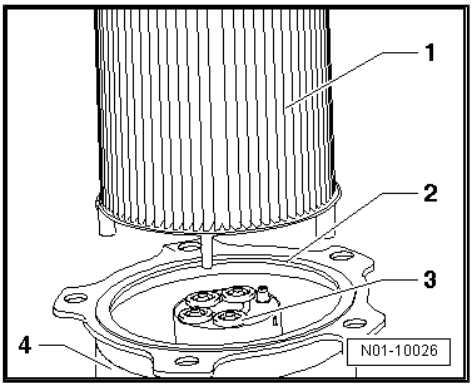
– Loosen all bolts on cover -arrows- in diagonal sequence (approx. 1.5 to 2 turns).



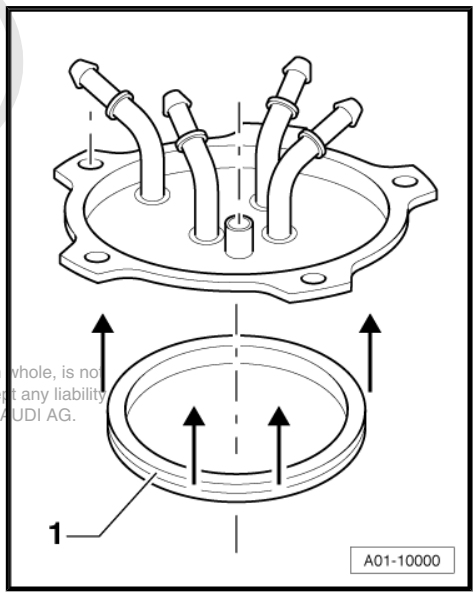
– Unscrew bolts completely and remove cover from filter.



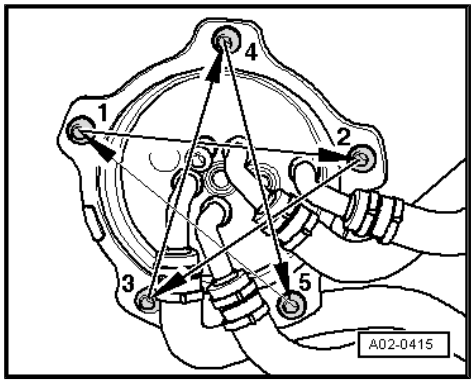
– Remove filter element -1- and seals -2 and 3- from filter housing -4-.



– Renew seals -3-.
– Install new filter element.
– Install new seal -2- on cover of filter.
– Fit cover with seal onto filter housing.



– Pre-tighten bolts in diagonal sequence (2 turns).



Note

The bolts have to be tightened diagonally in correct sequence. Otherwise, the cover will tilt on the centre pipe and the cover and seal could get damaged.

– Tighten bolts in sequence shown.
– Start engine and check fuel system for leaks (visual check).

Tightening torques	Nm
Bolts on filter housing	5

Note

Observe disposal regulations.

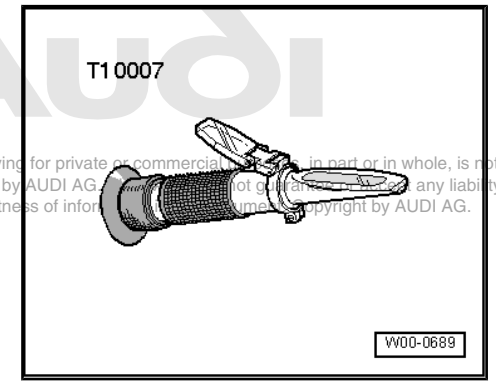
3.23 Cooling system: checking coolant additive level and topping up with coolant if necessary

Note

- *The coolant additive ratio must be at least 40 % (gives anti-freeze protection down to –25 °C), but should not exceed 60 % (frost protection down to –40 °C); beyond this concentration both the frost protection and the cooling efficiency are reduced again.*
- *Frost protection should be ensured down to temperatures of about –25 °C.*
- *For approved coolant additive, refer to ⇒ ETKA .*

Special tools and workshop equipment required

- Refractometer -T10007-



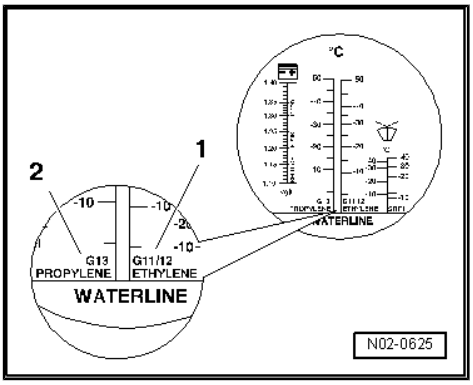
Note

For exact readings for the following tests refer to the light-dark border. Before carrying out the tests, you can first determine the light-dark border for water. To do so, use a pipette to place a drop of water on the glass. The light-dark border will now show up clearly at the "WATERLINE" marking.

– Check the coolant additive concentration using the refractometer -T10007- . Observe the instructions in the operating manual.

Scale -1- on the refractometer applies to coolant additives G 12, G 12 Plus, G 12 Plus Plus and G 11.

Scale -2- refers only to coolant additive -G 13- (previously called L80).



Note

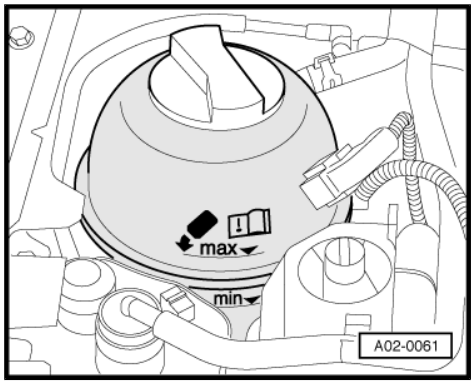
- *Frost protection should be ensured down to temperatures of about –25 °C.*
- *If greater frost protection is required in very cold climates, the proportion of coolant additive can be increased, but only up to 60 % (this gives frost protection at temperatures down to approx. -40 °C). Beyond this concentration the frost protection and also the cooling efficiency are reduced again.*

Checking coolant level and topping up with coolant if necessary

– Check coolant level in coolant expansion tank while the engine is cold.

- Delivery Inspection: Coolant level should be above “Min.” marking -arrow-
- Inspection Service: Coolant level should be above “Min.” marking -arrow-

– If coolant level is too low, add required amount (using correct mixture ratio).



Note

If fluid losses are greater than can be reasonably expected, determine the cause and rectify faults (repair measure).

Mixture ratio:

Frost protection to	Coolant additive	Water
–25 °C	approx. 40 %	approx. 60 %
–35 °C	approx. 50 %	approx. 50 %
–40 °C	approx. 60 %	approx. 40 %

Note

- *Coolant additives prevent frost and corrosion damage, scaling and also raise the boiling point of the coolant. It is therefore essential to use the correct coolant additive in the cooling system all year round.*
- *Because of its high boiling point, the coolant improves engine reliability under heavy loads, particularly in countries with tropical climates.*
- *The coolant concentration must not be reduced by adding water even in warmer seasons and in warmer countries. The antifreeze ratio must be at least 40 %.*

3.24 Instrument cluster: setting the language

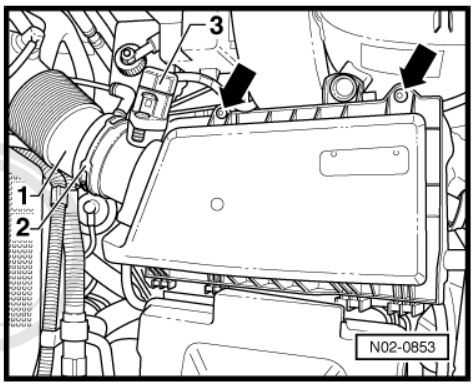
– Carry out the following steps, one after the other.

- Connect VAS 5051 or 5052.
- Guided Fault Finding/Guided Functions
- Go to - Function / component selection
- Servicing
- Adapting the language
- Follow the instructions shown on the screen.

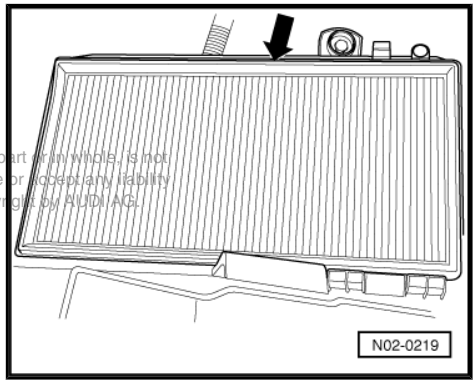
3.25 Air cleaner: cleaning housing and renewing filter element

3.25.1 6-cyl. petrol engine 3.2 MPI

– Open hose clip -2- with hose clip pliers -V.A.G 1921- and remove intake hose -1-.
– Release and detach connector -3- from air mass meter.
– Remove securing bolts -arrows-.
– Lift out air cleaner housing (top section).

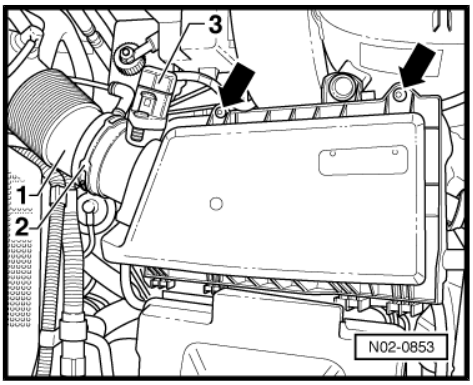


– Take out old filter element -arrow-.
– Clean filter housing and install new filter element.



– Install air cleaner housing (top section) and tighten bolts -arrows-.
– Fit connector -3- onto air mass meter and make sure it engages.
– Fit intake hose -1- onto air cleaner housing and secure with hose clip -2-.

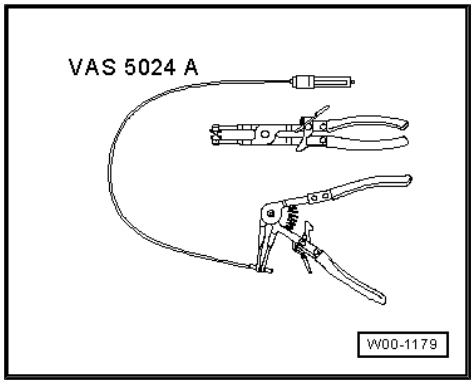
Important: observe general notes at the end of the section
⇒ page 36



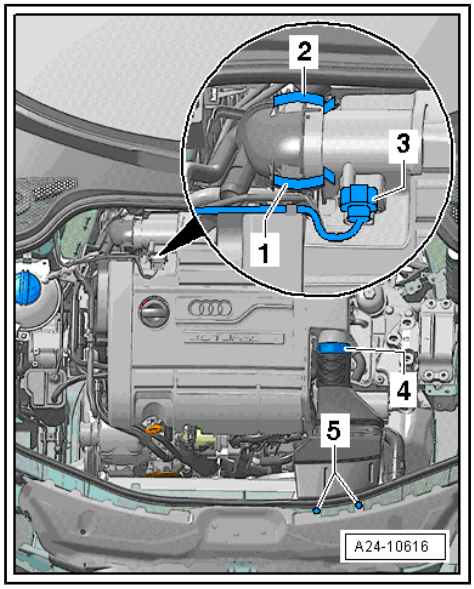
3.25.2 4-cyl. petrol engine 2.0 ltr. TFSI

Special tools and workshop equipment required

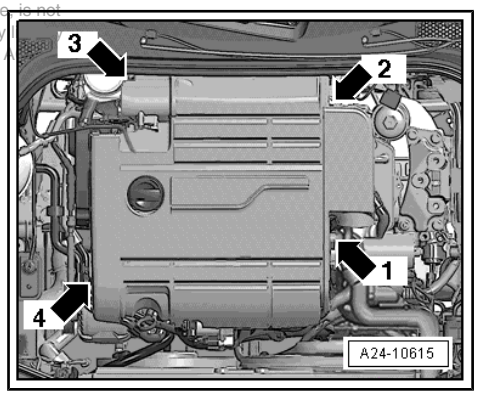
♦ Spring-type clip pliers -VAS 5024-



– Unplug electrical connector -3- from air mass meter -G70- .
– Open clamps -1 and 2- and disconnect air hose from air mass meter.
– Unclip intake hose -arrows-.
– Release spring-type clips -4- and detach air intake hose from engine cover panel.



– Carefully pull engine cover panel off at positions -1 - 2 - 3 - 4- one after another.



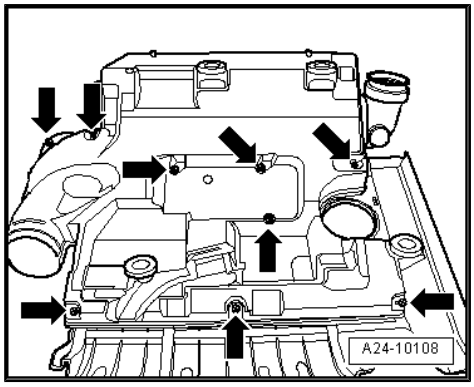
Caution

Always observe this sequence (risk of breaking engine cover panel).

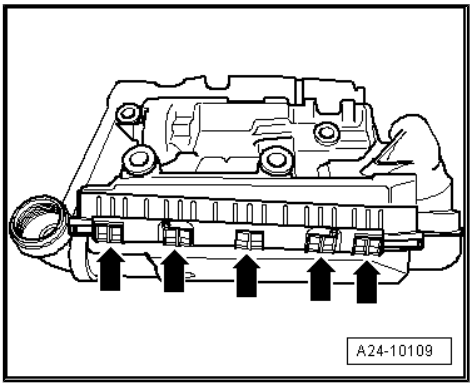
– Cover open intake hose with a clean cloth.

Removing air filter element

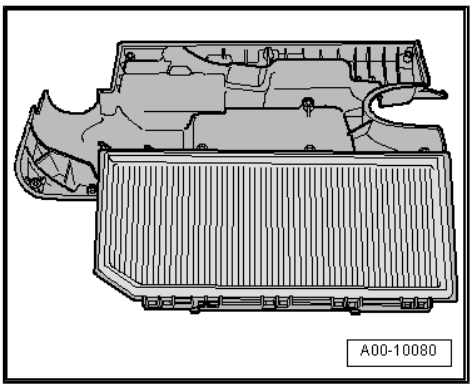
– Unscrew all bolts -arrows-.



– Detach engine cover panel (note retainers -arrows-).



– Pull air filter element out of engine cover panel.
– Clean filter housing and install new filter element.



Note

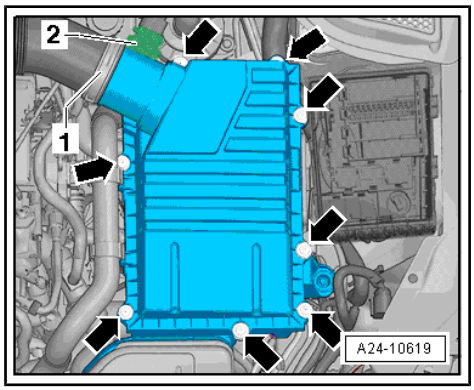
- *Self-tapping screws are used in production to secure the top section of the air cleaner to the bottom section. If these screws are tightened or loosened with a power screwdriver the thread in the top section of the air cleaner housing can be damaged.*
- *For this reason, a power screwdriver must ONLY be used if the following requirements are met:*
- *Power screwdriver: max. 200 rpm.*
- *It must be possible to set the max. tightening torque to 3 Nm.*
- *To install the engine cover panel, first align it at the four mounting points. Then use the flat surface of your hands to fit the cover onto the engine evenly, pressing downwards onto the four mounting points simultaneously.*
- *When installing the engine cover panel, make sure the rubber sleeve is properly seated between the air cleaner housing and the engine intake.*

– Assembly is conducted in reverse sequence.

Important: observe general notes at the end of the section
⇒ page 36

3.25.3 4-cyl. petrol engine 2.0 ltr. TFSI

Removing



– Disconnect air hose -1- from air mass meter -G70- .
– Unplug electrical connector -2- from air mass meter -G70- .
– Detach air cleaner (top section) -arrows- and remove air filter element.

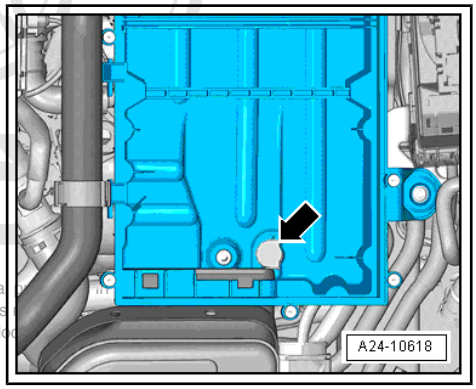
Installing

Installation is performed in reverse sequence; note the following:

To ensure the correct function of the air mass meter it is important to observe the following notes and adhere to the procedures described below.

Note

- *If the air filter element is very dirty or wet, dirt particles or water can reach the air mass meter and falsify the detected air mass values. This will cause a loss of power, as the calculated injection quantities will be too low.*
- *Always use genuine air filter elements (same as original equipment).*
- *The air cleaner housing must always be clean.*
- *Secure all hose connections with genuine hose clips (same as original equipment) ⇒ Electronic parts catalogue .*
- *When cleaning the air cleaner housing with compressed air, cover the critical components of the engine intake system such as the air mass meter and intake pipes etc. with a clean cloth to avoid malfunctioning.*
- *Observe disposal regulations.*



- Blow out water drain (small hole in bottom section of air cleaner) with compressed air.
- Clean the air cleaner housing (top and bottom sections) to remove any salt residue, dirt and leaves (if necessary vacuum-clean).
- Check air mass meter and air hose (engine intake side) for salt residue, dirt and leaves.
- Check air duct leading from lock carrier to air cleaner housing for dirt and leaves.

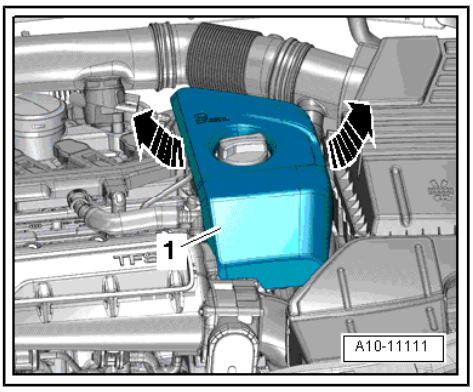
- When installing the air filter element make sure it is positioned centrally on the mounting in the bottom section of the air cleaner.
- Carefully fit the top section of the air cleaner on the bottom section of the air cleaner, without applying any force. When fitting the top section of the air cleaner, make sure it is NOT positioned on the air filter element at an angle (observe sealing lip of air filter element).
- Make sure that the air hose is correctly seated at the air mass meter.

Tightening torque	Nm
Air cleaner (top section)	5

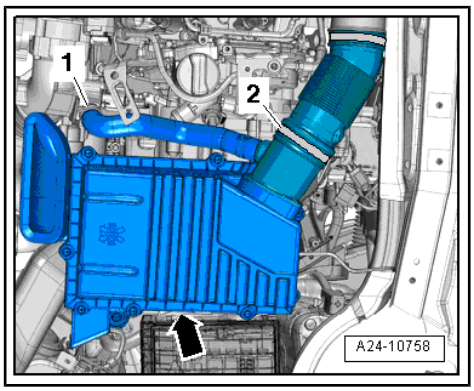
Important: observe general notes at the end of the section
⇒ page 36

3.25.4 5-cyl. petrol engine 2.5 ltr. TFSI

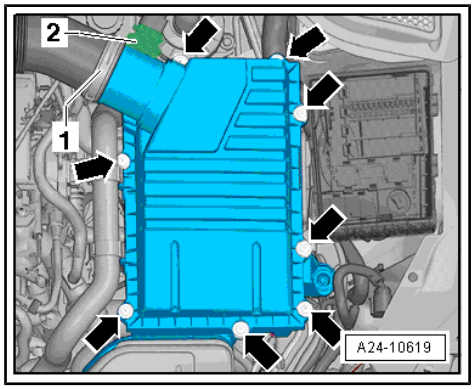
Removing



- Pull engine cover panel -1- off upwards -arrows-.



– Loosen hose clips -1- and -2-.
– Remove bolts -arrows- and detach air cleaner (top section).
– Take out air filter element.



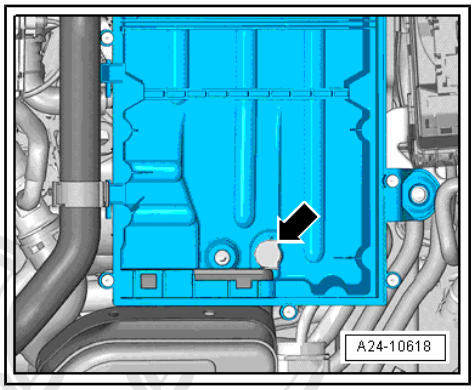
Installing

Installation is performed in reverse sequence; note the following:

To ensure the correct function of the air mass meter it is important to observe the following notes and adhere to the procedures described below.

Note

- *If the air filter element is very dirty or wet, dirt particles or water can reach the air mass meter and falsify the detected air mass values. This will cause a loss of power, as the calculated injection quantities will be too low.*
- *Always use genuine air filter elements (same as original equipment).*
- *The air cleaner housing must always be clean.*
- *Secure all hose connections with genuine hose clips (same as original equipment) ⇒ Electronic parts catalogue .*
- *When cleaning the air cleaner housing with compressed air, cover the critical components of the engine intake system such as the air mass meter and intake pipes etc. with a clean cloth to avoid malfunctioning.*
- *Observe disposal regulations.*

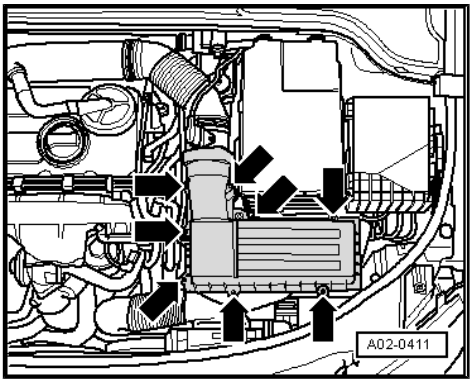


– Blow out water drain (small hole in bottom section of air cleaner) with compressed air.
– Clean the air cleaner housing (top and bottom sections) to remove any salt residue, dirt and leaves (if necessary vacuum-clean).
– Check air mass meter and air hose (engine intake side) for salt residue, dirt and leaves.
– Check air duct leading from lock carrier to air cleaner housing for dirt and leaves.
– When installing the air filter element make sure it is positioned centrally on the mounting in the bottom section of the air cleaner.
– Carefully fit the top section of the air cleaner on the bottom section of the air cleaner, without applying any force. When fitting the top section of the air cleaner, make sure it is NOT positioned on the air filter element at an angle (observe sealing lip of air filter element).
– Make sure that the air hose is correctly seated at the air mass meter.

Tightening torque	Nm
Air cleaner (top section)	5

Important: observe general notes at the end of the section
⇒ page 36

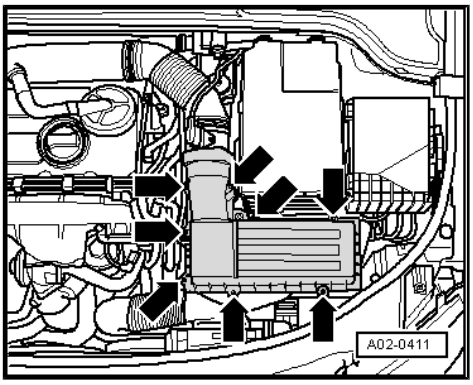
3.25.5 4-cyl. petrol engine 1.8 ltr. TFSI, 2.0 ltr. TFSI



- Loosen the bolts -arrows- and pull the cover up.
- Remove old filter element.
- Clean filter housing and install new filter element.
- Remove old filter element.
- Clean filter housing and install new filter element.

Important: observe general notes at the end of the section
⇒ page 36

3.25.6 4-cyl. diesel engine 2.0 ltr. CR TDI engine



- Loosen the bolts -arrows- and pull the cover up.
- Remove old filter element.
- Clean filter housing and install new filter element.
- Remove old filter element.
- Clean filter housing and install new filter element.

Important: observe general notes at the end of the section
⇒ page 36

3.25.7 General notes

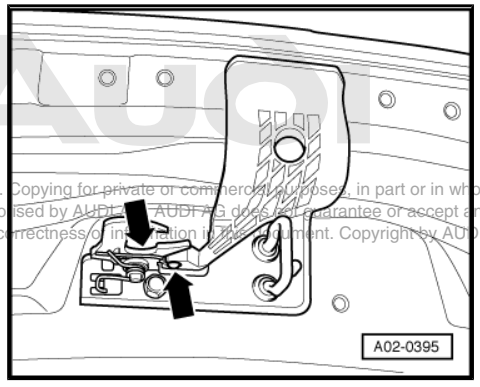
Note

- *If the air filter element is very dirty or soaked with water, dirt particles or moisture can reach the air mass meter -G70- and falsify the detected air mass values. This will cause a loss of power, as the calculated injection quantities will be too low.*
- *Always use genuine air filter elements (same as original equipment).*
- *Use a lubricant (silicon-free) when installing intake hose.*
- *Secure all hose connections with genuine hose clips (same as original equipment): refer to ETKA.*
- *Check whether the water drain hose in the bottom section of the air cleaner is dirty or blocked (clean if necessary).*
- *Clean the air cleaner housing (top and bottom sections) to remove any salt residue, dirt and leaves (if necessary vacuum-clean).*
- *Check air mass meter and intake hose (engine intake side) for salt residue, dirt and leaves.*
- *Check intake duct as far as air filter element for dirt.*
- *When installing the air filter element make sure it is positioned centrally on the mounting in the bottom section of the air cleaner.*
- *Carefully fit the top section of the air cleaner on the bottom section of the air cleaner, without applying any force. When fitting the top section of the air cleaner, make sure it is NOT positioned on the air filter element at an angle. Note position of sealing lip on air filter element (to prevent air leaks).*
- *Then secure top section of air cleaner to bottom section.*

3.26 Bonnet arrester hook: lubricating

– Only grease the bonnet arrester hook at the points shown in the illustration -arrows-.

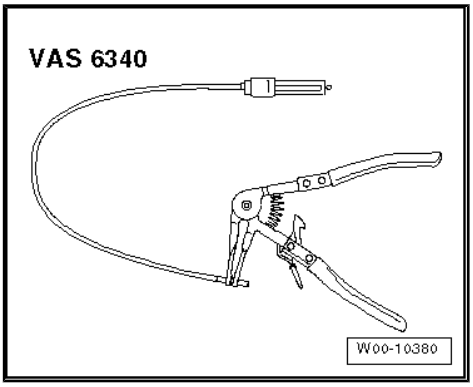
- Lubricant: “G 052 778 A2”



3.27 Engine cover panel: removing

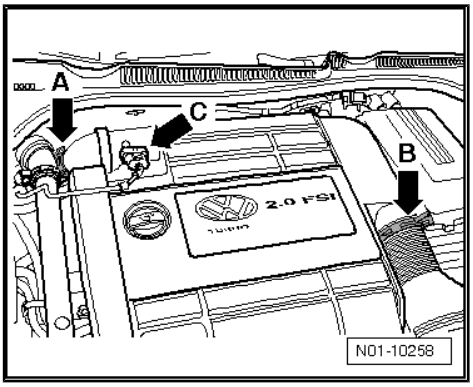
Special tools and workshop equipment required

♦ Hose clip pliers -VAS 6340-



4-cyl. petrol engine 2.0 ltr. (TFSI)

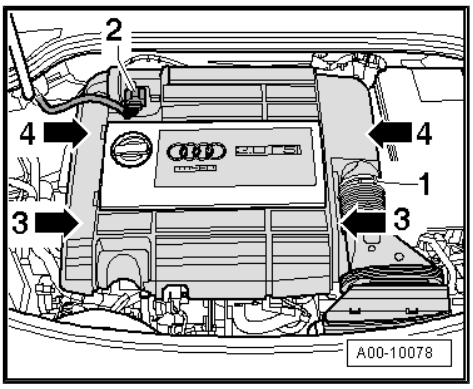
– Release clips at air mass meter -A- and at air intake hose -B- using hose clip pliers -VAS 6340- and push them back.



– Unplug air mass meter -2- and move connector to one side.

– Detach engine cover panel first at front -arrows 3-, then at rear -arrows 4-.

– To do so, reach under the sides of the cover.



Note

♦ *To install the engine cover panel, first align it at the four mounting points. Then use the flat surface of your hands to fit the cover onto the engine evenly, pressing downwards onto the four mounting points simultaneously.*

♦ *When installing the engine cover panel, make sure the rubber sleeve is properly seated between the air cleaner housing and the engine intake.*

4-cyl. petrol engine 2.0 ltr. TFSI

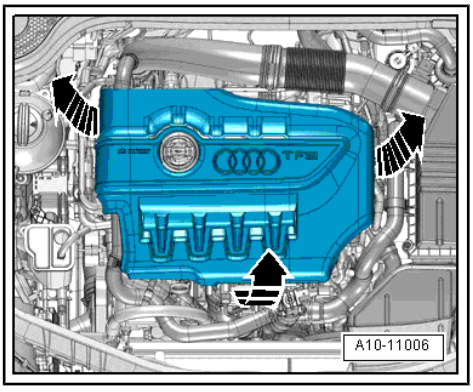
Removing

– Carefully pull off engine cover panel -arrows-. Do not jerk the cover panel away, and do not try to pull on one side only.

Installing

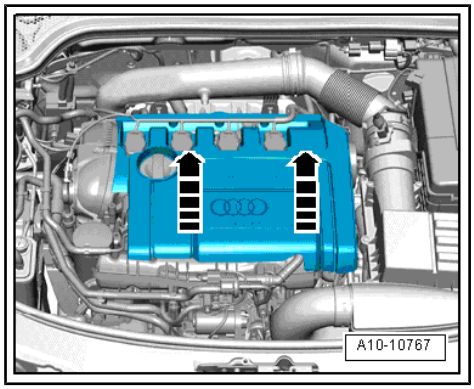
– Carefully press engine cover panel back into mountings.

– To avoid causing damage, do not bang the engine cover panel down with your fist or a tool.



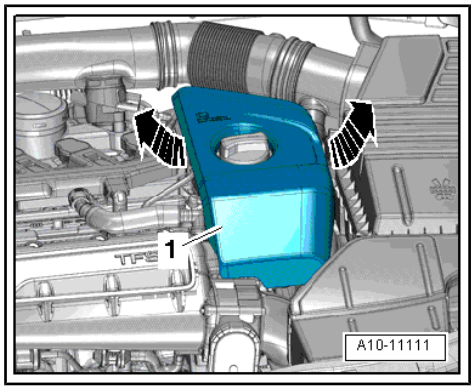
4-cyl. petrol engine 1.8 ltr. TFSI, 2.0 ltr. TFSI:

– Pull off engine cover panel -arrows-.



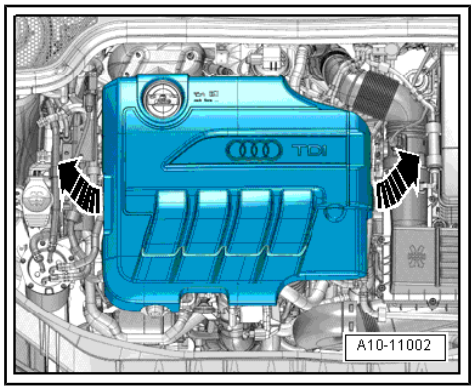
5-cyl. petrol engine 2.5 ltr. TFSI:

– Pull engine cover panel -1- off upwards -arrows-.



4-cyl. CR TDI engine:

– Pull off engine cover panel -arrows-.



3.28 Engine and engine compartment (from below): visual check for leaks and damage

– Carry out visual check as follows:
– Check engine and gearbox for leaks and damage.
– Check final drive, drive shaft boots and steering system for leaks and damage.

WARNING

Any faults found must be rectified (repair measure).

3.29 Engine oil: draining or extracting, changing oil filter

WARNING

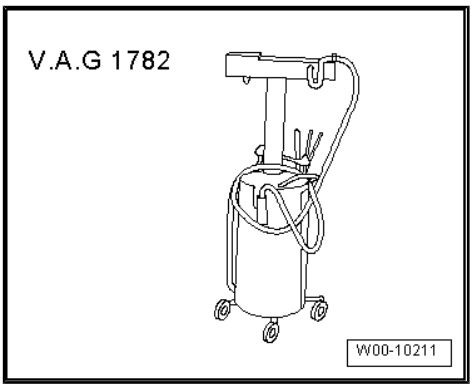
On some engine versions it is NOT permissible to draw off the engine oil with an oil extractor. Refer to maintenance table.

Note

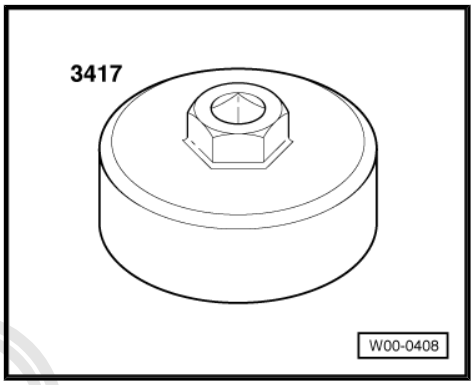
Oil should always be changed when engine is warm.

Special tools and workshop equipment required

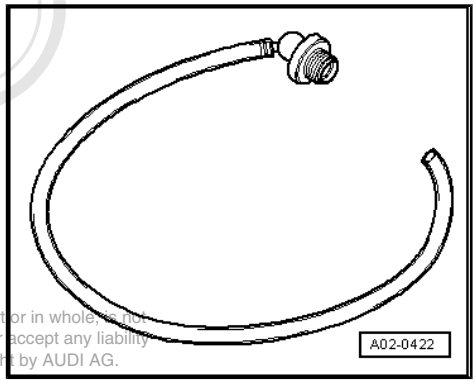
- Oil extractor -V.A.G 1782-



- Hazet strap wrench -2171-1-
- Oil filter tool -3417-



- Oil drain adapter -T 40057-



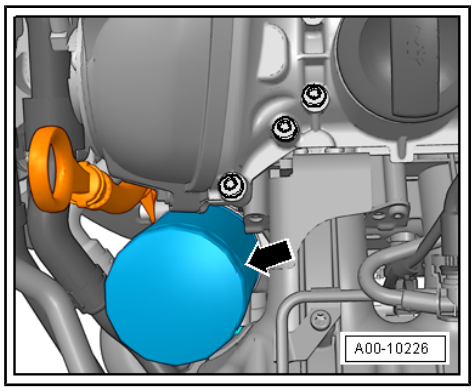
Note

Observe disposal regulations.

3.29.1 4-cyl. petrol engine 1.8 ltr. TFSI, 2.0 ltr. TFSI

– Remove noise insulation ⇒ page 23 .

– Use Hazet strap wrench -2171-1- or oil filter tool -3417- to slacken oil filter and then remove it.



Note

Observe disposal regulations.

– Open oil drain plug / draw off engine oil.

– Clean sealing surface for oil filter at engine.

– Lightly lubricate rubber seal.

– Screw in new filter and tighten.

– Screw in oil drain plug with new seal.

– Fill up with engine oil, specifications ⇒ page 43 .

Tightening torque	Nm
Oil filter	22
Oil drain plug	30

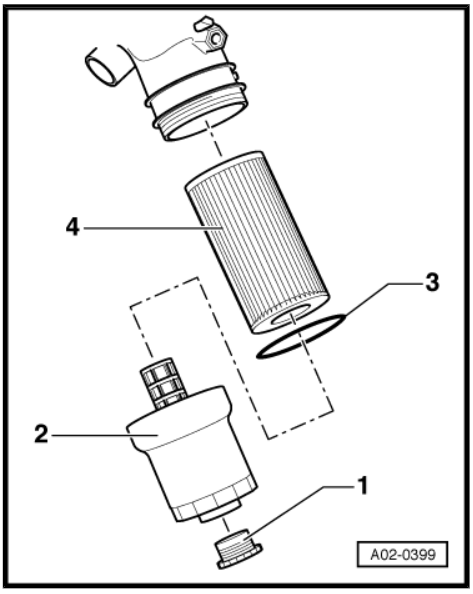
3.29.2 4-cyl. petrol engine 2.0 ltr. TFSI, 2.5 ltr. TFSI

– Remove noise insulation ⇒ page 23 .

Note

Before removing the oil filter you must drain engine oil from the filter so that it does not spill onto the engine or other components.

– Unscrew protective cap on base valve -1-.
– Detach hose with ball head from oil drain adapter -T 40057- and screw stud into base valve on oil filter housing -2- until you feel a slight resistance.
– Now fit hose with ball head onto stud and screw oil drain adapter -T 40057- on further as far as it will go; you should hear the drain valve click.
– Let oil filter drain.

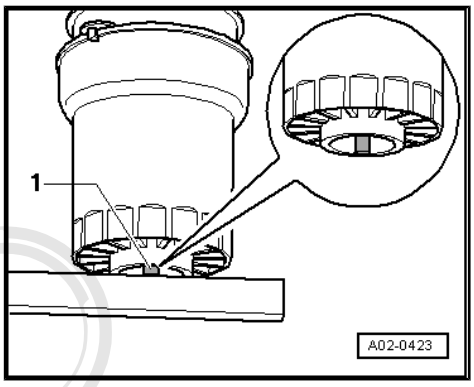


WARNING

Hot engine oil

– Open oil drain plug / draw off engine oil.

– Unscrew the oil drain adapter -T 40057- .
– Now check that base valve -1- is flush and level as shown in illustration (A02-0423).
– Now screw on the protective cap.
– Unscrew oil filter housing -2- using oil filter tool -3417- or 36 mm socket, e.g. socket, 36 mm -T10125- , and remove oil filter.

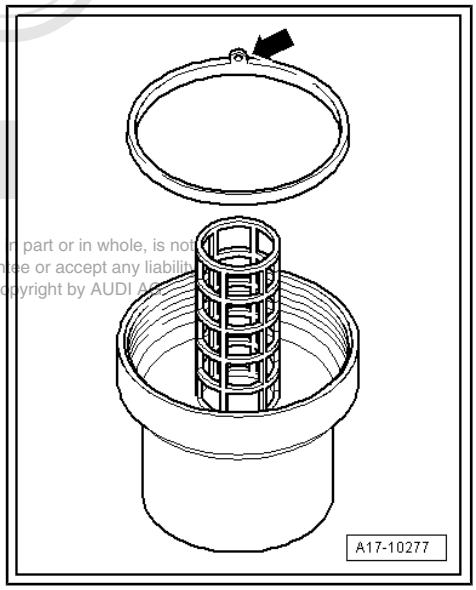


– Renew filter element -4- and seal -3-.

Note

- *Note position of service tab on seal -arrow-.*
- *Observe disposal regulations.*

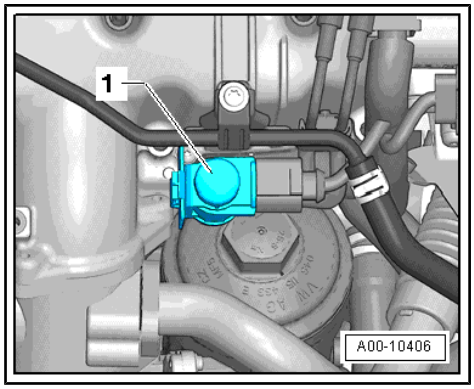
– Clean sealing surface on oil filter housing.
– Lightly lubricate rubber seal.
– Flat side of seal must face outwards.
– Screw in filter housing and tighten.
– Screw in oil drain plug with new seal.
– Fill up with engine oil, specifications ⇒ page 43 .



Tightening torque	Nm
Oil filter	25+5
Oil drain plug	30

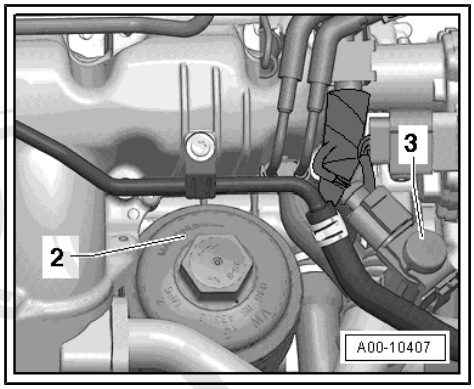
3.29.3 4-cyl. CR TDI engines:

– Remove noise insulation before draining oil via the oil drain plug ⇒ page 23 .



– Unclip vacuum control valve -1- from bracket and move clear to one side.

– Loosen sealing cap -2- using socket (32 mm) .



Note

Loosen sealing cap before draining/extracting oil, so that engine oil can flow out of oil filter housing.

– Open oil drain plug / draw off engine oil.

– Renew O-rings and oil filter element.

Note

Observe disposal regulations.

– Tighten sealing cap using socket (32 mm) .

– Clip vacuum control valve -1- into bracket.

– Screw in oil drain plug with new seal.

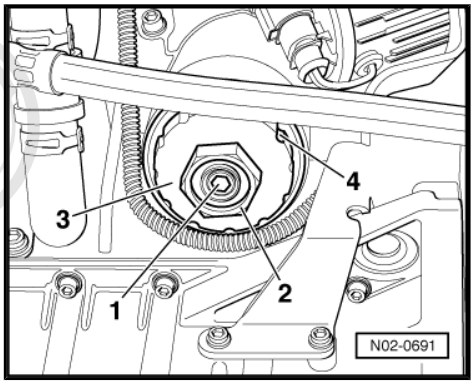
– Fill up with engine oil, specifications ⇒ page 43 .

Tightening torques	Nm
Oil drain plug	30
Sealing cap	25

3.29.4 6-cyl. petrol engine 3.2 ltr. MPI

– Remove noise insulation before draining oil via oil drain plug ⇒ page 23 .

– Drain oil via drain plug -1-.



Note

Observe disposal regulations.

– Loosen lower part of filter -3- on hexagon -2- or on circumference -4- and remove.
– Remove old filter element.
– Wipe filter housing with a cloth.
– Remove old O-ring.
– Use new O-ring and moisten with oil.
– Install new filter element and new O-ring.
– Tighten lower part of filter -3- on hexagon -2- to 30 Nm.
– Fit new seal to drain plug -1- and tighten to 10 Nm.

Tightening torque	Nm
Oil drain plug	30

3.30 Bonnet hinges: lubricating

– Spray bonnet hinge joints with lubricating spray G 052 778 A2.

3.31 Engine oil: filling up

Note

- *Please observe the engine oil capacities and oil grades listed in the maintenance table.*
- *Use only engine oil with the specification VW 507 00 on vehicles equipped with diesel particulate filter.*

Engines with turbocharger:

– When the engine oil and oil filter have been changed, it is important to note the following after starting the engine for the first time:

- The engine must only run at idling speed as long as the oil pressure warning lamp in the dash panel is on. Do not rev up! If the engine is revved up the turbocharger can be damaged or fail completely.
- The full oil pressure is not attained until the warning lamp has gone out, only then can the engine be revved up.

All models:

– Finally, check oil level ⇒ page 44 .

3.32 Engine: checking oil level

Note

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

– Pull out the dipstick, wipe with a clean cloth and insert again as far as it will go.

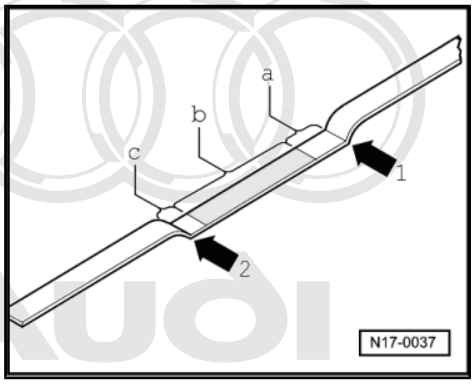
– Pull out the dipstick again and read off the oil level.

Markings on oil dipstick:

a - Oil must not be topped up.

b - Oil can be topped up. The oil level may rise as far as area -a- after topping up.

c - Oil must be topped up. The oil level is sufficient if it is somewhere in area -b- (grooved area) after topping up.



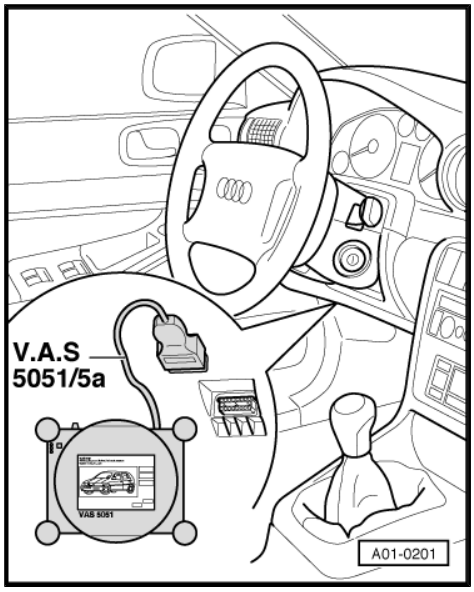
Note

The oil level must not be above marking -a- on the dipstick.

3.33 Navigation system: releasing eject button

– Carry out the following steps, one after the other.

- Connect VAS 5051 or 5052.
- Guided Functions
- Go to - Function / component selection
- Servicing
- J401 - Navigation system, lock / release eject button
- Follow the instructions shown on the screen.



3.34 Radio: activating anti-theft coding by entering fixed code number

The radio units are supplied with a fixed code. This means that each radio unit with anti-theft coding is programmed with its own code number. The fixed code is not activated by the factory. To enhance anti-theft protection, a radio card is no longer provided in the operating manuals for the radios and navigation systems.

The procedure for entering the radio code is no longer described in the operating manuals.

The anti-theft coding of the ready-to-use unit is only activated by entering the fixed code.

For radios chorus II+, concert II+, and symphony II+, enter the radio code as follows:

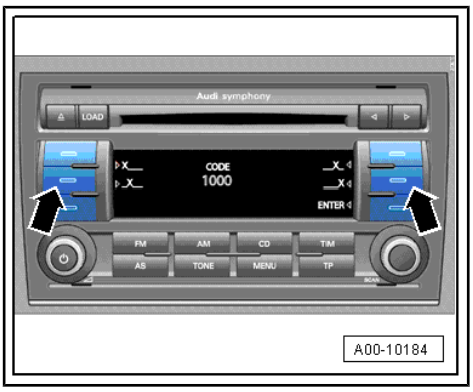
– Switch on the radio. The display will show "Code 1000".

– Repeatedly press the top left control button "X___" (arrow) until the first digit of the radio code appears in the display.

– Then enter the remaining three digits of the radio code using the other three control buttons.

– Press the control button for "ENTER". The radio coding is now completed.

– Dispose of the sticker with the radio code.



If the radio code is entered incorrectly at two consecutive attempts and the display shows "Code Safe 2", proceed as follows:

Leave the radio switched on for approx. 60 minutes. After 60 minutes the display will show "Code Safe / Code 1000" and the radio will switch off.

Enter the radio code again.

For the navigation system BNS 5.0 enter the radio code as follows:

– Switch on navigation system.

– Enter PIN via speller.

– Confirm entry with "OK".

– Dispose of the sticker with the radio code.

Note

- *Please inform the customer that the anti-theft coding can only be obtained from the dealership or workshop.*
- *Without the code, the radio is of no interest to potential thieves.*

3.35 Road test

To what extent the following can be checked depends on vehicle equipment and local conditions (urban/country).

– The following points must be checked during the road test:

- Engine: performance, misfiring, idling speed, acceleration
- Clutch: pulling away, pedal pressure, odours
- Gear selection: ease of operation, gear lever position
- Automatic gearbox: selector lever position, shift lock / ignition key lock, shift behaviour, instrument cluster display
- Brake pedal and handbrake: operation, travel and effectiveness, pulling to one side, 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

- Sliding/tilting sunroof: operation
- Cruise control system: operation
- Radio: quality of reception, interference
- Driver Information System (DIS): functions
- Air conditioner: operation
- Vehicle: moving off line when travelling straight ahead (level road)
- Imbalance: wheels, drive shafts
- Wheel bearings: noises
- Engine: hot starting behaviour
- Horn: checking

3.36 Wheel bolts: tightening to specified torque

3.36.1 Wheel bolts

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

Note

Ensure that wheel bolts are tightened in diagonal sequence to the following tightening torque:

Tightening torque	Nm
Wheel bolts	120

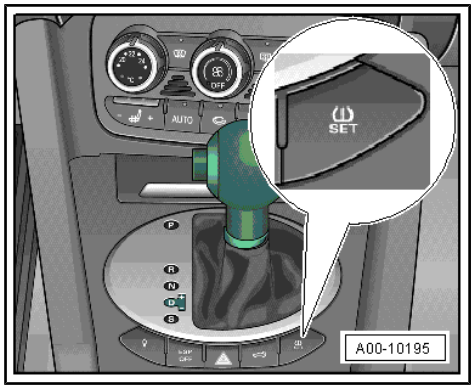
– Place puller and adapter back in vehicle tool kit after completing work.

3.37 Tyre pressure monitoring system: updating

Note

The system must be updated to store the new pressures following any change to the wheels, e.g. tyre pressures or changing or replacement of tyres.

– With ignition switched on and vehicle stationary, press and hold button for tyre pressure monitoring system -arrow- until tyre pressure warning lamp in instrument cluster flashes several times and an acoustic signal is heard.
– The tone indicates that the tyre pressure monitoring system has been updated.



3.38 Manual gearbox/final drive: checking oil level, topping up with oil if necessary

– Remove oil filler plug -arrow-.

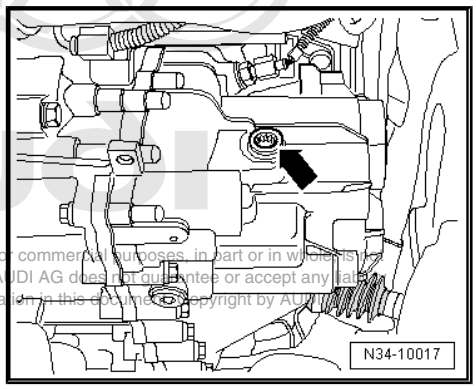
♦ Specification: oil level up to lower edge of filler hole

3.38.1 6-speed dual clutch gearbox

For notes on checking the oil level and changing the oil please refer to ⇒ Rep. Gr. 34 ; Checking gear oil level and topping up .

3.38.2 6-speed manual gearbox

Tightening torque	Nm
Oil filler plug (hexagon socket)	30
Oil filler plug (multi-point socket)	45



WARNING

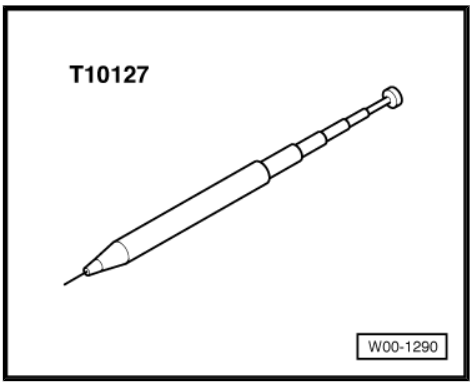
If the oil level is below the range specified, the gearbox must be checked for leaks (repair measure). It is then not sufficient to merely top up the oil.

– Refer to the current parts catalogue (ETKA) for correct gear oil specification.

3.39 Windscreen wiper/washer system: checking jet settings, adjusting jets if necessary

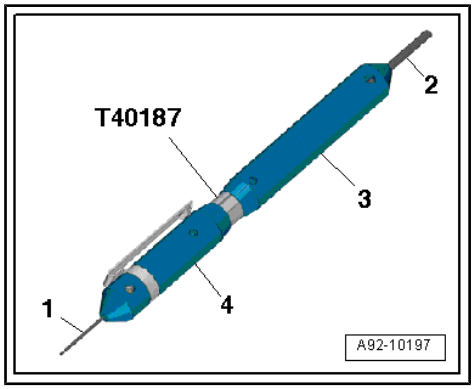
Special tools and workshop equipment required

♦ Washer jet adjusting tool -T10127- fitted with needle -3125/5A-



♦ or

- Washer jet adjusting tool -T40187- fitted with needle -3125/5A-

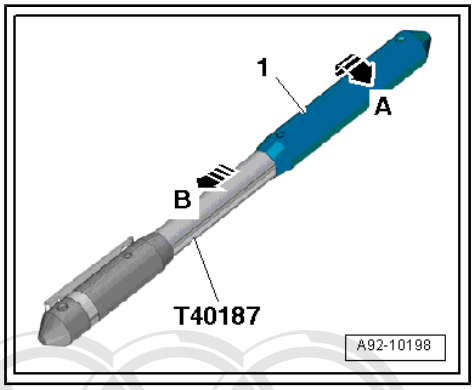


WARNING

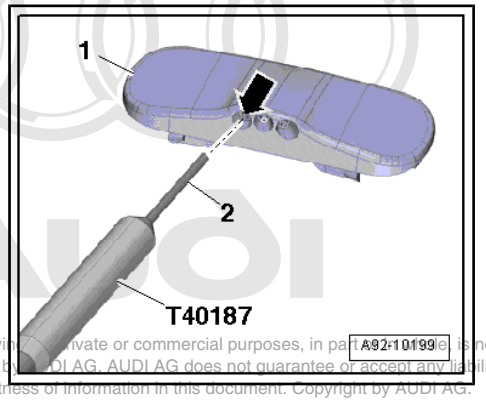
Risk of injury.

- *When you are not using the adjusting tool -T40187- , make sure that both sides of the tool are covered with the covers -3- and -4- and locked at all times.*
- *If one of the sides is not locked with the cover, the needle -3125/5A- -1- or the adjusting pin -2- can cause injury.*
- *When opening one of the sides, always make sure the opposite side of the tool does not point to your hand.*

– Release long cover -1- on adjusting tool -T40187- -arrow - and slide it back -arrow B-.



– Fit adjusting pin -2- onto each jet -arrow- in washer jet unit -1- and aim at the marks made on the windscreen; adjust as necessary.
– If the spray pattern cannot be set as specified, clean the obstructed washer jet.



WARNING

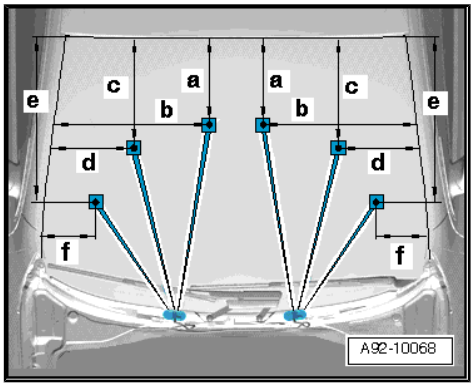
Risk of injury.

- *Always cover and lock the adjusting pin with the cover after using it.*

Note

Never use pins or other sharp objects as these will damage the water channels in the jet.

Setting



Note

The specified settings allow for the motion of the vehicle when driving. When the vehicle is stationary the jets will spray at a slightly different angle.

– Mark the six points on the glass using a water-soluble marker pen.

Dimensions in mm	Driver's side	Passenger's side
-a- =	300	300
-b- =	600	600
-c- =	320	320
-d- =	335	335
-e- =	495	495
-f- =	175	175

– Use adjusting tool -T10127- to aim the individual jets at the points marked.

– If the spray pattern cannot be set as specified, clean the obstructed washer jet.

Cleaning washer jet:

– Remove washer jet ⇒ Rep. Gr. 92 .

– Rinse washer jet with clean water in opposite direction to normal flow.

– To remove any remaining obstructions, blow out with compressed air only (in opposite direction to normal flow).

– If the spray pattern still cannot be set as specified, renew the affected washer jet.

3.40 Headlight washer system: checking jet settings

The headlight washer jets are set by the manufacturer and therefore do not need to be adjusted.

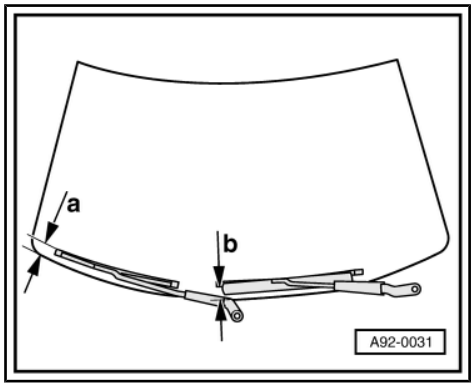
3.41 Wiper blades: checking park position and checking for damage

3.41.1 Park position for windscreen wiper blades

Note

- *Every 2nd time the windscreen wiper motor is switched off, it will return the wiper arms slightly past the end position, which ensures that the lip of the wiper blade is tipped the other way.*
- *To do so, the wiper motor will first move the wiper arms down and then up again just a little to their final position. You must not adjust or check the wiper crank while the wiper arms are in this raised position.*
- *Instead, carry out adjustment or checks only after the wiper motor has moved the wiper arms directly to their normal final position (not raised); if necessary let wipers carry out a brief wipe.*

– Switch windscreen wipers on and off and let them return to their park position.
– Switch off ignition.
– Check for the following distances between tips of wiper blades and cowl panel trim of plenum chamber at bottom edge of windscreen:



- Distance a = 5 mm + 10
- Distance b = 24 mm + 10

– If necessary adjust wiper arm ⇒ Rep. Gr. 92 .

Note

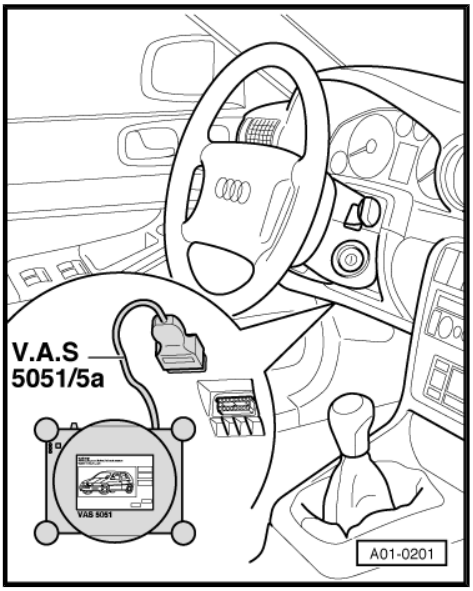
These figures specify the distance between the tip of the wiper blades and the black cowl panel trim at the bottom edge of the windscreen. The layout is symmetrically opposite for right-hand drive vehicles.

3.42 Service interval display: resetting or adapting

3.42.1 Service interval display: resetting (vehicles up to model year 2007)

– Carry out the following steps, one after the other.

- Connect VAS 5051 or 5052.
- Guided Fault Finding/Guided Functions
- Go to - Function / component selection
- Servicing
- Combi processor, Resetting ESI
- Follow the instructions shown on the screen.



Note

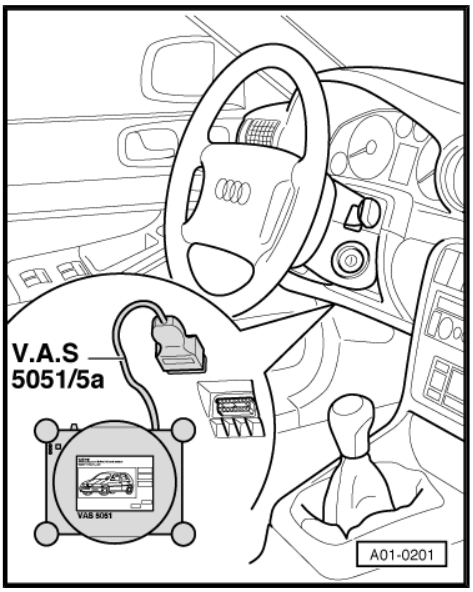
- *Please note function description of Guided Fault Finding/ Guided Functions.*
- *ESI = Extended Servicing Intervals*

3.42.2 Service interval display: resetting (vehicles from model year 2008 onwards)

Note

From model year 2008 onwards, all vehicles are equipped with the same advanced maintenance concept as the Audi A5.

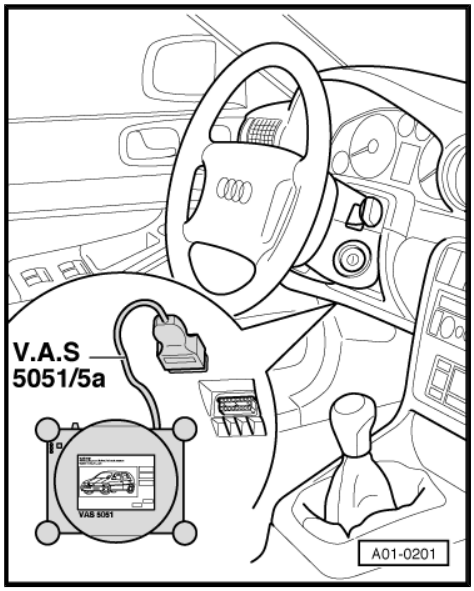
– Carry out the following steps, one after the other.
- Connect VAS 5051 or 5052.
- Guided Functions
- Servicing
- Follow the instructions shown on the screen.



3.42.3 Oil grade: adapting

– Carry out the following steps, one after the other.

- Connect VAS 5051 or 5052.
- Also use K-lead adapter VAS 6017B.
- Guided Fault Finding/Guided Functions
- Go to - Function / component selection
- Servicing
- Combi processor, Adapting oil grade
- Follow the instructions shown on the screen.



Note

- *The oil grade must be adapted when changing the setting from Inspection Service to LongLife Service or vice versa.*
- *Inspection Service = oil grade 1*
- *LongLife Service = oil grade 2*
- *ESI = Extended Servicing Intervals*
- *Please note function description of Guided Fault Finding/ Guided Functions.*

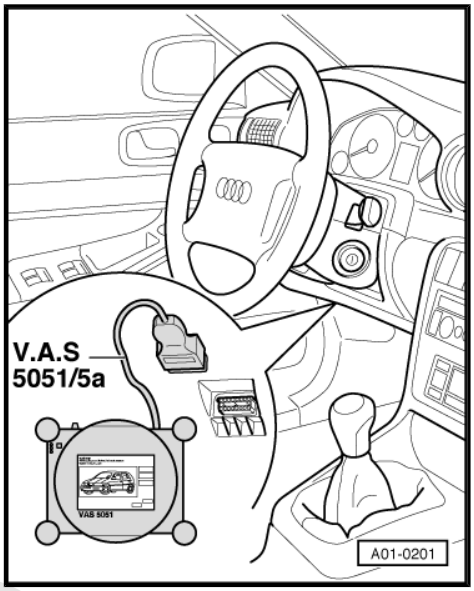
3.42.4 Maximum values: adapting

Note

Only applies up to model year 2007.

– Carry out the following steps, one after the other.

- Connect VAS 5051 or 5052.
- Guided Fault Finding/Guided Functions
- Go to - Function / component selection
- Servicing
- Combi processor, Adapting max values ESI
- Follow the instructions shown on the screen.



Maximum values for LongLife service

Minimum mileage in km	15000
Maximum mileage in km	30000
Maximum time interval in days	730

Maximum values for Inspection Service

Minimum mileage in km	15000
Maximum mileage in km	15000
Maximum time interval in days	365

Note

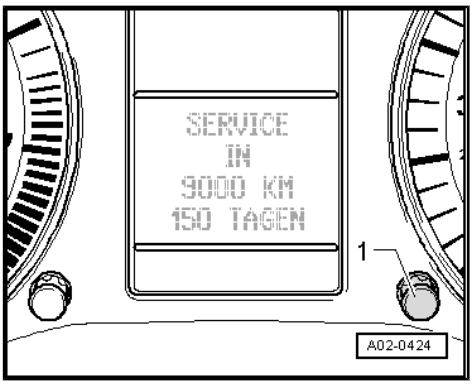
- *ESI = Extended Servicing Intervals*
- *Please note function description of Guided Fault Finding/ Guided Functions.*

3.42.5 Service interval display: resetting (after completing a Service) without the use of VAS 5051/5052

Note

If the service interval display is reset manually via the dash panel insert it will automatically be set to a fixed interval.

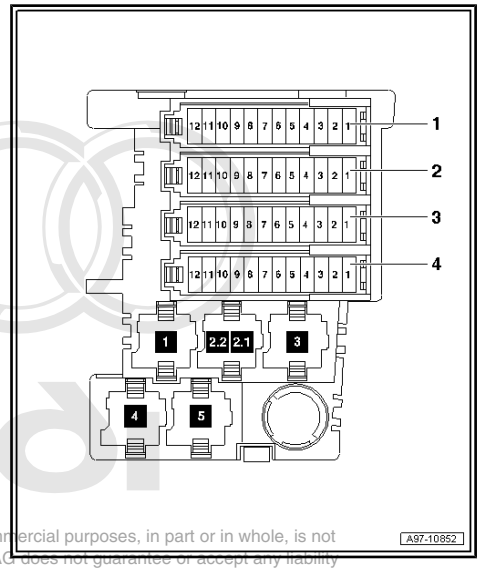
– Switch on ignition.
– When button 1 is pulled out the message “SERVICE” will be displayed.
– Within the next 5 seconds pull the button out again until the message “SERVICE IN .... KM... DAYS” appears.
– The service interval display has been reset.



3.43 Fuse for headlight washer system: fitting

– Fuse for headlight washer system: 30 amp fuse is provided in fuse carrier 1, socket 1, in electronics box in engine compartment.

– Fit fuse in fuse carrier 1, socket 6, in electronics box in engine compartment.



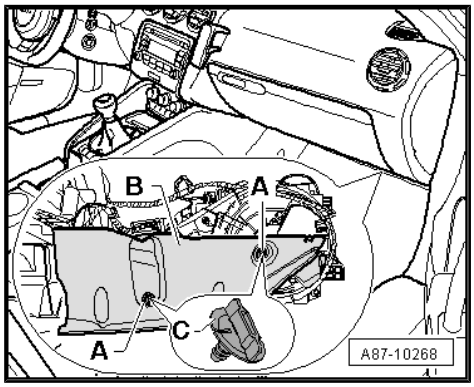
3.44 Dust and pollen filter: removing and installing

Note

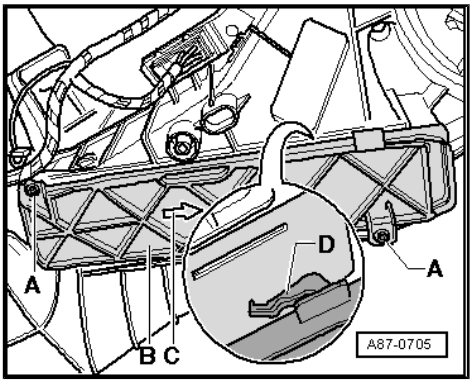
- *The dust and pollen filter is available in different versions with and without active charcoal filter insert ⇒ Parts catalogue . The Audi TT with air conditioner is currently fitted with a dust and pollen filter with active charcoal filter insert.*
- *Clean the area around the dust and pollen filter in the air conditioner unit before fitting a new filter.*
- *On vehicles with special equipment for driving schools you may have to remove the pedal cluster (some driving school pedals have detachable connections ⇒ Fitting instructions ; Equipment for driving schools .)*

– Remove screws -A- and take out insulating mat -B-.

– Cover floor carpeting beneath dust and pollen filter with paper.



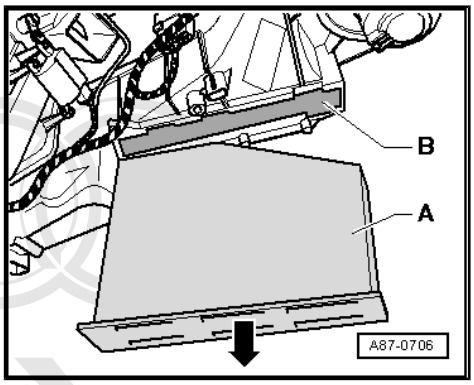
– Push cover -B- in direction of arrow -C- and then remove cover.



Note

If the tabs -D- no longer hold properly, the cover -C- can be secured with bolts -A-.

– Take dust and pollen filter -A- out of aperture in air conditioner unit -B-.
– Clean aperture in air conditioner unit -B- (e.g. with a vacuum cleaner) after removing the dust and pollen filter.



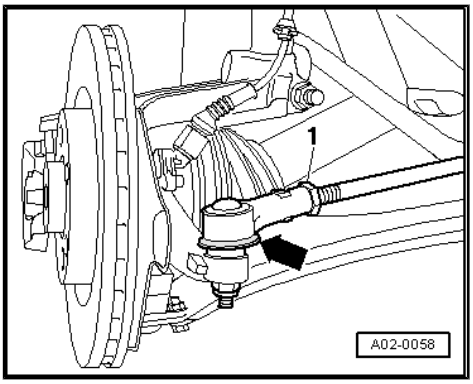
3.45 Track rods, track control links, swivel joints, guide links and drive shafts on front and rear axle: checking boots, play, and secure fit

Note

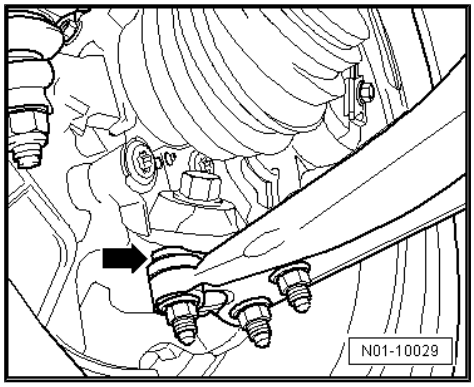
The test must be carried out with vehicle raised on a lifting platform (wheels free to move).

– Check play by moving the track rods and wheels.

♦ There should be no play.



– Check that boots -arrow- are not damaged and are seated correctly.
– Check boots -arrow- are not damaged and are seated correctly.
– Also check the rear side of the protective boots using a mirror.
– Check play at supporting joints -arrow-.

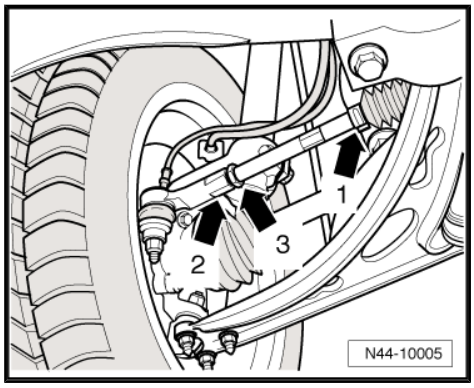


– Check boots of drive shafts.

Check boots of steering box -arrow 1- for damage.

Note

Disregard arrows -2- and -3-.



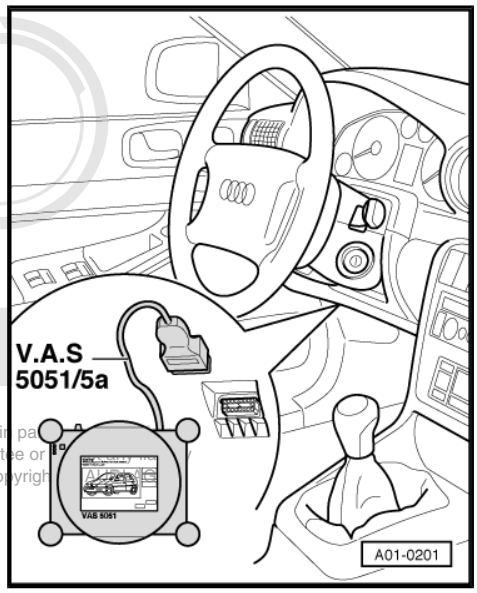
3.46 Transport mode: deactivating (using vehicle diagnostic, testing and information system -VAS 5051/5052-)

The transport mode serves to maintain the vehicle's ability to start (battery power level). The transport mode limits the extent to which the battery discharges. When the vehicle is in transport mode, many functions are restricted or no longer available at all, e.g. CD changer and radio are deactivated.

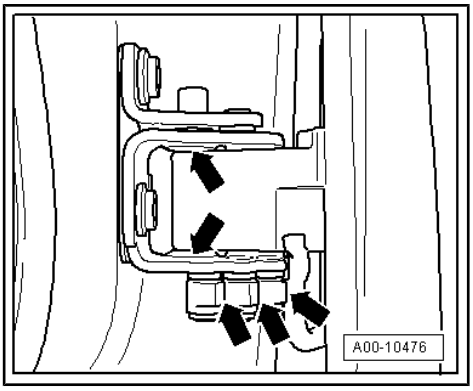
Deactivate transport mode via Guided Fault Finding or Guided Functions.

– Carry out the following steps, one after the other.

- Connect VAS 5051 or 5052.
- Vehicle Self-Diagnosis
- Collective services
- Energy manager, deactivate transport mode



3.47 Door arresters, door hinges and lock cylinders: lubricating



– Only grease the door arresters at the points shown in the illustration -arrow-.

♦ Lubricant: “G 052 778 A2”

– Lubricate the lock cylinders.

♦ Lubricant: “G 052 778 A2”

3.48 Transport locks: removing locking elements for front and rear suspension struts

Two different types of transport locks are used. (Spring inserts at the front; arrester blocks at the rear.)

– Relieve the load on the coil springs (e.g. by raising vehicle on a lifting platform).

Note

♦ *It is not necessary to remove the wheels.*

♦ *Ensure that surface of springs is not damaged.*

– Pull the locking elements out of the springs.

Note

After removing the spring inserts/spacers and greasing the cap for the suspension strut protective tube, make sure that the boot is correctly seated in the suspension strut mounting and at the shock absorber tube.

3.49 Underseal: visual check for damage

– When performing visual check, check underbody, wheel housings and side members.

WARNING

Any faults found must be rectified (repair measure).

3.50 Plenum chamber: checking and cleaning water drain

– Remove plenum chamber cover.

Note

- *Visually inspect plenum chamber for dirt (leaves, etc.).*
- *Clean plenum chamber and water drain if there is any dirt.*

Removing plenum chamber cover ⇒ Rep. Gr. 50 ; Removing and installing plenum chamber cover

3.51 Winter tyres (factory-fitted)

Note

- *On vehicles supplied from the factory with winter tyres, check the tyre pressures as part of the Delivery Inspection.*
- *The warning sticker indicating the maximum permissible speed for the tyres must be affixed in a position where it is immediately visible to the driver.*

3.52 Toothed belt for camshaft drive: renewing

Vehicles with 4-cyl. petrol engine 2.0 ltr. TFSI:

– Removing and installing toothed belt: ⇒ Rep. Gr. 13

Vehicles with 4-cyl. diesel engine 2.0 ltr. TDI:

– Removing and installing toothed belt: ⇒ Rep. Gr. 13

3.53 Clock: setting

Radio-controlled clock

Note

The clock can function as a radio-controlled quartz clock or as a normal quartz clock.

If the radio-controlled clock receives a valid radio signal it will automatically switch to the operating mode “radio-controlled quartz clock”. The signal reception symbol (radio tower with radio waves) will then be shown in the display. If the clock does not receive a valid signal it will automatically switch to the “quartz clock” mode after three days; the signal reception symbol will then disappear.

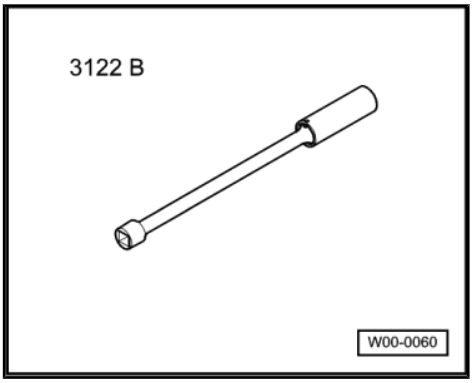
3.54 Spark plugs: renewing

Note

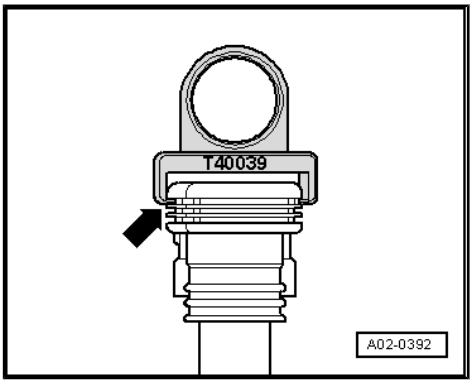
Always observe the relevant environmental regulations for disposal.

Special tools and workshop equipment required

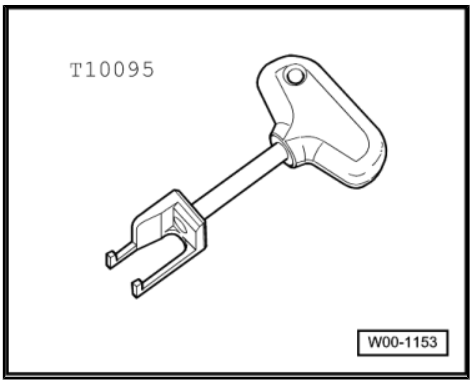
- Spark plug socket and extension -3122B-



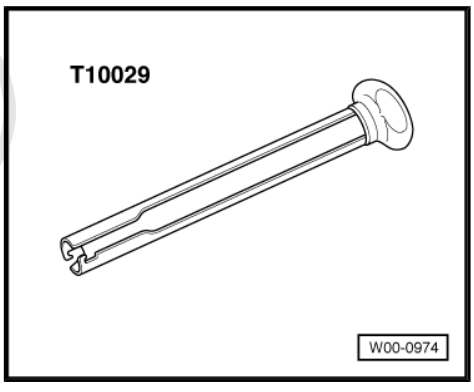
- Puller for pencil-type ignition coils -T40039-



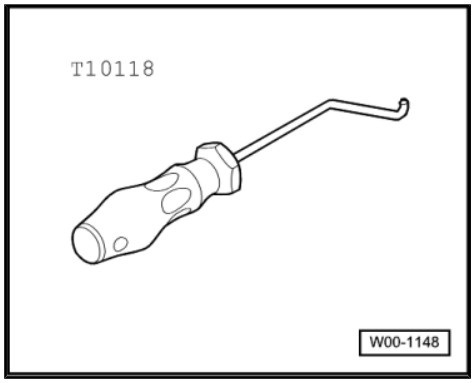
- Puller -T10095/a-



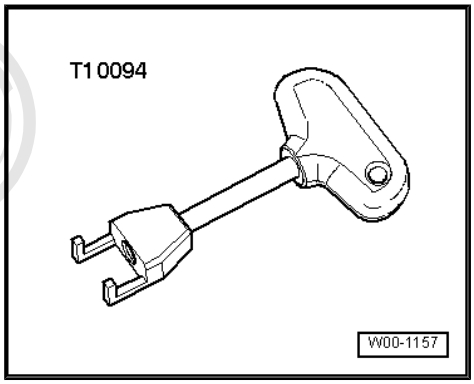
- Assembly tool -T10029-



- Assembly tool -T10118-

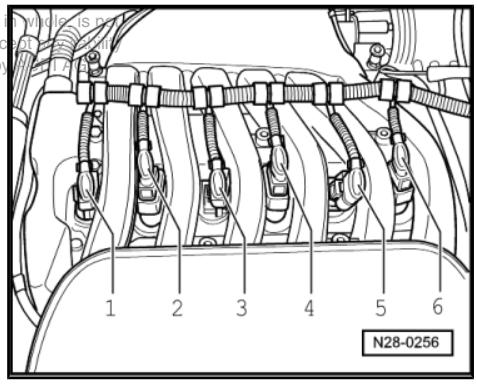


- Puller -T10094 A-

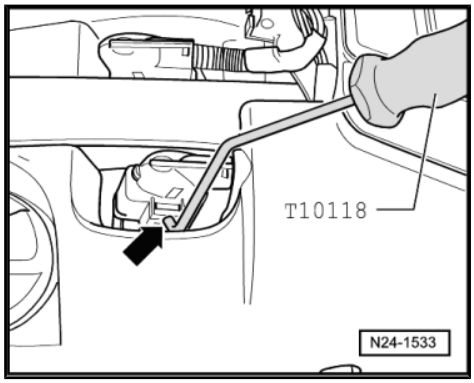


3.54.1 6-cyl. petrol engine 3.2 ltr. MPI

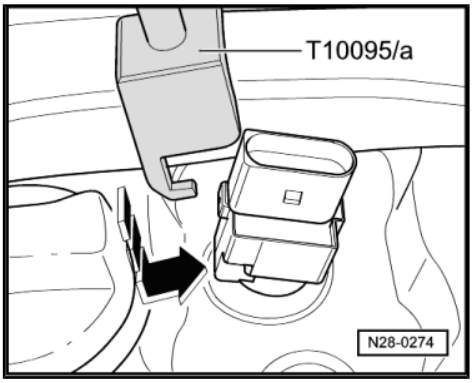
– Switch off ignition.
– Detach connectors for ignition coils with output stage -arrows-.



– Release retaining tabs on connectors using assembly tool -T10118- .
– Place assembly tool -T10118- on retainer tab -arrow- and then carefully pull off the connector.

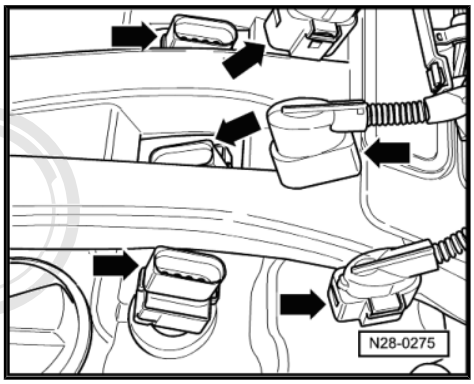


– On straight (not rounded) side of connector, push puller -T10095/a- onto ignition coil with output stage in direction of arrow.
– Pull ignition coil with output stage off upwards in a straight line.



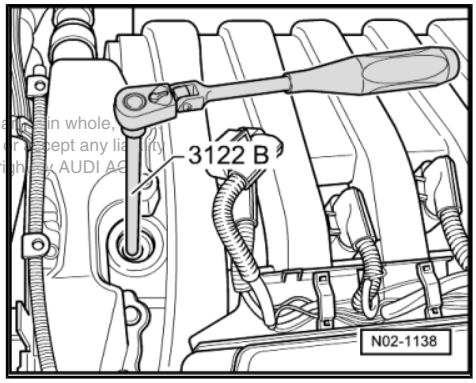
– Note installation position of ignition coils with output stage relative to connectors before you remove the coils -arrows-.

Straight side of connector must fit onto straight side of ignition coil with output stage.



– Unscrew spark plugs using spark plug socket and extension -3122B- .
– Install new spark plugs using spark plug socket and extension -3122B- .

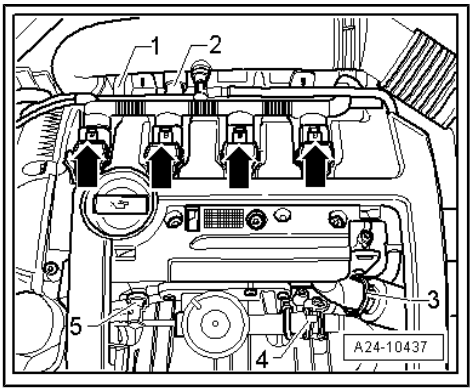
Tightening torques	Nm
Spark plugs in cylinder head	20



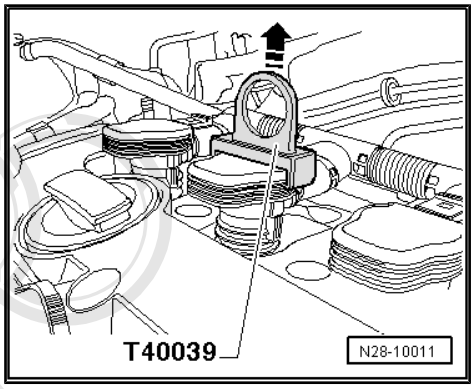
– Assembly is conducted in reverse sequence.

3.54.2 4-cyl. petrol engine 1.8 ltr. TFSI, 2.0 ltr. TFSI

– Switch off ignition.
– Release electrical connectors -arrows- and pull all connectors off ignition coils simultaneously.

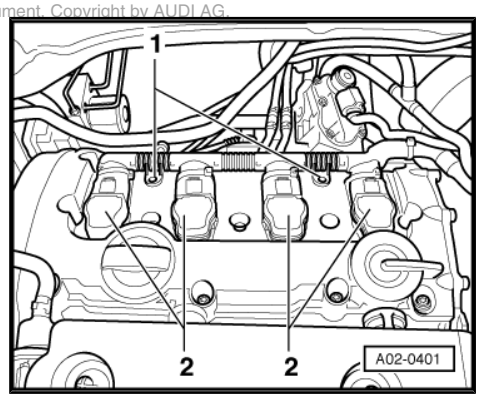


- Using puller -T40039- , pull all ignition coils out of spark plug apertures.
- Remove spark plugs using spark plug socket and extension -3122 B-.
- Install new spark plugs with spark plug socket and extension -3122 B-.
- Fit all ignition coils loosely into spark plug apertures.
- Align ignition coils with electrical connectors and plug all connectors simultaneously onto coils.
- Push ignition coils evenly onto spark plugs by hand (do NOT attempt to knock in coils with any kind of tool).



3.54.3 4-cyl. petrol engine 2.0 ltr. TFSI

- Switch off ignition.
- Remove engine cover panel ⇒ page 36 onwards.
- Remove both bolts -1-.
- Push connector -2- towards pencil-type ignition coil, press catch down by hand and pull off connector.
- Use puller -T40039- to detach pencil-type ignition coils from spark plugs.
- Remove spark plugs using spark plug socket and extension -3122 B-.
- Install new spark plugs with spark plug socket and extension -3122 B-.



Note

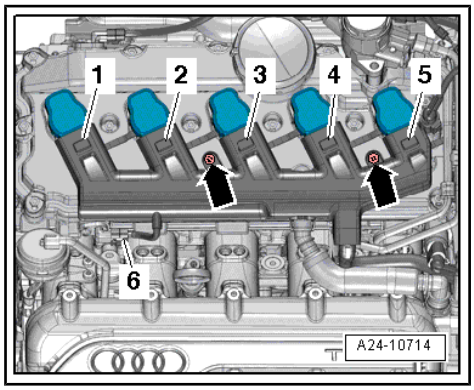
Press pencil-type ignition coils into the openings provided on the cylinder head cover by hand.

- Fit the ignition coils and turn them slightly - make sure you feel them engage.

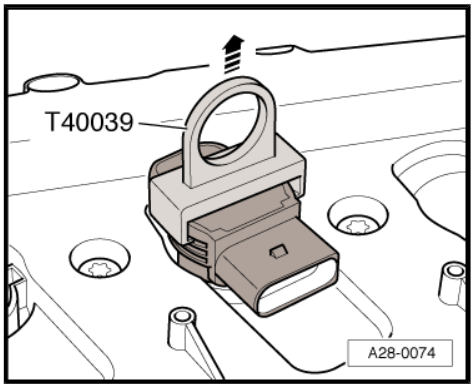
Tightening torques	Nm
Spark plugs in cylinder head	30

3.54.4 5-cyl. petrol engine 2.5 ltr. TFSI

- Switch off ignition.
- Unplug electrical connector -6- for Hall sender 3 -G300- .
- Remove both bolts -arrows-.



– Release electrical connectors and pull connectors off ignition coils -1 ... 5- simultaneously.
– Slide puller -T40039- onto ignition coil with output stage and pull off ignition coil -arrow-.
– Remove spark plugs using spark plug socket and extension -3122 B-.
– Install new spark plugs with spark plug socket and extension -3122 B-.



Installing:

– Fit all ignition coils loosely into spark plug apertures.
– Align ignition coils with electrical connectors and plug all connectors simultaneously onto coils.
– Push ignition coils evenly onto spark plugs by hand (do NOT attempt to knock in coils with any kind of tool).
– Secure guide for ignition coil wiring to cylinder head cover.

Note

Press pencil-type ignition coils into the openings provided on the cylinder head cover by hand.

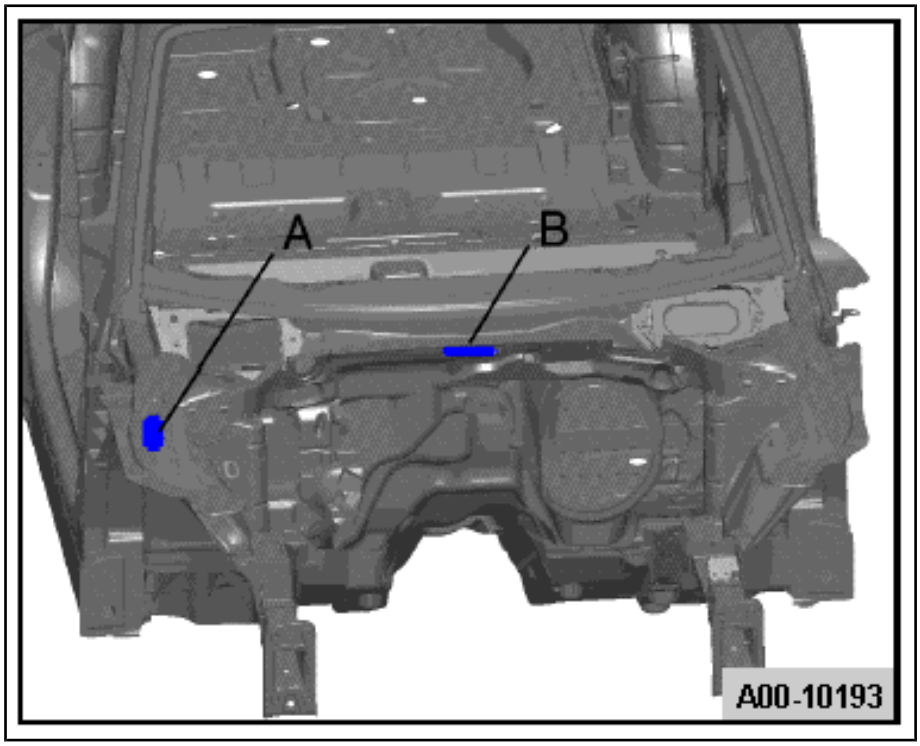
– Fit the ignition coils and turn them slightly - make sure you feel them engage.

Tightening torques	Nm
Spark plugs in cylinder head	30
Securing bolts for wiring guide	5

4 Type plate, vehicle identification number

The vehicle identification number -B- is stamped on the cross-piece section of the plenum chamber.

The type plate -A- is secured to the wing mounting flange (right-side).



Information encoded in vehicle identification number:

WAU	ZZZ	8J	Z	7	A	000 001
Manufacturer's mark	Filler characters	Type	Filler characters	Model year 2007	Production location	Serial number

Vehicle data sticker

The vehicle data sticker can be found in the customer's Service Schedule, and also on the vehicle in the spare wheel well or on the floor panel.

The sticker contains the following vehicle data:

1 - Vehicle identification number

2 - Model identification code/ production control number

3 - Model code

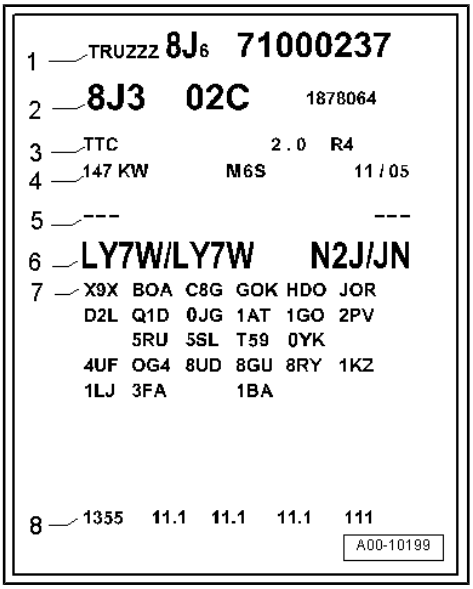
4 - Engine output/ emissions standard/ gearbox

5 - Engine and gearbox code letters (not specified on some export models)

6 - Paint number/ interior equipment identification number

7 - Identification numbers for optional extras

8 - Unladen weight/ fuel consumption/ CO_2 emission level (not specified on some export versions)



Engine code and engine number

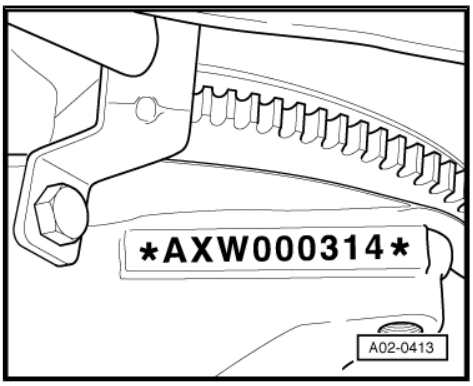
Note

The "engine code" is also listed on the vehicle data stickers in the Service Schedule and in the spare wheel well or on the floor panel.

There is also a sticker on the toothed belt guard giving the engine code and engine number.

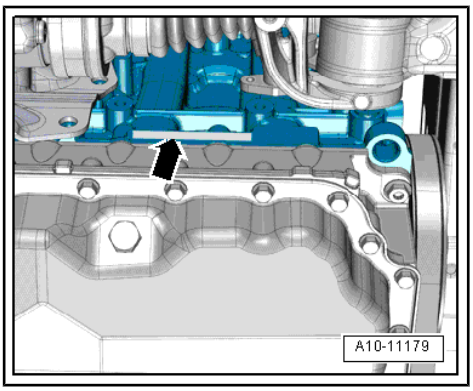
4-cylinder engines:

The engine number ("engine code" and "serial number") is at the front of the joint between engine and gearbox.



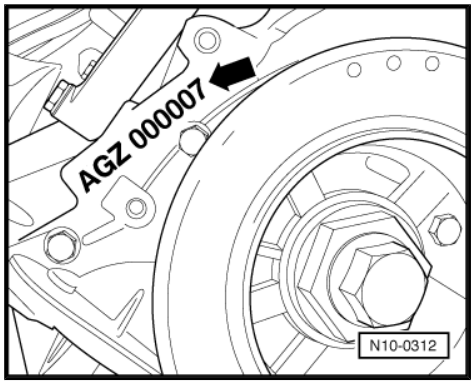
5-cylinder engines:

The engine number ("engine code letters" and "serial number") is located at the rear of the joint between cylinder block and sump (top section) -arrow-.



6-cylinder engines:

The engine number and engine code -arrow- are stamped onto cylinder block, next to vibration damper.



5 Lifting the vehicle

WARNING

- *Before driving on to a lifting platform ensure there is sufficient clearance between low-mounted vehicle components and the lifting platform.*
- *To avoid damage on TTS or S line vehicles, we recommend using the drive-on ramps T 40081 if the support arms of the lifting platform are too thick.*
- *Before driving a vehicle onto a lifting platform it must be ensured that the vehicle weight does not exceed the permissible lifting capacity of the platform.*
- *To avoid damaging the vehicle underbody and to prevent the vehicle from tipping, the vehicle should only be lifted at the points shown in the illustration.*
- *Never start engine and engage gear with vehicle lifted, so long as even one driven wheel has contact with the floor. There is a risk of accident if this is not observed.*
- *If work is to be performed under the vehicle, it must be securely supported by suitable stands.*

Trolley jack

Always use suitable rubber or wooden blocks to avoid damage.

A trolley jack may only be applied at the lifting points as illustrated.

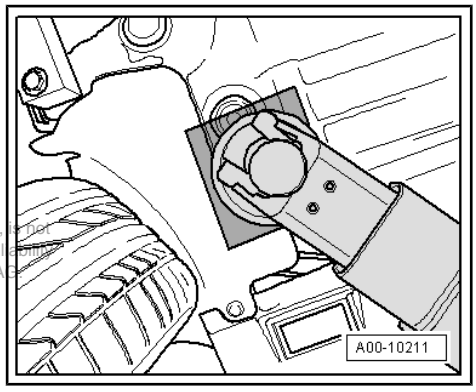
On no account should vehicle be lifted at engine sump, gearbox or on front or rear axle, as this may cause serious damage.

Lifting points for lifting platform and trolley jack

Front:

Lifting point (front):

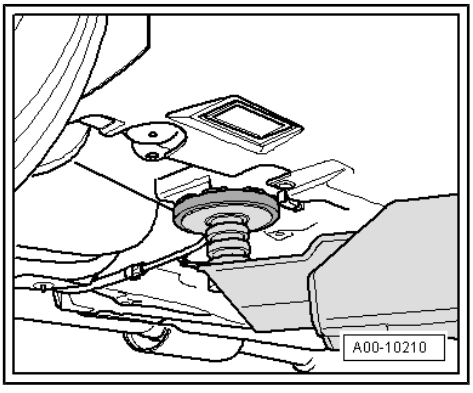
On longitudinal floor panel reinforcement below marking.



Rear:

Lifting point (rear):

On aluminium casting in front of rear axle mounting



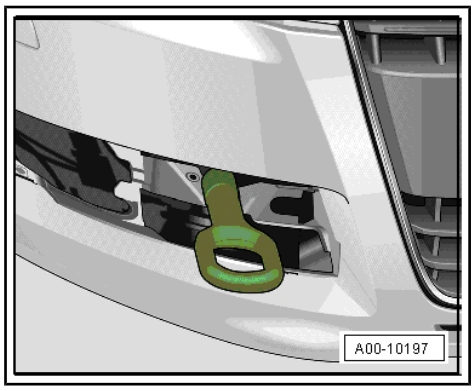
6 Tow-starting/towing

– Attach tow rope or tow bar only to the following towing eyes:

Front towing eye

– Open cover.

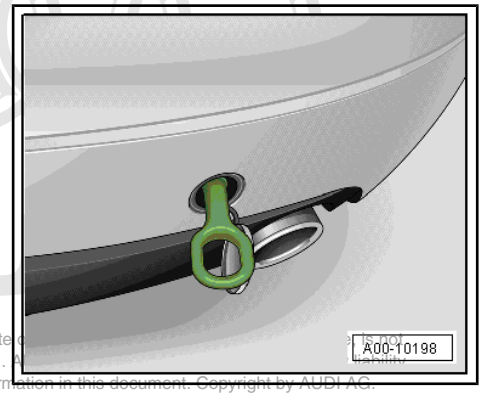
Screw in towing eye by hand and tighten ANTI-CLOCKWISE with wheel bolt spanner.



Rear towing eye

The rear towing eye is located below the rear bumper (right side).

– Screw in towing eye by hand and tighten ANTI-CLOCKWISE with wheel bolt spanner.



Tow-starting/ towing the vehicle

Note

- *Tow-ropes or bars must only be attached to aforementioned towing eyes.*
- *The tow rope should be slightly elastic to reduce the risk of damage to both vehicles. It is advisable to only use synthetic fibre ropes or ropes of similar elastic material. However, it is safer to use a tow bar.*
- *Always avoid excessive towing forces and do not jerk. During towing operations on unsurfaced roads there is always a danger that the attachment parts will be over-stressed and damaged.*
- *The vehicle should only be tow-started if it is not possible to start the engine using jump leads.*

If the vehicle has to be towed or tow-started, please note the following points:

- Legal regulations concerning towing must be observed.
- Both drivers must be familiar with towing procedures. Inexperienced drivers should not attempt to tow-start or tow.
- When using a tow rope, the driver of the towing vehicle must engage the clutch very gently when moving off and changing gear.
- The driver of the vehicle being towed must ensure that the tow rope is always taut.
- Both vehicles must switch on their hazard warning lights, unless otherwise specified by local regulations.
- The ignition must be switched on so that the steering wheel is free and the turn signals, horn and windscreen wiper and washer system can be used.
- Because the brake servo only works when the engine is running, considerably more pressure is required on the brake pedal when the engine is not running.
- As power-assisted steering does not work when the engine is not running, more force is required to turn the steering wheel when the engine is off.
- If there is no lubricant in the manual or automatic gearbox, the vehicle must be towed with the driven wheels raised off the ground.

Important notes on tow-starting:

In general it is not recommended to tow-start vehicles. Instead you should use jump leads.

There are several reasons why tow-starting should be avoided:

- Tow-starting involves a high risk of accidents, e.g. collision with towing vehicle.
- On vehicles with petrol engine, unburnt fuel could enter the catalytic converter and cause damage.

- For technical reasons, it is not possible to tow-start a vehicle with an automatic gearbox.

If you should decide to tow-start although it is not recommended, please note the following:

– Before moving off, engage 2nd or 3rd gear, press clutch pedal and hold.

– Switch on ignition.

– When both vehicles are moving, release clutch pedal.

– As soon as the engine starts, depress clutch and move gear lever to neutral to avoid running into the towing vehicle.

Note

Vehicles with a catalytic converter (petrol engines only) must not be tow-started over a distance of more than 50 m if the catalytic converter has already reached operating temperature. Otherwise, unburnt fuel may enter the catalytic converter and cause damage.

When towing vehicles with automatic gearbox, please also note the following:

- Selector lever must be in position “N”.
- Do not tow vehicle at a speed of more than 50 km/h.
- The maximum towing distance is 50 kilometres.

If towing over greater distances, the vehicle must be lifted at the front.

Reason: When the engine is not turning the gearbox oil pump will not work - the gearbox will therefore not be adequately lubricated for higher speeds or longer distances.

When using a breakdown vehicle, the vehicle can only be towed with the front wheels raised.

Reason: If vehicle is towed when raised at rear, the drive shafts will turn backwards. As a result, the planetary gears in the automatic gearbox will then turn at such high speeds that the gearbox will be severely damaged in a short time.

Note

If it is not possible to tow the vehicle normally, it must be transported by a special transporter or trailer. This also applies to distances greater than 50 kilometres.

7 Vehicle tests carried out as part of inspection services and maintenance

We recommend using the dialogue receipt and inspection unit VAS 5000 and the performance test stand V.A.G 1858 for the vehicle tests.

Brake test

For information on carrying out brake tests on front-wheel drive and four-wheel drive vehicles refer to the appropriate "Brake system" workshop manual.

Performance test

Please carry out the performance tests on the performance test stands recommended by Audi. These performance test stands take into account the corrective figures for automatic gearbox and four-wheel drive. Vehicles with four-wheel drive must only be tested on a four-wheel performance test stand.

Speedometer test

During the speedometer test the vehicle is driven by its own wheels. Vehicles with four-wheel drive must only be tested on a four-wheel test stand.

Shock absorber test

For information on shock absorber tests refer to the appropriate workshop manual on "Running gear".