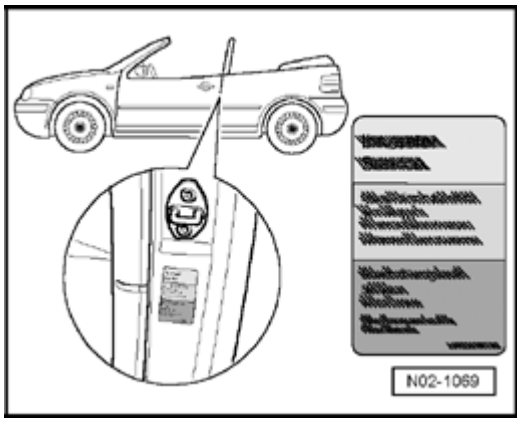
Work descriptions

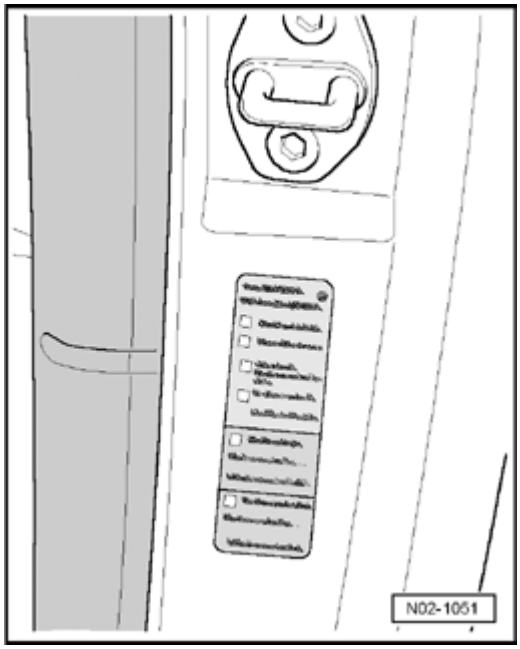
Affix service sticker

Apply sticker "Your first service" during delivery inspection:



- Attach sticker on drivers-side door beam (B-pillar); the sticker is found as an instruction contained in the very front of the owner information packet. Cross out the instruction after attaching the sticker.

Attach sticker "Your next service event" :

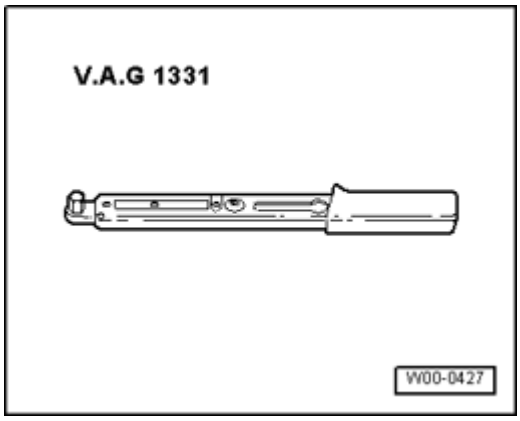


- Service sticker "Your next service event" : Mark Oil change service or Inspection service (whichever is the case next) with a cross and enter date / mile / kilometer reading; if necessary, also mark with a cross additional work to be performed (e.g. replace toothed belt) and brake fluid service and enter date / mile / kilometer reading - service interval ⇒ 01-4, Inspection Service . Attach sticker

on drivers side door beam - **B** - pillar

Battery, check battery terminals for secure seating

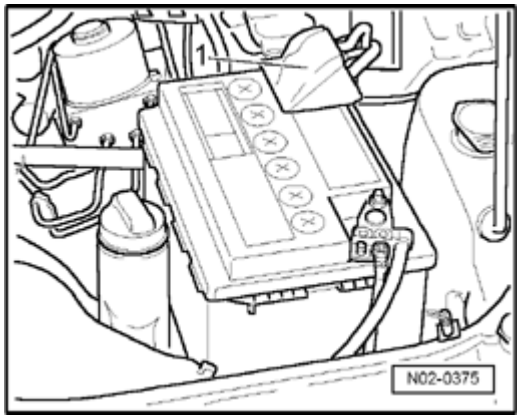
Special tools, testers and auxiliary items required



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

Note:

- *Tight fitting battery terminals guarantee proper function and a long battery service life.*



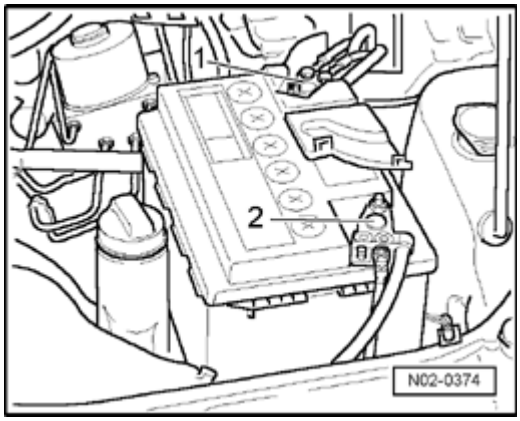
- Open cover cap (if installed) - **1** - of battery positive pole.

- Check battery terminal clamps are seated securely on the battery terminals by moving the battery positive wire - **1** - and the battery Ground (GND) wire - **2** - back and forth by hand.

Warning!

If battery clamp is not seated securely on positive terminal, disconnect battery Ground (GND) strap on battery negative terminal first, to prevent possible accidents.

If the battery clamp on positive terminal is not seated securely:



- Disconnect battery Ground (GND) wire at battery negative terminal first **- 2 -** .

- Tighten battery clamp on battery positive terminal to 5 Nm.

- Close cover cap on battery positive pole.

- Re-connect battery Ground (GND) wire to battery negative pole **- 2 -** and also tighten to 5 Nm.

If the battery clamp on negative terminal is not seated securely:

- Tighten battery clamp **- 2 -** on battery negative terminal to 5 Nm.

Battery, checking

- Delivery Inspection: Perform visual check.

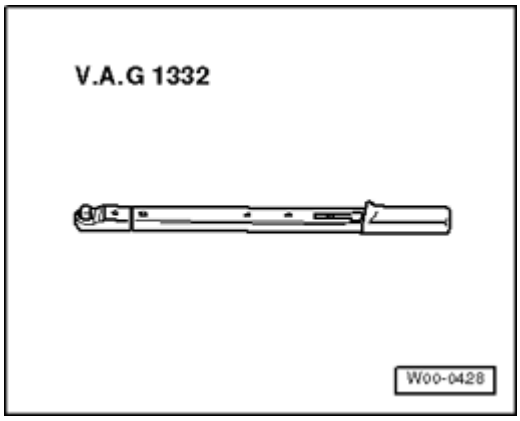
⇒ *Repair Manual, Electrical Equipment, Repair Group 27, Checking battery: visual check, electrolyte level, no load voltage, load test.*

- Inspection Service: Perform visual check and electrolyte level check.

⇒ *Repair Manual, Electrical Equipment, Repair Group 27, Checking battery: visual check, electrolyte level, no load voltage, load test.*

Wheel securing bolts, tighten to correct torque setting

Special tools, testers and auxiliary items required



- Torque wrench V.A.G 1332 (40 -200 Nm)

Note:

- *Make sure that wheel bolts are tightened alternately to the following tightening torque:*

4-hole wheel mounting

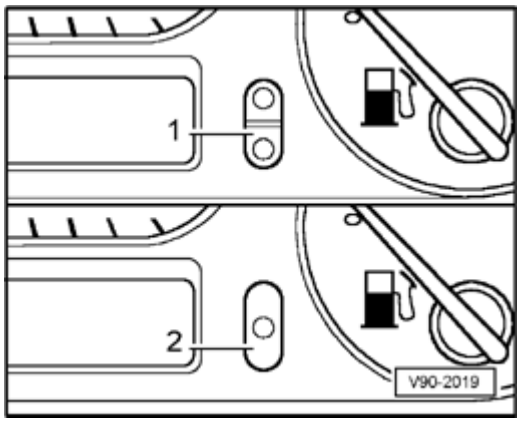
Tightening torque: 110 Nm

5-hole wheel mounting

Tightening torque: 120 Nm

Clock, setting

Digital clock:



Two press buttons **- 1 -** are located below the tachometer at right for setting the clock. The hour is set using the upper button **- h -** , the minute is set with the lower (min).

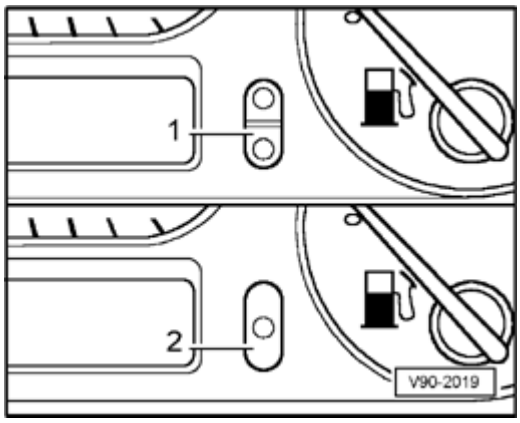
- By pressing briefly, best done using a ball point pen, the time is set ahead by one hour or minute respectively.

Sustained pressing advances the hours/minutes through the whole sequence.

The clock can be set accurately to the second using the minute button.

- Press button until the clock displays one minute less than the time to be set. Press the button at the instant when the second display of an accurate clock has reached a full minute or the time signal sounds from the radio.

Analog clock:



One button **- 2 -** is allocated below the clock at right for setting the time.

- By pressing briefly, best done using a ball point pen, the time is set ahead by one minute. Sustained pressing causes the minute hand to run through quickly, whereby the hour is also set in this way.

The clock can be set accurately to the second using the button:

- Press button until the clock displays one minute less than the time to be set. Press the button at the instant when the second display of an accurate clock has reached a full minute or the time signal sounds from the radio.

Service Reminder Indicator (SRI), resetting

For resetting Service Reminder Indicator (SRI) refer to

⇒ *Repair Manual, Electrical Equipment, Repair Group 90, Service Reminder Indicator (SRI), resetting*

Climatronic, setting temperature to 72 ° F (22 ° C)

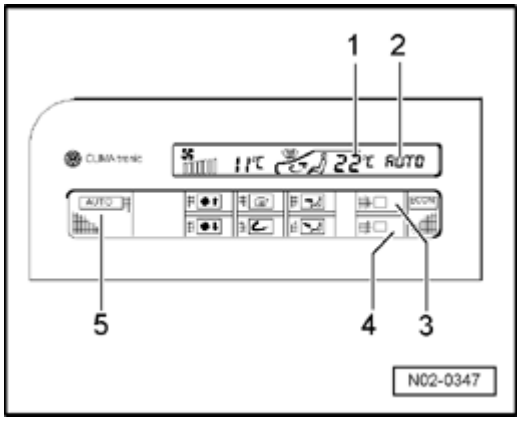
Note:

- *A comfortable climate in the vehicle is reached most quickly at a temperature setting of 72 ° F (22 ° C)).*

- *Therefore, this setting should only be changed if required for personal comfort.*

Perform the following work procedure:

- Switch on ignition.



- Check whether 72 ° F (22 ° C) has been set **- 1 -** in the display.

If necessary, please perform temperature adjustment as follows:

- Press button **- 5 -** for automatic operation. AUTO appears in the display **- 2 -** .

- Set temperature to 72 ° F (22 ° C) by pressing button **- 4 -** for "colder" or button **- 3 -** for "warmer" .

Radio, activating Anti-theft coding

For activating Anti-theft coding refer to:

⇒ *Repair Manual, Electrical Equipment, Repair Group 91, Radio anti-theft coding (Sound System), activating*

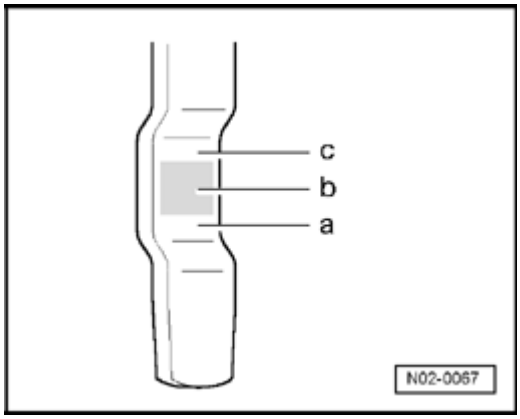
Engine oil level, checking engine oil, topping off if necessary

Note:

- *Observe disposal regulations.*

- *After switching the engine off, wait a few minutes (at least 3 minutes) to allow the oil to flow back into the oil pan.*

- Pull out oil dipstick, wipe off with a clean cloth and re-insert dipstick again up to stop.



- Withdraw dipstick again and read oil level:

Area a -	Oil must be topped off. Afterward, it is sufficient if the oil level is somewhere in the area **- b -** .
Area b -	Oil need not be topped off.
Area c -	Oil must not be topped off.

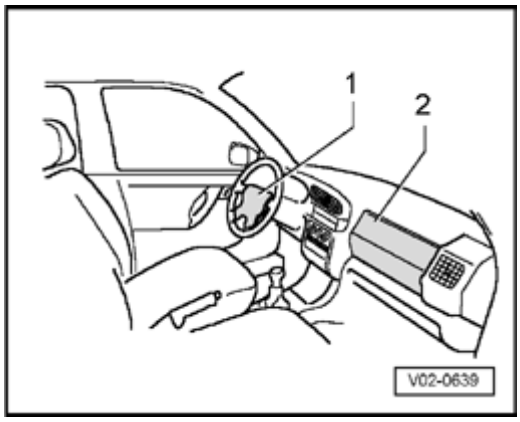
Note:

- *At an oil level above the area **- c -** , there is a danger of damage to the catalytic converter.*

Airbag for driver and passenger, visually checking airbag units

Driver side airbag

Identification for airbag is the writing "AIRBAG" on the cushion plate of steering wheel



- Perform a visual check of the cushion plate **- 1 -** for external damage.

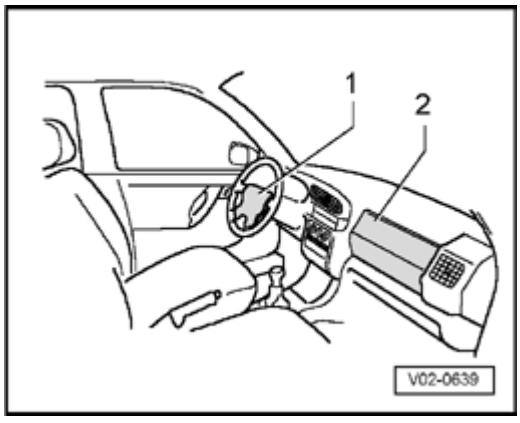
Warning!

- ***Pad-panel of steering wheel must neither be glued nor coated or processed in any other way. So that also in future function of airbag is ensured, refer customer again expressly to it.***

- ***The pad-panel of the steering wheel may be cleaned only with a dry or with water-dampened rag.***

Passenger-side airbag

Identification for airbag is the writing "AIRBAG" on the right side of instrument cluster



- Perform a visual check of the surface of the airbag module **- 2 -** for external damage.

Warning!

- ***The foamed surface of the airbag module on the passenger side must not have been pasted up or coated or processed in any manner. So that also***

in the future the function of the airbag is ensured, refer the customer again expressly to it.

- ***The surface of the airbag module may be cleaned only with a dry or with water-dampened rag.***

Windshield wiper/washer system and headlight cleaning system, check function, adjust spray jets if necessary

Note:

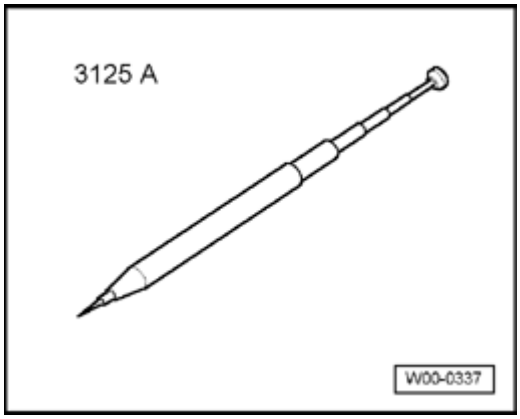
- *If during the function test it is determined that the wiper blades are "juddering" or making noises, then check the pitch angle of the wiper blades ⇒ 01-6, Windshield wiper blades, checking park position, adjusting if necessary; for juddering wiper blades, check pitch angle, adjust if necessary .*

Filling with fluid

The windshield wash/wipe system fluid reservoir must be filled up to edge. If fluid must be topped off, always add windshield cleanser (in summer) or frost protection (in winter) to the water.

Windshield washer system, check jet setting, adjust jets if necessary

Special tools, testers and auxiliary items required



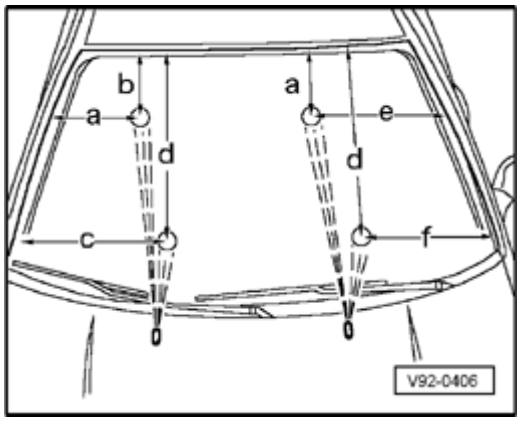
- Windshield wiper adjustment tool 3125 A

Windshield

Note:

- *Never use a needle or a similar object, since it may damage the water hoses in the spray nozzle!*

- Check jet setting, adjust if necessary using adjustment tools for windshield wiper nozzle 3125 A .



Jet adjustment setting dimensions for the windshield:

a	280 mm	**- d -**	560 mm
b	300 mm	**- e -**	400 mm
c	430 mm	**- f -**	330 mm

Tolerance: ± 20 mm

Rear window

Jet setting dimension for the rear window:

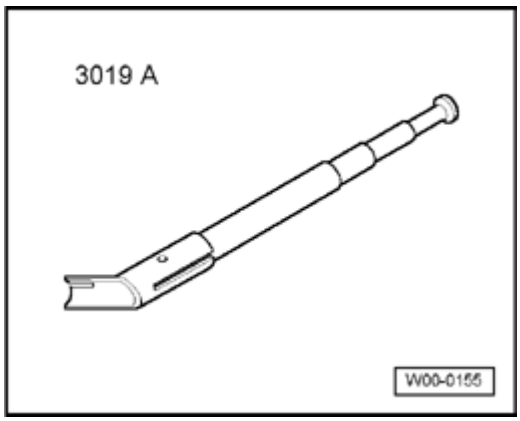
Spray jet, center, wiper area

Note:

- *If the spray jet is uneven or cannot be adjusted to the specified dimensions, the spray nozzle must be replaced (repair measure).*

Headlight cleaning system, check jet setting, adjust jets if necessary

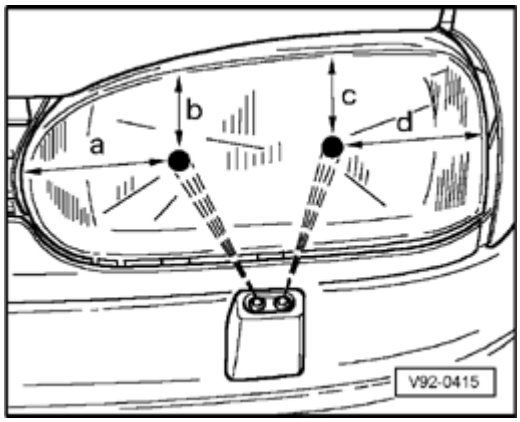
Special tools, testers and auxiliary items required



- Adjustment fixture 3019 A

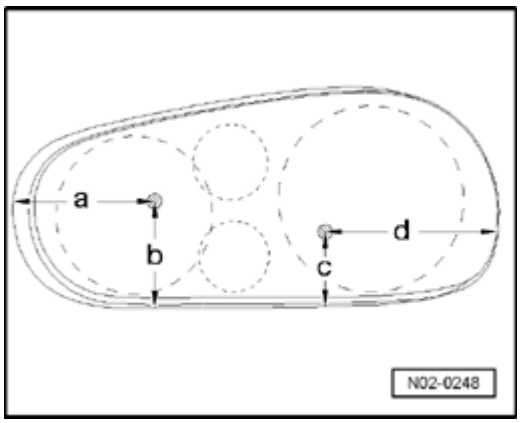
- Check jet setting, adjust if necessary using adjustment tool 3019 A .

The following jet setting dimensions apply for the left headlight (right headlight symmetrical)



Golf and Golf Cabriolet ➢ 03.98:

a	130 mm	**- c -**	65 mm
b	60 mm	**- d -**	125 mm



Golf Cabriolet 04.98 ➢ :

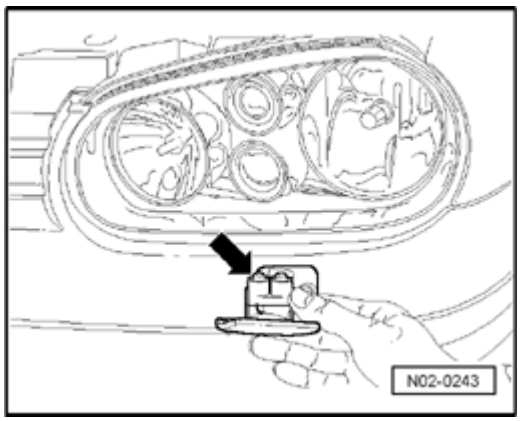
a - 100 mm

b - 75 mm

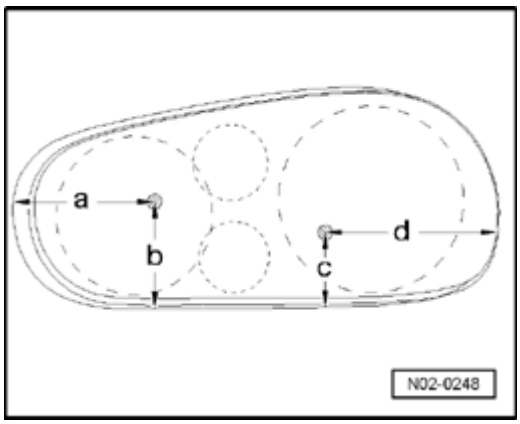
c - 55 mm

d - 125 mm

- If necessary, adjust nozzles as follows:



- Pull out spray nozzle **- arrow -** up to stop and align to the respective spray points using adjustment tool 3019 A .

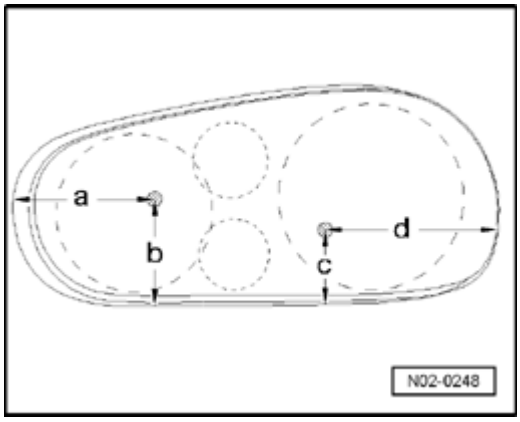


Nozzle setting dimensions for left headlight (right headlight is similar):

- Adjust the inner spray nozzle to the following dimension:

a - 100 mm

b - 75 mm



- Adjust the outer spray nozzle to the following dimension:

c - 55 mm

d - 125 mm

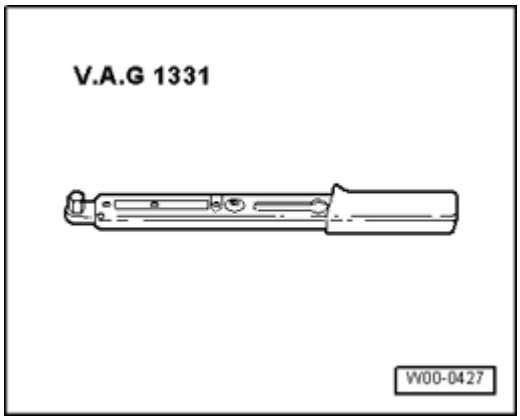
Note:

- *If the spray jet is uneven or cannot be adjusted to the specified dimensions, the spray nozzle must then be replaced.*

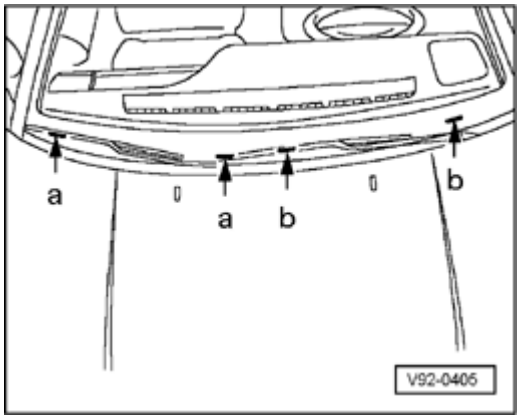
Windshield wiper blades, checking park position, adjusting if necessary; for "juddering" wiper blades, check pitch angle, adjust if necessary

Windshield wiper blades, checking rest position, adjusting if necessary

Special tools, testers and auxiliary items required



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



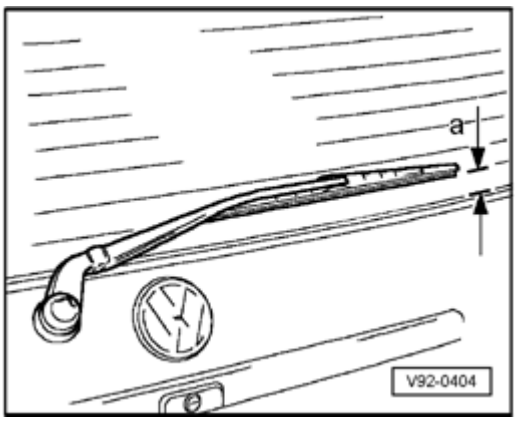
Windshield:

Wiper blades must be located at the markings.

a - Marking for left-hand drive vehicles

b - Marking for right-hand drive vehicles

Tightening torque, wiper arms: 20 Nm



Rear window:

a - 25 mm

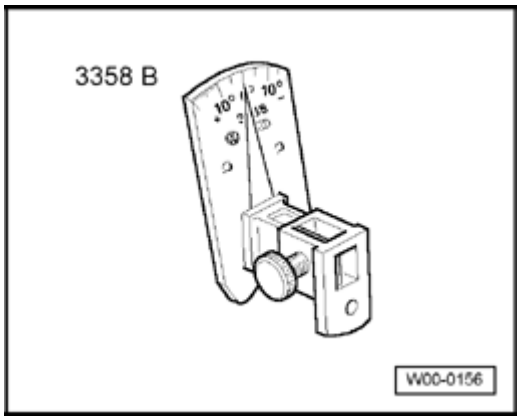
Tightening torque, wiper arm: 15 Nm

Windshield wiper blades, checking pitch angle, adjust if necessary

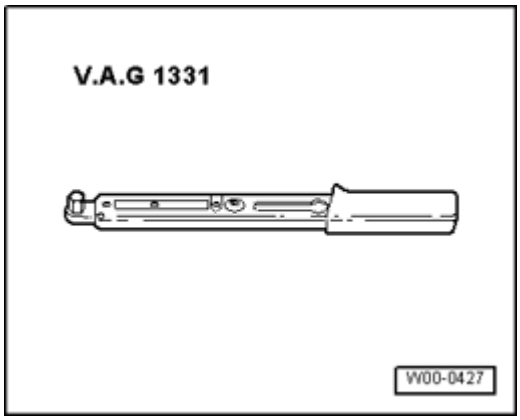
Note:

- *Check the pitch angle only if the wiper blades are "juddering" or making noises.*

Special tools, testers and auxiliary items required



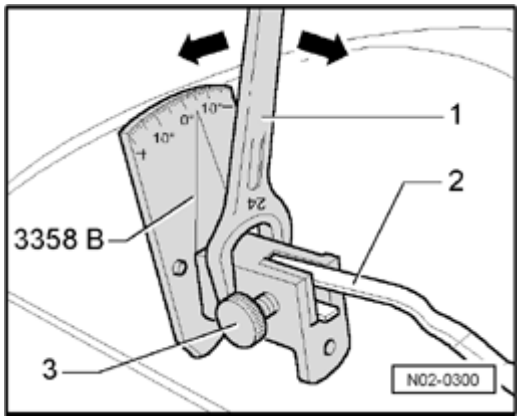
- Windshield wiper adjustment device 3358 B



- Torque wrench V.A.G 1331 (5 - 50 Nm)
- Open-end spanner (24 mm)

Perform the following work procedure:

- Bring windshield wiper arms in rest position.
- Remove windshield wiper blade.



- Insert windshield wiper arm **- 2 -** into windshield arm adjustment device 3358 B and secure using mounting

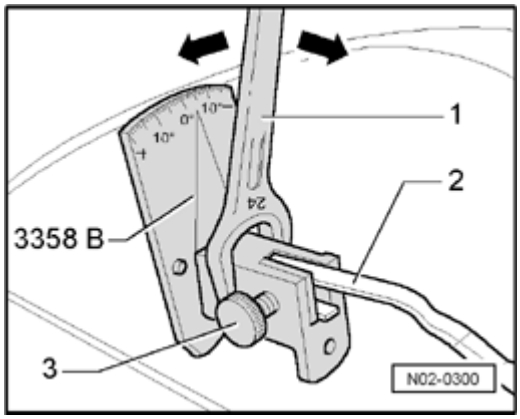
screw **- 3 -** .

- Check pitch angle

Pitch angle (specified values) for	
Drivers side	0 ° / -3 ° 1)
Passengers side	0 °
Rear wiper	+ 3 °
Tolerance	± 2 °

1) Windshield wiper blade with plastic spoiler (vehicles as of 11.94)

If necessary, adjust pitch angle to specified value as follows:



- Place open-end spanner (24 mm) **- 1 -** onto adjustment device and set windshield wiper arm **- 2 -** to specified value **- arrows -** .

- Remove windshield wiper arm **- 2 -** from adjustment device and secure again using mounting screw **- 3 -** .

- Check adjusted value according to table. If necessary, repeat the setting and checking procedure until the specified value is reached.

- Remove adjustment device and install windshield wiper blade.

Tightening torque, wiper arms: 20 Nm

- Check to ensure that windshield wiper system is not juddering.

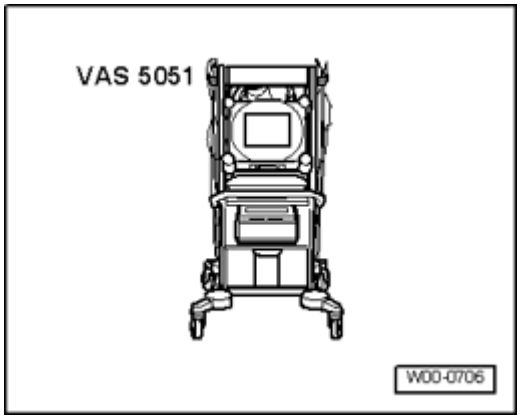
On Board Diagnostic (OBD), checking DTC memory of all systems

- using Vehicle Diagnostic, Testing and Information

System VAS 5051 ⇒ 01-6, Checking DTC memory of all systems using Vehicle Diagnosis, Testing and Information System VAS 5051 : .

Checking DTC memory of all systems using Vehicle Diagnosis, Testing and Information System VAS 5051 :

Special tools, testers and auxiliary items required



- Vehicle Diagnosis, Testing and Information System VAS 5051

- Diagnostic cable VAS 5051/6A

Connecting Vehicle Diagnosis, Testing and Information System VAS 5051

- Engage parking brake.

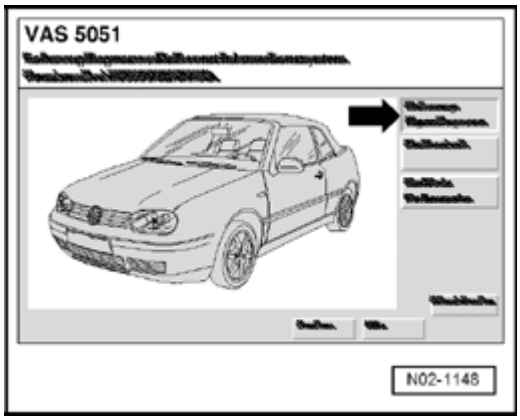
- Automatic transmission: Shift selector lever into position "P" or "N" .

- Manual transmission: Gear stick in neutral.

- Open ashtray, remove if necessary and slide cover for diagnostic connection toward left.

- Connect Vehicle Diagnosis, Testing and Information System VAS 5051 using the diagnostic cable VAS 5051/6A with ignition switched off.

- Switch ignition on.



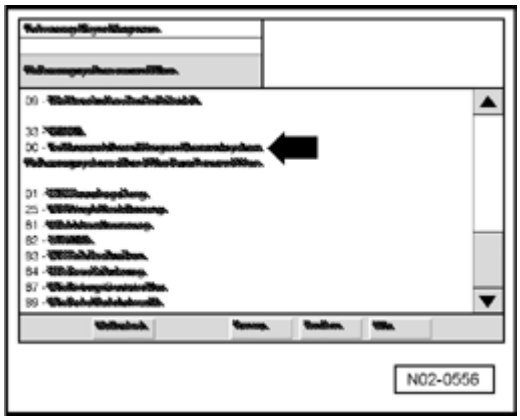
Indicated on display:

Select operating mode:

- Press the button for "vehicle On Board Diagnostic (OBD)" on the display **- arrow -** .

Note:

- *If the indications shown in the work procedure are not indicated on the display: ⇒ User manual for VAS 5051 tester*



Indicated on display:

Select vehicle system:

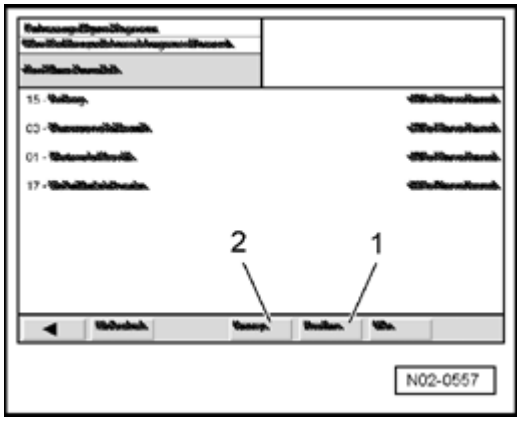
- Press "00 - Check DTC memory, complete system" on the display **- arrow -** .

- The VAS 5051 sends all known address words one after the other.

When a control module responds with its identification, the display indicates the number of stored errors or indicates "no malfunction recognized" .

Any system malfunctions that are stored will be displayed one after the other. Then the VAS 5051 sends the next

address word.

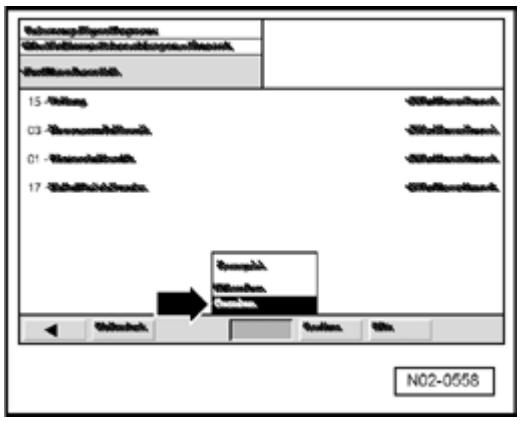


The automatic test sequence is over when the following indication appears on the display:

- Press the "Print" button **- 1 -** on the display and then press "Screen" in the print menu.

The VAS 5051 prints out all malfunctions or "0 malfunctions detected" . If malfunctions are stored then a repair measure is required. Pass malfunction protocol on for repair.

- Press the "Go to" button **- 2 -** on the display.



Indicated on display:

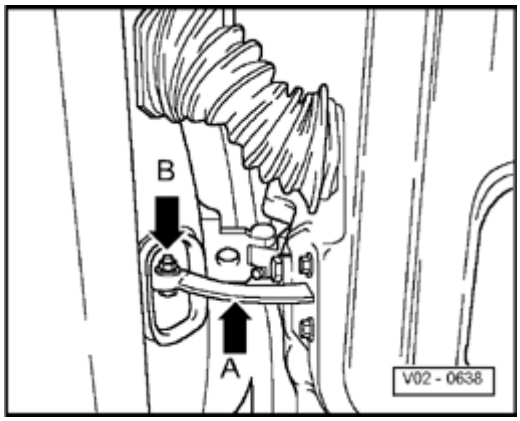
- Press the "End" button **- arrow -** on the display.

- Press the "End" button in the exit menu.

Note:

- *The Vehicle Diagnosis, Testing and Information System VAS 5051 must remain connected if service interval display is to be reset.*

Door arrester and securing bolts, lubricating



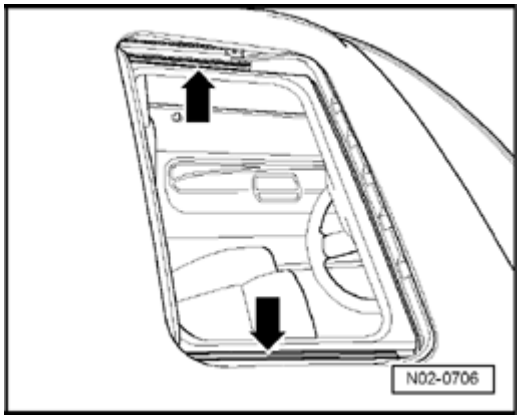
- Lubricate door arrester **- arrow A -** using lubricant G 000 150 .

- Lubricate securing bolts **- arrow B -** using lock cylinder grease spray G 000 400 01 .

Sunroof, checking function, cleaning and greasing guide rails

Perform the following work procedure:

- Check function of sunroof.



- Clean guide rails **- arrows -** and spray on grease spray G 000 450 02 .

Engine (from top and bottom), visual check for leaks and damage

Perform visual check as follows:

- Check engine for leaks and damage.

- Check hoses, pipes and connections of

  - Fuel system

  - Cooling and heating system

- and brake system

Check for leaks, abrasions, porosity and brittleness.

Note:

- *Ensure that all malfunctions detected are repaired within repair measures.*

Cooling system, checking freeze protection and coolant level

Note:

- *All engines are filled with freeze and corrosion protection additives G 12 Plus according to TL VW 774 F (color lilac). Make sure that only G 12 Plus is used for topping off.*

- *G 12 Plus (color lilac) can be mixed with previous coolant additive G 12 (color red)!*

Note:

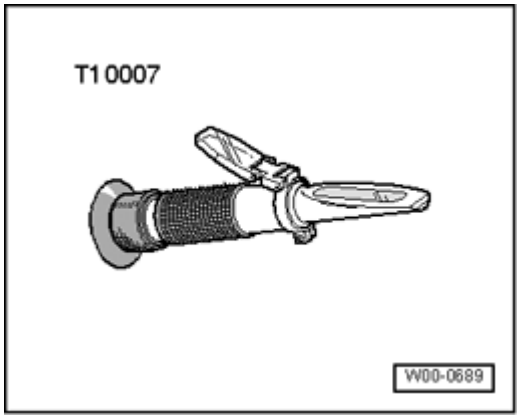
- *G 12 Plus is suitable as a filled-for-life filling for cast iron and all-aluminum engines and gives optimum protection against freeze, corrosion damage, scaling and over-heating.*

- *G 12 Plus increases boiling point to 135 ° C and ensures for a better heat dissipation.*

- *Coolant concentration must be at least 40 % (freeze protection to - 25 ° C) and should never exceed 60 % (freeze protection to - 40 ° C) otherwise freeze protection will be reduced and cooling effect will also be reduced.*

Checking freeze protection

Special tools, testers and auxiliary items required



- Refractometer T10007

Note:

- *Read bright/dark boundary to obtain an accurate reading for following tests. Place a drop of water on glass to improve readability of bright/dark boundary. bright/dark boundary can be clearly recognized on "WATERLINE" .*

- Check concentration of coolant additive using refractometer T10007 (follow user manual).

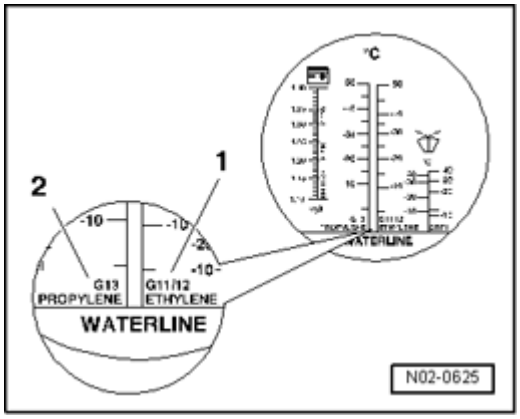
Scale **- 1 -** of refractometer is designed for coolant additives G 12, G12 Plus and G11.

Scale **- 2 -** is designed for coolant additive G 13.

Note:

- *Freeze protection additives protect against freeze to about -13 F (-25 C) (about -35 C in arctic climates).*

- *If for climatic reasons greater freeze protection is required, amount of G 12 Plus can be increased, but only up to 60% (freeze protection to about -40 F (-40 ° C)), otherwise freeze protection and cooling effectiveness will be reduced.*



- If freeze protection is insufficient, drain off required quantity shown in freeze protection table and add coolant additive.

Note:

- *Observe disposal regulations!*

Freeze protection table

Freeze protection to ° C (° F)		Quantity difference in Liters	
Actual value	Specified value	4-cyl. engines	6-cyl. engine
0 (32)	-25 (-13)	3.5	4.0
	-35 (-31)	4.0	5.0
-5 (23)	-25 (-13)	3.0	3.5
	-35 (-31)	3.5	4.5
-10 (14)	-25 (-13)	2.0	3.0
	-35 (-31)	3.0	4.0
-15 (5)	-25 (-13)	1.5	2.0
	-35 (-31)	2.0	3.0
-20 (-4)	-25 (-13)	1.0	1.5
	-35 (-31)	1.5	2.0
-25 (-13)	-35 (-31)	1.0	1.5
-30 (-22)	-35 (-31)	0.5	1.0
-35 (-31)	-40 (-40)	0.5	0.5

- Check coolant additive concentration after test drive again.

Checking coolant level

- Check coolant level in expansion tank with engine cold.

- Delivery inspection: Coolant level at max. marking.
- Inspection service: Coolant level between min. and max. marking.

- If coolant is too low, add required amount according to mixture ratio.

Mixture ratio

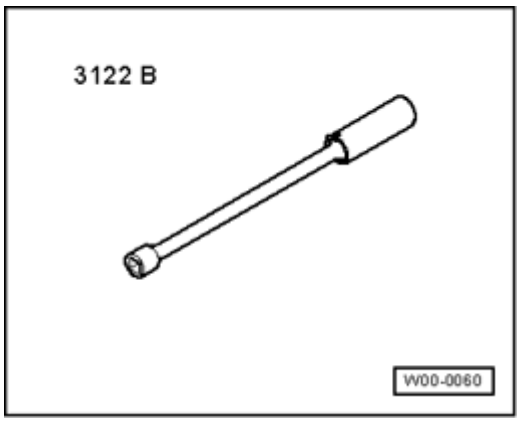
Freeze protection to ° C (° F)	Coolant additive G 12 Plus	Water
-25 ° C (-13)	approx. 40 %	approx. 60 %
-35 ° C (-31)	approx. 50 %	approx. 50 %
-40 ° C (-40)	approx. 60 %	approx. 40 %

Note:

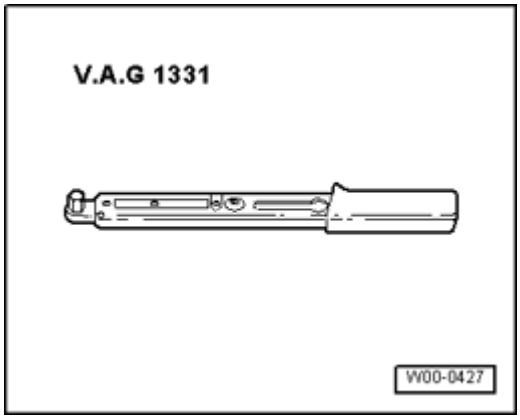
- *Coolant additive G 12 Plus prevents freeze and corrosion damage, scaling and also raises boiling point of coolant. Therefore, cooling system must be filled year round with freeze and corrosion protection additives.*
- *A higher boiling point improves engine reliability under heavy load particularly in countries with tropical climates.*
- *Coolant concentration must not be reduced by adding water even in warmer seasons and in warmer countries. coolant additive portion must be at least 40%.*

Spark plugs, replacing

Special tools, testers and auxiliary items required



- Spark plug removal tool 3122 B
- Assembly tool 3277 A



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

Note:

- *Spark plug specification*

  ⇒ *Repair Manual, Fuel injection Ignition, Repair Group 28, Ignition/Glow plug system*

- *Observe disposal regulations.*

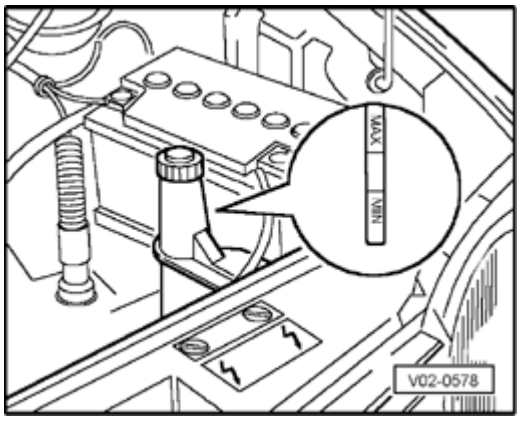
For vehicles with 6 cyl. engine:

- Use the spark plug connector tool 3277 A to pull off and press on the spark plug connectors.

Power assisted steering fluid level, checking

Perform the following work procedure:

- Check fluid level (engine must not be running and front wheels must be in straight ahead position).



Fluid level must be between min. and max. marking.

- If necessary, top off with the following fluid: G 002 000

Note:

- *If fluid level has sunk to the min.-marking, power assisted steering must be checked (repair measure). It is not enough to simply top off with fluid.*

Fuel filter, replacing (diesel engine)

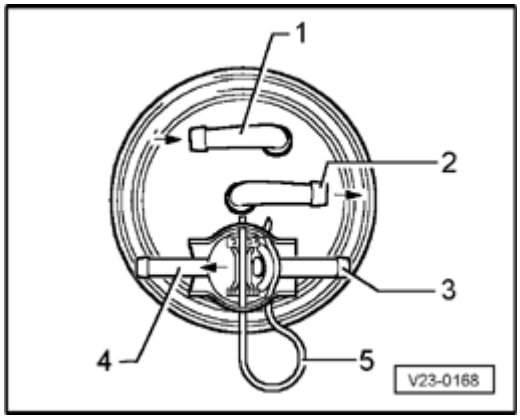
Note:

- *Make sure that diesel does not come in contact with the coolant hoses. Clean hoses immediately if necessary!*

- *Observe disposal regulations.*

Perform the following work procedure:

Removing



- Remove retaining clamp **- 5 -** .

- Remove regulating valve with attached fuel lines.

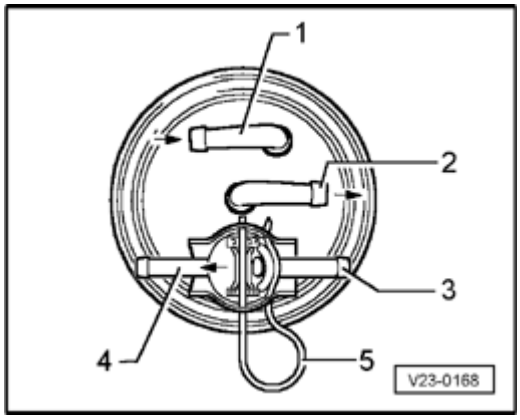
- Disconnect the fuel hoses from the hose connections **- 1 -** and **- 2 -** .

Installing

- Fill new filter with clean diesel fuel. Thus the engine can be started faster.

- Install new O-ring.

- Install regulating valve with attached fuel lines.



- Install retaining clamp **- 5 -** .

- Slide the fuel hoses across the hose connections **- 1 -** and **- 2 -** , and secure the hoses using hose clamps.

Note:

- *Direction of flow is indicated by **- arrows -** (do not interchange the connections).*

- Check fuel system for proper seal (visual check).

- Accelerate several times, afterwards fuel must flow

without bubbles through the transparent hose at idle.

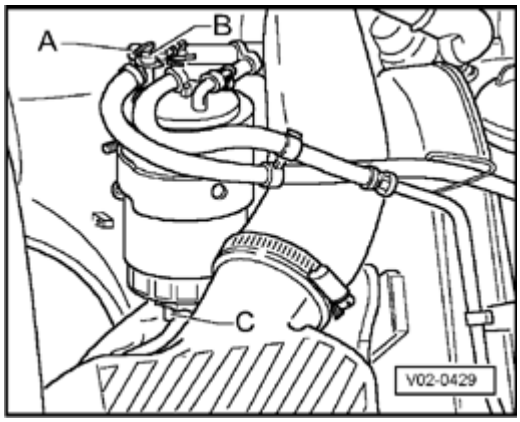
Fuel filter, drain water (diesel engine)

Note:

- *Make sure that diesel does not come in contact with the coolant hoses. Clean hoses immediately if necessary!*

- *Observe disposal regulations.*

Perform the following work procedure:



- Remove retaining clamp **- A -** and regulating valve **- B -** with fuel hoses attached.

- Let approx. 100 cm ^{3} of fluid drain from drainage bolt **- C -** .

- Install regulating valve and attach retaining clamp.

- Tighten drainage bolt.

- Check fuel system for proper seal (visual check).

- Accelerate several times. Afterwards, fuel must flow without bubbles through the transparent hose at idle.

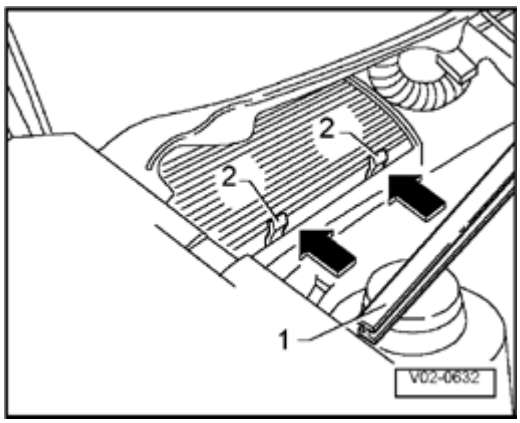
Dust and pollen filter, replace filter element

The filter is located beneath the fresh air plenum cover on the right side.

Perform the following work procedure:

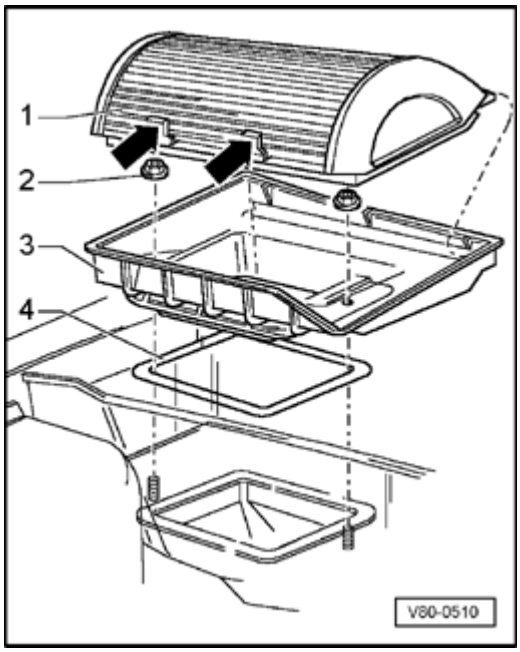
Removing

- Loosen and remove plastic screws for securing the cover.



- Remove rubber seal **- 1 -** up to center of vehicle.

- Press front cover upward.



Vehicles up to and including Vehicle Identification Number (VIN) 1H-P-990 000:

1 - Filter element

2 - Plastic nut

3 - Filter housing

4 - Gasket

- Press retainers **- arrows -** of filter element **- 1 -** in direction of **- arrow -** and remove filter element upward.

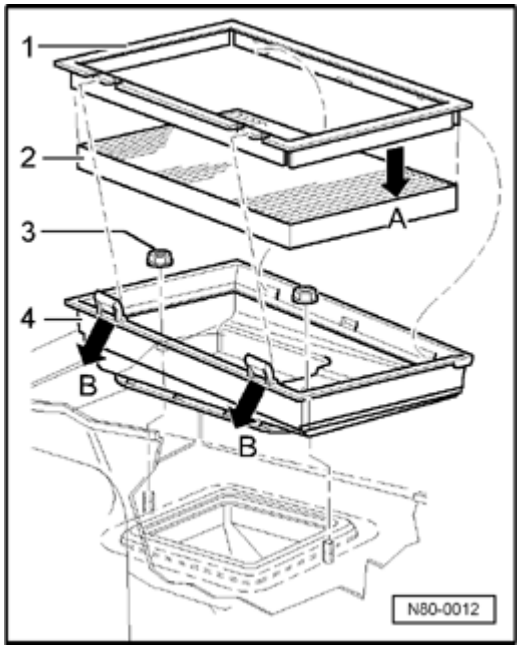
Note:

- *Observe disposal regulations.*

- *Also, the filter housing **- 3 -** and the seal **- 4 -** is to*

be removed and the dust and pollen filter is to be installed for vehicles of of Vehicle Identification Number (VIN) 1H-R-000 001.

- Install rubber seal and cover.



Vehicles as of Vehicle Identification Number (VIN) 1H-R-000 001

1 - Frame

2 - Filter element

3 - Plastic nut

4 - Filter housing with seal

- Press retainers of filter housing **- 4 -** in direction of **- arrow - - B -** and remove filter element with frame upward.

Note:

- *Observe disposal regulations.*

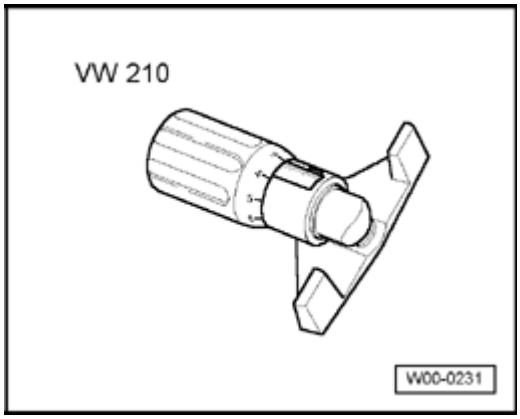
Installing:

- Guide in frame **- 1 -** at left and right into the first pleat **- arrow A -** of new filter element **- 2 -** .

- Insert retainers located on frame into holes on filter housing **- 4 -** and press frame with filter element downward.

- Install rubber seal and cover.

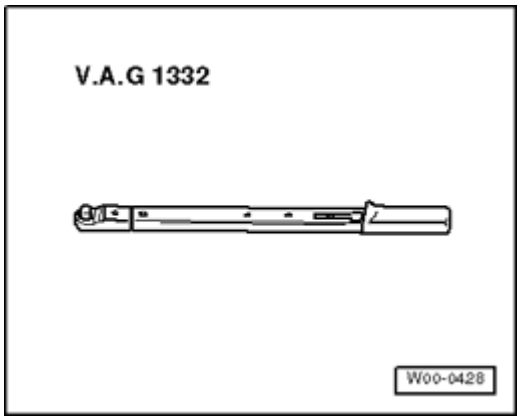
Ribbed belt, adjust tension



Vehicles with gasoline engine as of 06.95 with A/C system without automatic tensioning roller for ribbed belt, engine codes AAM, ADY, ADZ, AEK, ANN, ANP

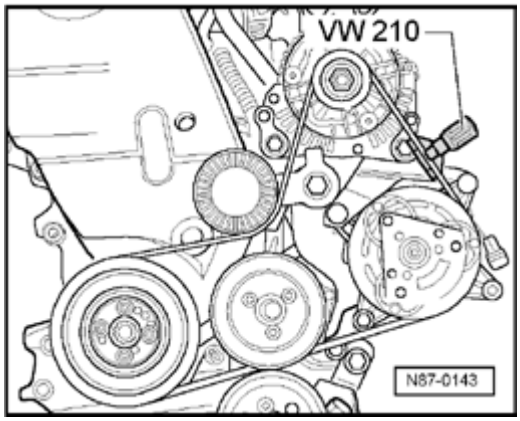
Special tools, testers and auxiliary items required

- Gauge belt tensioner VW 210



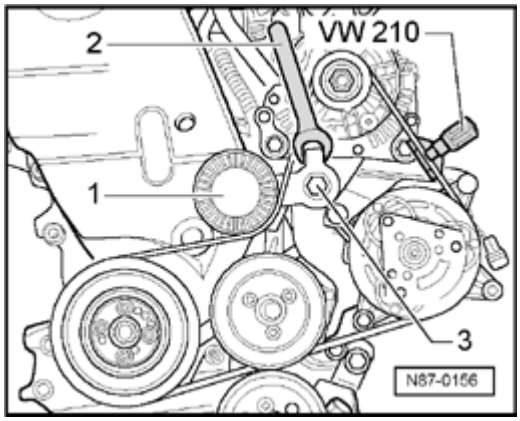
- Torque wrench V.A.G 1332 (40 - 200 Nm) with socket insert 18 mm

- Open-end wrench 17 mm



- Position gauge belt tensioner VW 210 pre-set to ribbed belt between compressor and generator. Pre-set: 15 scale values

- Remove bolt **- 3 -** .



- Using open-end wrench **- 2 -** , press tensioning roller **- 1 -** downward until marking on plunger matches pre-set value (15 scale values) on gauge belt tensioner VW 210 ; simultaneously tighten bolt **- 3 -** using torque wrench (pre-set to 85 Nm).

Ribbed belt, replace

V-belt drives and sizes,

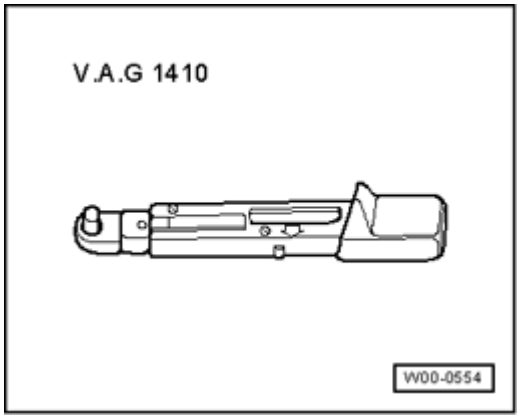
⇒ *Repair Manual, Electrical Equipment, Repair Group 27, Ribbed belts and V-belts, routing and sizes*

Checking condition and tension of V-belt, tensioning V-belt if necessary (vane pump-power assisted steering)

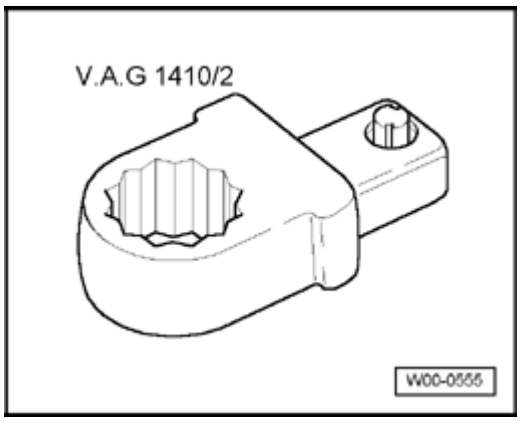
V-belt drives and sizes,

⇒ *Repair Manual, Electrical Equipment, Repair Group 27, Ribbed belts and V-belts, routing and sizes*

Special tools, testers and auxiliary items required



- Torque wrench V.A.G 1410
- with



- Ring-insertion tool 22 mm V.A.G 1410/2

Checking v-belt condition

- Checking:
  - Sub-surface cracks (cracks, core ruptures, cross sectional breaks)
  - Layer separation (top layer, cord strands)
  - Base break-up
  - Fraying of cord strands
  - Flank wear (material wear, frayed flanks, flank brittleness -glassy flanks-, surface cracks)

- Traces of oil and grease

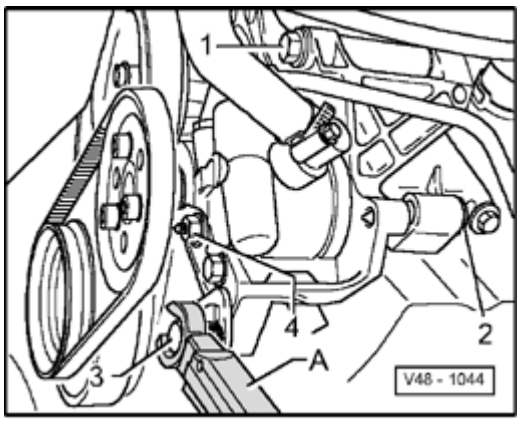
Note:

- *It is essential to replace V-belt if malfunctions are found. This will avoid possible break-downs or operating problems. The replacement of the ribbed belt is a repair measure.*

Tensioning V-belt

- Check V-belt tension by strong thumb pressure (depth of impression approx. 5 mm) and adjust if necessary.

For the following adjustment the torque wrench V.A.G 1410 in connection with the ring-insertion tool 22 mm V.A.G 1410/2 **- A -** is particularly suitable.



- Loosen fixing bolts **- 1 -** and **- 2 -** , clamping screw **- 3 -** and mounting nut **- 4 -** for clamps (if available) at least one turn.

- Tension the V-belt to 4 Nm by turning the tension nut using the torque wrench (run-in belt), and tighten the clamping screw **- 3 -** of the tension nut to 25 Nm.

- Tighten mounting bolt **- 1 -** for vane pump to 45 Nm.

- Tighten mounting bolt **- 2 -** for vane pump and mounting nut **- 4 -** for clamps (if available) to 25 Nm.

Checking condition of ribbed belt and tensioning ribbed belt (generator)

not vehicles as of 06.95 with A/C system without automatic tensioning roller for ribbed belt, engine codes AAM, ADY, ADZ, AEK, ANN, ANP

Checking condition of ribbed belt

- Checking:
    - Sub-surface cracks (cracks, core ruptures, cross sectional breaks)
    - Layer separation (top layer, cord strands)
    - Base break-up
    - Fraying of cord strands
    - Flank wear (material wear, frayed flanks, flank brittleness -glassy flanks-, surface cracks)
    - Traces of oil and grease

Note:

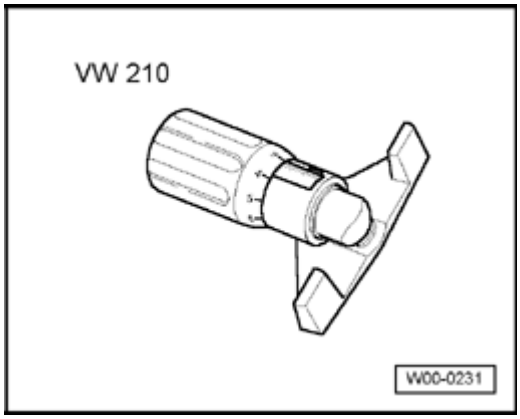
- *It is essential to replace ribbed belt if malfunctions are found. This will avoid possible break-downs or operating problems. The replacement of a ribbed belt is a repair measure.*

Tensioning ribbed belt,V-belt drives and sizes,

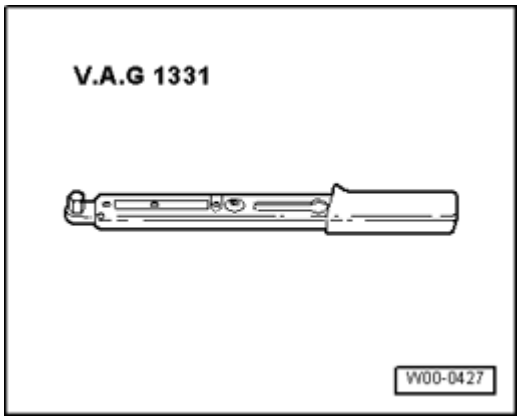
⇒ ***Repair Manual, Electrical Equipment, Repair Group 27, Ribbed belts and V-belts, routing and sizes***

Toothed belt for camshaft drive (diesel engine), checking condition and tension, tensioning toothed belt if necessary

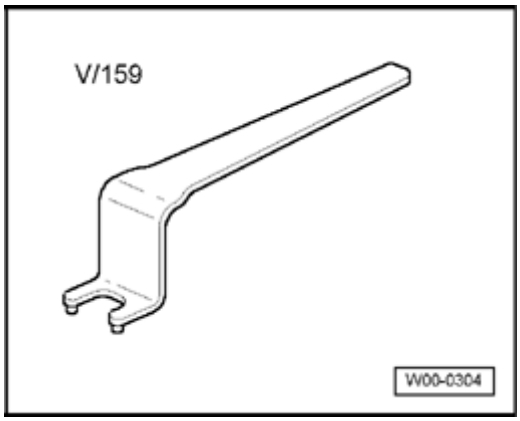
Special tools, testers and auxiliary items required



- Gauge belt tensioner VW 210



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



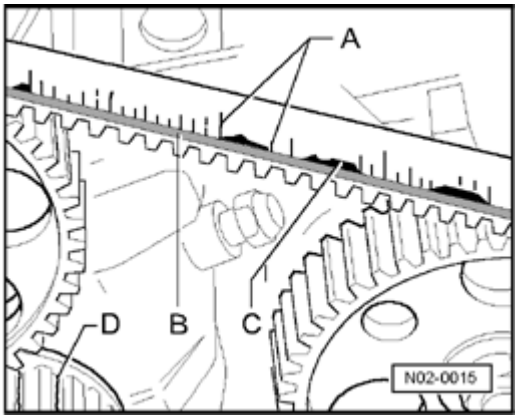
- V159 Pin wrench

Condition of toothed belt, checking

- Checking:
  - Cracks, cross-sectional breaks
  - Layer separation (toothed belt carcass, cord strands)
  - Breaks on toothed belt carcass
  - Fraying of cord strands
  - Surface cracks (plastic sheathing)
  - Traces of oil and grease

Note:

- *It is essential to replace toothed belt if malfunctions are found. This will avoid possible break-downs or operating problems. The replacement of a toothed belt is a repair measure.*



When checking the condition, it is especially important to note the following damage:

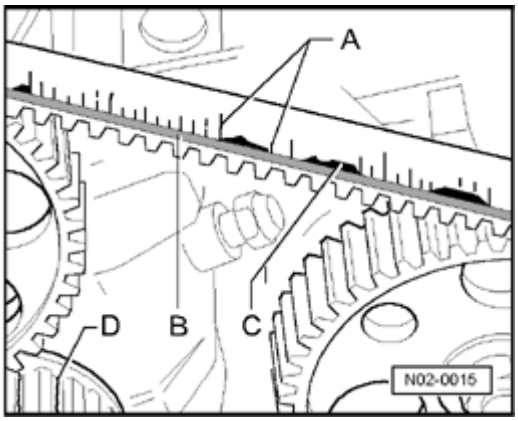
A - Cracks (cover-side)

B - Lateral scouring

C - Fraying

D - Tears (in tooth base)

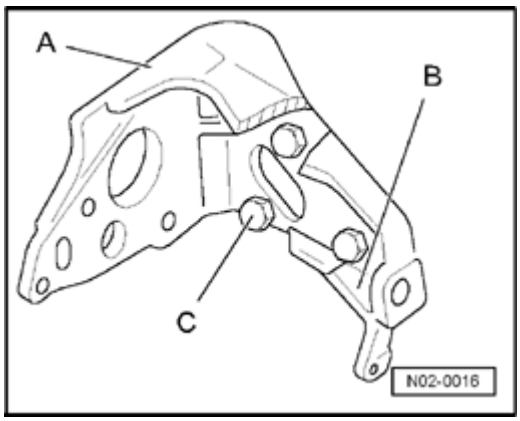
Engine code AAZ up to engine number 292066



For these engines, if damage to toothed belt due to lateral scouring at toothed belt guard is detected, especially damage illustrated in figures **- B -** and/or **- C -** , perform the following repair measure:

- Remove injection pump

⇒ *Repair Manual, Fuel Injection Ignition , Repair Group 23, Diesel injection pump, removing and installing*



- Slightly loosen three mounting bolts **- C -** of pump console.

- Press pump console downward at point **- A -** and lift at point **- B -** . Re-tighten the three mounting bolts to 20 Nm in this position (2. mechanic required).

Note:

- *After installation and adjustment work, let engine run approx. 5 minutes without toothed belt guard and observe the running behavior of the toothed belt during this. Toothed belt must run in center on the drive wheels. If toothed belt still runs toward the outside, pump console must be replaced and installed as described above.*

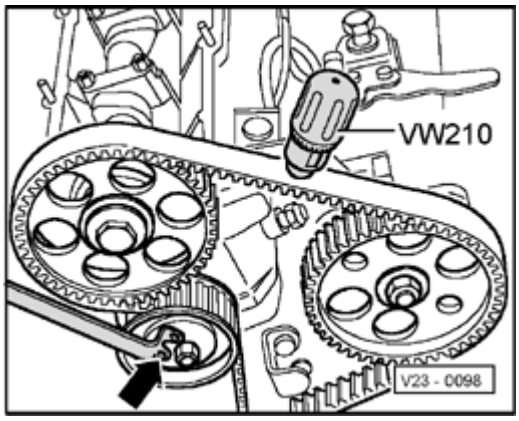
Checking tension of toothed belt, and tensioning toothed belt if necessary

Information about tightening torques and work procedures,

⇒ *Repair Manual, Engine Mechanical , Repair Group 13, Engine, disassembling and assembling; Toothed belt, removing and installing, tensioning.*

,

- Remove upper toothed belt cover.



- Using the gauge belt tensioner VW 210 , measure toothed belt tension between camshaft gear and injection pump sprocket. Specified value: Scale value 12 ... 13.

If current value is outside the specified range, toothed belt must be tensioned as follows:

- Loosen mounting nut for tensioning roller.

- Turn tensioning roller toward right using e.g. Pin wrench V 159 **- arrow -** until specified value is obtained.

- Tighten mounting nut for tensioning roller to 45 Nm.

- Install toothed belt cover.

Toothed belt for camshaft drive, checking (4 cyl. - gasoline engine 1996 ➢)

Check condition of toothed belt

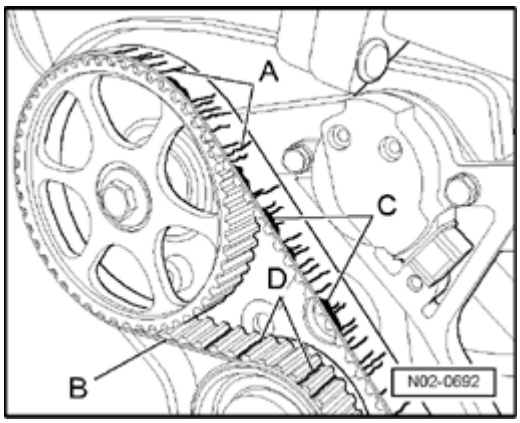
- Open fasteners of upper toothed belt cover and remove cover.

- Check condition of toothed belt for:

  - Cracks, cross-sectional breaks
  - Layer separation (toothed belt carcass, cord strands)
  - Breaks on toothed belt carcass
  - Fraying of cord strands
  - Surface cracks (plastic sheathing)
  - Traces of oil and grease

Note:

- *It is essential to replace toothed belt if malfunctions are found. This will avoid possible break-downs or operating problems. replacement of a toothed belt is a repair measure.*



When checking condition, it is especially important to note following damage:

A - Cracks (cover-side)

B - Lateral scouring

C - Fraying

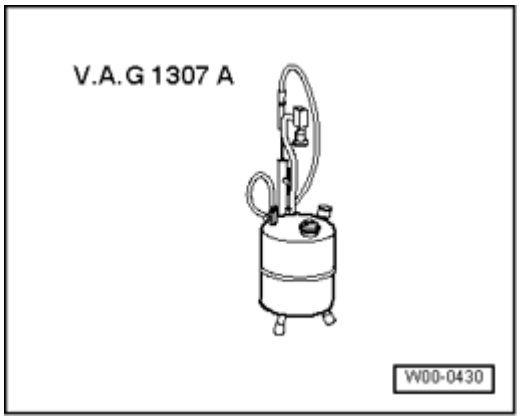
D - Tears (in tooth base)

Toothed belt and toothed belt tensioning roller: Replacing (SDI /TDI - engines)

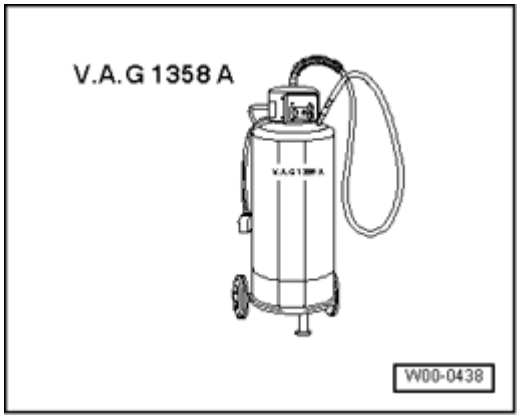
⇒ *Repair Manual, Engine Mechanical, Repair Group 13, Engine, disassembling and assembling; Toothed belt, removing and installing, tensioning.*

Engine oil, drain or extract and fill; replace oil filter

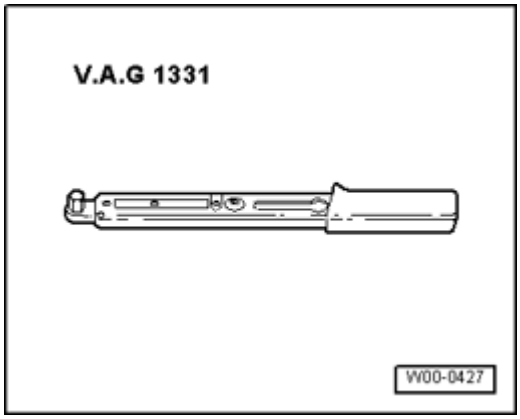
Special tools, testers and auxiliary items required



- Oil extractor V.A.G 1307 A
- or



- Oil extractor V.A.G 1358 A



- Torque wrench V.A.G 1331 (5 - 50 Nm)
- ⇒ Data sheets for exhaust emission test

Note:

- *If the oil is drained and not extracted using the oil extractor V.A.G 1307 or the oil extractor V.A.G 1358 A , replace gasket for oil drain plug.*

- *Observe disposal regulations.*

TDI-engines: After the engine oil and the oil filter are replaced, the following must be considered after the first engine start:

- As long as the oil pressure warning light in the instrument panel is lit, the engine may run only at idle. Do not accelerate! Throttle bursts can damage the turbocharger or cause it to fail completely.

- Only when the warning light goes out, the full oil pressure is reached, and driver may accelerate.

Capacities with filter change: refer to Fluis Capacity Charts for appropriate model and year

Tightening torques of oil drain plug:

Note:

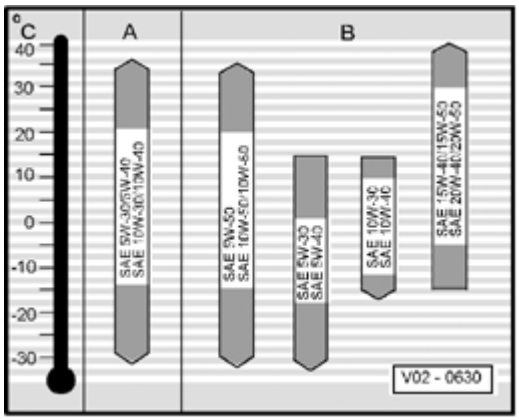
- *Remember that the following torque specifications must not be exceeded. A higher torque can lead to leaks in the area of the drain plug or even to damage.*

  - 4-cyl. engines: Sheet metal oil pan 30 Nm, aluminum oil pan 20 Nm

  - 6-cyl. engines 30 Nm

Due to the positive properties of the oils ⇒ 01-6, Properties of the oils use only the following approved engine oils:

Oil specification



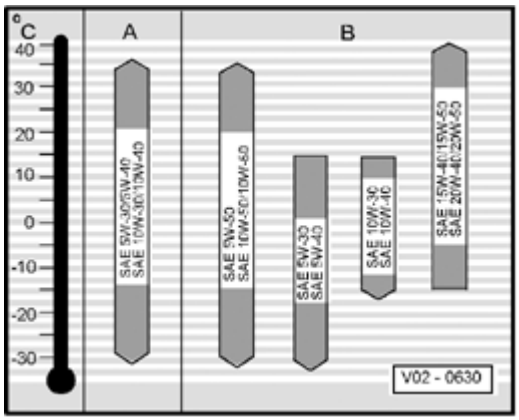
Gasoline engines

A - Multi-range light duty oils, specification VW 500 00

B - Multi-range oils, specification VW 501 01

or

Multi-range oils, specification API-SF or API-SG: Only when approved engine oil is not available



Diesel engines

A - Multi-range light duty oils, specification VW 500 00 (for turbo-diesel engines only in conjunction with specification VW 505 00)

B - Multi-range oils, specification VW 505 00 (suitable for all Diesel engines without restrictions)

or

Multi-range oils, specification API-CD (only to be added in case of emergency for turbo-diesel engines)

Multi-range oils, specification VW 501 01 (for turbo-diesel engines only in conjunction with specification VW 505 00)

Properties of the oils

Multi-range oils according to VW standard 501 01 and 505 00 are oils with the following properties:

- All-season usability in moderate climate zones
- Excellent cleanability
- Secure lubrication properties at all engine temperature and load conditions.
- High resistance to aging

Multi-range light duty oils according to VW standard 500 00 exhibit beyond that the following advantages:

- All-season usability at almost all occurring outside temperatures
- Smaller friction losses of the engine
- Optimum cold starting ability, also at very low temperatures.

Multi-range light duty oils according to VW standard 502 00:

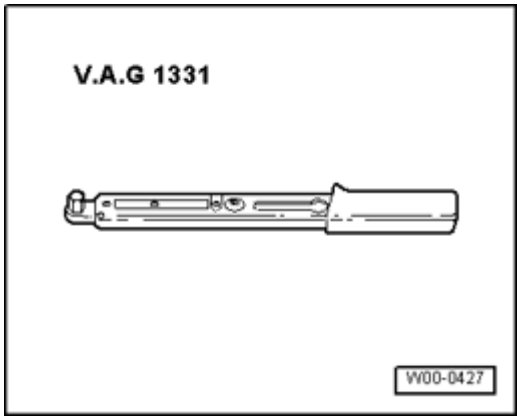
This oil, which is suitable for gasoline engines corresponds to the VW-norms 501 01 as well as 500 00 and additionally exhibits further advantages: It is particularly suitable for the application with more strenuous operating conditions, e.g. difficult road conditions, predominant use of trailer, high portion of uphill driving and driving in hot climate zones.

Note:

- *Single-range oils are generally not all year round usable because of their limited viscosity range. These oils should be used therefore only in extreme climate zones.*
- *When using the multi-range oil SAE 5 W-30, continuously high engine speeds and constant strong load must be avoided. This restriction does not apply to multi-range light duty oils.*

Replacing oil filter

Special tools, testers and auxiliary items required



- Torque wrench V.A.G 1331 (5 - 50 Nm)
- Oil filter wrench
- or
- Oil filter strap wrench

4-cyl. engine

Perform the following work procedure:

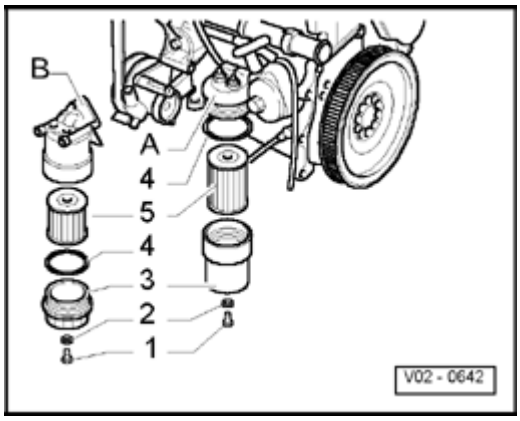
- Loosen oil filter using tension strap (e.g. Hazet 2171-1) and remove oil filter.

Note:

- *Observe disposal regulations.*

- Clean engine sealing surface.
- Lubricate rubber seal lightly with oil.
- Screw in new filter and tighten hand-tight.

6-cyl. engine



There are two different versions of the oil filter **- A -** and **- B -**

The following work description applies to both versions:

- Drain oil at drain plug **- 1 -** .

- Remove filter lower part **- 3 -** using tool.

Note:

- *Observe disposal regulations.*

- Install new filter element **- 5 -** and new O-ring **- 4 -** coated with oil.

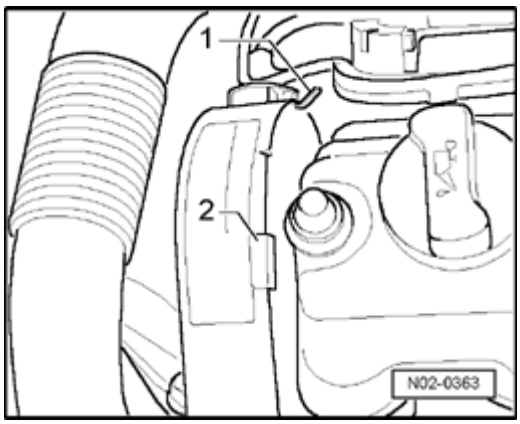
- Tighten filter lower part with 25 Nm and drain plug with new sealing ring **- 2 -** to 10 Nm.

Toothed belt wear, checking (SDI / TDI engines)

Special tools, testers and auxiliary items required

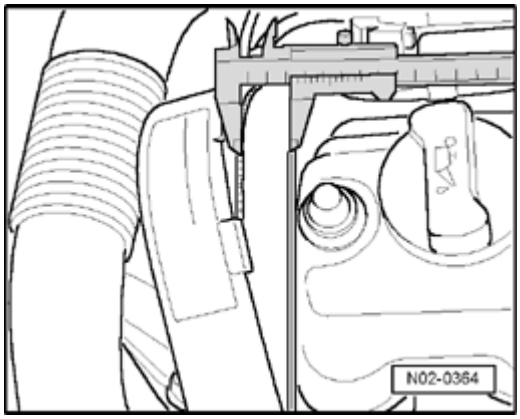
- Caliper gauge (commercially available)

Perform the following work procedure:



- Open clips **- 1 -** of upper toothed belt guard.

- Unhook toothed belt guard **- 2 -** and pull to the side.



- Measure the width of the toothed belt using a caliper.

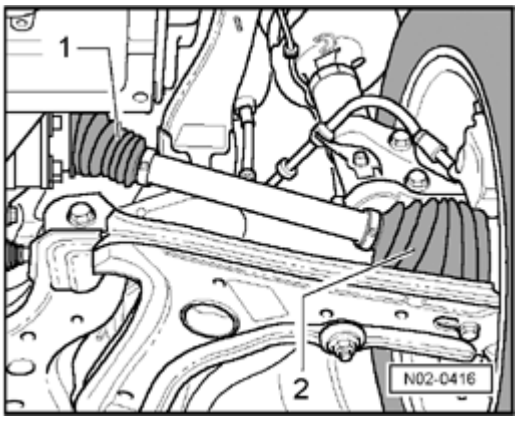
Wear limit: 22 mm

Note:

- *With a toothed belt width of 22 mm the toothed belt has reached its wear limit and must be replaced (repair measure). Inform customer!*

CV boots, visual check

Perform the following work procedure:



- Check outer CV joint boots **- 2 -** and inner CV joint boots **- 1 -** for leaks and damage.

Manual transmission/final drive, check oil level (for vehicles with All Wheel Drive (AWD), also check transmission oil in rear final drive)

5-speed manual transmission 020

⇒ *Repair Manual, Manual Transmission , Repair Group 34, Gear oil, checking*

.

5-speed manual transmission 02A

⇒ *Repair Manual, Manual Transmission , Repair Group 34, Gear oil in manual transmission with bevel gear transfer case, checking*

⇒ *Repair Manual, Manual Transmission , Repair Group 39, Gear oil in rear final drive, checking*

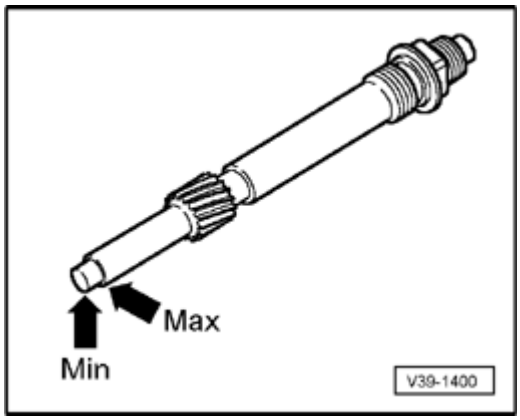
Automatic transmission, checking oil level of final drive

Note:

- *Observe disposal regulations.*

- Remove drive for speedometer, wipe off with a cloth, and install drive again.

- Remove drive and check oil level.



Oil level must be between min.- and max.- marking.

Note:

- *Oil capacity between min. and max. marking is 0.1L.*

- If oil level is too low, top-off axle oil.

Oil specifications,

⇒ *Repair Manual, Automatic Transmission, Repair Group 00, Capacities.*

- If oil level is too high, extract oil using oil siphoning unit V.A.G 1358 A .

- Install drive for speedometer.

Brake system, visual check for leaks and damage

Check the following components for leaks and damage:

- Master brake cylinder
- Brake booster (with Anti-lock Brake System -ABS-): Hydraulic unit)
- Brake pressure regulator
- Brake calipers

- Ensure that brake hoses are not twisted.

- Ensure that brake hoses do not touch any vehicle components when steering is at full lock.

- Check brake hoses are not porous or brittle.

- Check brake hoses and lines for chafing.

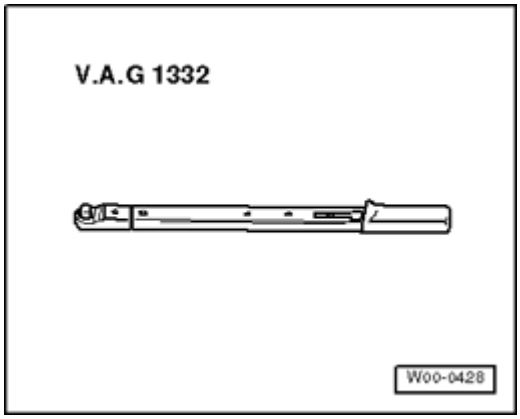
- Check brake connections and methods of securing for correct seating, leaks and corrosion.

Warning!

Malfunctions found must be repaired (repair measure).

Brake pads front and rear, checking thickness

Special tools, testers and auxiliary items required



- Torque wrench V.A.G 1332 (40 -200 Nm)
- Electric flashlight and mirror

Perform the following work procedure:

Wheel bolts

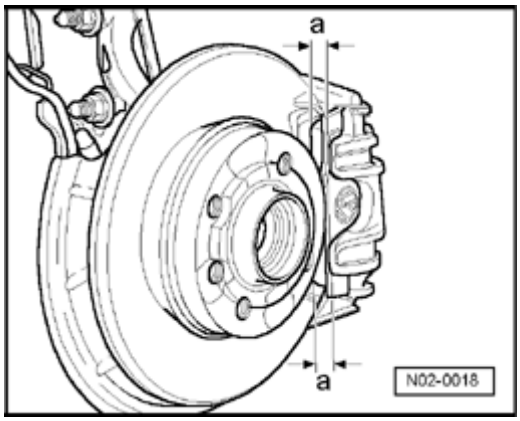
The adapter to loosen/tighten the anti-theft wheel bolts is located in the vehicle tool kit.

Front disc brake pads

- For better judgement of remaining pad thickness, remove the wheel on the passenger side (wear higher than on drivers side).

- Mark position of wheel in relation to brake disc.

- Unbolt wheel securing bolts and remove wheel.



- Measure inner and outer pad thickness.

a - Pad thickness without backing plate

Wear limit: 2 mm

With a pad thickness of 2 mm (without backing plate) the

brake pads have reached their wear limit and must be replaced (repair measure). Inform customer!

Note:

- *When replacing brake pads, it is absolutely necessary to check brake discs for wear! Checking and if necessary replacing brake discs is a repair measure.*

- Check brake disc for wear

⇒ *Repair Manual, Suspension, Wheels, Brakes, Steering, Repair Group 46, Front brakes, servicing*

- Install wheel to marked position.

- Tighten wheel securing bolts, using diagonal sequence to following tightening torque:

4-hole wheel mounting

Tightening torque: 110 Nm

5-hole wheel mounting

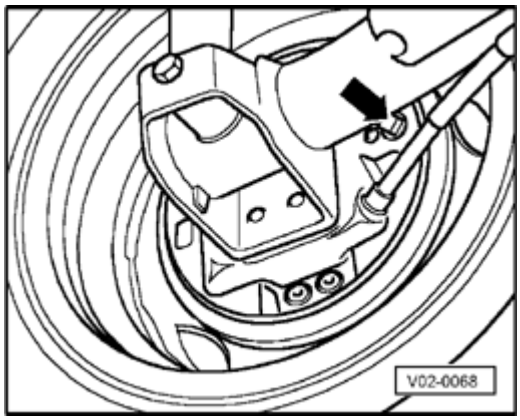
Tightening torque: 120 Nm

- Place adapter with vehicle tool kit after completing work.

- Reinstall wheel bolt covers if necessary.

Rear drum brake pads

Rear disc brake pads ⇒ 01-6, Rear disc brake pads .



- Check thickness of the brake pads through inspection holes in the brake carrier metal sheets **- arrow -** .

Wear limit: 2.5 mm (only pad thickness)

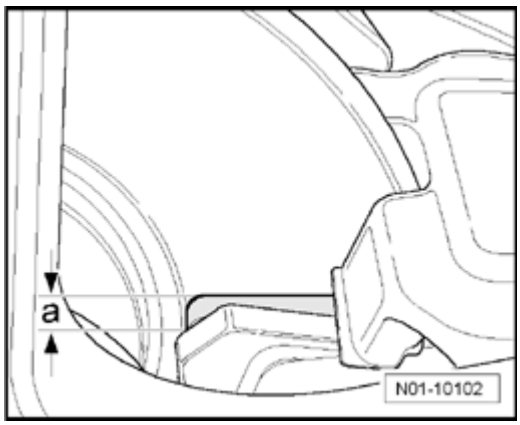
At a pad thickness of 2.5 mm, the brake pads have reached their wear limit and must be replaced (repair measure). Inform customer!

Note:

- *Pay attention to pads smeared with brake fluid or grease.*

Rear disc brake pads

- Illuminate area behind hole in wheel using an electric flashlight.



- Determine thickness of outer pad by checking visually.

- Illuminate inner pad using an electric flashlight and mirror.

- Determine thickness of inner pad by checking visually.

a - Pad thickness without backing plate

Wear limit: 2 mm

With a pad thickness of 2 mm (without backing plate) the brake pads have reached their wear limit and must be replaced (repair measure). Inform customer!

Note:

- *When replacing brake pads, it is absolutely necessary to check brake discs for wear! Checking and if necessary replacing brake discs is a repair measure.*

- Check brake disc for wear

⇒ *Repair Manual, Suspension, Wheels, Brakes, Steering, Repair Group 46, Rear brakes, servicing*

Underbody sealant, perform visual check for damage

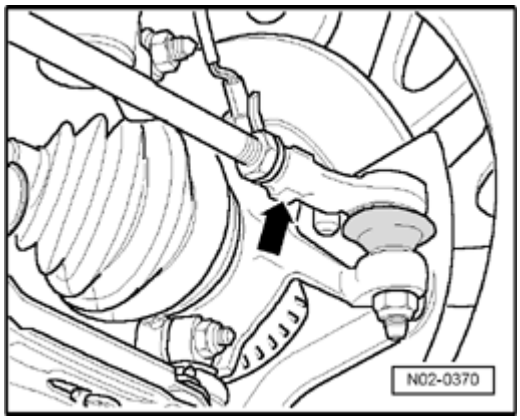
- During visual check, observe floor pan, wheel housings and sills!

Note:

- *Malfunctions found must be repaired (repair measure). This inhibits corrosion and rusting through.*

Tie rod ends, check play, security and joint boots

Perform the following work procedure:

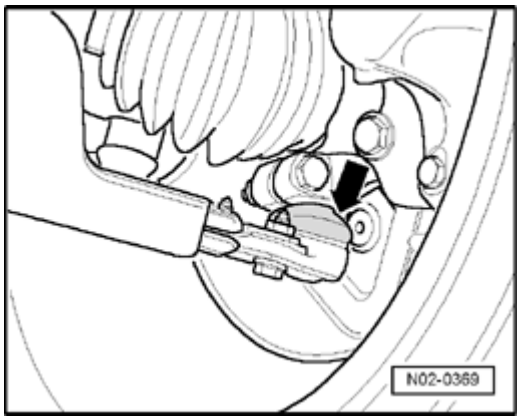


- With vehicle raised (wheels hanging free), check play by moving tie rods and wheels **- arrow -** . Play: zero play

- Check mountings.

- Check joint boots for damage and proper seating.

Ball joints, visual check



- Check joint boots **- arrow -** of ball joints for leaks and damage.

Tires (including spare wheel), check condition and wear pattern

Note:

- *For reasons of safety only tires of same type and tread pattern should be installed on a vehicle!*

Additional notes for syncro vehicles:

- The vehicle must be equipped with tires of the same make. Otherwise, the viscous clutch would unnecessarily increase the ratio of the rear final drive due to the arising RPM difference of both axles. This can cause damage.

- However, different tread depths of front axle and rear axle tires, e.g. due to wearout, is harmless. It is recommended, however, to mount the tires with the greater tread depth in the front.

- If the front wheels are more strongly worn out than the rear wheels, they have a smaller rolling circumference and turn therefore faster.

- Thus tensions in the drive train arise and the tires wear faster.

Checking condition

Perform the following work procedure:

Delivery Inspection:

- Check tires (tread and side walls) for damage and remove foreign objects for example nails and glass splinters if necessary.

Inspection Service:

- Check tires (tread and side walls) for damage and remove foreign objects for example nails and glass splinters if necessary.

- Check tires for scuffing, one sided wear, porous side walls, cuts and fractures.

Note:

- *The customer must be informed of malfunctions found.*

Checking tire wear pattern

The wear pattern of the front wheels can be used to assess whether a check of the tie and camber is necessary:

- "Feathering" on tread indicates incorrect toe setting.
- One-sided tread wear is mainly attributed to incorrect camber.

When wear of this nature is noticed, determine cause by performing an alignment (repair measure).

Depth of tire tread (including spare wheel), checking

- Checking tread depth

Minimum depth: 1.6 mm

Note:

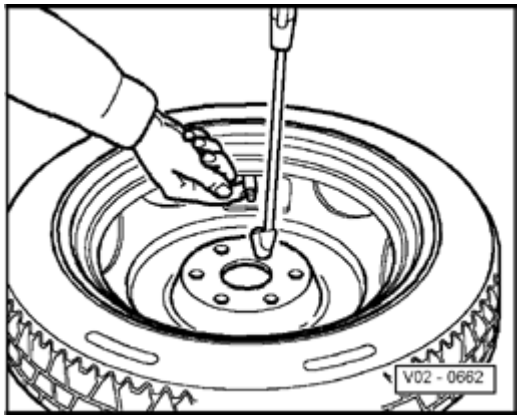
- *This figure may vary for individual countries according to legislation.*
- *The minimum tread depth is reached when the tires have worn down level with the 1.6 mm high tread wear indicators positioned at intervals around the tire.*
- *If the tread depth is approaching the legal minimum permissible depth, the customer must be informed.*

Tire inflation pressure (including spare wheel), checking, correcting inflation pressures if necessary

Special tools, testers and auxiliary items required

- Tire pressure gauge

Note:



- *Spare wheels with a rectangular opening in the wheel disk do not need to be removed. The filler valve must be reached through the opening.*

- *The pressures listed in the table are valid for cold tires. Do not reduce increased pressures on warm tires.*

- *Important information concerning winter tires recommended by Volkswagen is found in*

  ⇒ *Repair Manual, Wheels and Tires Guide, Repair Group 44, Wheels, tires, vehicle alignment*

  .

- *Tires pressures for the relevant model are on a sticker attached to the inside of fuel tank flap.*

Tire filling pressure table for normal tires

for all factory installed tire sizes

Inflation pressure values in bar for the following vehicles:

Golf

Golf

	half load		full load	
	front	rear	front	rear
vehicles with gasoline engine:				
40-, 44-kW with tires				

175/70 R 13	1.8	1.8	2.0	2.2
185/60 R 14	1.8	1.8	2.0	2.2
195/50 R 15	1.8	1.8	2.0	2.2
55-, 66-kW with tires				
175/70 R 13	2.1	1.9	2.4	2.6
185/60 R 14	2.1	1.9	2.4	2.6
195/50 R 15	2.1	1.9	2.4	2.6
74-kW with tires				
185/60 R 14	2.3	2.1	2.5	2.7
195/50 R 15	2.3	2.1	2.5	2.7
4-hole wheel mounting 85-kW				
185/60 R 14	2.3	2.1	2.5	2.7
195/50 R 15	2.3	2.1	2.5	2.7
205/50 R 15	2.0	1.8	2.2	2.4
5-hole wheel mounting 85-kW with tires				
195/50 R 15	2.5	2.3	2.6	2.8
205/50 R 15	2.1	1.9	2.3	2.5
215/40 R 16	2.5	2.3	2.6	2.8
110-kW with tires				
195/50 R 15	2.6	2.4	2.8	2.8
205/50 R 15	2.2	2.0	2.4	2.6
215/40 R 16	2.6	2.4	2.8	2.8
128-kW with tires				
205/50 R 15	2.6	2.4	2.8	3.0
215/40 R 16	2.9	2.7	3.0	3.0

	half load		full load	
	front	rear	front	rear
Vehicles with Diesel engine:				
47-kW with tires				
175/70 R 13	2.1	1.9	2.4	2.6

185/60 R 14	2.1	1.9	2.4	2.6
195/50 R 15	2.1	1.9	2.4	2.6
55-, 66-kW with tires				
175/70 R 13	2.3	2.1	2.6	2.8
185/60 R 14	2.3	2.1	2.6	2.8
195/50 R 15	2.3	2.1	2.6	2.8
4-hole wheel mounting 81-kW with tires				
185/60 R 14	2.5	2.3	2.6	2.8
195/50 R 15	2.5	2.3	2.6	2.8
5-hole wheel mounting 81-kW with tires				
195/50 R 15	2.6	2.4	2.7	2.7
205/50 R 15	2.2	2.0	2.3	2.5
215/40 R 16	2.6	2.4	2.7	2.7
Spare wheel (gasoline and diesel):				
Spare wheel: Regular wheel:	4.2 Meet highest intended inflation pressure for vehicle.			

Golf syncro

	half load		full load	
	front	rear	front	rear
vehicles with gasoline engine:				
66-kW with tires				
175/70 R 13	2.3	2.3	2.5	2.9
185/60 R 14	2.3	2.3	2.5	2.9
195/50 R 15	2.3	2.3	2.5	2.9
85-kW with tires				
185/60 R 14	2.5	2.5	2.7	3.1
195/50 R 15	2.5	2.5	2.7	3.1
140-kW with tires				
205/50 R 15	2.4	2.4	2.6	3.0
215/40 R 16	2.4	2.4	2.6	3.0

	half load	full load

	front	rear	front	rear
Vehicles with Diesel engine:				
66-kW with tires				
185/60 R 14	2.4	2.4	2.6	3.0
195/50 R 15	2.4	2.4	2.6	3.0
Spare wheel (gasoline and diesel):				
Spare wheel: Regular wheel:	4.2 Meet highest intended inflation pressure for vehicle.			

Golf wagon

	half load		full load	
	front	rear	front	rear
vehicles with gasoline engine:				
40-, 44-kW with tires				
175/70 R 13	1.8	1.8	2.0	2.6
185/60 R 14	1.8	1.8	2.0	2.6
195/50 R 15	1.8	1.8	2.0	2.6
195/60 R 14	1.8	1.8	2.0	2.6
55-, 66-kW with tires				
185/60 R 14	2.1	2.1	2.4	3.0
195/50 R 15	2.1	2.1	2.4	3.0
195/60 R 14	1.8	1.8	2.1	2.7
74-, 85-kW with tires				
195/50 R 15	2.3	2.3	2.6	3.2
195/60 R 14	2.0	2.0	2.2	2.8

	half load		full load	
	front	rear	front	rear
Vehicles with Diesel engine:				
47-kW with tires				
185/60 R 14	2.1	2.1	2.4	3.0
195/50 R 15	2.1	2.1	2.4	3.0
195/60 R 14	1.8	1.8	2.1	2.7

55-kW with tires				
185/60 R 14	2.3	2.3	2.5	3.1
195/50 R 15	2.3	2.3	2.5	3.1
195/60 R 14	2.0	2.0	2.2	2.8
66-kW with tires				
195/50 R 15	2.3	2.3	2.6	3.2
195/60 R 14	2.0	2.0	2.2	2.8
81-kW with tires				
195/50 R 15	2.5	2.3	2.6	3.2
195/60 R 14	2.2	2.0	2.3	2.9
Spare wheel (gasoline and diesel):				
Spare wheel: Regular wheel:	4.2 Meet highest intended inflation pressure for vehicle.			

Golf wagon syncro

	half load		full load	
	front	rear	front	rear
vehicles with gasoline engine:				
66-kW, 85-kW with tires				
195/60 R 14	2.1	2.4	2.3	3.0
140-kW with tires				
205/50 R 15	2.5	2.7	2.7	3.3
215/40 R 16	2.5	2.7	2.7	3.3

	half load		full load	
	front	rear	front	rear
Vehicles with Diesel engine:				
66-kW with tires				
195/60 R 14	2.1	2.4	2.3	3.0
Spare wheel (gasoline and diesel):				
Spare wheel: Regular wheel:	4.2 Meet highest intended inflation pressure for vehicle.			

Jetta

	half load		full load	
	front	rear	front	rear
vehicles with gasoline engine:				
44-kW with tires				
175/70 R 13	1.8	1.8	2.0	2.4
185/60 R 14	1.8	1.8	2.0	2.4
195/50 R 15	1.8	1.8	2.0	2.4
55-kW, 66-kW with tires				
175/70 R 13	2.1	1.9	2.4	2.8
185/60 R 14	2.1	1.9	2.4	2.8
195/50 R 15	2.1	1.9	2.4	2.8
74-kW with tires				
185/60 R 14	2.3	2.1	2.5	2.9
195/50 R 15	2.3	2.1	2.5	2.9
4-hole wheel mounting 85-kW with tires				
185/60 R 14	2.3	2.1	2.5	2.9
195/50 R 15	2.3	2.1	2.5	2.9
205/50 R 15	1.9	1.9	2.1	2.5
5-hole wheel mounting 85-kW with tires				
195/50 R 15	2.3	2.1	2.5	2.9
205/50 R 15	2.1	1.9	2.3	2.7
215/40 R 16	2.1	1.9	2.3	2.7
128-kW with tires				
205/50 R 15	2.6	2.4	2.8	3.2
215/40 R 16	2.6	2.4	2.8	3.2

	half load		full load	
	front	rear	front	rear
Vehicles with Diesel engine:				
47-kW with tires				

175/70 R 13	2.1	1.9	2.4	2.8
185/60 R 14	2.1	1.9	2.4	2.8
195/50 R 15	2.1	1.9	2.4	2.8
55-kW, 66-kW with tires				
175/70 R 13	2.3	2.1	2.6	3.0
185/60 R 14	2.3	2.1	2.6	3.0
195/50 R 15	2.3	2.1	2.6	3.0
81-kW with tires				
185/60 R 14	2.5	2.3	2.6	3.0
195/50 R 15	2.5	2.3	2.6	3.0
Spare wheel (gasoline and diesel):				
Spare wheel: Regular wheel:	4.2 Meet highest intended inflation pressure for vehicle.			

Golf Cabriolet ➢ 03.98

	half load		full load	
	front	rear	front	rear
vehicles with gasoline engine:				
55-kW, 66-kW with tires				
185/60 R 14	2.2	2.0	2.4	2.7
195/50 R 15	2.2	2.0	2.4	2.7
74-kW, 85-kW with tires				
185/60 R 14	2.4	2.2	2.6	2.9
195/50 R 15	2.4	2.2	2.6	2.9

	half load		full load	
	front	rear	front	rear
Vehicles with Diesel engine:				
66-kW with tires				
185/60 R 14	2.4	2.2	2.6	2.9
195/50 R 15	2.4	2.2	2.6	2.9
81-kW with tires				
185/60 R 14	2.5	2.3	2.7	3.0

195/50 R 15	2.5	2.3	2.7	3.0
Spare wheel (gasoline and diesel):				
Spare wheel: Regular wheel:	4.2 Meet highest intended inflation pressure for vehicle.			

Golf Cabriolet 04.98 ➢

	half load		full load	
	front	rear	front	rear
vehicles with gasoline engine:				
55-kW, 66-kW with tires				
185/60 R 14	2.2	2.0	2.4	2.7
195/50 R 15	2.2	2.0	2.4	2.7
205/45 R 16	2.2	2.0	2.4	2.7
74-kW, 85-kW with tires				
185/60 R 14	2.4	2.2	2.6	2.9
195/50 R 15	2.4	2.2	2.6	2.9
205/45 R 16	2.4	2.2	2.6	2.9

	half load		full load	
	front	rear	front	rear
Vehicles with Diesel engine:				
66-kW with tires				
185/60 R 14	2.4	2.2	2.6	2.9
195/50 R 15	2.4	2.2	2.6	2.9
205/45 R 16	2.4	2.2	2.6	2.9
81-kW with tires				
185/60 R 14	2.5	2.3	2.7	3.0
195/50 R 15	2.5	2.3	2.7	3.0
205/45 R 16	2.5	2.3	2.7	3.0
Spare wheel (gasoline and diesel):				
Spare wheel: Regular wheel:	4.2 Meet highest intended inflation pressure for vehicle.			

Automatic transmission, changing ATF

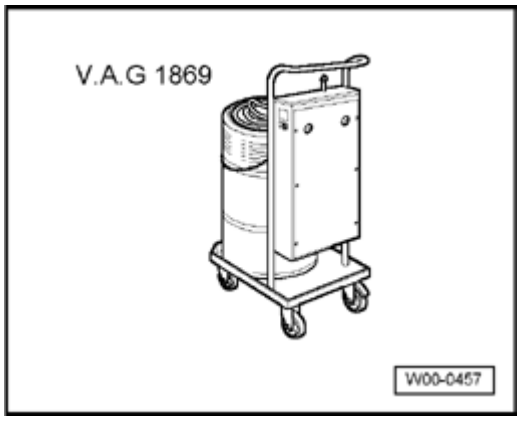
⇒ *Repair Manual, Automatic Transmission, Repair Group 37, ATF level, checking and topping off; ATF, replacing.*

Automatic transmission, ATF level, checking

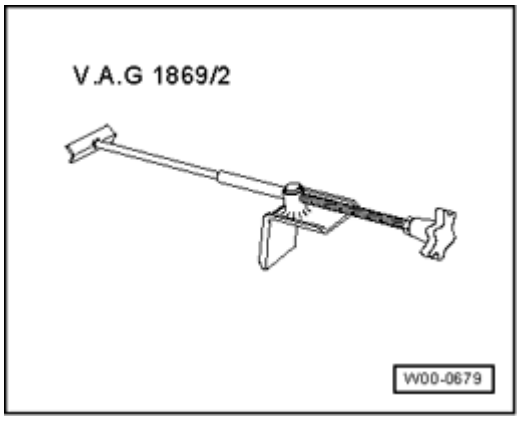
⇒ *Repair Manual, Automatic Transmission, Repair Group 37, ATF level, checking and topping off.*

Brake fluid, changing

Special tools, testers and auxiliary items required



- Brake charger/bleeder unit V.A.G 1869



- Brake pedal actuator V.A.G 1869/2
- or
- Brake filling and bleeding tool VW 1238 , V.A.G 1238/1 or V.A.G 1238/B

- Brake pedal actuator V.A.G 1238/B
- Bleeder bottle

Use only new brake fluid with replacement part number B 000 700 A (corresponds to US standard FMVSS 116 DOT 4)

Warning!

- ***NEVER bring brake fluid into contact with fluids containing mineral oil (oil, gasoline, cleaning fluids). Oils containing minerals damage seals and sleeves on brake systems.***
- ***Brake fluid is poisonous. Due to its caustic nature, it must also never be brought into contact with paint.***
- ***Brake fluid is hygroscopic, meaning that it absorbs moisture from the surrounding air, and must therefore always be stored in air-tight containers.***
- ***Rinse off any spilled brake fluid using plenty of water.***
- ***Observe disposal regulations!***

Perform the following work procedure:

- Using a bleeder bottle with integrated strainer, extract as much brake fluid as possible from the brake fluid reservoir.

Warning!

Do not reuse, (used) extracted brake fluid.

Observe operating instructions for V.A.G 1869 !

- Connect brake filling and bleeding tool V.A.G 1869 to brake fluid reservoir, however do not switch on yet.

- Insert brake pedal depressor V.A.G 1869/2 between drivers seat and brake pedal and pre-tension.

- Pull hose off clutch slave cylinder.

- Connect bleeder hose of reservoir on to bleeder screw of clutch slave cylinder.

- Switch on brake filling and bleeding tool V.A.G 1869 .

- Open bleeder screw of clutch slave cylinder and allow approx. 100 cm ^{3} of brake fluid to drain out. Close bleeder screw.

- Pull off bleeder hose of reservoir and connect hose to clutch slave cylinder.

- Open bleeder screws of the respective brake calipers and let the corresponding amount of brake fluid (see table below) flow out. The action of pumping in new brake fluid flushes used brake fluid out of the system.

Sequence: wheel brake cylinder, brake calipers	Brake fluid quantity which must flow out of wheel brake cylinders or brake calipers:
Right rear	0.4 to 0.5 liters
Left rear	0.4 to 0.5 liters
Right front	0.4 to 0.5 liters
Left front	0.4 to 0.5 liters

Total quantity: 2 Liter

- Remove connection on brake fluid reservoir and remove brake pedal depressor.

- Check pedal pressure and brake pedal free play. Free play: Max. ^{1} / $_3$ of pedal travel

Brake fluid level (depending on brake pad wear), checking

Use only new brake fluid with replacement part number B 000 700 A (corresponds to US standard FMVSS 116 DOT 4)

Warning!

- ***NEVER bring brake fluid into contact with fluids containing mineral oil (oil, gasoline, cleaning fluids). Oils containing minerals damage seals and sleeves on brake systems.***

- ***Brake fluid is poisonous. Due to its caustic nature, it must also never be brought into***

contact with paint.

- ***Brake fluid is hygroscopic, meaning that it absorbs moisture from the surrounding air, and must therefore always be stored in air-tight containers.***
- ***Rinse off any spilled brake fluid using plenty of water.***
- ***Observe disposal regulations!***

Note the following:

Delivery Inspection:

For the delivery inspection the fluid level must lie at the max.-marking.

Note:

- *To ensure that the brake fluid will not overflow the reservoir the max. marking must not be exceeded.*

Inspection Service:

- The fluid level must always be judged in conjunction with brake pad wear. When vehicle is in use, the fluid level tends to drop slightly due to brake pad wear and automatic adjustment.

- When fluid level is at min. marking or just above, it is not necessary to top up if brake pad wear limit is almost reached.

- If brake pads are new or well above wear limit, then fluid level must be between min.- and max.-markings.

- If fluid level is below min. marking, brake system must be checked (repair measure) before brake fluid is added.

Checking idle speed, adjusting if necessary (diesel engine, engine code AAZ)

⇒ *Repair Manual, 1.9 Liter 4-Cyl. 2V Eco-Diesel Fuel Injection Glow Plug, Engine Code(s): AAZ, Repair Group*

23, Idle speed, idle speed boost, maximum engine speed (RPM) and residual fuel delivery, checking and adjusting

Headlight setting, checking, adjusting headlights if necessary

Special tools, testers and auxiliary items required

- Headlight adjuster

The following test- and adjustment instructions are applicable to all countries. But national legislation and regulations of the respective country is to be adhered to.

Test- and adjustment requirements:

- Tire pressure OK.
- Lenses must not be damaged or dirty.
- Reflectors and bulbs OK.
- Vehicle load must be established.

Load: With one person or 75 kg on the drivers seat with otherwise unloaded vehicle (curb weight).

The curb weight is the weight of the vehicle ready for operation with completely filled fuel tank (at least 90 %), including the weight of all equipment items carried for operation (e.g. spare wheel, tool, vehicle jack, fire extinguisher etc.).

Vehicle must be rolled for several meters or the front and rear suspension must be bounced several times so that the springs settle.

- Vehicle and headlight adjuster must be on a level surface ⇒ *operating instructions for headlight adjuster* .
- Vehicle and headlight adjuster must be aligned.
- Inclination measure must be set.

Inclination measure:

- Main and high-beam headlights 12 cm

- Fog lights 20 cm

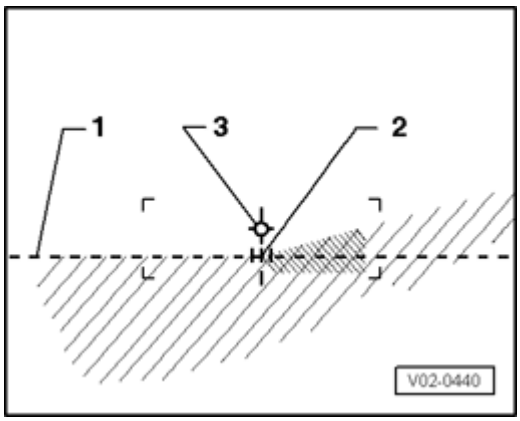
On vehicles with headlight range control, a sticker with the inclination measure specifications in "%" can be found on the lock carrier. Headlights must be adjusted according to this information. The percentage information on the sticker is based on a projection distance of 10 meters. For example: inclination of 1.2 % converts to approx. 12 cm.

- For vehicles with headlight range control, the thumbwheel on instrument cluster must be in the base position (-).

Checking headlight setting (with new test screen without 15 ° - setting line)

Headlights:

Check the following:



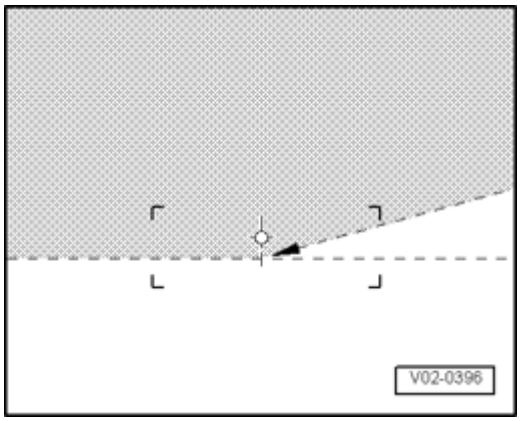
- With the low beam switched on, check whether the horizontal light-dark border contacts the hyphenated line **- 1 -** of the test surface and

- whether the break-away point **- 2 -** between the left horizontal part and the rising part on the right of the light-dark border runs vertically through the central point **- 3 -** . The bright core of the light beam must be on the right of the vertical line.

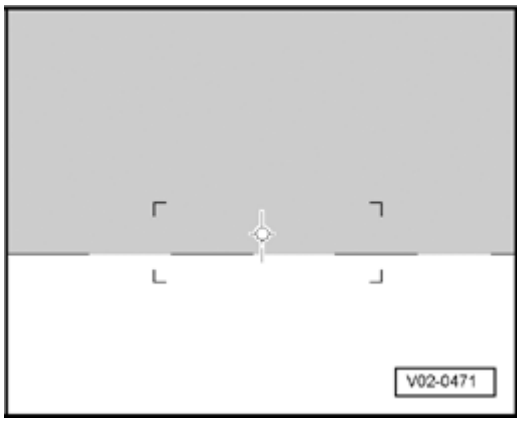
Note:

- *To make it easier to find break-away point **- 2 -** cover and uncover left half of headlight (as viewed when looking forward) a few times. Then check dipped beam again.*

- *After correct adjustment of low beams the center point of the light beam of high beams must lie on the central mark **- 3 -** .*



- *For the previous test screen with 15 ° -setting line, adjust as for new test screen. But to avoid incorrect settings ignore 15 ° -setting line.*



Fog lights:

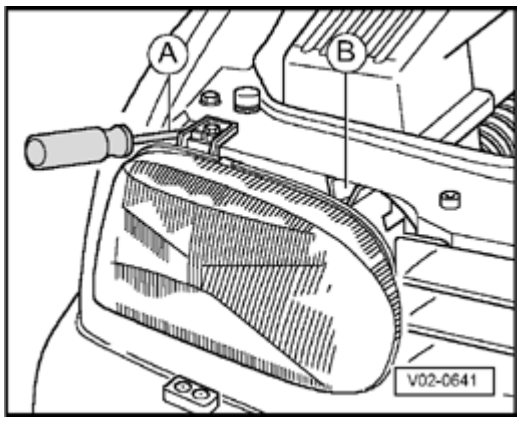
- Check whether the upper light-dark border touches the setting line and runs across the complete test screen width horizontally.

Auxiliary lights:

Later inserted auxiliary headlights of other systems must be checked and adjusted according to the guidelines valid for them.

Headlights, adjusting

Adjusting headlights for Golf Cabrio 04.98 ⇒ 01-6, Adjusting headlights for Golf Cabriolet 04.98



Headlight (right):

A - Vertical adjustment

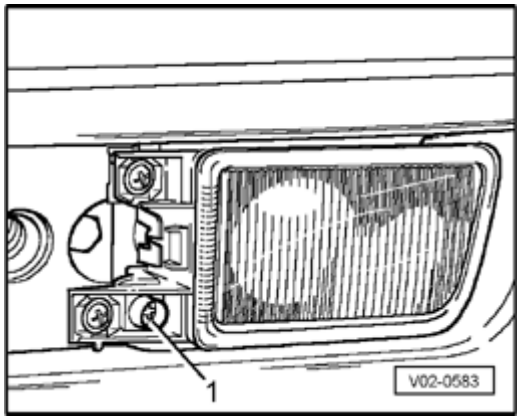
B - Lateral adjustment

Both adjustment wheels on left headlight are allocated symmetrically.

- Insert a Phillips-head screwdriver into the hole **- A -** to lower the headlight and turn the white hand wheel behind it to the right.

Note:

- *If hand wheel is accessible in the engine compartment, the adjustment may also be performed directly using the hand wheel. Then turn it to the left to lower the headlight. Also, the lateral adjustment can be performed through the hole **- B -** using the hand wheel, if there is access in the engine compartment.*



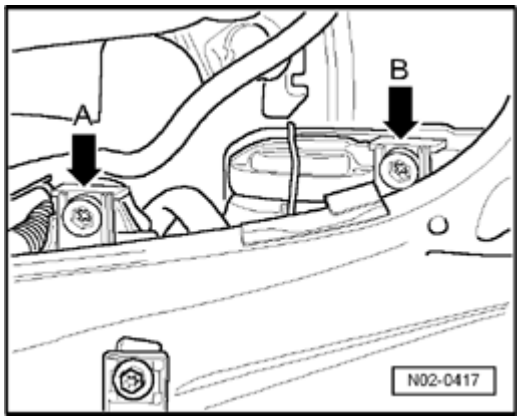
Right fog light:

- Remove cap for towing eyelet.

- Turn adjusting screw **- 1 -** toward left to lower beam height. Horizontal adjustment is not possible.

Adjusting screw on left headlight is allocated symmetrically.

Adjusting headlights for Golf Cabriolet 04.98



Headlight (left):

Both adjustment screws on right-hand headlight are similar.

A - Vertical adjustment

B - Lateral adjustment

- Use a Phillips-head screwdriver on the adjustment screw **- arrow A -** for height adjustment and on the adjustment screw **- arrow B -** for horizontal adjustment.

Road test vehicle

To what extent the following can be checked is dependent upon the vehicle equipment and local conditions (urban/country).

The following should be checked by means of a road test:

- Engine: Output, misfiring, idling speed, acceleration

- Clutch: Pulling away, pedal pressure, odors

- Gear selection: Ease of operation, shift lever position

- Automatic transmission: Selector lever position, shift lock / ignition key removal lock, shift behavior

- Foot-operated and hand-operated parking brake: Function, free travel and effectiveness, pulling to one side, juddering, squeal.

- ABS function: A pulsing at the brake pedal must be felt when performing ABS controlled braking

- Steering: Function, steering free play, steering wheel centralized when wheels are in straight ahead position

- Sunroof: Function
- Cruise Control System (CCS): Function
- Radio: Reception, SVC, interference
- Multifunction indicator (MFI): Functions
- A/C system: Function
- Vehicle: Moving off line when travelling straight ahead (level road)
- Imbalance: Wheels, drive axles, prop shafts
- Wheel bearings: Noises
- Engine: Hot starting behavior