

IMPORTANT INFORMATION

Please inform and provide a copy of this document to every person in your dealership with campaign-related responsibilities, including Service, Parts and Accounting personnel. By law, dealers must correct, prior to delivery for sale or lease, any vehicle that fails to comply with an applicable Federal Motor Vehicle Safety Standard or that contains a defect relating to motor vehicle safety. **If you have questions regarding this or any other campaign, please call (800) 741-2919.**



Product Update Circular

Code: N6

**Subject: 2004-2005 MY Touareg
Install Air Suspension Repair Kit**

December 2006

Product Update Description

Install air suspension repair kit.

VIN Ranges of Affected Vehicles

2004-2005 Touareg (U.S.A.)

WVG__7L_4_000014 - WVG__7L_5_071813

2004-2005 Touareg (Canada)

WVG__7L_4_000029 - WVG__7L_5_071358

NOTE: Check ELSAWeb on the day of repair to verify vehicle eligibility and attach the screen print to the repair order. This is the only valid campaign inquiry and verification source. Some vehicles may be involved in an additional action(s); any additional work can be done while the vehicle is in for this action.

Allocation Report of Affected Vehicles

In the Service Manager's Package, dealers with affected vehicles will receive a report containing the complete VIN with customer name and address data. Dealers will not receive a report if they have no affected vehicles.

NOTE: The allocation report contains owner names and addresses obtained from Motor Vehicle Registration Records. By law, this data may only be used for recall purposes. Use for any other reason may be a violation of law in many states/provinces. Accordingly, you must limit the use of this report.

Parts Information and Allocation

On or about December 15, 2006 you will receive an initial allocation of parts. Do not order additional parts until you receive your initial allocation. Thereafter, additional parts can be ordered through your facing PDC.

Product Update Expiration Date

This action is effective until December 31, 2007. Dealers should keep this expiration date in mind and schedule vehicle repairs accordingly. Claims with a repair date after December 31, 2007 will not be eligible for payment under this action.

Claim Entry Procedure

Immediately upon completion of the repair work, enter the correct code listed below. Claims will only be paid

for vehicles that show this campaign open in ELSAWeb on the day of the repair. To help ensure prompt and proper payment, attach the screen print to the repair order.

Damage Code	Time Units	Work Scope
N6 12	100 T.U.	- Install air suspension repair kit
		1 100 698 010A Repair kit
		1 N 102 018 01 Clamp
N6 13	190 T.U.	- Install air suspension repair kit;
		install new air supply unit
		1 100 698 010A Repair kit
		1 N 102 018 01 Clamp
1 7L0 698 007 A Air supply unit		
N6 20	0 T.U.	- Customer refused repairs

*See Loaner Eligibility on following page
There is NO reimbursement for Vehicle Wash
The system will enter labor & parts applicable to the codes above*

Loaner Eligibility

SUB LABOR

One-day Loaner @ \$30/day (USA)

One-day Loaner @ \$35/day (CAD)

Vehicle is eligible for loaner only if:

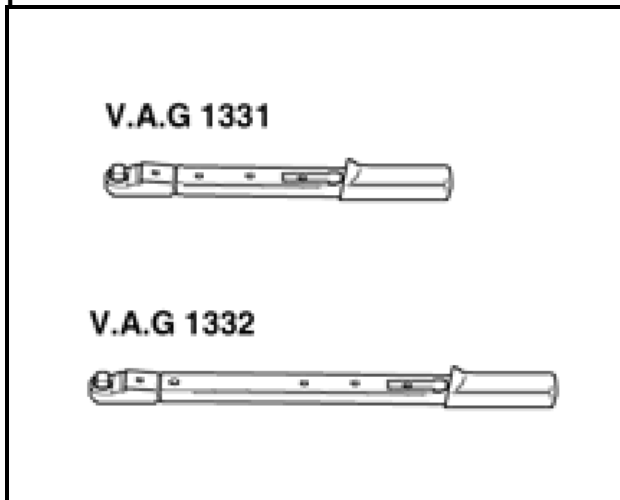
- customer requests loaner and
- repair exceeds two (2) hours and

If campaigns M9, N5, Q1, Q2, Q3, Q4, Q5 and/or Q6 are performed simultaneously with this N6 campaign, a loaner vehicle can only be claimed on ONE campaign. Multiple claims for a loaner vehicle will be debited.

Parts:

<u>Quantity</u>	<u>Part Number</u>	<u>Part Name</u>
1	100 698 010A	Repair Kit
1	N 102 018 01	Clamp
1	7L0 698 007 A	Air Supply Unit

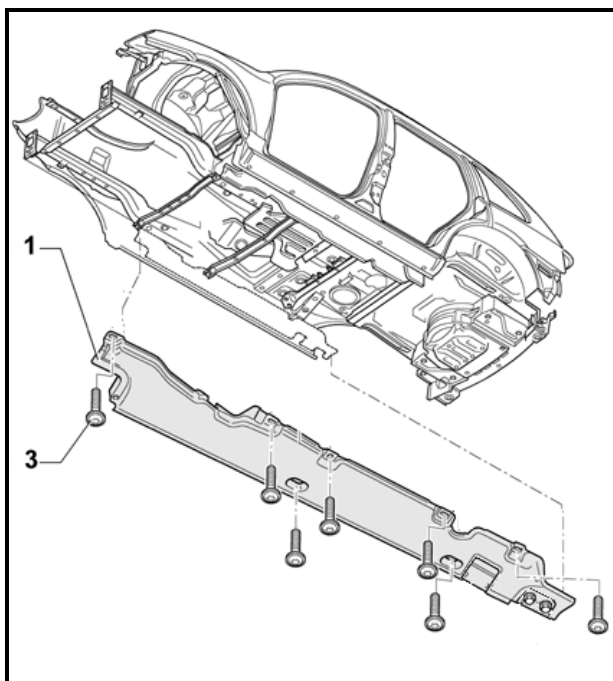
Special Tools:



← V.A.G 1331 - Torque wrench or equivalent

← V.A.G 1332 - Torque wrench or equivalent

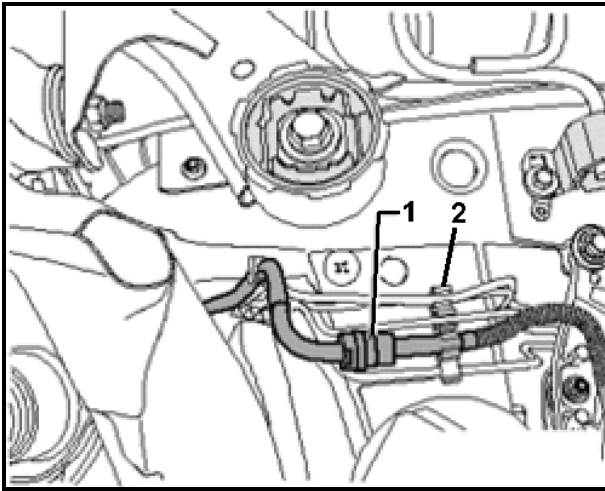
Work Sequence



- Drive vehicle into hoist area, position both lifting platform arms for accessibility and removal of the right underbody trim

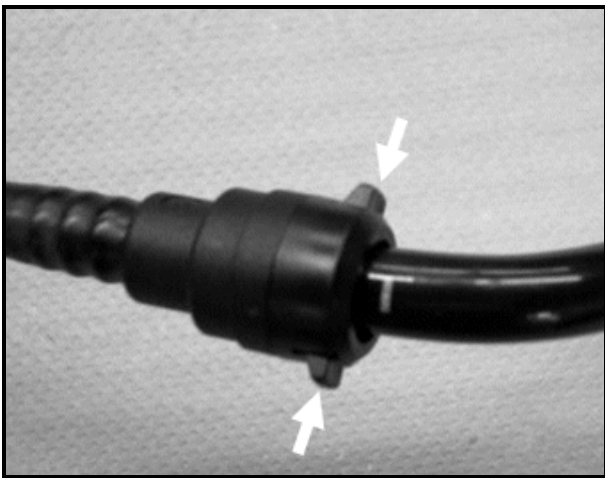
- Switch ignition "OFF", remove key and put vehicle into jack mode

← Raise vehicle and remove screws -3- and right side trim panel -1-



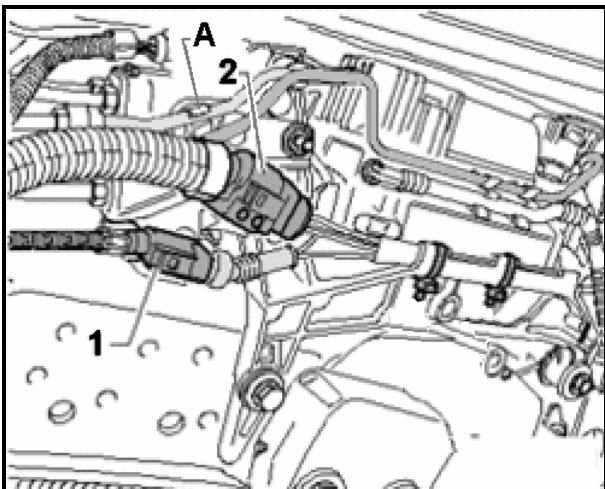
⇐ Locate coupling -1- on air intake line near front wheel housing

- Remove air line from clip -2- on underbody



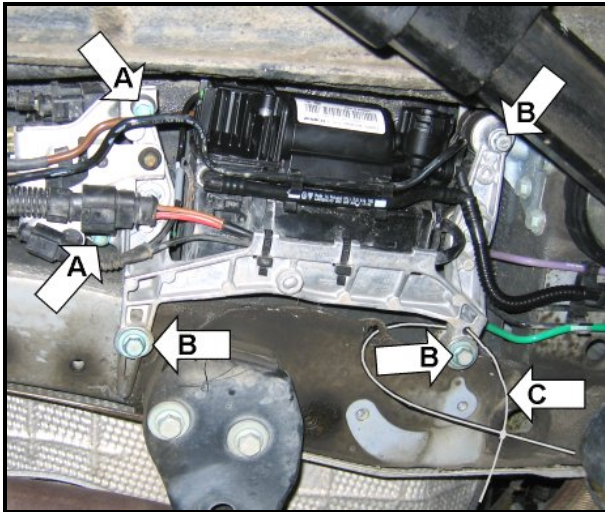
⚠ Note: Make certain area around coupling is clean of all debris

⇐ Press locking clips -arrows- and pull air line out of connector




⇐ Disconnect connectors -1- and -2- and unclip both connector housings from metal bracket


⇐ Remove black and brown air lines from clip -A-

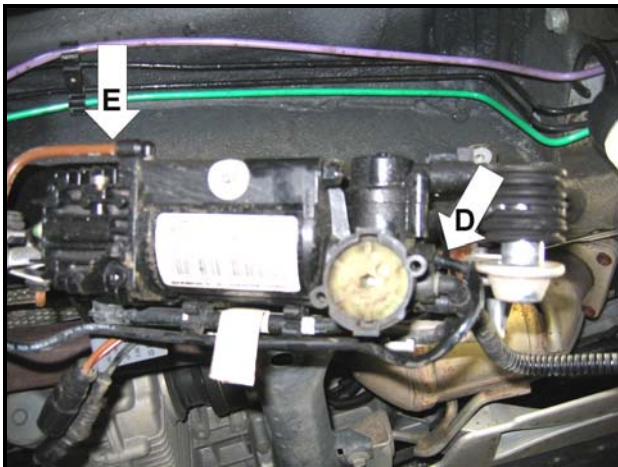


- ⇐ Cut a piece of mechanics wire -arrow C- about 16 inches long, insert into holes in air supply unit bracket and hole in body frame; make an approximately 4" diameter loop and twist together


 **Tip:** A 4" diameter loop will allow air supply unit to hang and be moved around body components

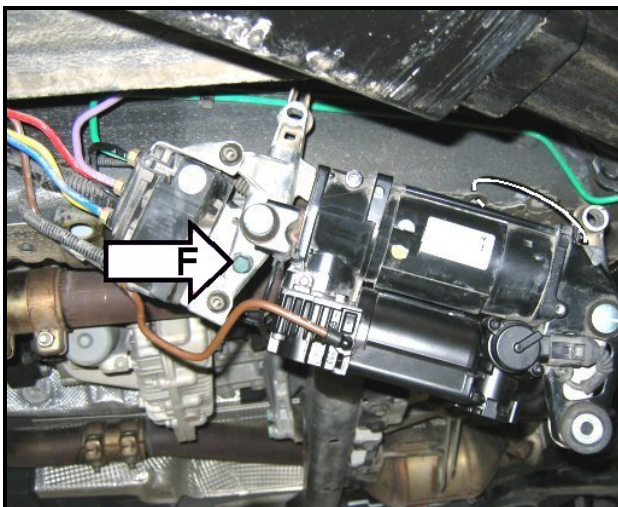
- ⇐ Remove bolts -arrows A-
- ⇐ Remove bolts -arrows B- and slowly and carefully lower air supply unit until it is suspended by mechanics wire

 **Note:** Make certain that solenoid valve block is moved away from underbody as little as possible.
Air intake lines must never be stretched or get kinked




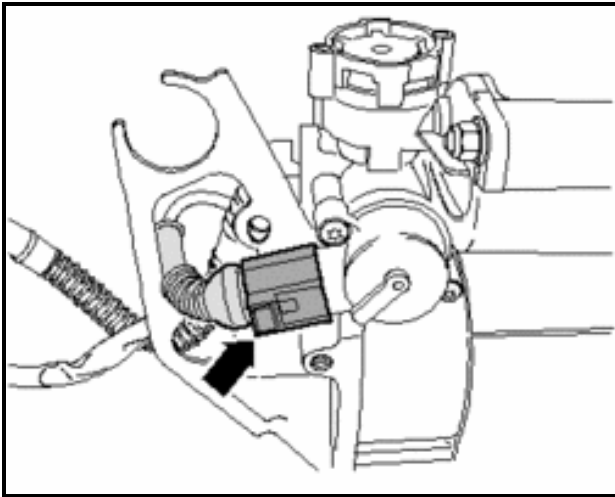
- ⇐ Release air line lock and disconnect black air line -D- from front of suspension air pump
- ⇐ Release air line lock and disconnect brown air line -E- from side of cylinder head

 **Tip:** To release air line lock, an 8mm open end wrench can be used for the brown air line at connector -E- and a 6mm open end wrench for the black air line at connector -D-

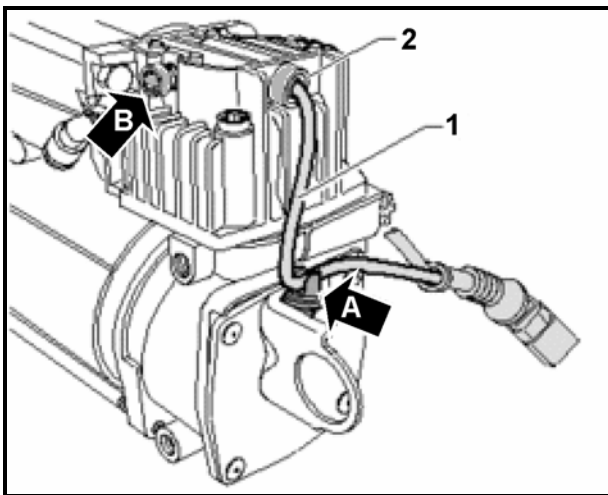


- ⇐ Slowly remove bolt -arrow F- connecting air supply unit bracket to valve body bracket and carefully separate brackets
- Remove mechanics wire and place air supply unit on a clean work surface

 **Note:** Do not clean air supply unit with chemicals or high-pressure cleaner
Clean air supply unit with a lint free cloth
Make certain that no dirt can get into open air lines or air line connections

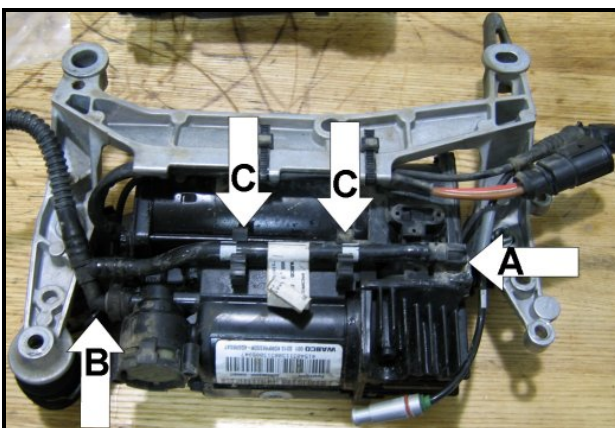


← Release connector -arrow- and disconnect




← Pull cable -1- from clip -arrow A-

← Remove screw -arrow B- and pull out sensor -2-



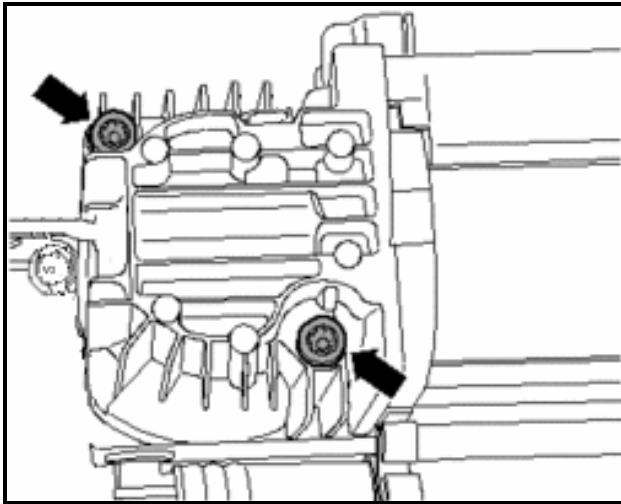
← Clean area around air line connection -arrow A-, unlock connector and remove air line

← Clean area around air line connection -arrow B-, unlock connector and remove air line

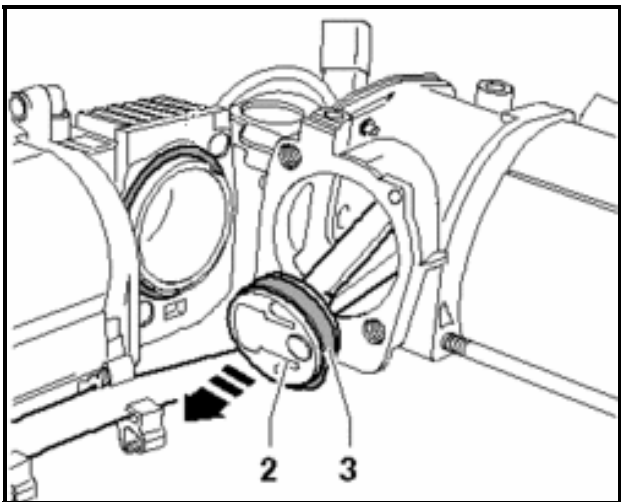
 Tip: To release air line lock, a 10mm open end wrench can be used to press in the gray ring at connector -arrow A- and a 12mm open end wrench to press the black ring towards compressor -arrow B- and pull out air lines

← Remove air line from clips -arrows C-


← Remove clips -arrows C-

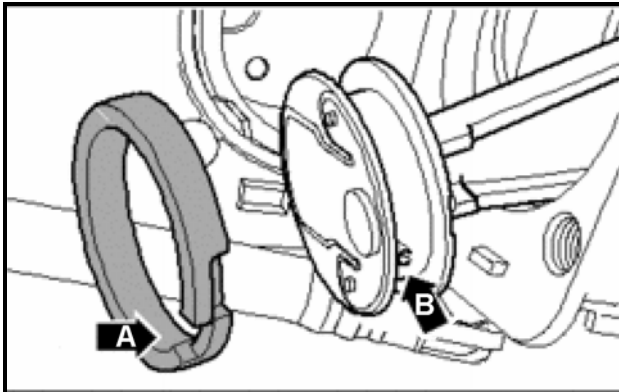


- ⇐ Remove cylinder head bolts -arrows-
- ⇐ Remove cylinder head



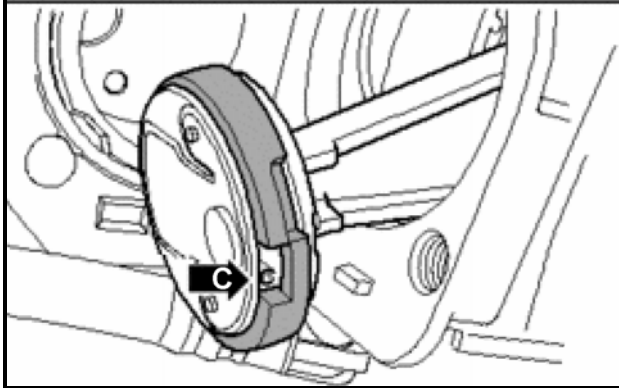
- ⇐ Lay compressor down to prevent debris from falling in
- ⇐ Pull piston -2- in direction of arrow or towards TDC (top dead center)
- ⇐ Manually remove piston ring -3- from piston

 Tip: Make note of piston ring position on piston



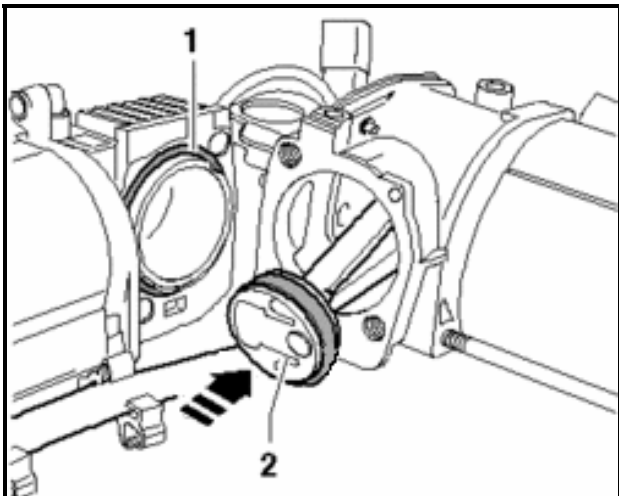
- ⇐ Hold new piston ring (from kit) with gap -A- facing top of piston, carefully spread piston ring and slowly slide it over the piston and into notch making certain the anti-rotation stop -B- is aligned in gap -A-

! Note: Do not over spread piston ring during installation

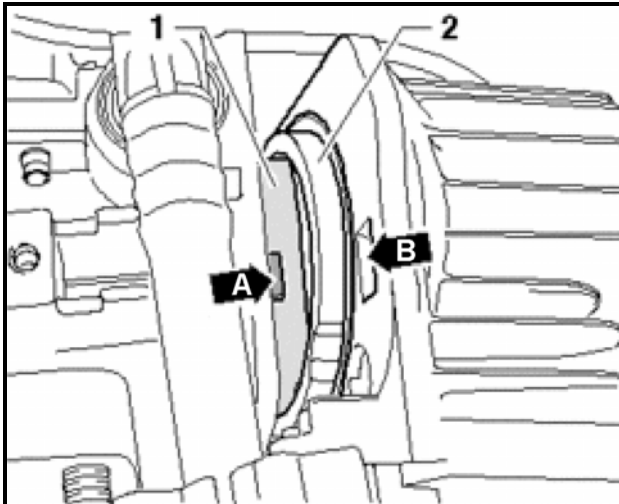


- ⇐ Piston ring is correctly installed when the anti-rotational stop is visible in gap of piston ring -C-

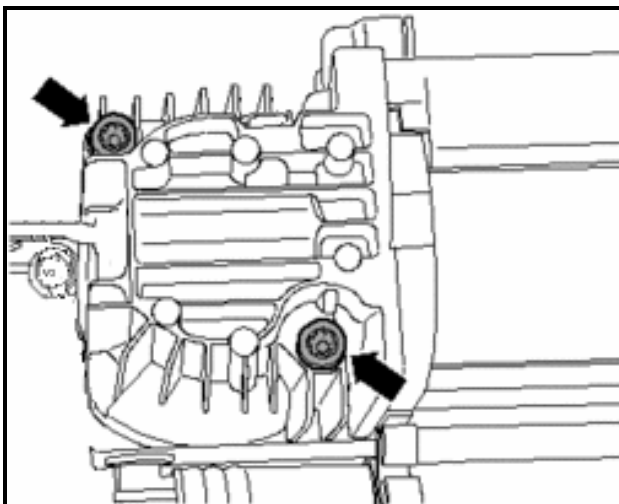
i Tip: Correct installation of piston ring will allow it to rotate loosely within gap -A-



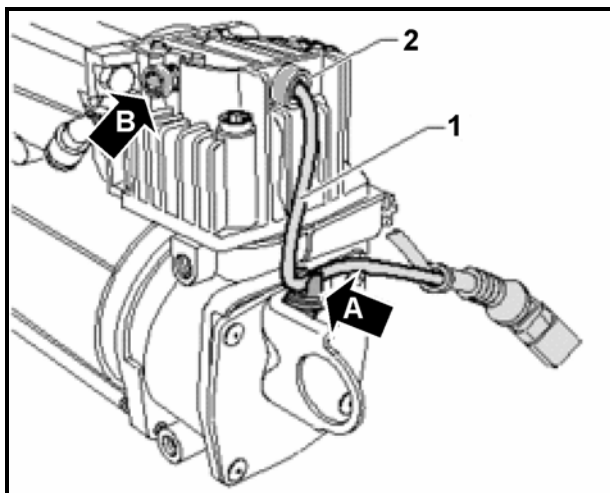
- ⇐ Install new seal ring -1- (from kit) onto new cylinder head
- ⇐ Push piston -2- into motor housing to BDC (bottom dead center)




- ⇐ Insert piston head -1- partially into cylinder head -2-, align tab -arrow A- on pump body with notch -arrow B- in new cylinder head (from kit) and assemble parts



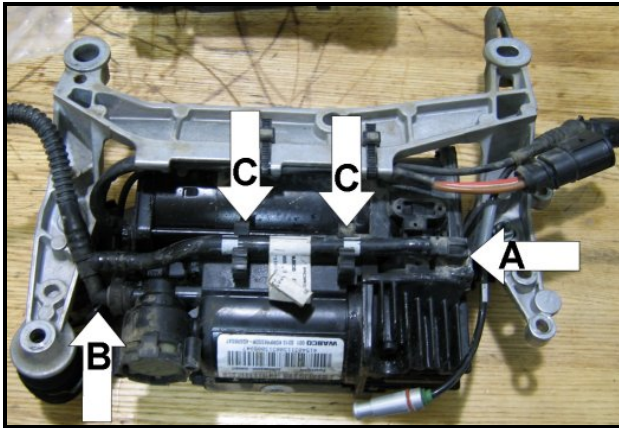
- ⇐ Loosely secure cylinder head to pump body with new screws (from kit) -arrows-
- ⇐ Before fully tightening screws, carefully turn cylinder head counterclockwise to stop and tighten screws to 5 Nm (44 in. lbs.)



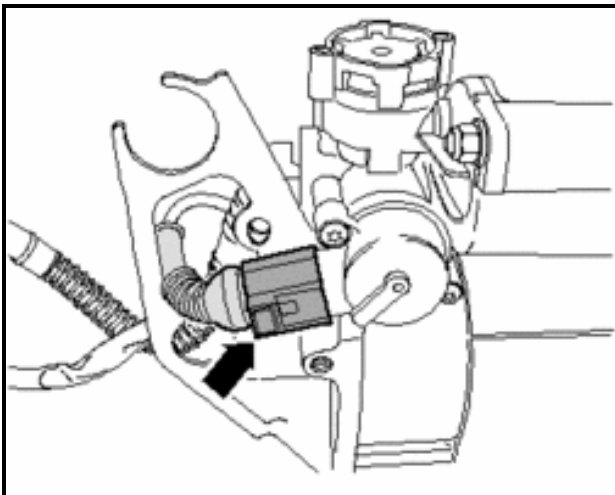
- ⇐ Insert sensor -2- into cylinder head until it stops, secure with new screw (from kit) -arrow B- and tighten to 6 Nm (53 in. lbs.)

 Tip: Screw head will not contact cylinder head because screw is securing sensor

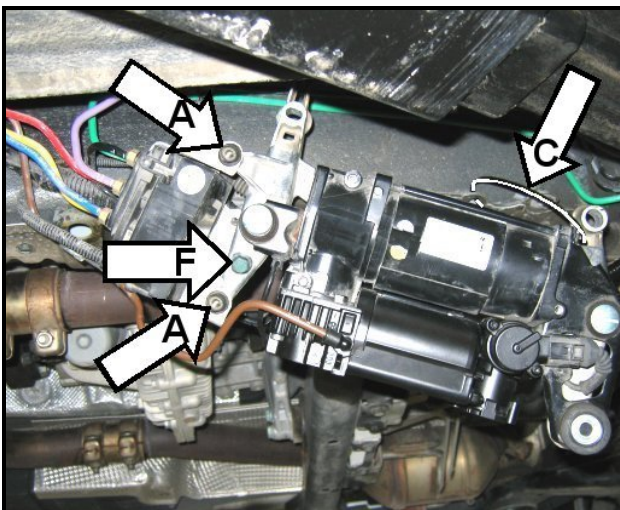
- ⇐ Insert wire harness -1- into clip -arrow A-




- ⇐ Make certain area around air line connection -arrow B- is clean and insert new air line fully into connector
- ⇐ Install new clips (from kit) -arrows C- onto air supply unit and insert air line
- ⇐ Make certain area around air line connection -arrow A- is clean and insert new air line fully into connector
- ⇐ Adjust clips -arrows C- to be positioned around white marks on new air line
- Check air lines by pulling to make certain they are locked into connectors

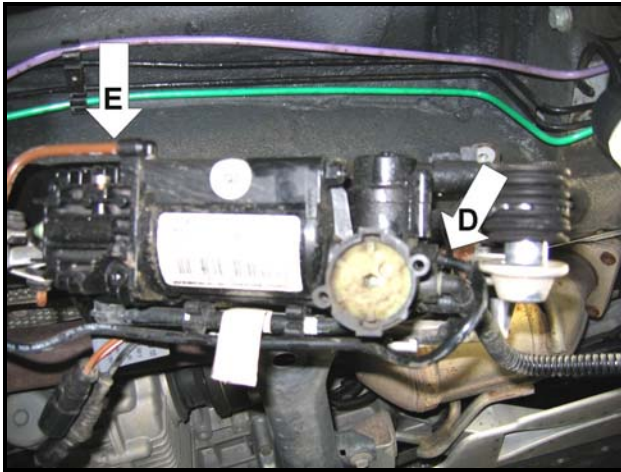


- ⇐ Reconnect connector -arrow-

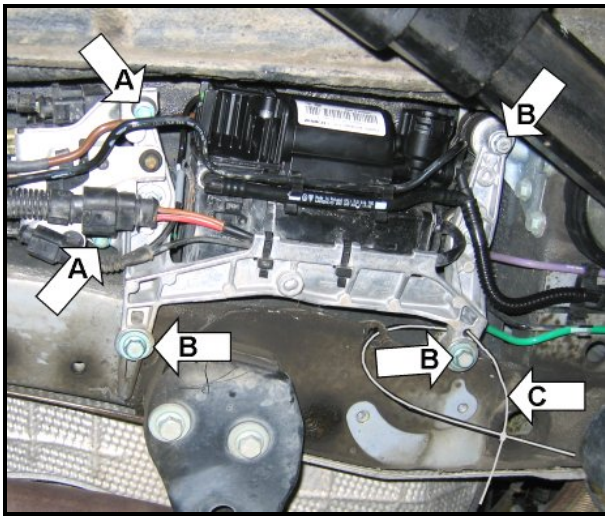


- ⇐ Reattach air supply unit to vehicle with mechanics wire -arrow C-
- ⇐ Hand start bolt -arrow F- and bolts arrows -A- to secure air supply unit bracket to valve block bracket
- ⇐ Tighten bolt -F- to 9 Nm (80 in. lbs.)

 **Tip:** Bolts -A- will be tightened after air supply unit is secured to the vehicle



- ⇐ Reinstall black air line -D- to front of air supply unit
- ⇐ Reinstall brown air line -E- to side of cylinder head
- Check air lines by pulling to make certain they are locked into connectors

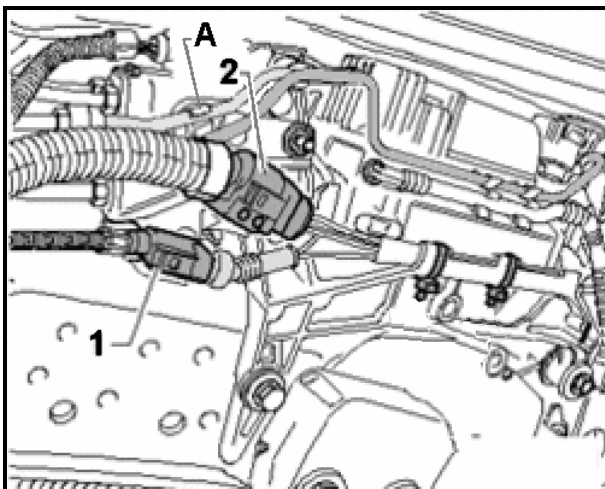


- ⇐ Carefully rotate air supply unit and position on vehicle

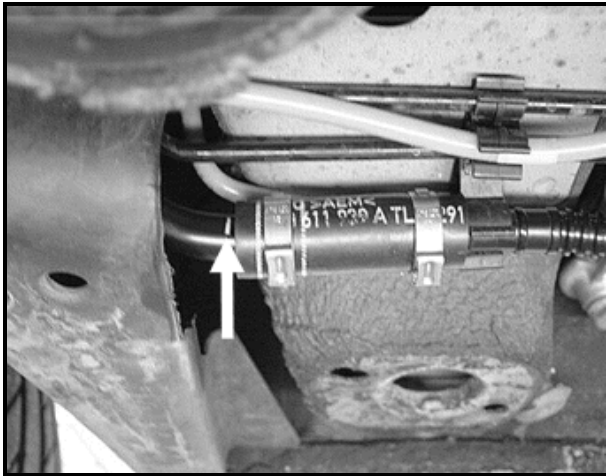
⚠ Note: Make certain that solenoid valve block is moved away from underbody as little as possible

Air intake lines must never be stretched or get kinked

- ⇐ Secure air supply unit to vehicle with bolts -arrows B- and tighten to 20 Nm (15 ft. lbs.)
- ⇐ Tighten bolts -arrows A- to 9 Nm (80 in. lbs.)
- ⇐ Remove mechanics wire -arrow C-



- ⇐ Reconnect connectors -1- and -2- and clip both connector housings into metal brackets
- ⇐ Insert black and brown air lines into clip -A-



⇐ Slide rubber hose on new air line from air supply unit up to white line -arrow- on vehicle air line and secure with new clamp (N 102 018 01)

- Insert air line into clip on underbody
- Proceed to system test

System Test

Checking requirements:

- *The air compressor must not be warm at the start of the check*
- *The vehicle should therefore not be started after the modification of the air compressor*

- Connect battery charger
- Connect VAS 5051/5052 diagnostic tester to the vehicle
- Switch ignition to "ON" position
- Take vehicle out of jack mode and move vehicle leveling switch into position 1
- Switch "OFF" all consumers
- Select "Guided Functions" and enter vehicle information
- Select "Level control systems"
- Select "System, filling and venting"

- With the next step, after pressing button #4, “Evacuate pressure reservoir”, the starting value of the pressure in the reservoir appears on the screen. Record this value. Compressor pumps air into the reservoir for a maximum of 50 seconds. Pressure increase during the pumping time of 50 seconds must be at least 1.5 bar
- Press button # 4 – “Evacuate pressure reservoir”
 - If compressor switches off before the 50 seconds are over (this happens if the pressure accumulator has reached its maximum value of 16.3 bar) compressor is functioning correctly
 - If compressor does not reach the pressure increase of 1.5 bar during the 50 seconds, air compressor must be replaced. Install new air supply unit (7L0 698 007 A)
- After screen changes back to selection screen, press button #7 – “Aborting”
- Select “Done”
- Exit Guided Functions and disconnect diagnostic tester from vehicle
- Check air line connections for leaks
- Reinstall trim panel to under body and secure with screws

WORK IS COMPLETE