

## Steering gear, removing and installing

### Special tools, test equipment and auxiliary items

- ◆ Repair Manual, Body Exterior and Repair Manual, Body Interior
- ◆ VAG1907 centering tool
- ◆ 3094 hose clamps

### Removing

- Remove plenum chamber cover.
- Remove battery.

### **CAUTION!**

***Before disconnecting the battery, determine the correct coding for the anti-theft radio.***

- Remove driver's side storage compartment:

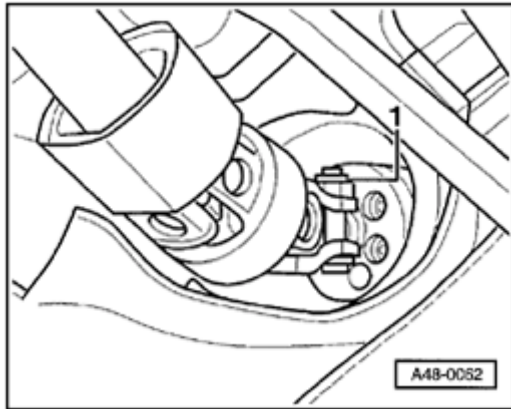
⇒ [Repair Manual, Body Interior, Repair Group](#)

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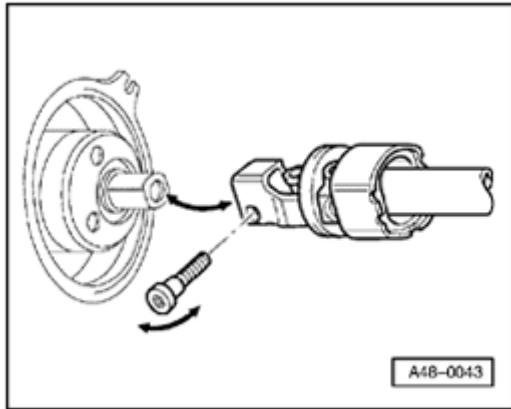
- Center steering wheel and remove ignition key.
- Move steering wheel slightly so that steering lock engages.

**CAUTION!**

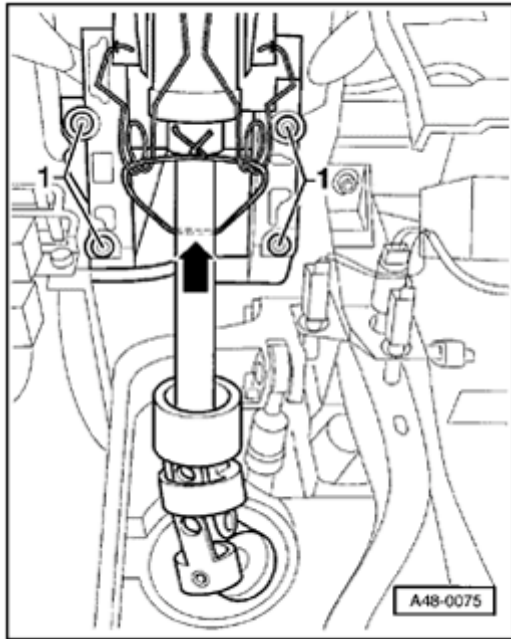
***If the steering wheel is turned excessively with the steering gear removed, the spiral spring for the airbag system may be turned too far and damaged.***



- A**
- Unscrew nut -1- at steering column universal joint.
  - Release by turning eccentric bolt (Torx<sup>®</sup> T50) clockwise, and remove bolt.



- A**
- Swing universal joint clear.
  - Pull bulkhead collar inward to remove.

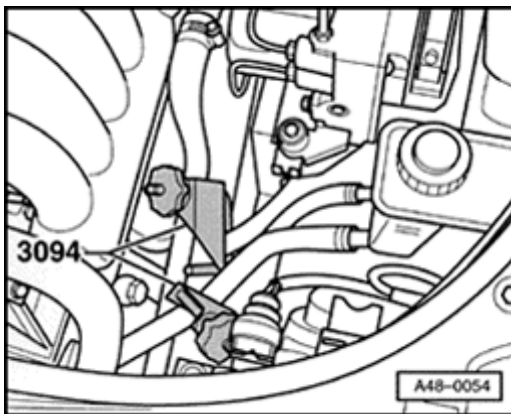


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- Secure steering column with safety wire before removing steering column from steering gear pinion.

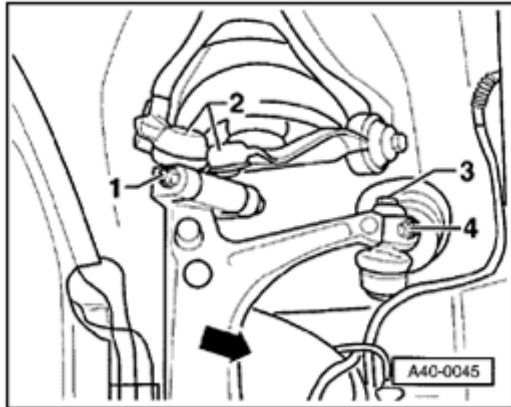
**CAUTION!**

- ♦ *The splines between top and bottom parts of the steering column must not be separated during the removal and installation procedure.*
- ♦ *Turn the steering wheel into center position and do not alter position during repairs, otherwise the airbag unit spiral spring may be damaged.*

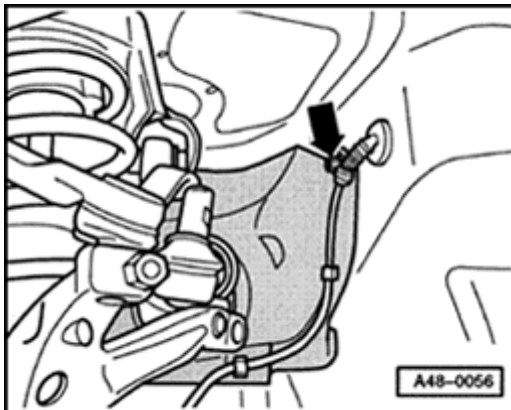


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- Pinch off suction and return lines using 3094 hose clamps.

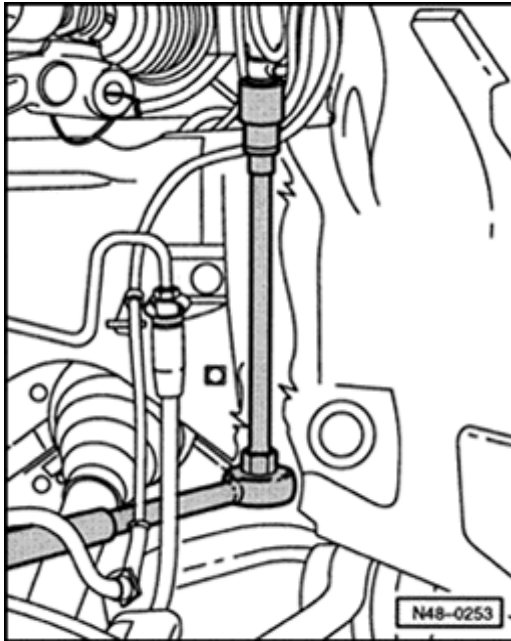


- Remove front wheels.
- A - Remove bolts -3- and -4-.
- Disconnect tie rod ends.



- A - Unscrew plastic nut (arrow).
- Pry out clips and remove cover (clips not visible in illustration).

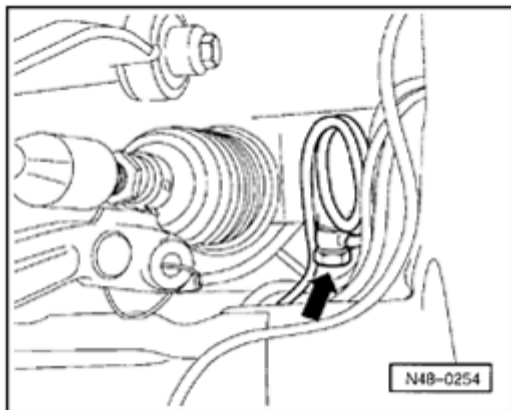
- Place drip tray underneath to catch hydraulic fluid.



- A - Remove 22 mm banjo bolts and disconnect return line from steering gear.

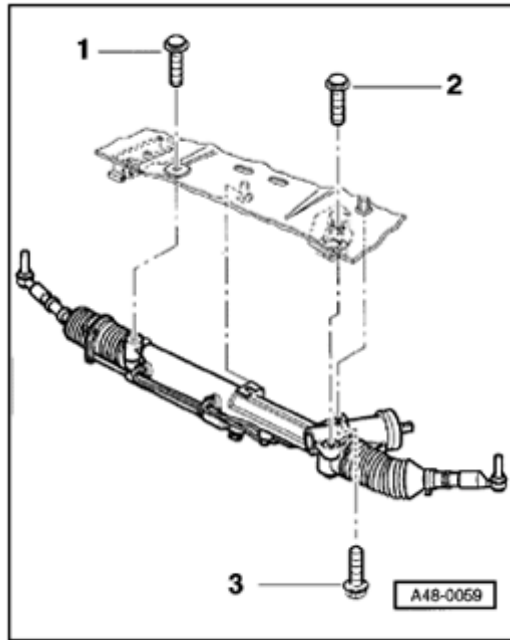
**CAUTION!**

***Always dispose of used hydraulic fluid properly.***



- A - Remove 19 mm banjo bolt and disconnect supply line from steering gear.

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A

- Remove steering gear mounting bolts -1-, -2- and -3-.
- Remove steering gear through left-hand wheel housing (second technician required).

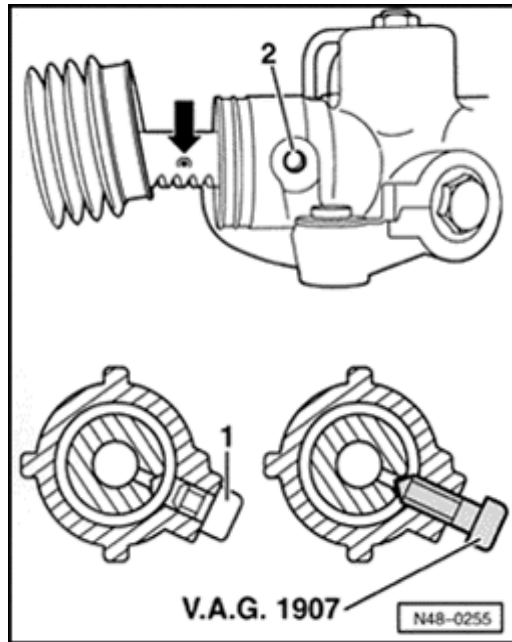
**Note:**

*Make sure that the bulkhead seal is not damaged by the steering gear pinion.*

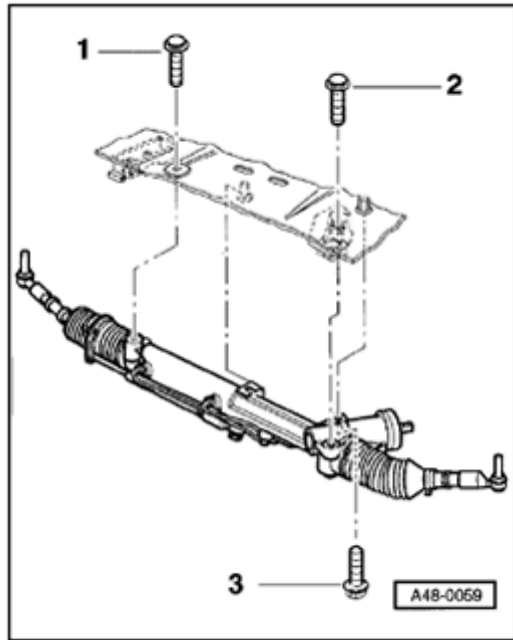
### Installing

▲ With the steering gear removed, VAG1907 is used to hold the rack in the center position during installation:

- Remove bolt -1- from steering gear.
- Align center mark (arrow) in rack with threaded hole -2- in steering gear.
- Install special tool VAG1907 hand-tight.







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- Position steering gear in plenum chamber.

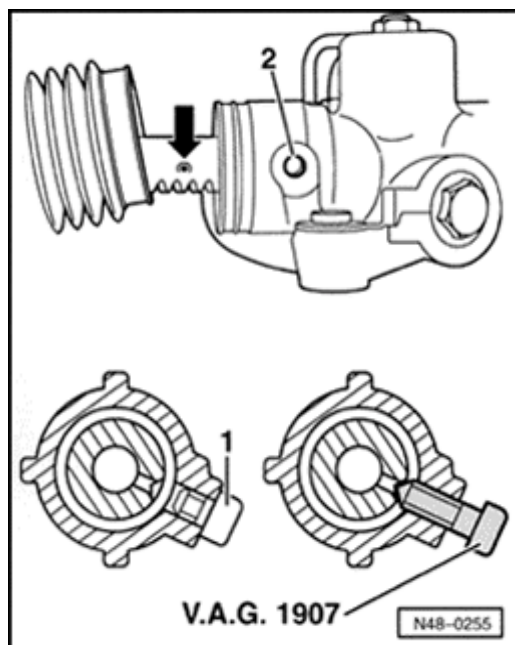
**Note:**

*Make sure threads and bolt contact surfaces are free of oil and grease.*

- Install bolts -1- and -2- but do not tighten.
- Install bolt -3- and tighten to 65 Nm (48 ft lb).
- Tighten bolts -1- and -2- to 65 Nm (48 ft lb).
- Install return hose and tighten 22 mm banjo bolt.  
Tightening torque: 50 Nm (37 ft lb)
- Install supply line and tighten 19 mm banjo bolt.  
Tightening torque: 40 Nm (30 ft lb)
- Re-install sealing boot.

**Notes:**

- ◆ *Damaged seals must be replaced.*
- ◆ *Make sure seals are properly seated.*
- Release steering column lock.
- Center steering wheel, then connect universal joint to steering pinion.



A

- Install eccentric Torx<sup>®</sup> bolt, engage counterclockwise and tighten nut.
- Remove VAG1907 centering tool from steering gear.
- 1 - Socket-head bolt (screw plug)
- 2 - Threaded hole in steering gear
- Install socket-head bolt -1- to seal off steering gear.  
Tightening torque: 13 Nm (10 ft lb)
- Tighten nut on tensioning bolt.  
Tightening torque: 40 Nm (30 ft lb)
- Install driver's side storage compartment.
- Install wheel housing cover.
- After completely installing steering gear remove 3094 hose clamps.
- Install battery and enter code for radio if necessary.
- Check level of hydraulic fluid ⇒ [page 48-22](#) .
- Bleed steering system ⇒ [page 48-24](#) .
- Check steering system for leaks ⇒ [page 48-25](#) .
- Check wheel alignment ⇒ [page 44-6](#) .