

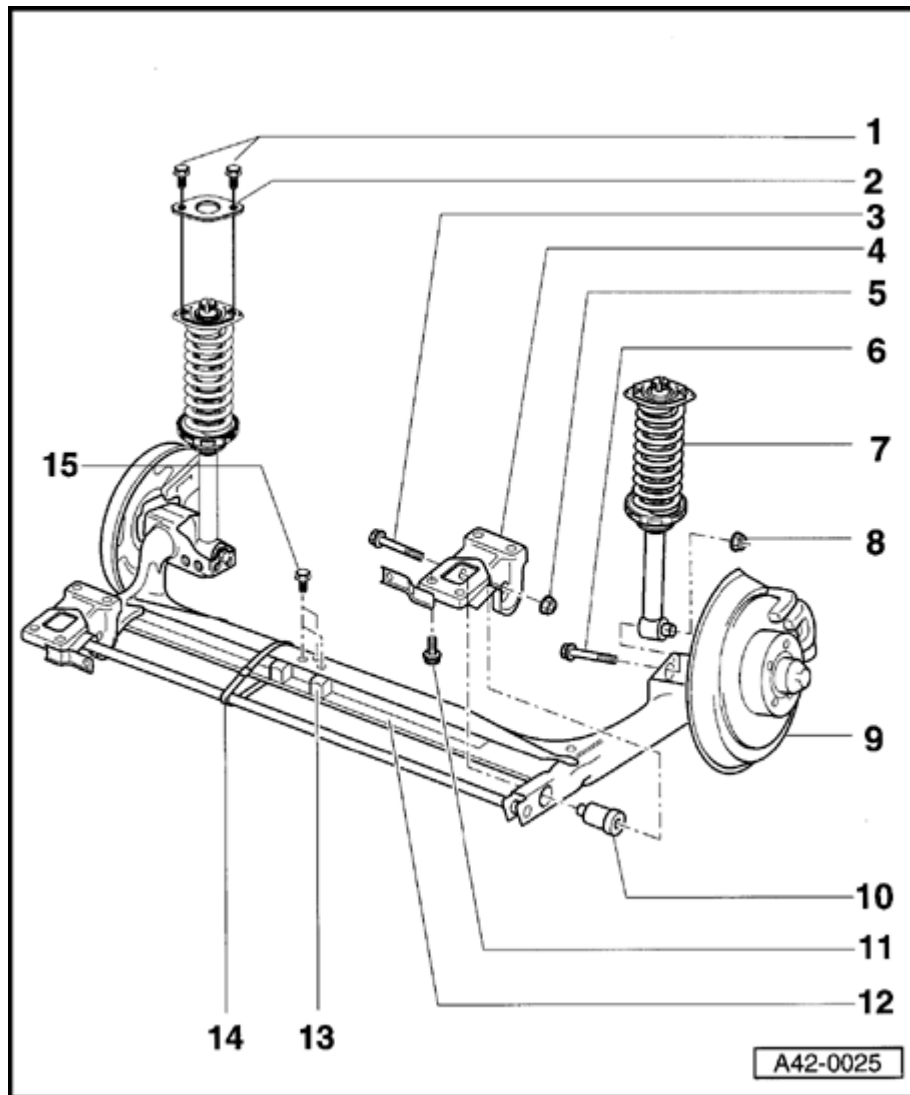
## Rear axle, servicing (front-wheel-drive vehicles)

### **WARNING!**

- ◆ **Do not attempt to weld and/or straighten the axle beam.**
- ◆ **Do not re-use fasteners that are worn or deformed in normal use.**
- ◆ **Some fasteners are designed to be used only once, and are unreliable and may fail if used a second time. This includes, but is not limited to, nuts, bolts, washers, circlips and cotter pins. Always follow recommendations in this manual-replace these fasteners with new parts where indicated, and any other time it is deemed necessary by inspection.**

### **CAUTION!**

**If using power tools (pneumatic or electric), do not tighten the bolted connections more than hand-tight. Otherwise, the specified tightening torques could be exceeded.**

**1 - Bolts**

- ◆ 25 Nm (18 ft lb)

**2 - Gasket**

- ◆ Always replace

**3 - Bolt**

- ◆ Always replace

**4 - Mounting bracket**

- ◆ Do not remove in order to remove rear axle
- ◆ Be careful when installing bolts

**Notes:**

- ◆ If mounting bracket - 4 - is removed, carry out a rough alignment of the rear axle after installation ⇒ [Fig. 1](#) .
- ◆ After all installation work is completed, check and if necessary adjust the wheel alignment ⇒ [page 44-13](#) .

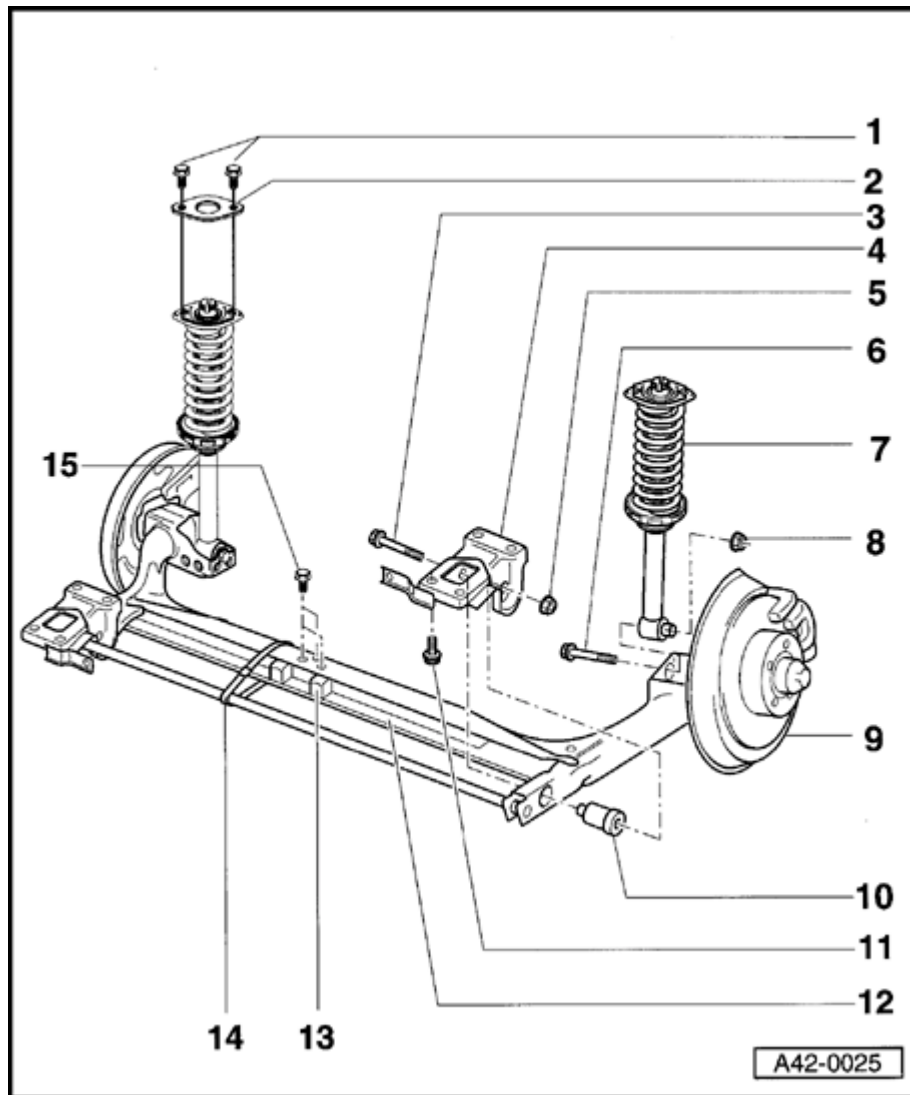
**5 - Nut**

- ◆ Always replace
- ◆ 80 Nm (59 ft lb) + 1/4-turn (90°)

**6 - Bolt**

- ◆ Always replace

◆ 50 Nm (37 ft lb) + 1/4-turn (90°)



### 7 - Suspension strut

- ◆ Different versions ⇒ [vehicle data label, page 42-5](#)
- ◆ Do not mix different versions
- ◆ Identical part for left and right-sides
- ◆ Removing and installing ⇒ [page 42-24](#)
- ◆ Servicing ⇒ [page 42-26](#)

### 8 - Nut

- ◆ Always replace

### 9 - Wheel bearing and wheel hub

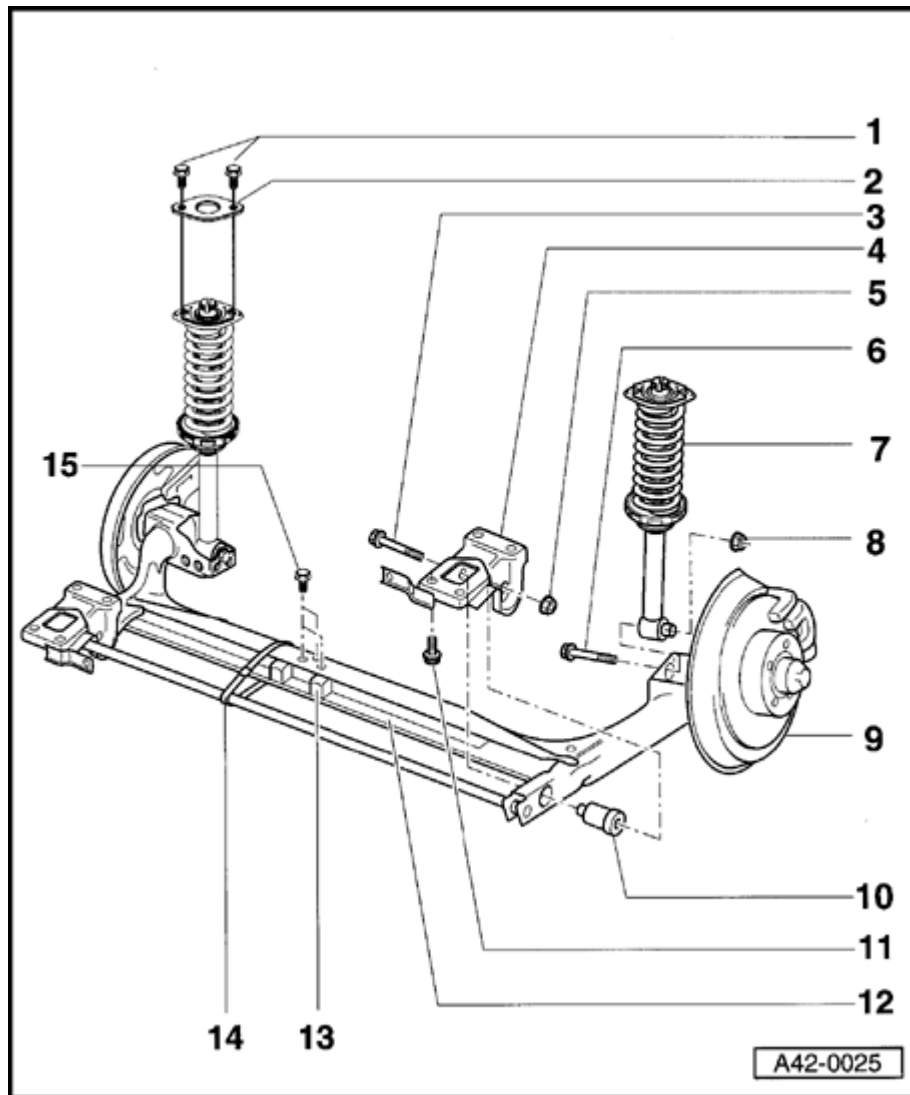
- ◆ Servicing ⇒ [page 42-16](#)

### 10 - Guide bushing

- ◆ Removing and installing ⇒ [page 42-14](#)

### 11 - Bolt

- ◆ Always replace
- ◆ 75 Nm (55 ft lb)



## 12 - Axle beam

- ◆ Removing and installing ⇒ [page 42-8](#)

Through m.y. 1998 on vehicles with xenon headlights a headlight range adjuster is installed

- ◆ If equipped with headlight range control ⇒ [page 42-8](#)
- ◆ Refer to Note ⇒ [page 42-49](#)
- ◆ Contact surfaces for wheel bearing/wheel hub and threaded holes must be free of paint or dirt
- ◆ After installing, check and if necessary adjust wheel alignment

## 13 - Balance weights

### Note:

*A new guide bushing has been introduced for the A4 Avant and sedan which replaces the old guide bushing and balance weights.*

## 14 - Retaining strap

- ◆ Installing ⇒ [Figs. 2](#) and ⇒ [3](#)

## 15 - Bolt

- ◆ 20 Nm (15 ft lb)

### Information on weight codes (code number)

From m.y. 1998 ➤, spring/shock assemblies will be classified according to weight codes (code number) so that suspension components can be matched easily.

The spring/shock assembly installed in the vehicle is indicated by the weight code on the vehicle data label.

0050	19-1-6293	444	UB
FAHRZEIDENT.NR. VEHICLE IDENT. NO.	WAVED6 8D z	WA001512	
TRITYPE	BD2 5V5		
	A4 Limo quat.	2.8	
	142KW TLEV M5S		
MOTOR/BL./GETRIEB ENCL CODE TRANS. CODE	AHA	DAJ DJR	
LACKNR./BREMENLUSST PAINT NO./INTERIOR	LY1Z/LY1Z	N0K/ QW	
BAUSSET/OPTIONS	X9A BOA C1L GOG H4B J0L M10 Q1A XXX 1AH 1G7 2PV		
	4UB 5RR 5SG T7F XXX 3SO		
	8RY OG1 8AH 8GL		
	1507 16,1 7,9 10,9 259	1BA	
			A44-0066



### Example of vehicle data label

A - Weight code for front suspension

B - Weight code for rear suspension

The vehicle data label is located in the spare wheel well and in the vehicle Maintenance booklet.

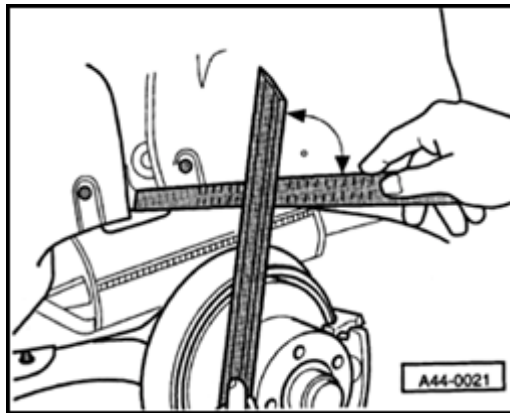
The weight codes can be used to identify the correct spring/shock assemblies on the parts catalog microfiche.

The weight code for the different suspension versions is indicated by the arrow in the illustration.

- ◆ 1BA: Standard suspension
- ◆ 1BE: Sport suspension
- ◆ 1BB: Heavy duty suspension (approx. 20 mm (3/4 in.) higher)
- ◆ 1BC: Special purpose suspension

- ◆ 1BD: Sport suspension, Audi S4
- ◆ 1BH: USA

- ◆ 1BT: Heavy duty suspension (approx. 7 mm or 1/4 in. higher)
- ◆ 1BP: Heavy duty suspension (same ride height as 1BA but with limited bump)



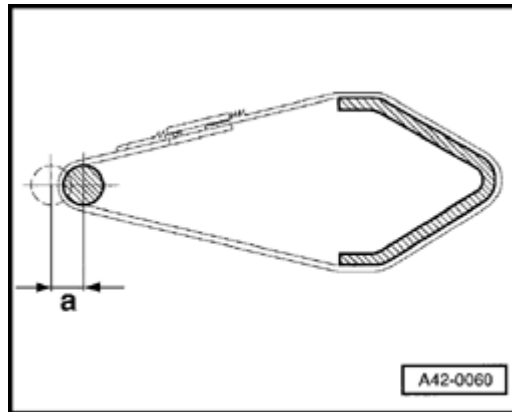
A

**Fig. 1 Rough alignment of rear axle**

- With mounting bolts loosened, push rear axle fully forward (direction of travel) and then center it from side-to-side using two rulers.

Checking wheel alignment ⇒ [page 44-6](#) .

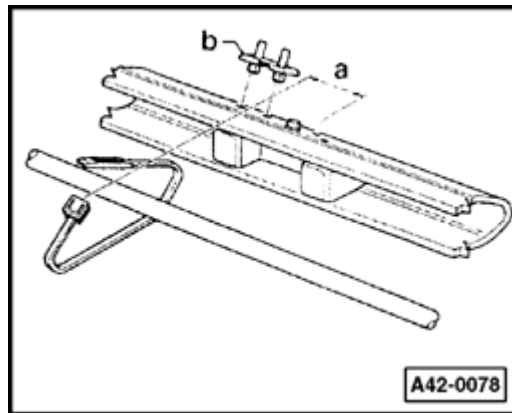




A

**Fig. 2 Installing retaining strap**

- Press center of stabilizer bar toward axle beam.
- Dimension -a-: approx. 8 mm (5/16 in.)



A

**Fig. 3 Installing retaining strap (continued)**

- Press stabilizer bar 8 mm (5/16 in.) toward axle beam, then install retaining strap off-set to right.
- Dimension -a-: 100 mm (3.94 in.)
- Make sure retaining strap contacts both axle beam and stabilizer bar then fasten strap (lock facing upward).

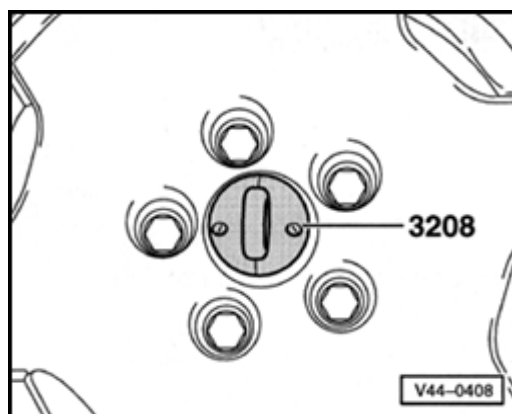
**Note:**

*If the axle beam is supplied with pre-drilled holes for mounting retaining strap guide -b-, the guide must be used. Guide -b- correctly positions the retaining strap and dimension -a- can then be ignored.*

## Rear axle, removing and installing

### Removing

- Vehicle must be standing on its wheels above vehicle lift

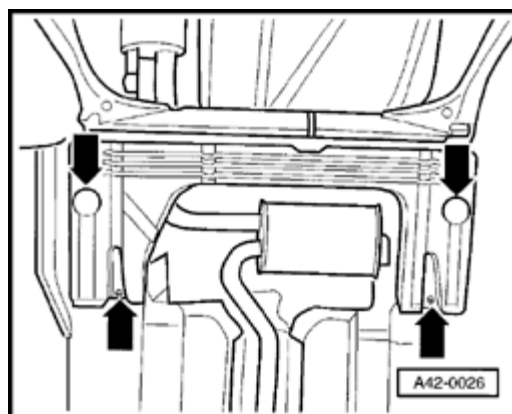


A

- Remove wheel trim.  
On light alloy wheels use puller in vehicle tool kit to remove trim cap
- Raise vehicle.
- Extract brake fluid from reservoir:

⇒ [Repair Manual, Brake System, Repair Group 47](#)

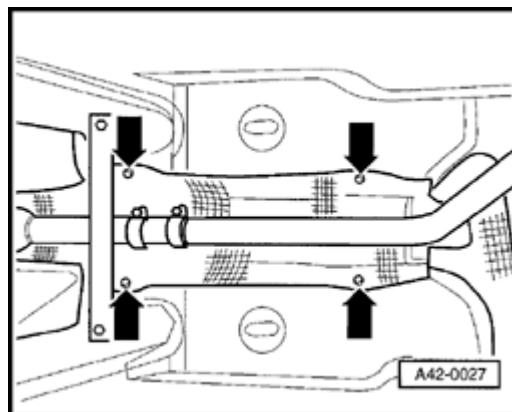
- Remove wheels.



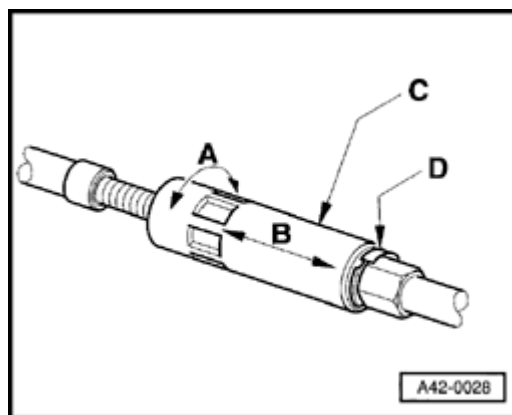
A

- Remove cover (arrows).

42-9

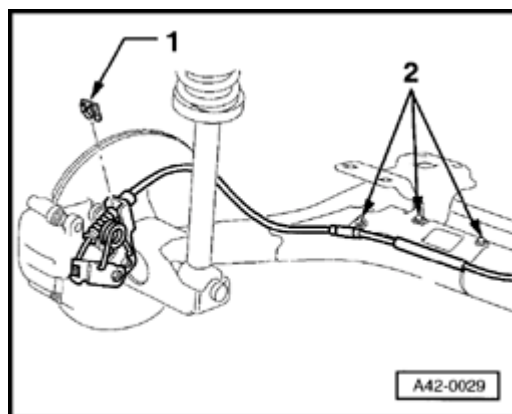


- A**
- Unbolt heat shield cover (arrows indicate bolted connections) and push forward until parking brake cable adjuster becomes accessible.

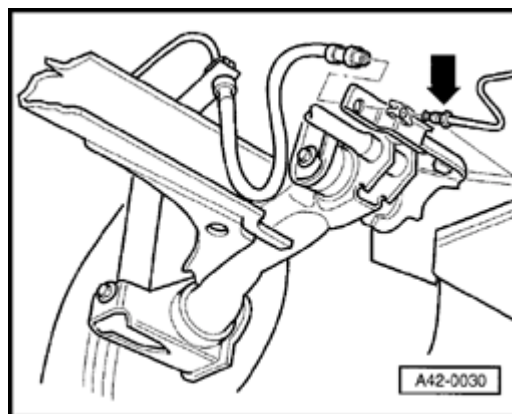


- A**
- Loosen both cable adjusters as follows:
    - Remove locking clip -D-.
    - Screw in adjusting nut -C- up to stop.
    - Push adjuster together.

42-10



- A**
- Remove locking plates -1- on left and right-sides, slightly loosen bolts - 2- for cable retaining plate, and remove cables from axle beam.



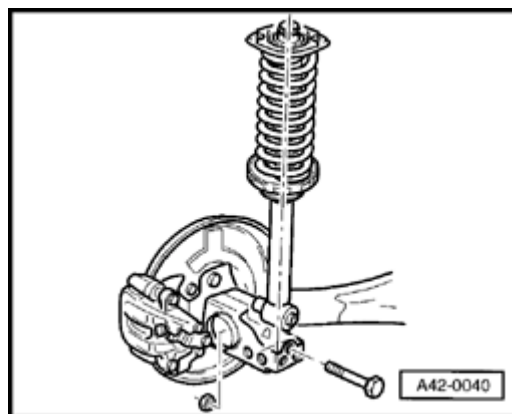
- A**
- Disconnect brake lines at rear axle (arrow) on both sides.

42-11

- Pull ABS wheel speed sensors out of mounting holes on both sides.
- Detach ABS wheel speed sensor wiring from rear axle.
- On vehicles with headlight range control remove linkage from axle beam.

**Note:**

Use VAG1383 gearbox lifter together with 1359/2 attachment for removing and installing the axle beam.

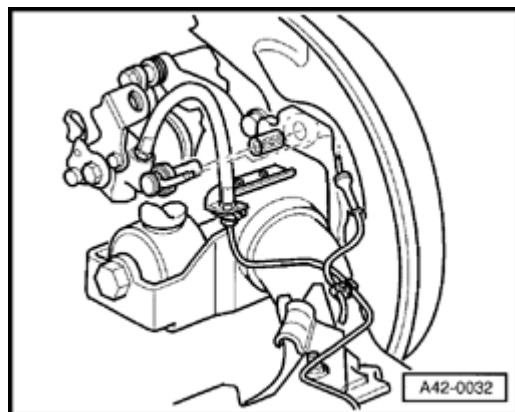


A

- Unbolt and remove suspension strut from axle beam.
- Remove bolts from guide bushings ( => [page 42-2](#) , items -3- and -5-) and remove axle beam.

## Installing

- Install axle together with guide bushings into mounting brackets and install bolts hand-tight.
- Install suspension struts and hand-tighten suspension strut to axle beam bolts.
- Coat O-ring for ABS wheel speed sensor with brake cylinder paste.



A

- Push ABS wheel speed sensors into wheel bearing housings up to stop.
- Install locking plates for ABS wheel speed sensors.
- Route parking brake cables and attach to brake calipers.
- Connect brake lines.
- Adjust parking brake:

⇒ [Repair Manual, Brake System, Repair Group 46](#)

- Install heat shield.
- Bleed brakes:

⇒ [Repair Manual, Brake System, Repair Group 47](#)

**CAUTION!**

***Vehicle must be standing on its wheels when tightening guide bushing to rear axle bolts. Otherwise bonded rubber bushings will be subjected to torsion resulting in shortened service life***

- Tighten guide bushing bolts ( ⇒ [page 42-2](#) , items -3- and -5-).

Tightening torque: 80 Nm (59 ft lb) + 1/4-turn (90 °)

**CAUTION!**

***Vehicle must be standing on its wheels when tightening suspension strut to rear axle bolts. Otherwise bonded rubber bushings will be subjected to torsion resulting in shortened service life***

- Tighten suspension strut to axle beam bolts ( ⇒ [page 42-2](#) , items -6- and -8-).

Tightening torque: 50 Nm (37 ft lb) + 1/4-turn (90 °)

- On vehicles with headlight range control, tighten bolted connection between headlight range

control linkage to axle beam.

Tightening torque: 3 Nm +1/-0 Nm (27 in. lb +9/-0 in. lb)

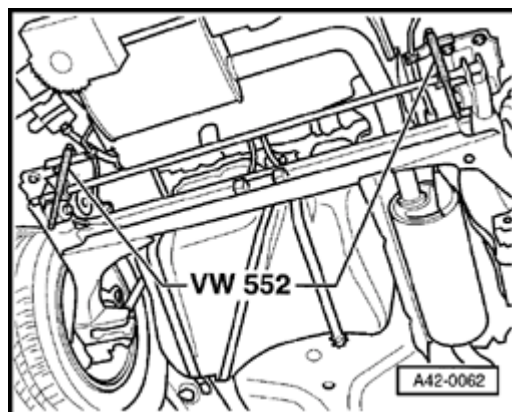
- Install cover below rear axle.
- Check wheel alignment and adjust if necessary  
⇒ [page 44-6](#) .



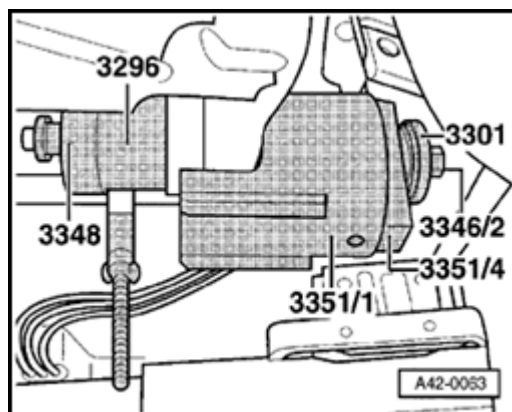
## Guide bushings, removing and installing

### A Lowering rear axle

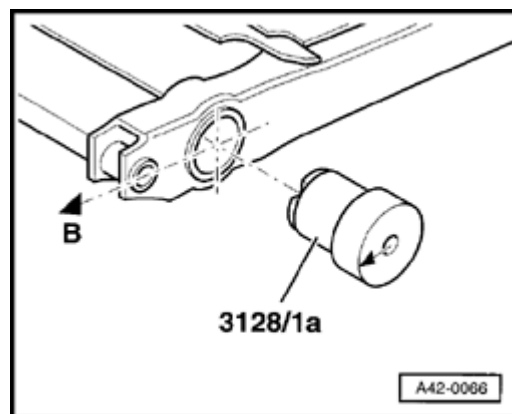
- On vehicles with headlight range control remove linkage from axle beam.
- Remove bolts from guide bushing mount and lower axle.
- Position VW552 guide piece to prevent brake lines from becoming stressed.



### A Removing guide bushing

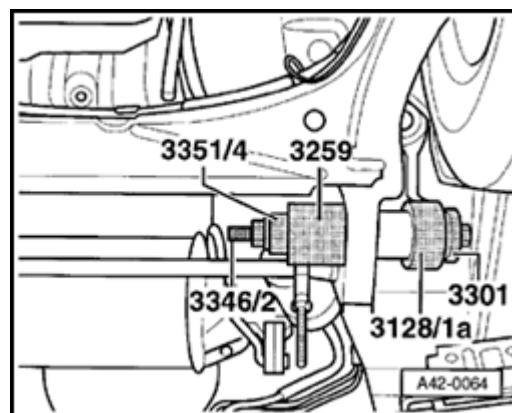


42-15



#### A Guide bushing installation position

The guide bushing must be pulled into the rear axle with the arrow on the 3128/1a installation piece pointing in direction -B-.

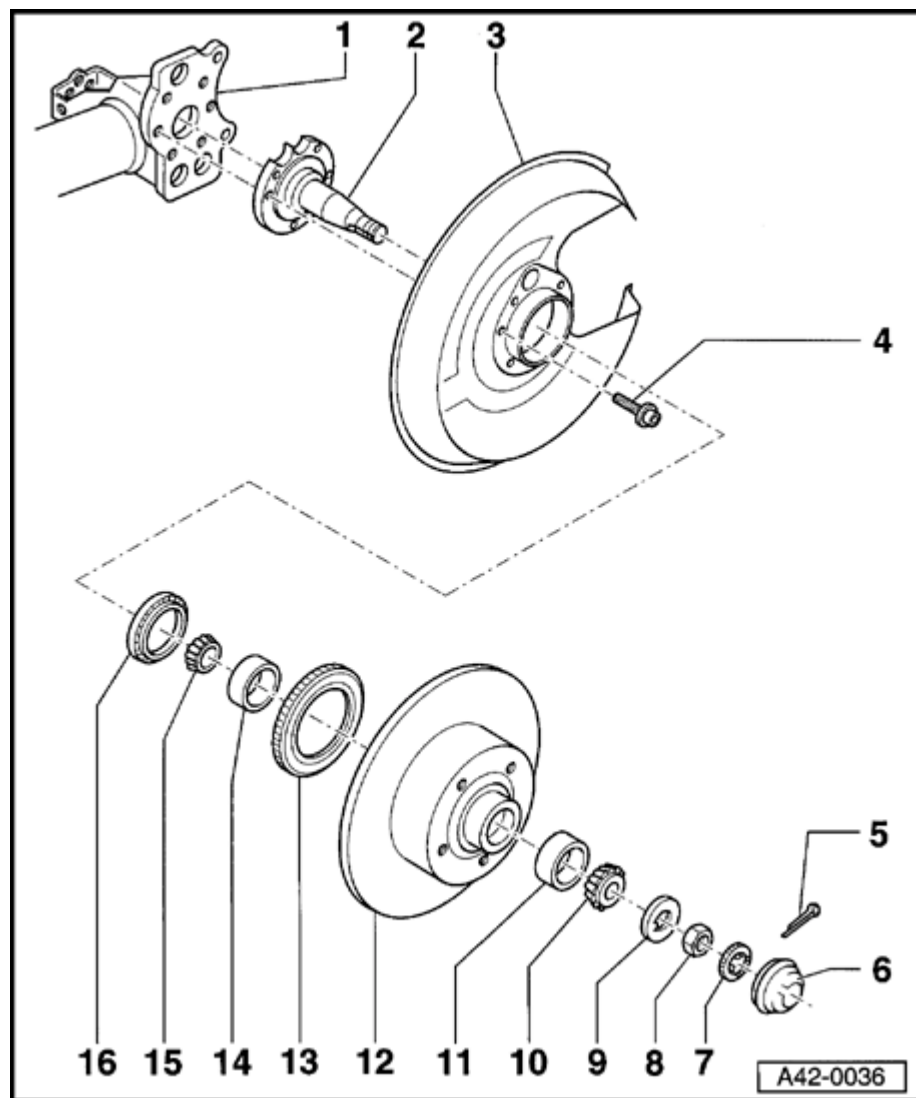


#### A Pulling in guide bushing

The remainder of the installation is the reverse of removal.

#### **CAUTION!**

***Vehicle must be standing on its wheels when tightening guide bushing to rear axle bolts. Otherwise bonded rubber bushings will be subjected to torsion resulting in shortened service life***



## Rear wheel bearing and wheel hub, servicing

Before carrying out work on the wheel bearings or wheel hub the wheel and brake caliper must be removed:

⇒ [Repair Manual, Brake System, Repair Group 46](#)

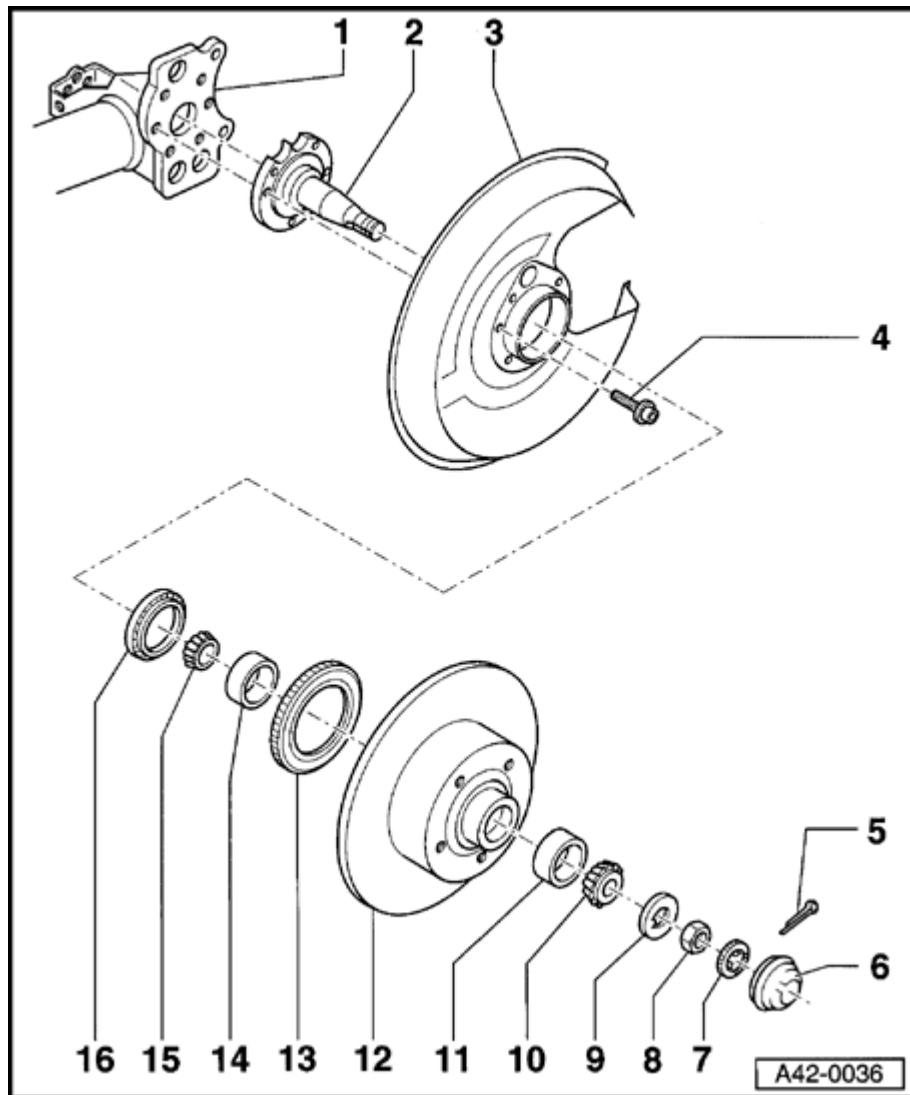
### CAUTION!

- ◆ *Suspend the brake caliper using a piece of wire.*
- ◆ *Do not allow the caliper to hang by the brake hose. The unsupported weight can stretch and damage the brake hose.*
- ◆ *Do not attempt to weld or straighten the load bearing components or parts of the suspension*

### Notes:

- ◆ *Only re-install clean bearings; do not wash out bearings.*
- ◆ *Make sure wheel bearing clearance is set carefully.*

42-17

**1 - Axle beam**

- ◆ Contact surface for stub axle must be free of dirt

**2 - Stub axle**

- ◆ Different versions ⇒ parts catalog microfiche

**3 - Splash shield****4 - Combi-bolt**

- ◆ 30 Nm (22 ft lb)

**5 - Cotter pin**

- ◆ Always replace

**6 - Grease cap**

- ◆ Always replace
- ◆ Forcing off ⇒ [Fig. 1](#)
- ◆ Driving in ⇒ [Fig. 2](#)

**7 - Slotted ring**

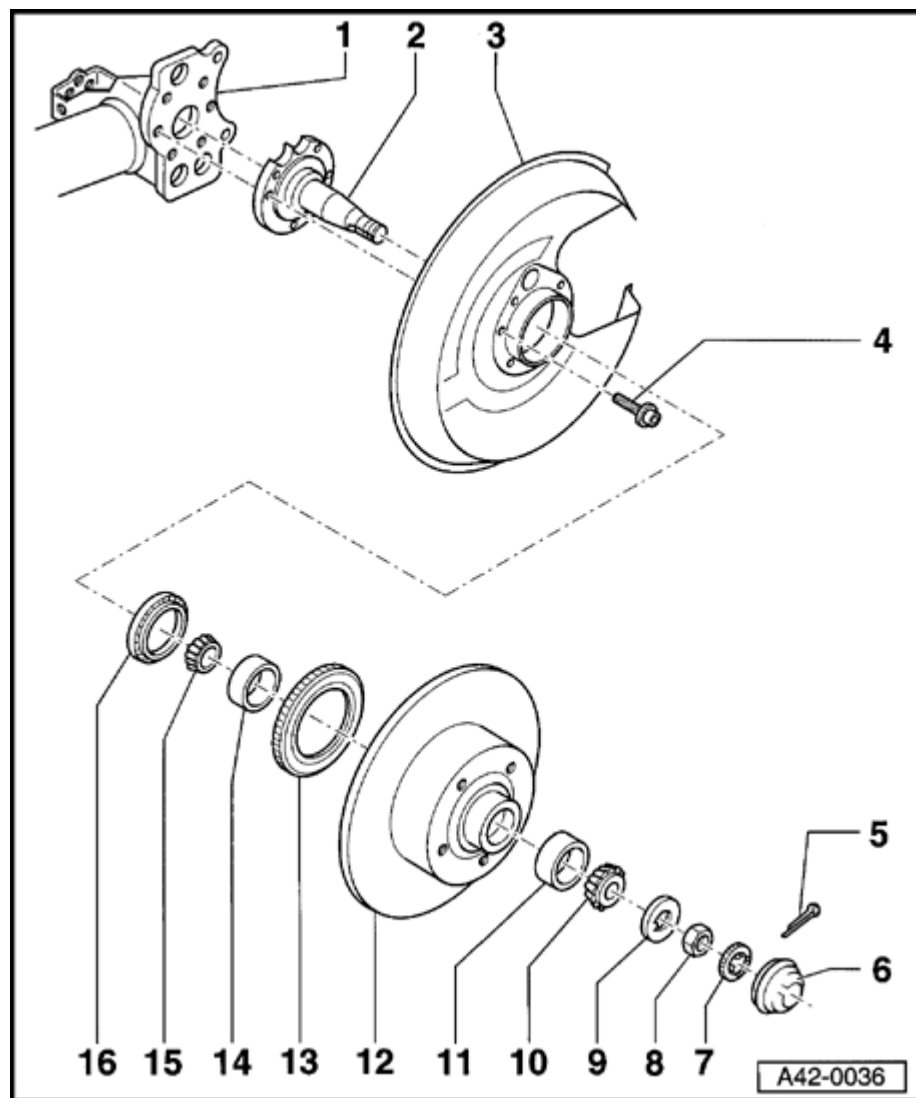
- ◆ Install over nut - 8 -

**8 - Nut**

- ◆ Setting wheel bearing clearance ⇒ [Fig. 3](#)

**9 - Thrust washer**

42-18



### 10 - Outer wheel bearing

- ◆ Do not wash out if bearing is to be re-used

### 11 - Outer wheel bearing outer race

- ◆ Use copper arbor to drive out
- ◆ Pressing in ⇒ [Fig. 4](#)
- ◆ Apply small quantity of wheel bearing grease to wheel bearing seat before pressing in bearing race

### 12 - Brake disc with wheel hub

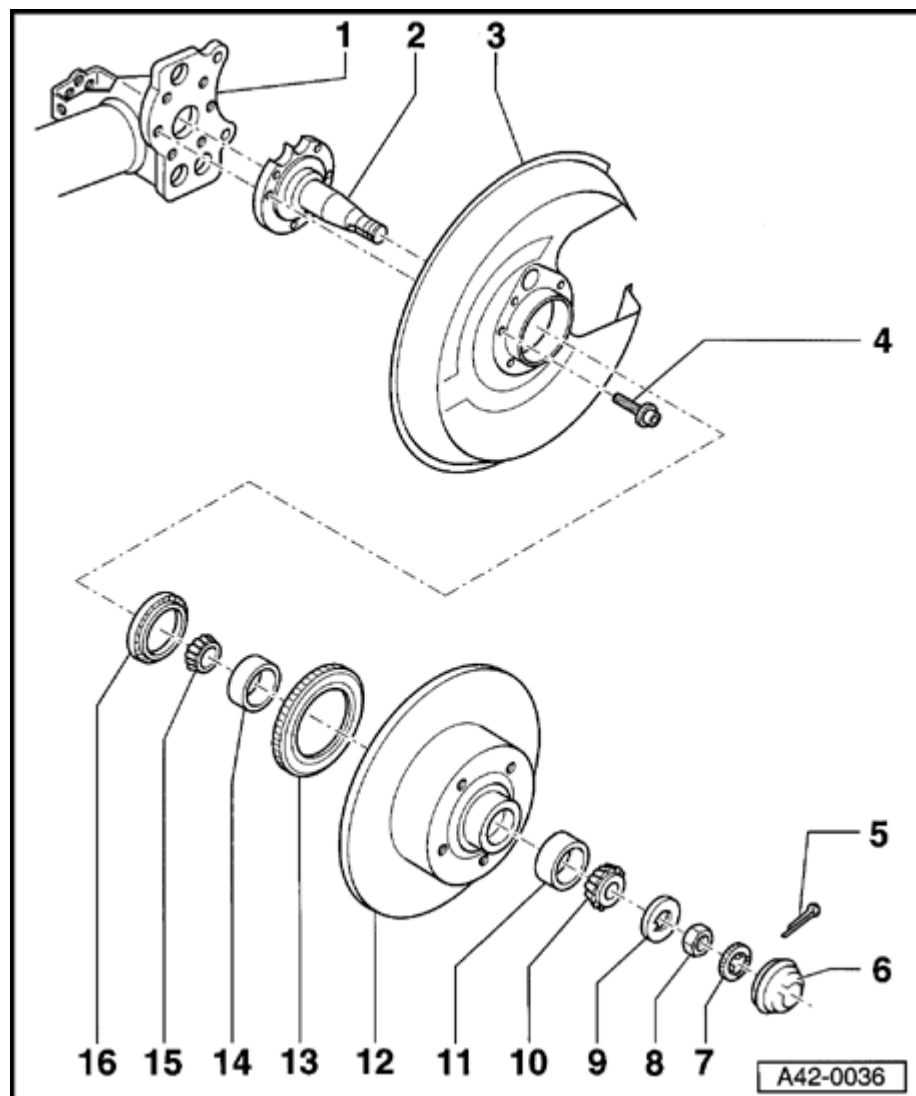
### 13 - ABS wheel speed sensor rotor

- ◆ Drive off evenly using copper arbor through tapped holes in wheel hub
- ◆ Pressing in ⇒ [Fig. 5](#)

### 14 - Inner wheel bearing outer race

- ◆ Use copper arbor to drive out outer race
- ◆ Apply small quantity of wheel bearing grease to wheel bearing seat before pressing in bearing race

42-19

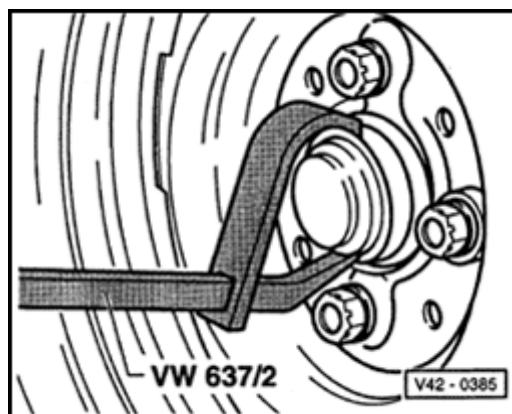


### 15 - Inner wheel bearing

- ◆ Do not wash out if bearing is to be re-used

### 16 - Seal

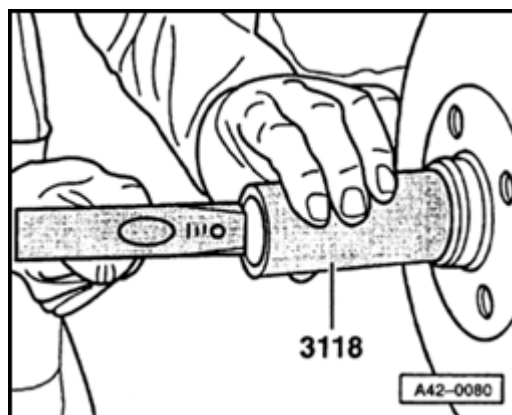
- ◆ Always replace
- ◆ Different versions ⇒ parts catalog microfiche
- ◆ Fill area between sealing lips with multi-purpose grease ⇒ [Fig. 7](#)



A

**Fig. 1 Removing grease cap**

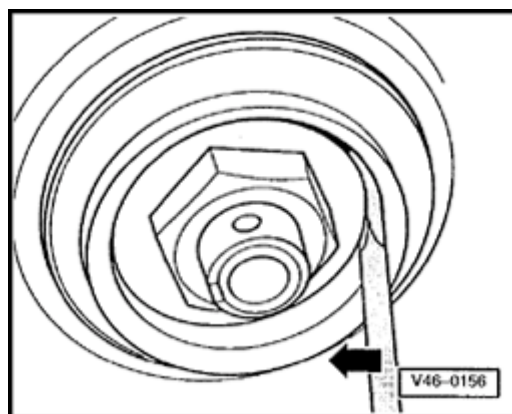
- Remove grease cap from seat by tapping gently on claw of tool.



A

**Fig. 2 Driving on grease cap****Notes:**

- ◆ *Damaged (dented/buckled) grease caps permit the penetration of moisture and must always be replaced.*
- ◆ *When installing a grease cap always use the tool shown to prevent damage.*

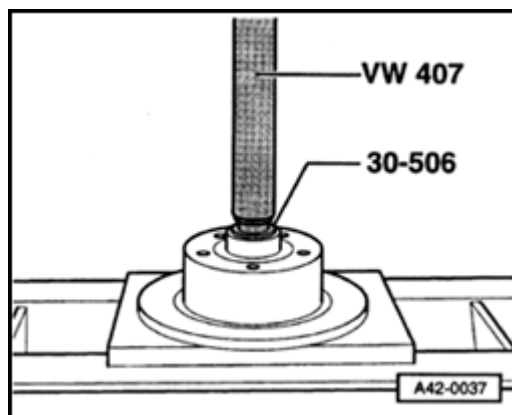


**A** **Fig. 3 Setting wheel bearing clearance**

**Note:**

*Wheel bearing play is correct when the thrust washer can just be moved using a screwdriver simply by applying pressure, without having to apply force.*

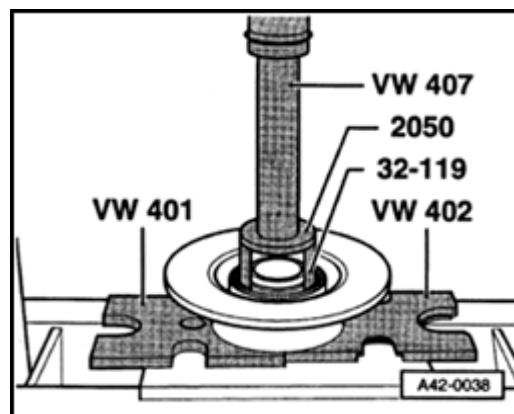
- Secure with slotted ring and new cotter pin.



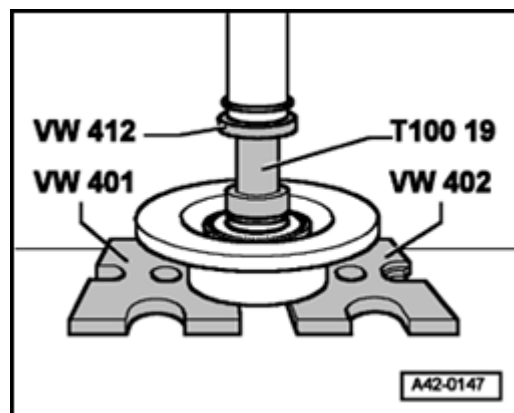
**A** **Fig. 4 Pressing in outer race for outer wheel bearing**

- Apply small quantity of wheel bearing grease to wheel bearing seat before pressing in bearing race.



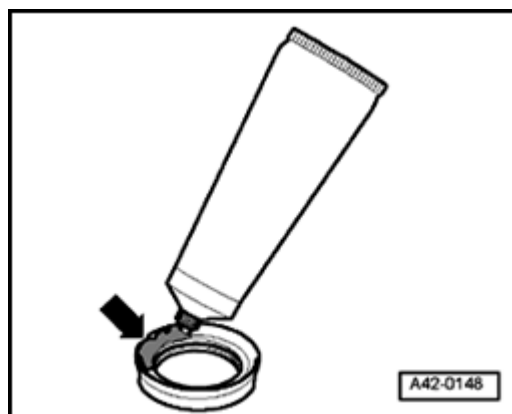


**A** Fig. 5 Pressing in ABS wheel speed sensor rotor



**A** Fig. 6 Pressing in outer race for inner wheel bearing

- Apply small quantity of wheel bearing grease to wheel bearing seat before pressing in bearing race.



**Fig. 7** Fill groove (arrow) with grease

From m.y. 1998 ➤, revised stub axles and dust lips will be installed  
⇒parts catalog microfiche.

**Note:**

*For greater clarity, the seal is shown removed.*