

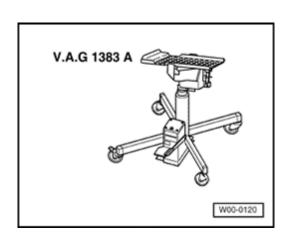
# Rear axle, servicing

Rear axle, removing and installing

Special tools and equipment

✓ VAG 1383A transmission jack

◆ VAG 1869 Brake filling and bleeding unit







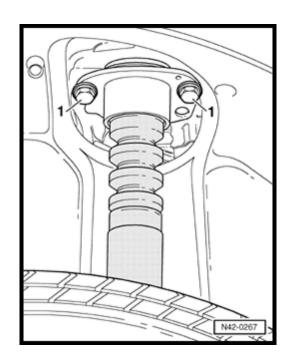
# Removing

#### Note:

Do not remove bearing bracket to remove rear axle

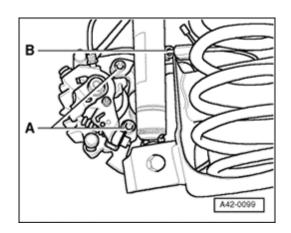


- Remove bolts -1- with vehicle standing on its wheels (raise vehicle until bolts are accessible).
- Raise vehicle further to relieve coil spring pressure.
- Remove wheels.

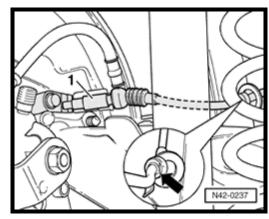




- ⋖
- Unclip brake cable (arrows).
- Remove clips -2- on both sides.
- Disconnect brake lines.

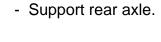


- Remove brake caliper housing bolts -A-.



- Remove connector -1- from speed sensor.
  - Unclip speed sensor wiring from retainer.





For example, with transmission jack VAG 1383 A



- Remove bearing bracket bolts -1- on both sides of rear axle, and lower rear axle.

## Installing

- Bleed brakes.
- ⇒ Repair Manual, Brake System, Repair Group 47

#### **Grease bonded rubber bushings**

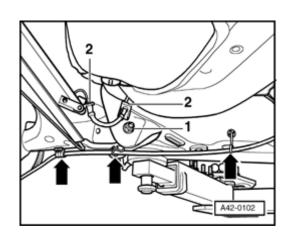
- Grease bonded rubber bushings with assembly paste before installing rear axle.
- Install in reverse sequence
- Check steering wheel position during test drive.
- Check wheel alignment if steering wheel is not in straight ahead position .

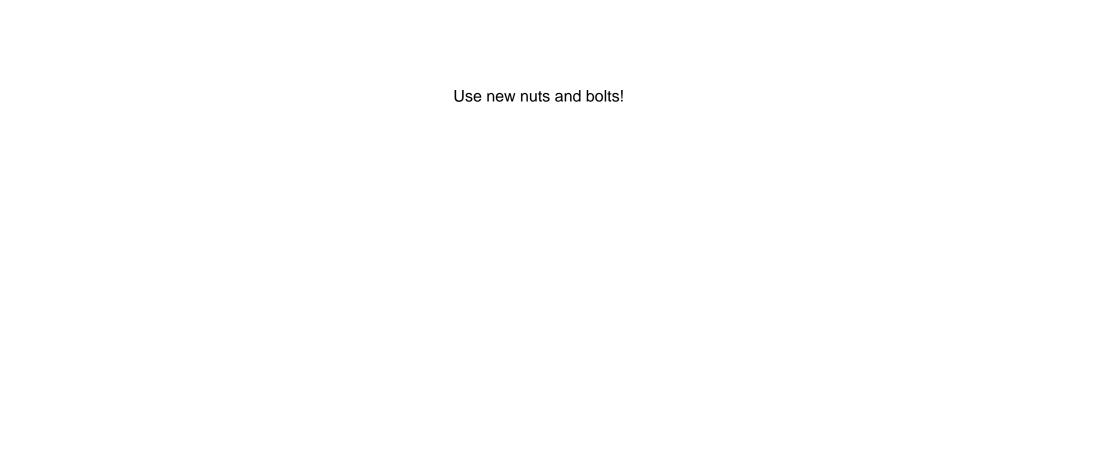
#### **Tightening torque:**

Shock absorber to body 75 Nm (55 ft lb)

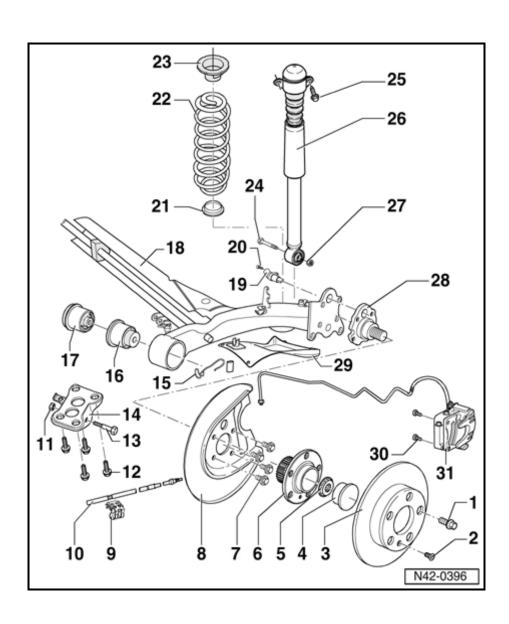
Use new bolts!

Bearing bracket to rear axle 80 Nm (59 ft lb)









# Rear axle beam, assembly overview

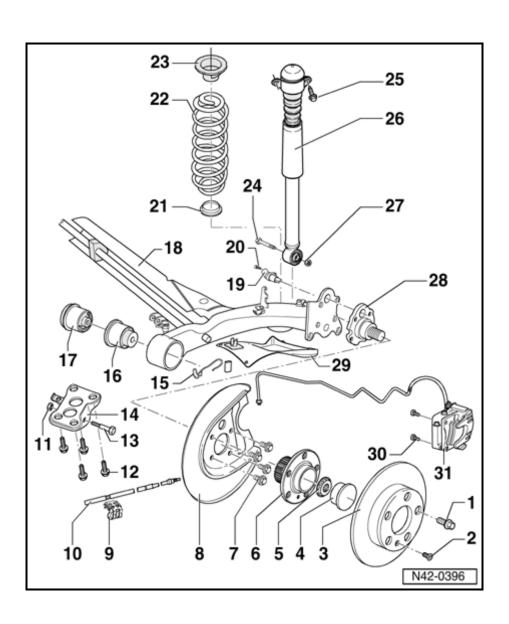
#### Note:

- ◆ Do not weld or straighten axle beam.
- ◆ Always replace self-locking nuts.
  - 1 Wheel bolt
    - ◆ 120 Nm (89 ft lb)
  - 2 Screw
  - 3 Brake disc
  - 4 Dust cap
    - Always replace

#### Note:

A perfect seal is only achieved using a new dust cap. Only then is optimum function and long service life guaranteed.





#### 5 - Self-locking 12-point nut

- ♦ 175 Nm (129 ft lb)
- ◆ Always replace
- 6 Wheel hub with wheel bearings

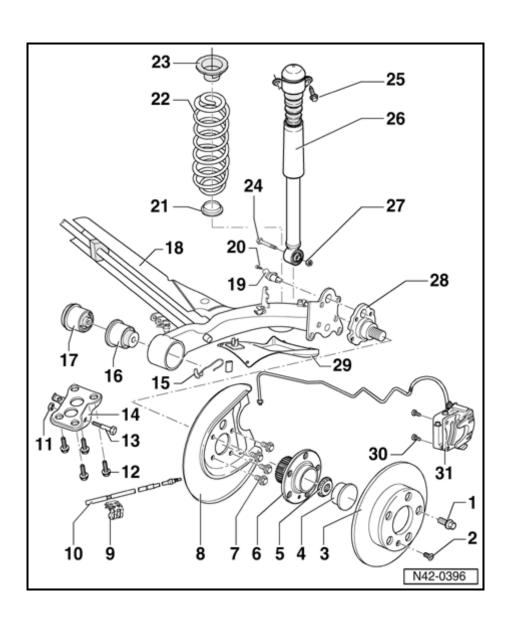
#### Note:

- ♦ Wheel bearing/hub are installed together in housing.
- Wheel bearing/hub unit is maintenance and adjustment free. Adjusting and servicing are not possible!

#### 7 - Bolt

- ♦ 60 Nm (44 ft lb)
- Always replace
- 8 Splash plate
- 9 Bracket, parking brake cable
- 10 Parking brake cable
- 11 Self-locking nut
  - ♦ 80 Nm (59 ft lb)
  - Always replace





#### 12 - Bolt

- ♦ 75 Nm (55 ft lb)
- ◆ Always replace
- ♦ If weld nut threads in long member are damaged, repair with Heli-coil.

#### Note:

Use this repair method on one weld nut only each side!

#### 13 - Bolt

- ♦ 80 Nm (59 ft lb)
- ◆ Always replace

#### 14 - Bearing bracket

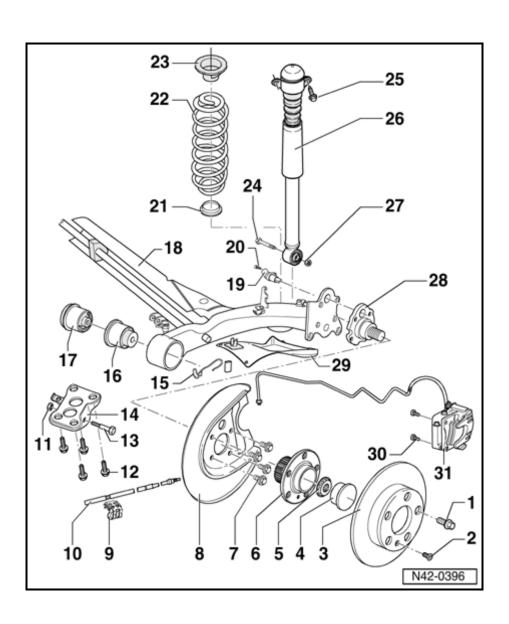
- Check and if necessary adjust rear axle toe after installation
- ◆ If possible, do not loosen when removing rear axle

#### 15 - Parking brake cable clip

### 16 - Bonded rubber bushing

◆ Removing and installing ⇒ Page 42-11





#### 17 - Hydraulic rubber bonded bushing

#### 18 - Axle beam

 Stub axle contact surfaces and threaded holes are to be free of paint and dirt

#### 19 - ABS wheel speed sensor

#### 20 - Socket head bolt

♦ 8 Nm (70 in. lb)

# 21 - Spacer bushing

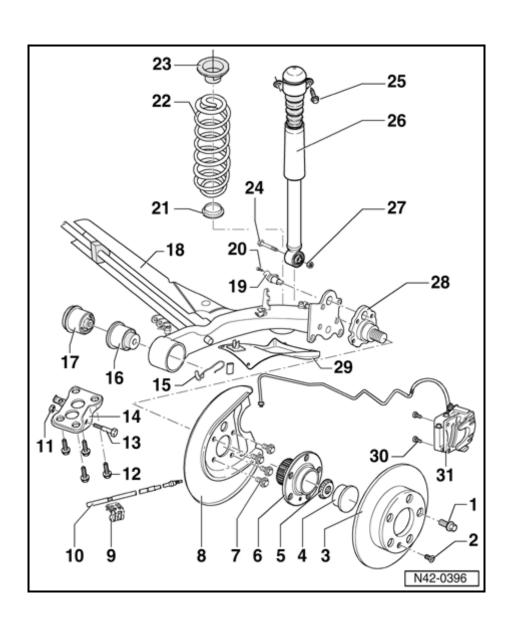
♦ Material: Zinc

◆ Check for damage

# 22 - Coil spring

◆ Determine part number from parts catalog





# 23 - Spring seat

#### 24 - Bolt

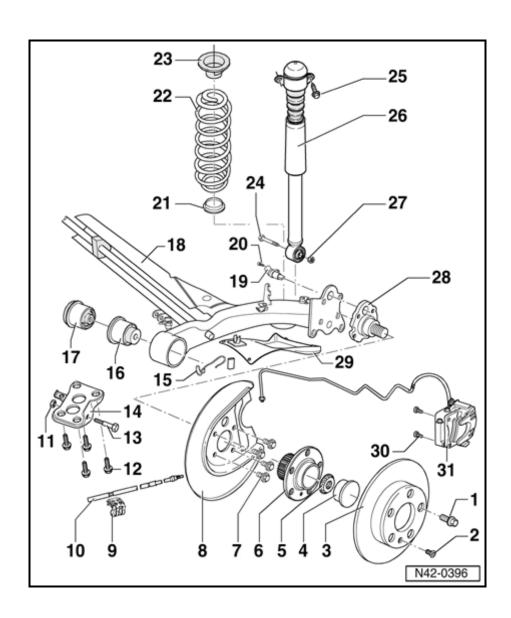
- ♦ 60 Nm (44 ft lb)
- Always replace

#### 25 - Bolt

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

#### 26 - Shock absorber

- ◆ Functional check
- ⇒ <u>Page 42-21</u>



#### 27 - Nut

- ◆ Axle beam must be centered when tightening nut
- ◆ Load vehicle with one person when tightening.

#### 28 - Stub axle

- ◆ Do not attempt to straighten
- ◆ Do not re-cut threads

#### 29 - Stone protection plate

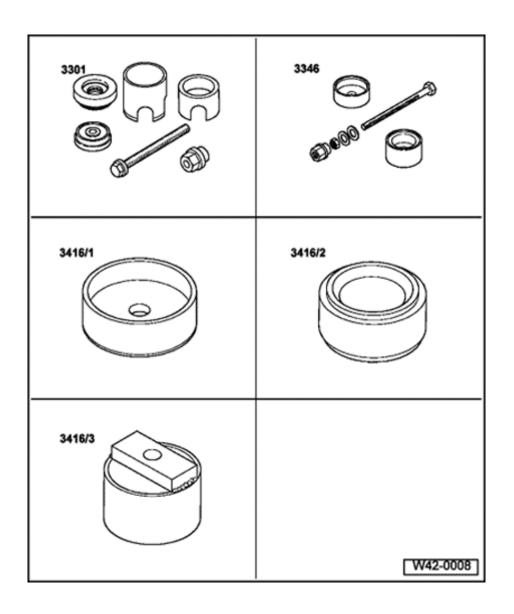
#### 30 - Bolt

- ♦ 65 Nm (48 ft lb)
- ◆ Always replace

### 31 - Brake caliper

- Servicing
- ⇒ Repair Manual, Brake System, Repair Group 46
- ⇒ Repair Manual, Brake System, Repair Group 47

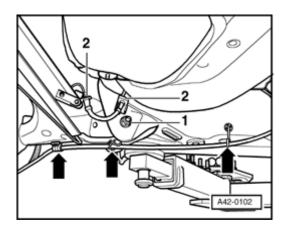




# Bonded rubber bushings, removing and installing Special tools and equipment

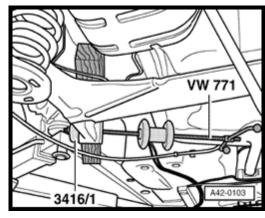
- ♦ 3301 Assembly tool
- ◆ 3346 Assembly tool
- ◆ 3416/1 Press piece
- ◆ 3416/2 Press piece
- ♦ 3416/3 Support tube







- ⋖
- Unclip brake cable (arrows).
- Remove clips -2- both sides.
- Remove bolts -1- on rear axle bearing bracket, both sides.



- 1
- Position a wooden block approx. 100 mm (3.34 in.) long between rear axle and body.
- Position VW 771 slide hammer and pull out bonded rubber bushing

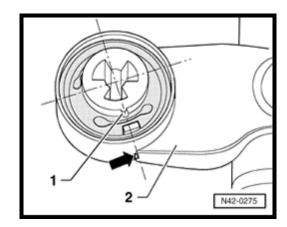


# Installing

Bonded rubber bushing has mark -1- on face.

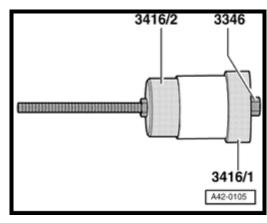


- Mark must align with edge (arrow) on trailing arm -2-.
- Mark position of mark -1- on bonded rubber bushing.

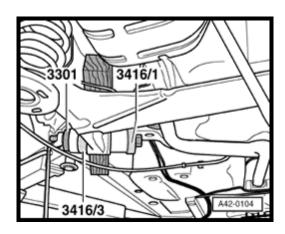


4

- Assemble special tool with bonded rubber bushing.







4

- Install bonded rubber bushing and special tool on rear axle.
  - Ensure mark aligns with trailing arm edge.
- Install (pull in) bonded rubber bushing by turning spindle.
- Check position of bonded rubber bushing after installing.

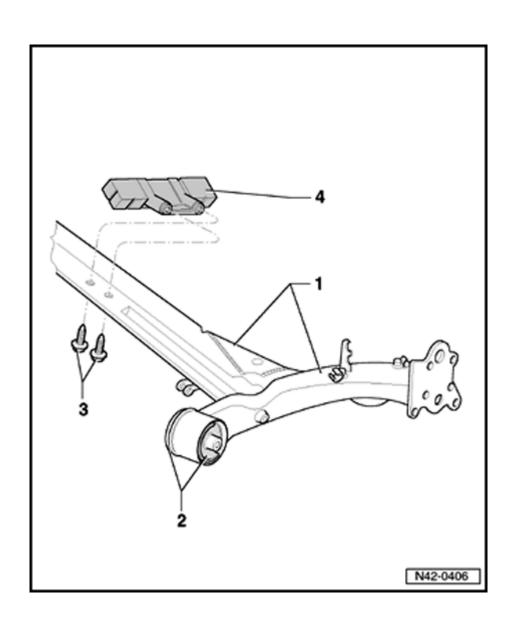
Continue rear axle installation in reverse sequence

#### **Tightening torque:**

Bearing bracket to rear axle 80 Nm (59 ft lb)

Use new nuts and bolts!





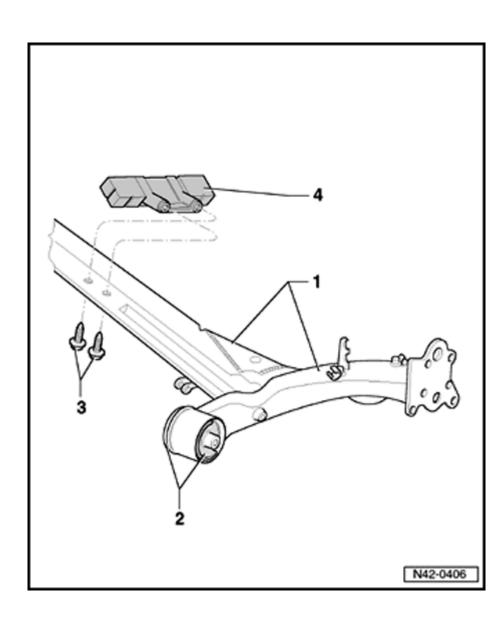
# Hydraulic bonded rubber bushings, removing and installing

Bushings -2- cannot be pressed out or in with current shop tools.

If bushing -2- is damaged, the rear axle beam must be replaced.

Vibration damper -4- is only on axles equipped with Hydraulic bonded rubber bushings (axles with solid rubber bushings do not have damper).

Rear axle beam is supplied as a spare part assembly (including hydraulic bonded rubber bushings).



#### 1 - Axle beam

 Stub axle contact surfaces and threaded holes are to be free of paint and dirt

# 2 - Hydraulic bonded rubber bushing

 Cracks and/or oil spots in rubber are indications of wear.

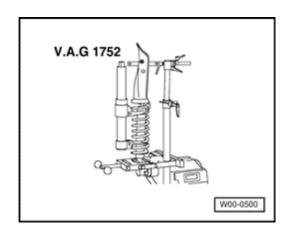
#### 3 - Bolt

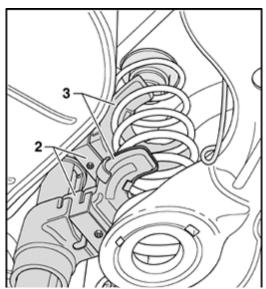
- ◆ 20 Nm (15 ft lb) + turn 45° further
- Always replace

# 4 - Vibration damper

Vibration damper is only on axles with Hydraulic bonded rubber bushings. Axles with solid rubber bushings do not have the damper.







# Shock absorber/spring, removing and installing

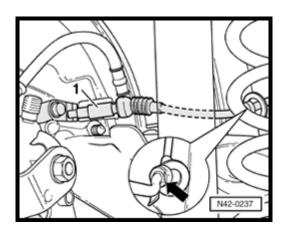
# ✓ Special tools and equipment

- ♦ VAG 1752 Strut holder
- ♦ VAG 1752/3 Strut adaptor
- ◆ VAG 1752/9 adaptor

# Spring, removing

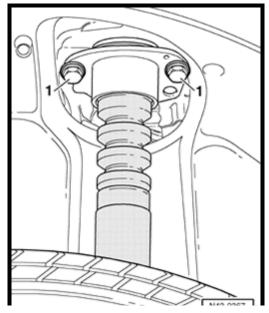
- Position spring holder -1-.
- Compress coil spring enough to remove.
- Remove spring.
- 1 VAG 1752/1 Strut spring tool
- 2 VAG 1752/9 adaptor
- 3 VAG 1752/3 Strut adaptor







- Pull connector -1- off speed sensor.
  - Unclip speed sensor wiring from retainer.



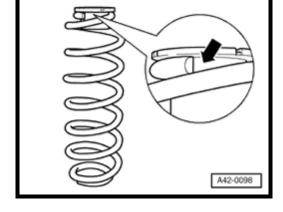
- Remove bolts -1- with vehicle standing on its wheels (raise vehicle until bolts are accessible).
  - Raise vehicle to relieve pressure on coil spring.
  - Remove spring.



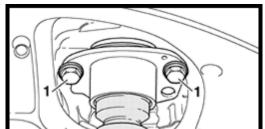
# **Installing spring**

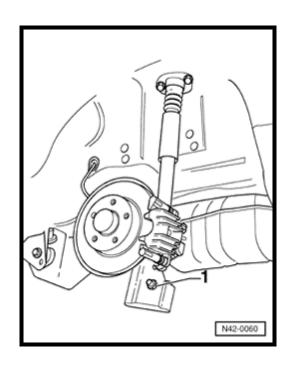
- Ensure spacer bushing (zinc) is not damaged. Replace if necessary.
- Install spring together with spring seat.
- Loosen spring and remove spring compressor.
  Observe installation position!
- ◄ End of spring (arrow) must lie against stop on spring seat.

Shock absorber, removing



- Remove bolts -1- with vehicle standing on its wheels (raise vehicle until bolts are accessible).





4

- Remove shock absorber bolt -1- on rear axle.

#### Note:

For ease of illustration work sequence is shown without wheel.

- Remove shock absorber.
- Install in reverse sequence

# **Tightening torque:**

Shock absorber to rear axle

60 Nm (44 ft lb)

Use new nuts!

Load rear of vehicle with one person when tightening

Shock absorber to body

75 Nm (55 ft lb)

Use new bolts!