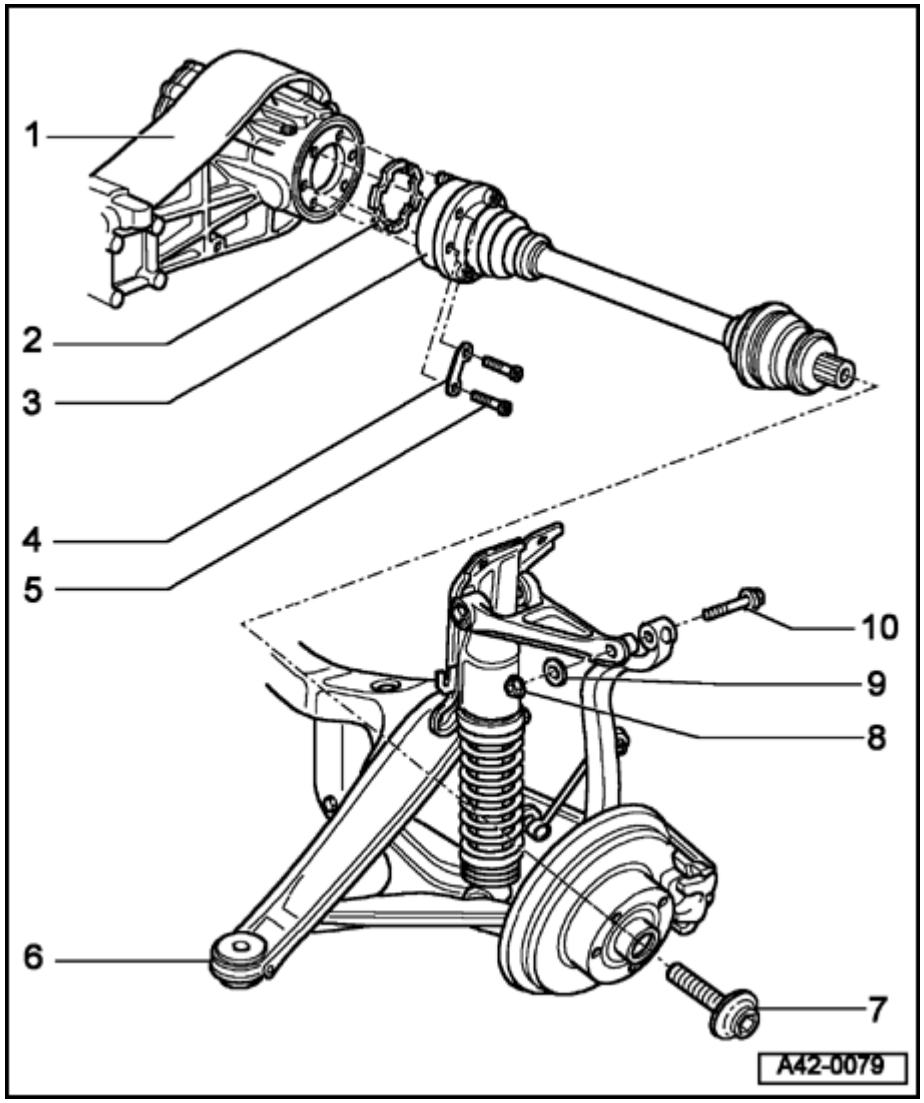
42-93



Rear drive axle, removing and installing

1 - Rear final drive

2 - Gasket

- Always replace
- Remove protective backing and stick onto joint

3 - Drive axle

- Servicing ⇒ page 42-99

CAUTION!

Do not attempt to move a vehicle from which the drive axle has been removed. Otherwise wheel bearing damage will result. If the vehicle must be moved, install an outer CV joint in place of the drive axle.

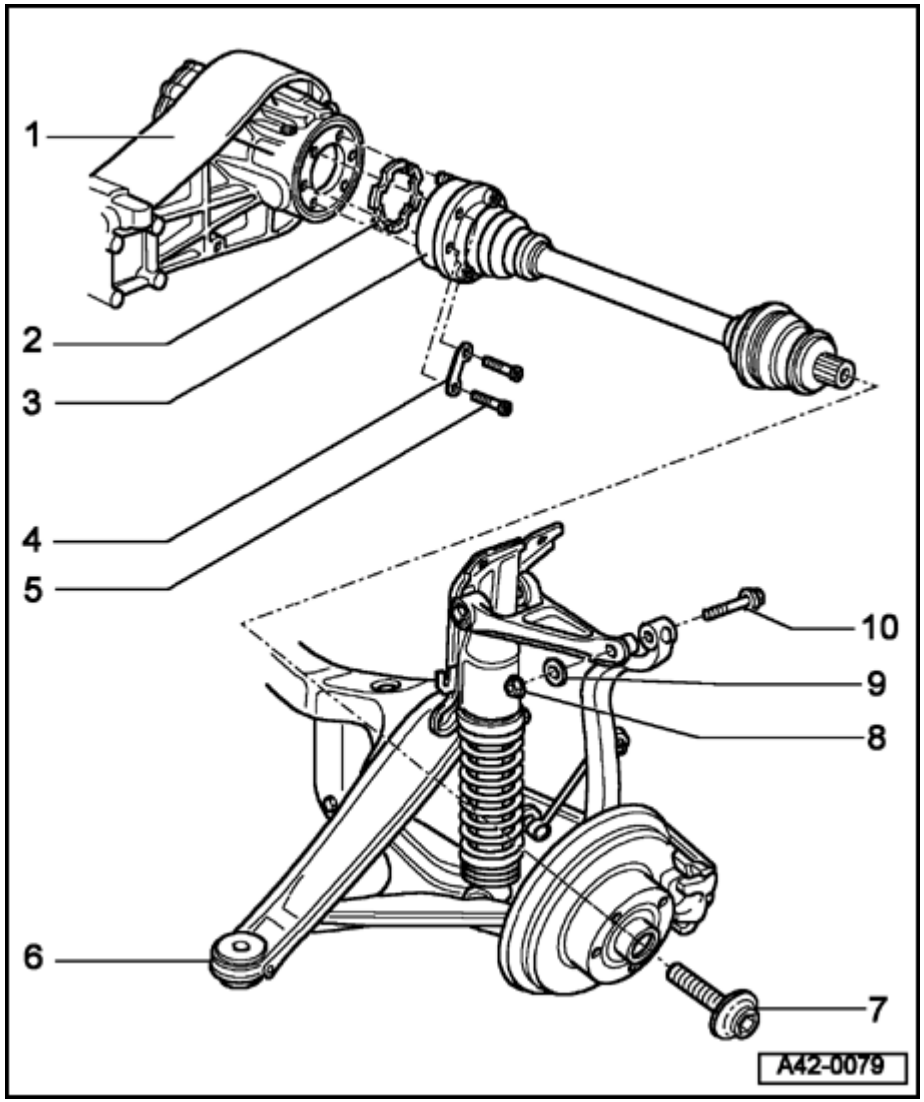
4 - Spacer plate

5 - Bolts

- 40 Nm (30 ft lb)

6 - Subframe

42-94



7 - Collar bolt

- Always replace
- Switching from or mixing old and new bolts is permissible
- M14 bolt: 115 Nm (85 ft lb) + 1/2-turn (180 °)

WARNING!

The vehicle must be standing on its wheels when loosening or tightening. Otherwise the risk of an accident exists.

8 - Self-locking nut

- Always replace
- 70 Nm (52 ft lb) + 1/4-turn (90 °)

9 - Washer

- Always replace

10 - Bolt

- Always replace

42-95

Removing and installing drive axle (left-hand side)

- Vehicle must be standing on its wheels above vehicle lift

- Remove wheel trim.

  On light alloy wheels use puller in vehicle tool kit to remove trim cap

- Loosen collar bolt.

WARNING!

The vehicle must be standing on its wheels when loosening or tightening the collar bolt for the drive axle. Otherwise the risk of an accident exists.

- Loosen wheel bolts.

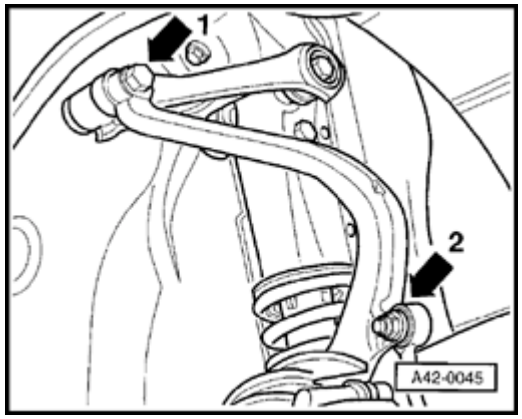
- Raise vehicle on lift.

- Remove wheel.

- Pull ABS wheel speed sensor slightly out of wheel bearing housing.

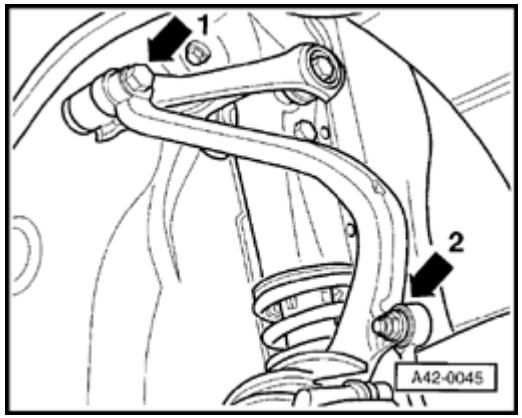
- Remove collar bolt.

- Remove bolts from inner CV joint to rear final drive.



- Remove nut and bolt for connecting link to wheel bearing housing (arrow -2-) ⇒ page 42-43 .

  Tightening torque: 50 Nm (37 ft lb)



- Remove bolted connection from upper control arm to wheel bearing housing (arrow -1-) ⇒ page 42-94 .
- Remove exhaust system, rear silencer and center silencer:

Repair Manual, Engine Mechanical, Repair Group 26

- Lower drive axle on inside at rear final drive and remove from wheel bearing housing.

Installation is the reverse of removal.

CAUTION!

Bonded rubber bushings can only be turned to a limited extent. The bolted connection must only be tightened when the vehicle is standing on the ground. Otherwise the bonded rubber bushings will be subjected to a torsional stress resulting in shortened service life

42-97

Removing and installing drive axle (right-hand side)

- Vehicle must be standing on its wheels above vehicle lift

- Remove wheel trim.

  On light alloy wheels use puller in vehicle tool kit to remove trim cap

- Loosen collar bolt.

WARNING!

The vehicle must be standing on its wheels when loosening or tightening the collar bolt for the drive axle. Otherwise the risk of an accident exists.

- Loosen wheel bolts.

- Raise vehicle on lift.

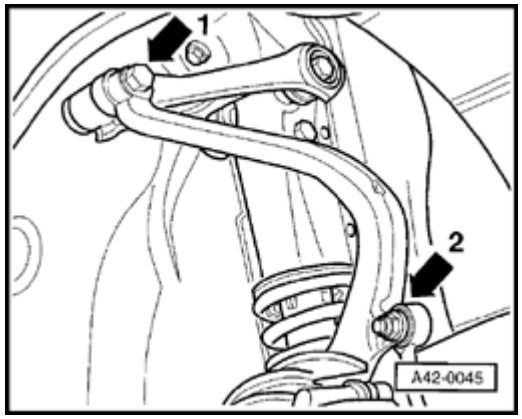
- Remove wheel.

- Pull ABS wheel speed sensor slightly out of wheel bearing housing.

- Remove collar bolt.

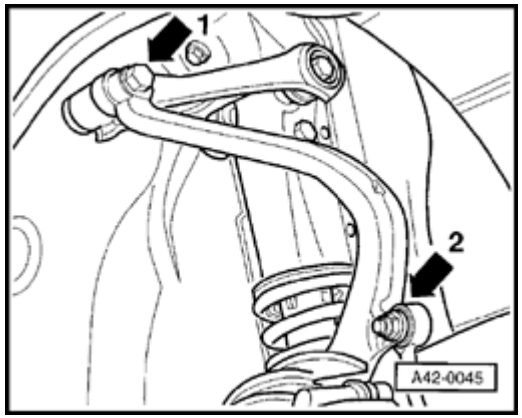
- Remove bolts from inner CV joint to rear final drive.

42-98



- Remove nut and bolt for connecting link to wheel bearing housing (arrow -2-) ⇒ page 42-43 .

  Tightening torque: 50 Nm (37 ft lb)



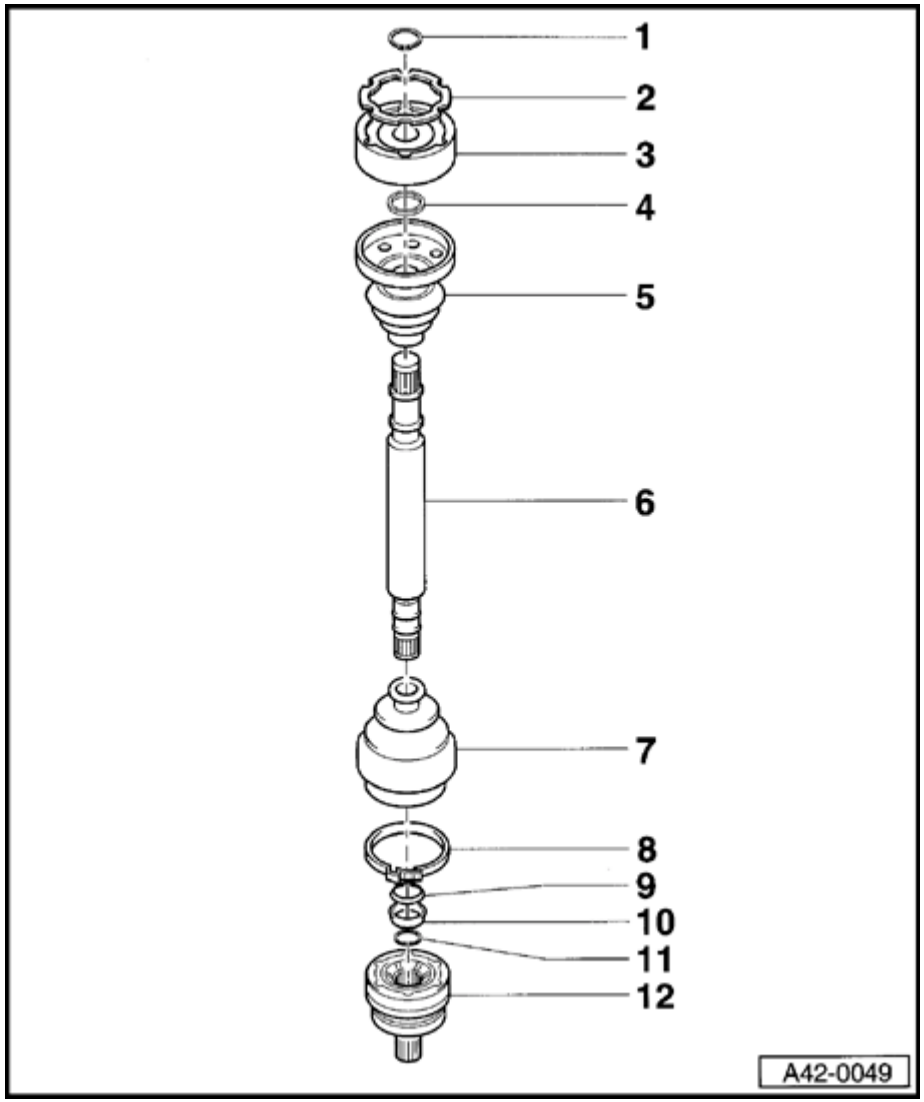
- Remove bolted connection of upper control arm to wheel bearing housing (arrow -1-) ⇒ page 42-94 .
- Lower drive axle on inside at rear final drive and remove from wheel bearing housing.

Installation is the reverse of removal.

CAUTION!

Bonded rubber bushings can only be turned to a limited extent. The bolted connection must only be tightened when the vehicle is standing on the ground. Otherwise the bonded rubber bushings will be subjected to a torsional stress resulting in shortened service life

42-99



Rear drive axle, servicing

Note:

Constant Velocity (CV) joints are packed with grease G-6.

Outer joint dia.	Total grease required	Proportions:	
		Joint	Boot
89 mm (3.5 in.)	90 g (3.2 oz.)	40 g (1.4 oz)	50 g (1.8 oz)
Inner			
100 mm (3.9 in.)	80 g (2.8 oz.)	30 g (1.1 oz)	50 g (1.8 oz)

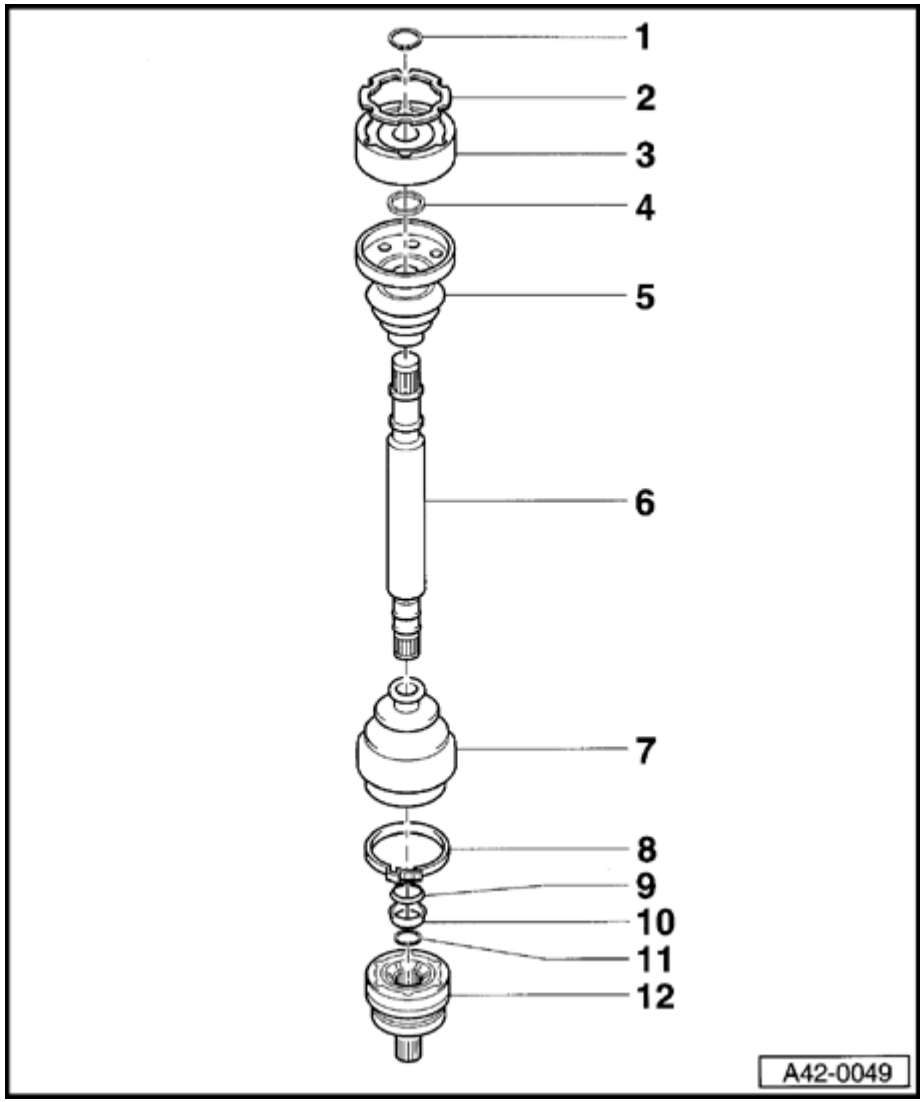
Note:

Re-grease the joint, if necessary, when replacing the CV joint boot.

1 - Circlip

- Always replace
- Use VW161a circlip pliers to remove and install ⇒ Fig. 5

42-100



2 - Gasket

- Always replace; remove protective backing and stick onto joint

3 - Inner CV joint

- O.D.: 100 mm (3.9 in.)
- Replace only as complete joint
- Removing ⇒ Fig. 3
- Pressing on ⇒ Fig. 4
- Greasing ⇒ Note, page 42-99

4 - Dished washer

- Installation position ⇒ Fig. 7

5 - Inner CV joint boot with cap

- Examine for splits and signs of chafing
- Use drift to remove
- Coat sealing surface of CV joint with D-3 before attaching to CV joint

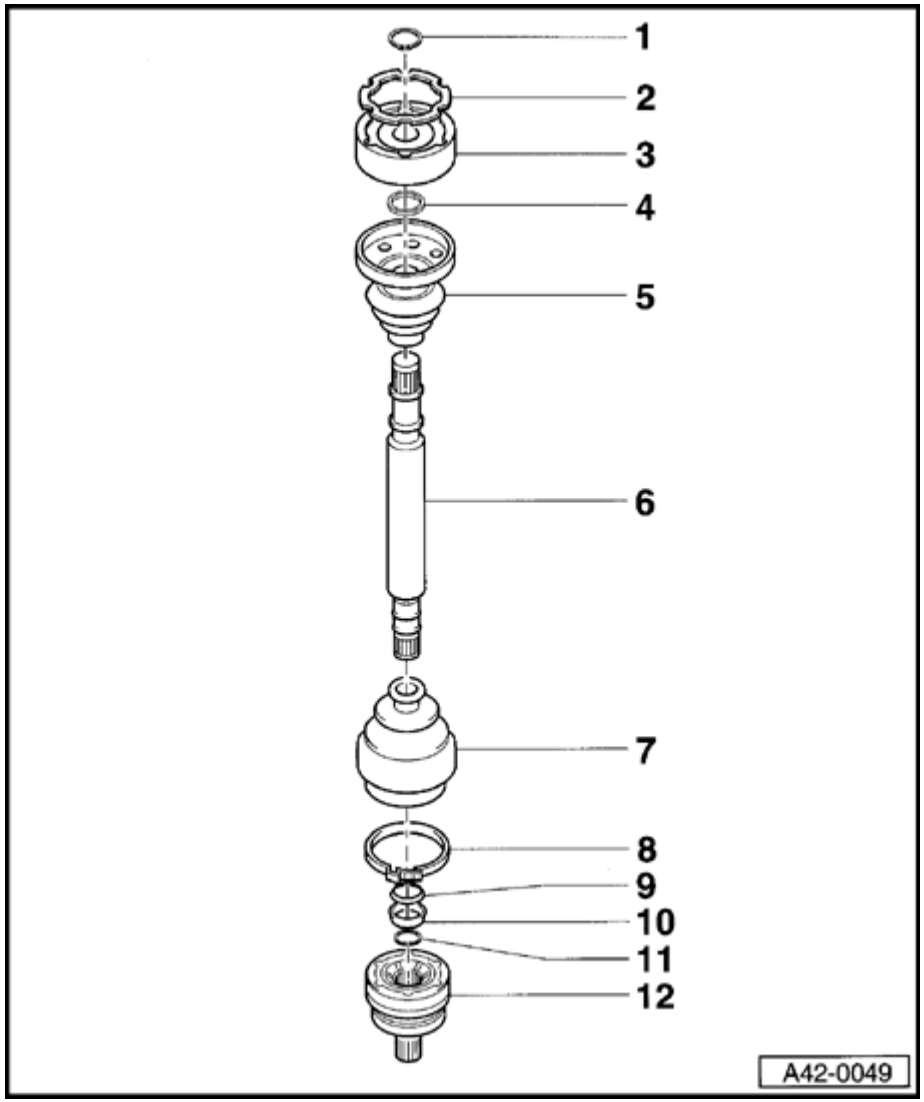
6 - Axle shaft

- Identical length on left and right-sides

7 - Outer CV joint boot

- Examine for splits and signs of chafing
- Ventilate before tightening clamp ⇒ Fig. 2

42-101



8 - Clamp

- Always replace
- Tightening ⇒ Fig. 1

9 - Dished washer

- Larger diameter (concave side) contacts thrust ring
- Installation position ⇒ Fig. 6

10 - Spacer ring

- Installation position ⇒ Fig. 6

11 - Circlip

- Always replace
- Insert into annular groove of shaft when installing; not visible when joint installed

12 - Outer CV joint

- O.D.: 89 mm (3.5 in.)
- Replace only complete joint
- Removing ⇒ Fig. 8
- Installing: drive joint onto shaft using plastic-headed hammer until circlip engages in groove
- Greasing ⇒ Note, page 42-99

42-102

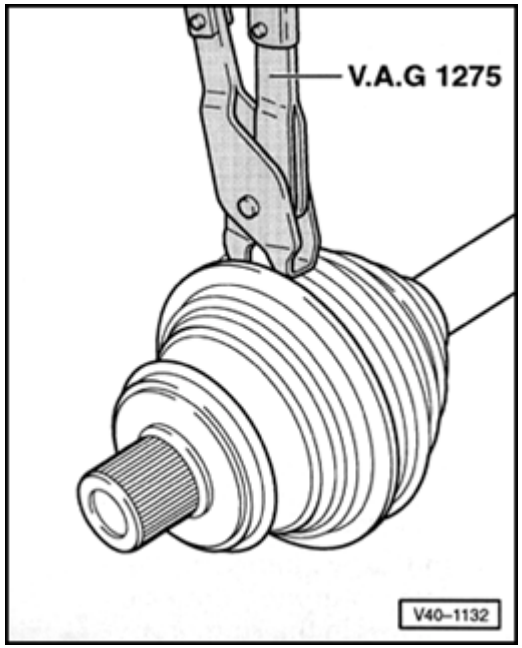


Fig. 1 Tightening clamp

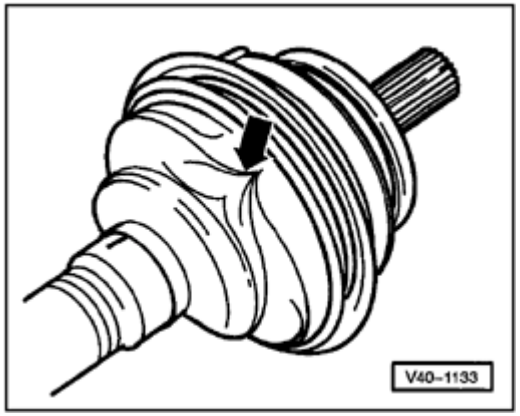


Fig. 2 Venting CV joint boot

Attaching the CV joint boot onto the outer body of the joint frequently requires compressing or squeezing the boot. This produces a vacuum in the joint boot, which may cause a crease to the inside when driving (arrow).

For this reason, after installing the joint boot, vent it briefly by letting some air in at the small diameter to balance the pressure and restore the correct boot shape.

42-103

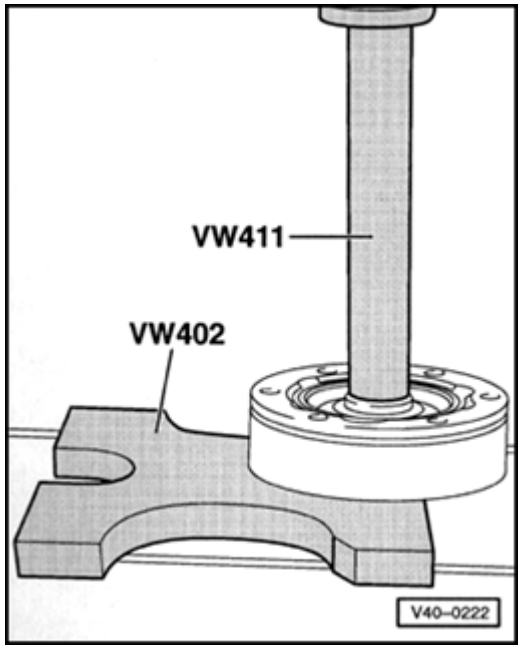


Fig. 3 Removing inner CV joint

Notes:

- *Use arbor to drive off boot first.*
- *Support ball hub.*

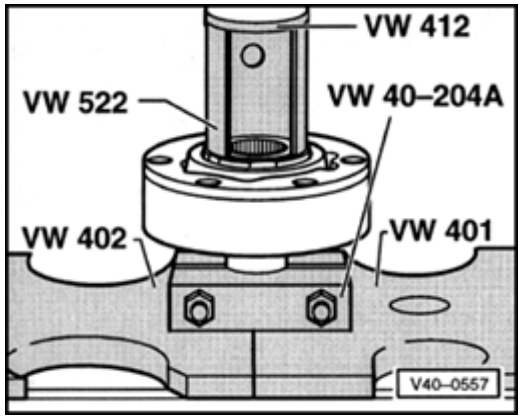


Fig. 4 Pressing on inner CV joint

Note:

Chamfer on the inner diameter of the ball hub (splines) must be facing toward the shoulder of the drive axle.

- Press joint on up to stop.
- Install circlip.

42-104

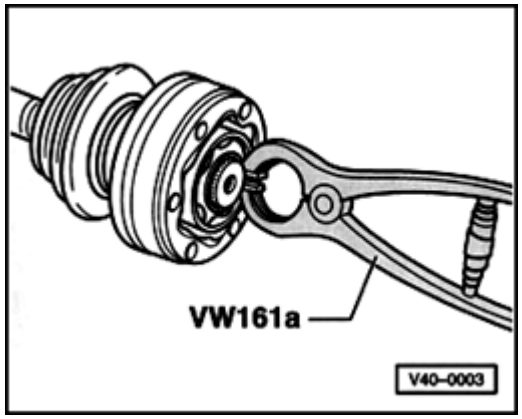


Fig. 5 Removing and installing circlip

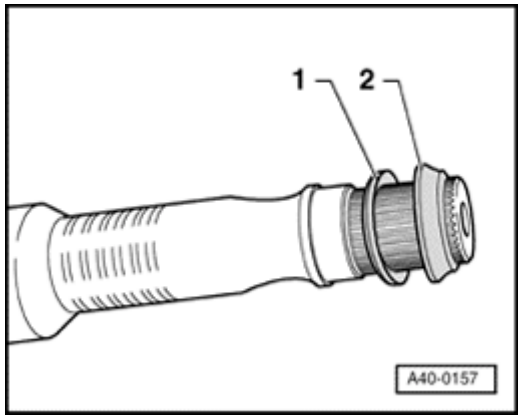


Fig. 6 Installation position of dished washer and spacer ring

1 - Dished washer

2 - Spacer ring (plastic)

42-105

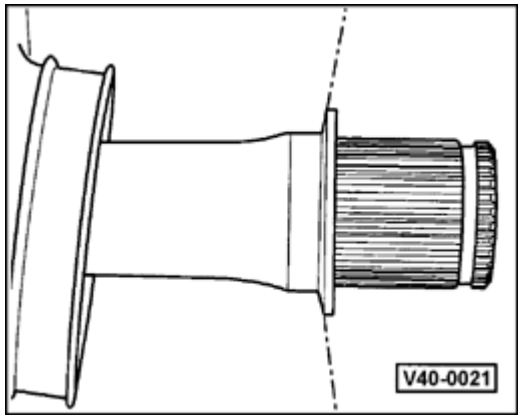


Fig. 7 Installing dished washer in correct position

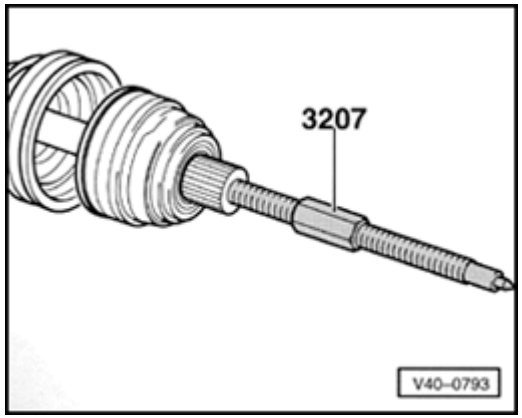


Fig. 8 Pressing off outer CV joint

- Clamp drive axle in vise using protective jaws.
- Remove clamp and push back boot.
- Screw in 3207 pressure spindle with M14-thread end into joint until CV joint is pressed off splined shaft.