

21 - Self-locking hex nut, 60 Nm (44 ft lb)

◆ Loosening and tightening ⇒ [Fig. 1](#)

22 - Stop

23 - Suspension strut bearing

24 - Suspension strut

◆ Removing and installing ⇒ [Fig. 1](#) and ⇒ [Fig. 2](#)

◆ Disassembling and assembling ⇒ [Page 40-23](#)

25 - Bracket

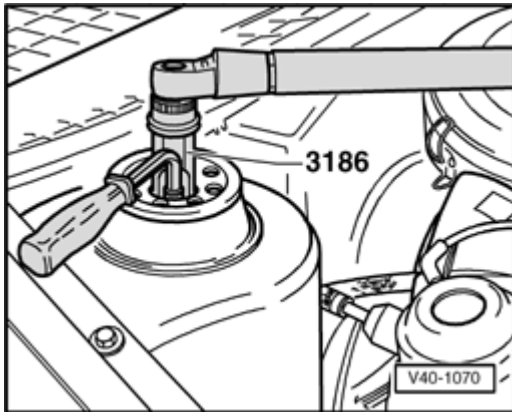
26 - Hex bolt

27 - Tie rod

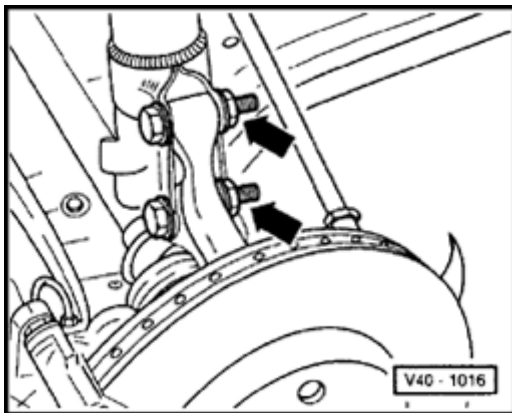
◆ Removing and installing ⇒ [Page 48-77](#)

28 - Countersunk screw

29 - Screw



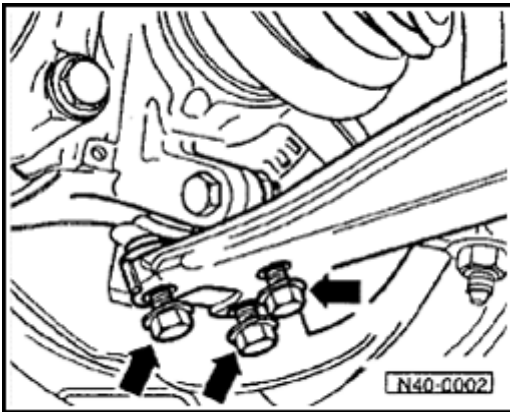
A Fig. 1 Suspension strut to body, loosening and tightening



A Fig. 2 Wheel bearing housing/suspension strut joint, separating

Note:

Camber must be adjusted each time joint is loosened.



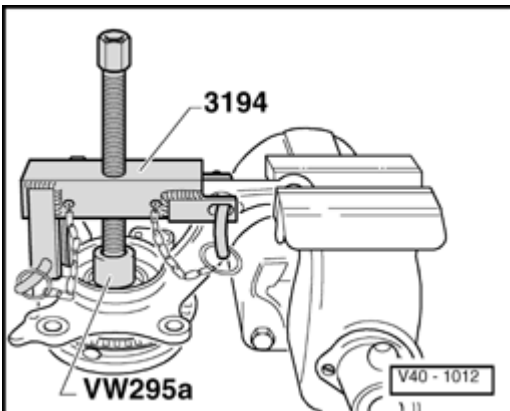
A

Fig. 3 Ball joint/control arm connection, separating

To take drive shaft out, remove bolts (arrows).

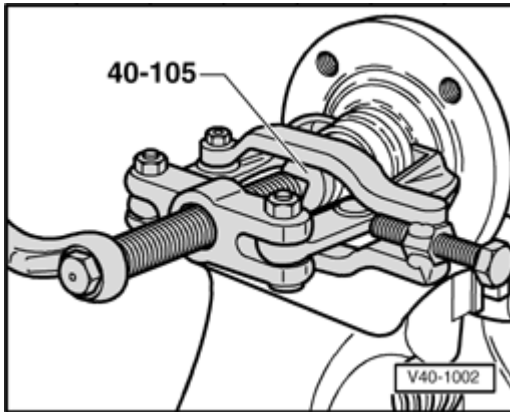
Note:

First mark installation position.



A

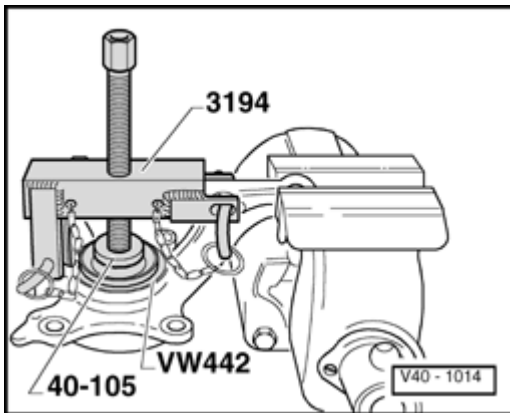
Fig. 4 Hub, pressing out of wheel bearing housing



A

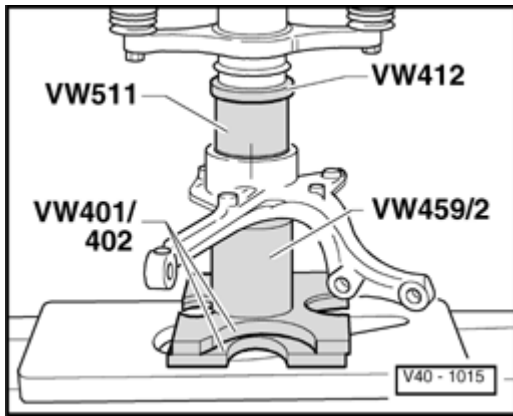
Fig. 5 Bearing race, pulling out of hub

Only use puller with leg clamp e.g. Kukko 204-2 (commercial type).



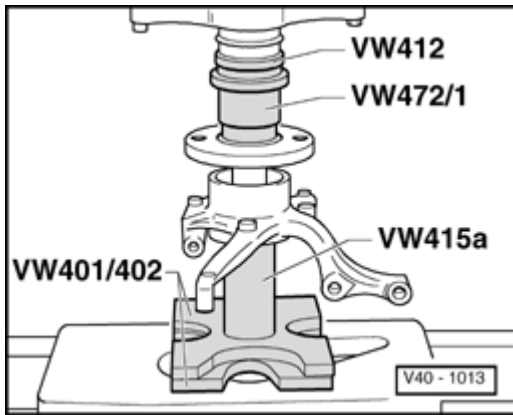
A

Fig. 6 Wheel bearing, pressing out of wheel bearing housing



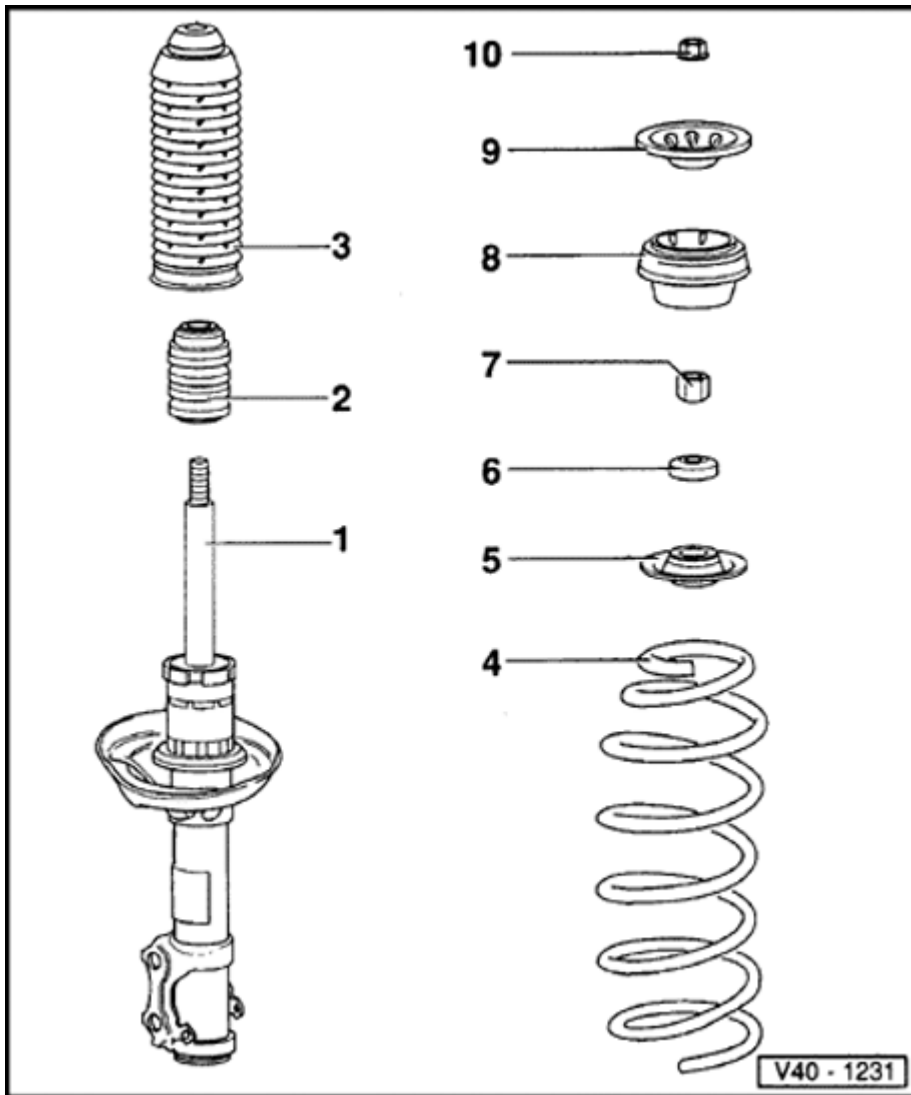
A

Fig. 7 Wheel bearing, pressing into wheel bearing housing



A

Fig. 8 Hub, pressing into wheel bearing housing



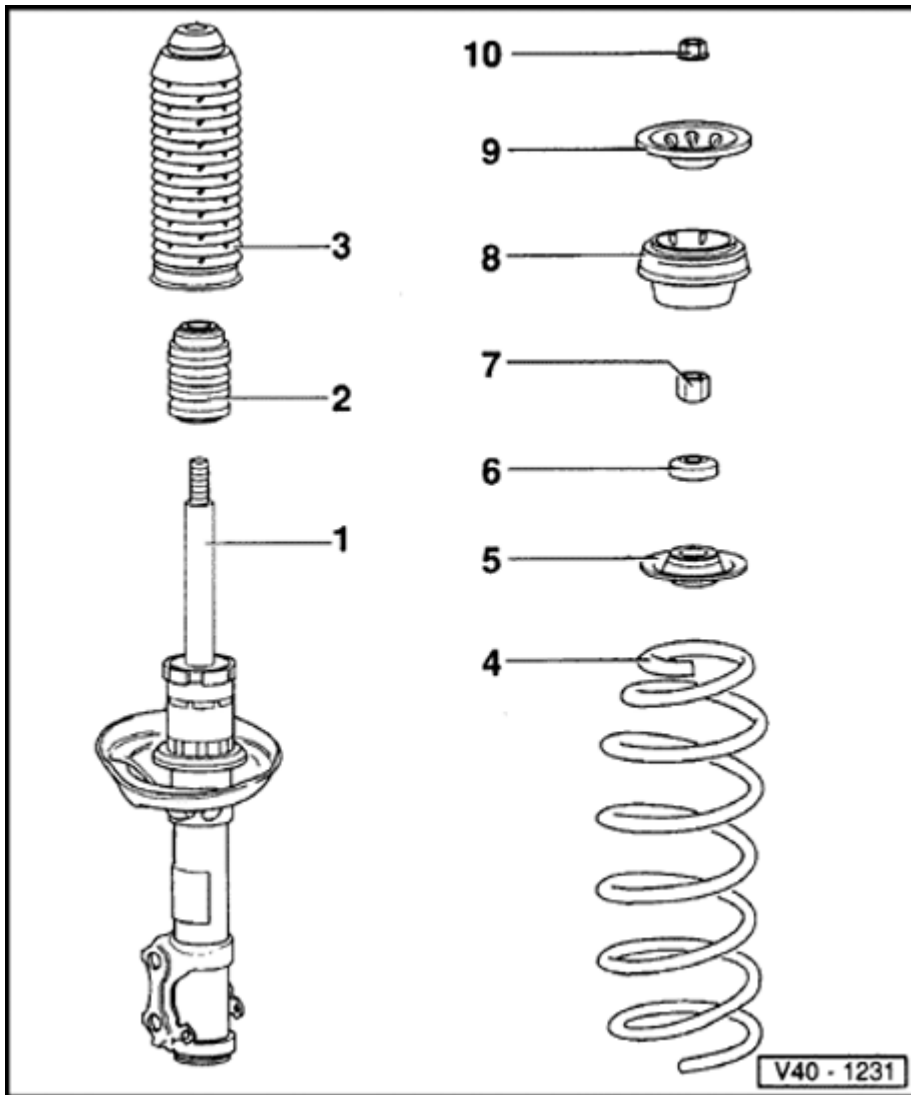
Front suspension strut, servicing (Base and Plus suspension)

1 - Shock absorber

- ◆ Can be replaced individually
- ◆ Check shock absorber for leaks and noises
- ◆ After replacing, adjust camber and toe ⇒ [Page 44-1](#)

2 - Buffer stop

3 - Protective sleeve

**4 - Coil spring**

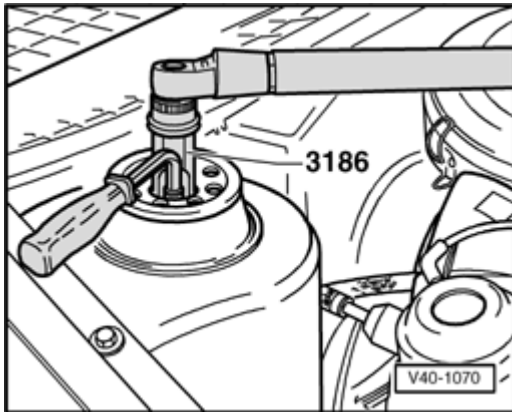
- ◆ Removing and installing ⇒ [Fig. 2](#)
- ◆ Observe color coding
- ◆ Outer surface of spring must not be damaged
- ◆ Is slightly curved

5 - Spring plate**6 - Axial bearing****7 - Hex nut, 60 Nm (44 ft lb)**

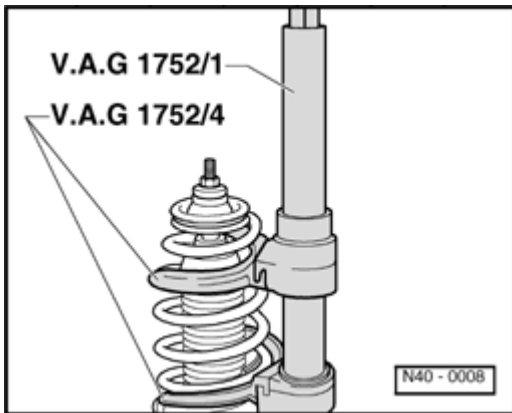
- ◆ Loosening and tightening ⇒ [Fig. 2](#)

8 - Suspension strut mounting**9 - Stop****10 - Self-locking hex nut, 60 Nm (44 ft lb)**

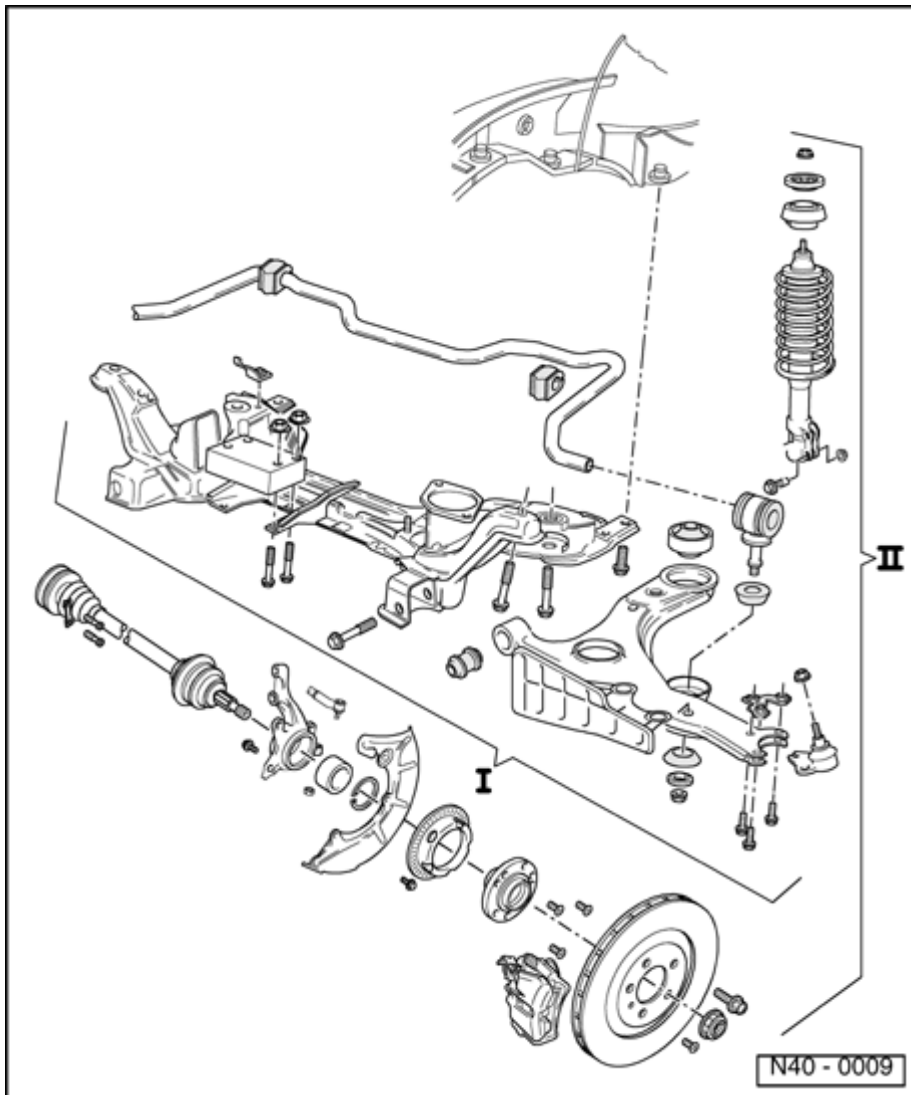
- ◆ Loosening and tightening ⇒ [Fig. 1](#)



A Fig. 1 Hex nut, loosening and tightening



A Fig. 2 Spring, removing and installing



Front suspension, servicing (Plus suspension)

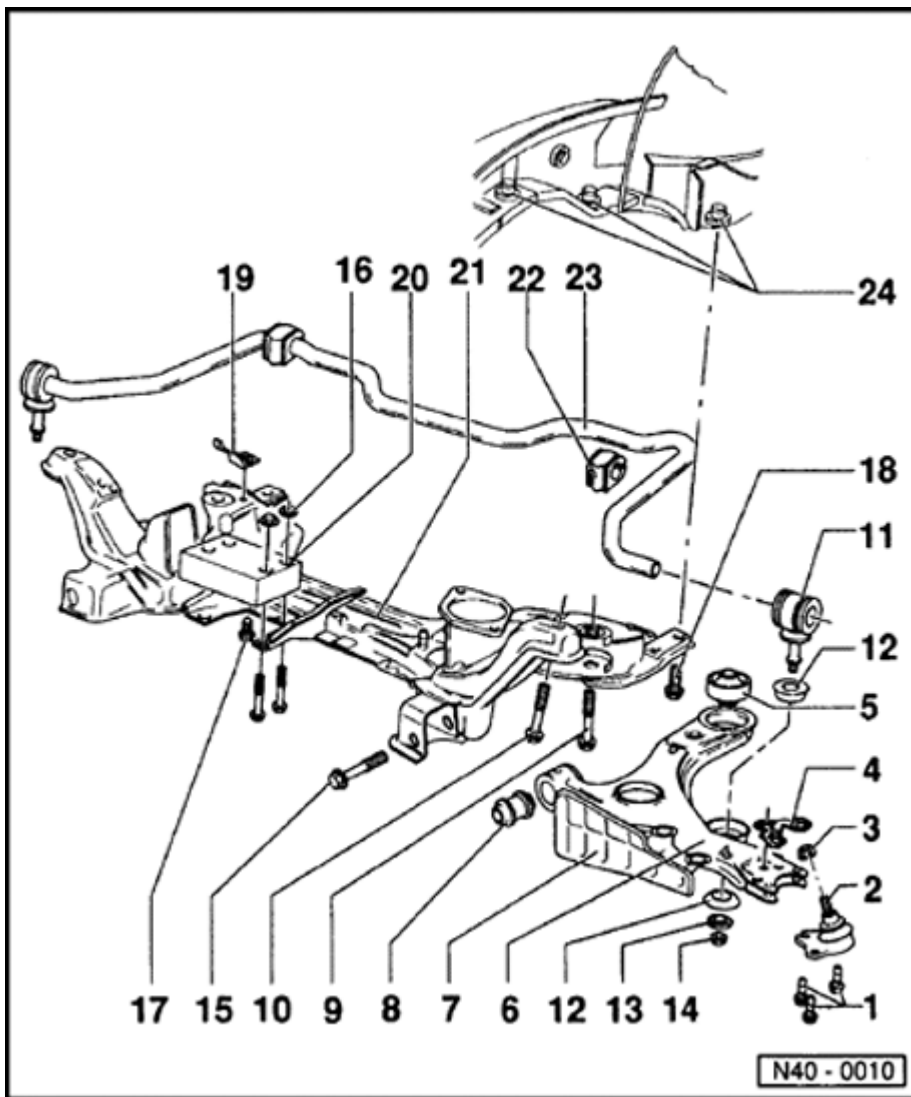
I - Removing and installing subframe, stabilizer bar and control arm (plus suspension) ⇒ [Page 40-27](#)

II - Removing and installing wheel bearing, suspension strut and drive shaft (plus suspension) ⇒ [Page 40-36](#)

The following components are different when comparing the plus suspension with the base suspension:

Control arm, ball joint, wheel bearing housing, stabilizer bar, drive shaft, brake disc, hub, wheel and tie rods.

The Plus suspension is installed in Passat models with engine output 110 kW (148 hp) and above.



Sub-frame, stabilizer bar and control arm, removing and installing (Plus suspension)

Notes ⇒ [Page 40-2](#)

1 - Hex bolt, 35 Nm (26 ft lb)

2 - Ball joint

◆ Checking ⇒ [Page 40-10](#)

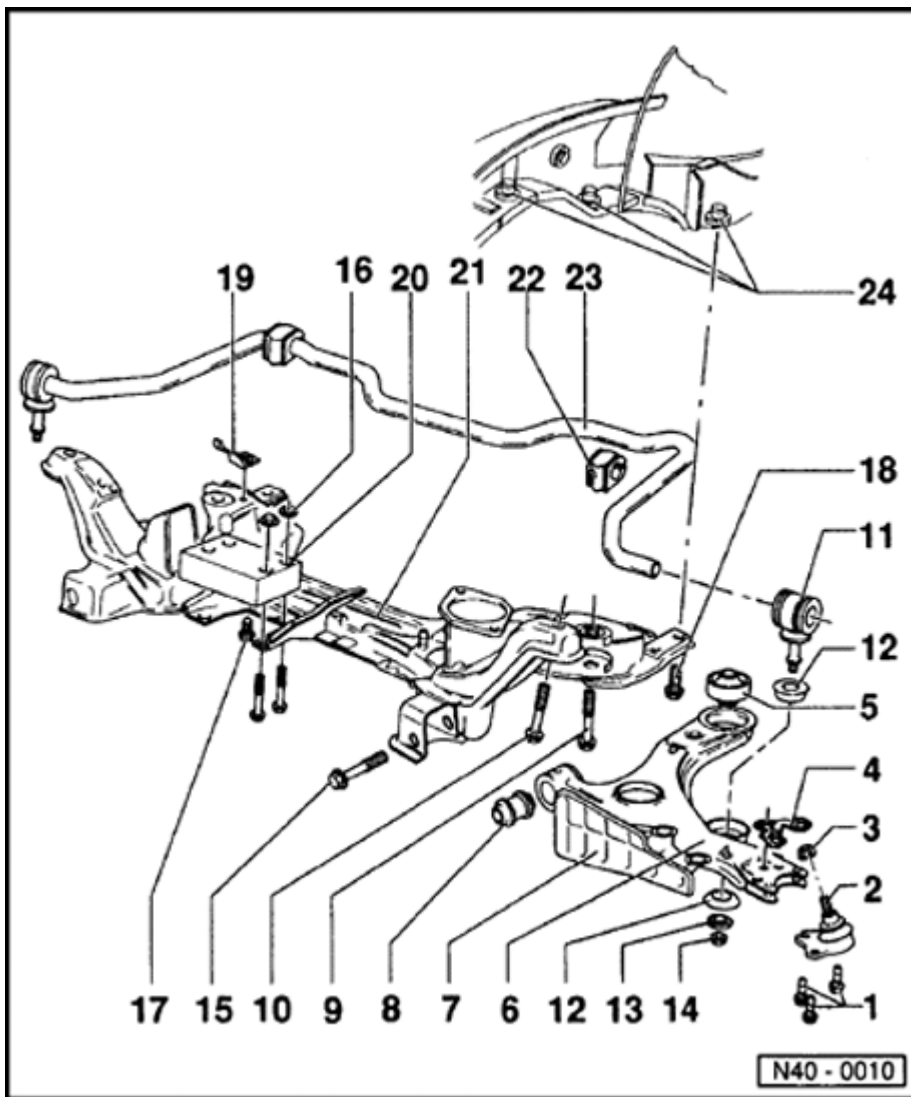
◆ Check rubber boot for damage and if necessary, replace ball joint

◆ Removing and installing ⇒ [Page 40-33](#)

◆ Mark installation position. If replaced set to center of elongated hole and check track

3 - Self-locking hex nut, 45 Nm (33 ft lb)

4 - Captive locknuts



5 - Control arm rear mounting

- ◆ Installation position ⇒ [Fig. 2](#)
- ◆ Pressing out and in ⇒ [Fig. 3](#)

6 - Control arm

- ◆ Elongated holes are not for camber adjustment!

7 - Air guide plate

- ◆ Secured to control arm by clip

8 - Control arm front mounting

- ◆ Pressing out and in ⇒ [Fig. 1](#)

9 - Hex bolt M 12 x 1.5 x 78

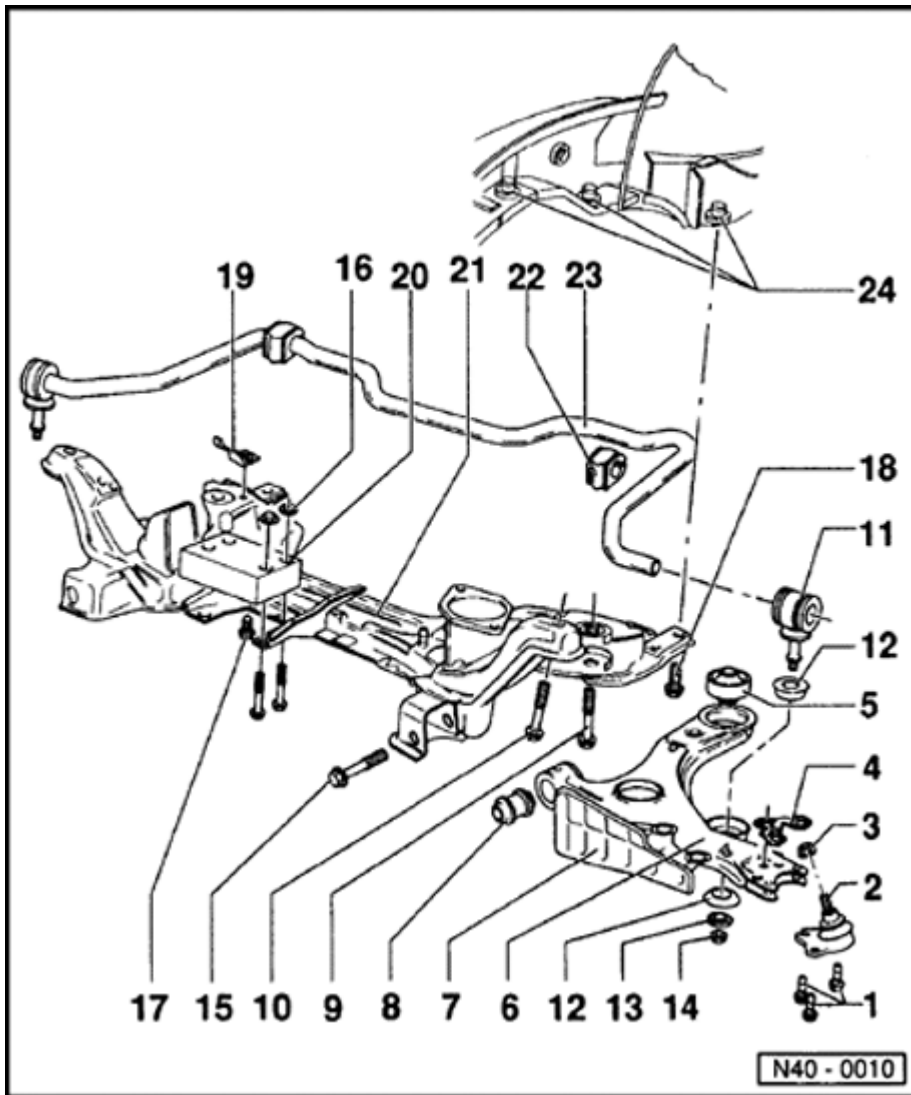
- ◆ 70 Nm (52 ft lb) and turn 90° further

10 - Hex bolt M 12 x 1.5 x 65

- ◆ 70 Nm (62 ft lb) and turn 90° further

11 - Connecting link

- ◆ With rubber mounting



12 - Mounting for connecting link

- ◆ Conical side towards control arm

13 - Washer

- ◆ Collar faces away from mounting

14 - Self-locking hex nut, 25 Nm (18 ft lb)

15 - Hex bolt M 12 x 1.5 x 82

- ◆ 50 Nm (37 ft lb) and turn 90° further

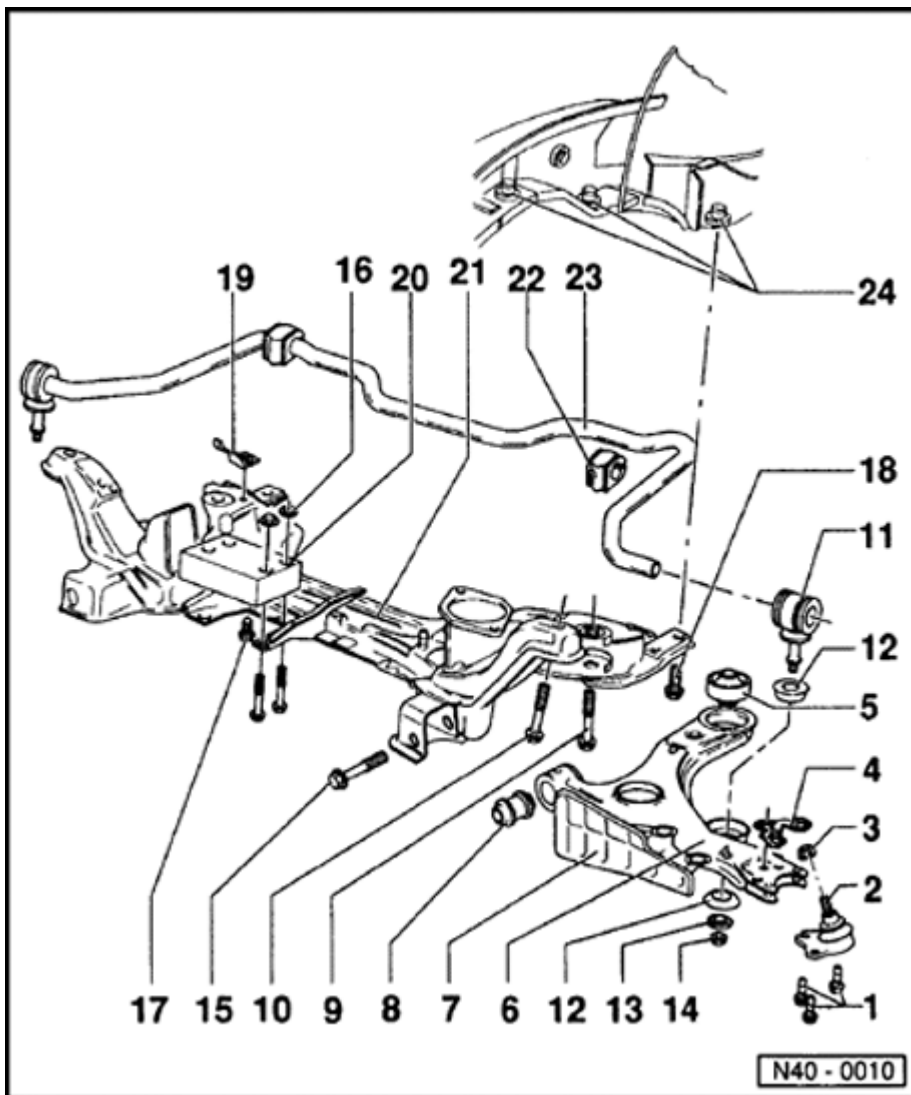
16 - 25 Nm (18 ft lb)

17 - Hex bolt, 25 Nm (18 ft lb)

- ◆ To secure stabilizer bar

18 - Hex bolt, 65 Nm (48 ft lb)

19 - Clamp for stabilizer bar



20 - Vibration damper

- ◆ Not installed on vehicles with VR 6 engine

21 - Sub-frame

- ◆ Removing and installing with assemblies installed: supporting assemblies ⇒ [Fig. 4](#)
- ◆ Remove sub-frame from below with control arm but without steering gear using transmission jack VAG 1383 or equivalent. After installing check position of steering wheel and align front end.
- ◆ Aligning engine/transmission assembly

Repair Manual, Engine Mechanical, Repair Group 10

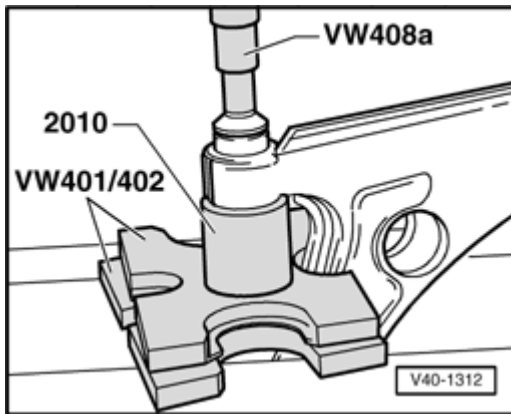
22 - Stabilizer bar mounting

23 - Stabilizer bar

- ◆ 24 mm diameter

24 - Cap nut

- ◆ Reworking in side member ⇒ [Page 40-11](#)

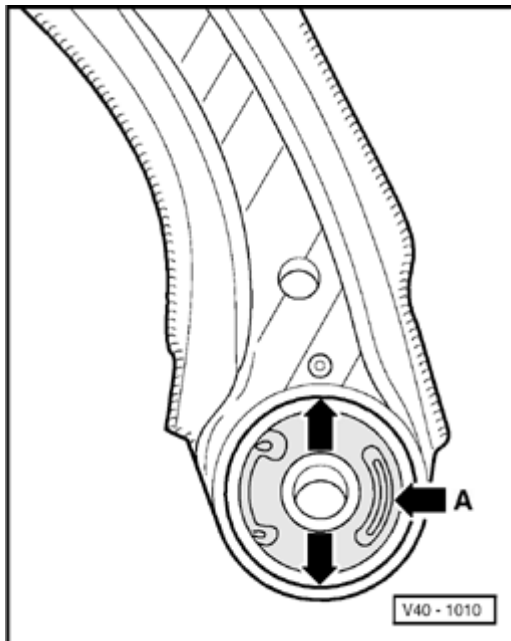


A

Fig. 1 Control arm front mounting, pressing out and in

Note:

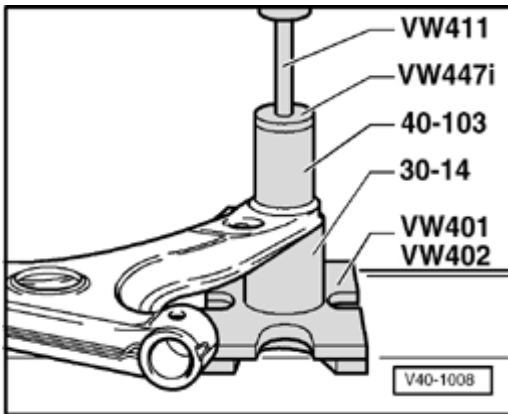
Before pressing in, coat with lubricant, e.g. soft soap.



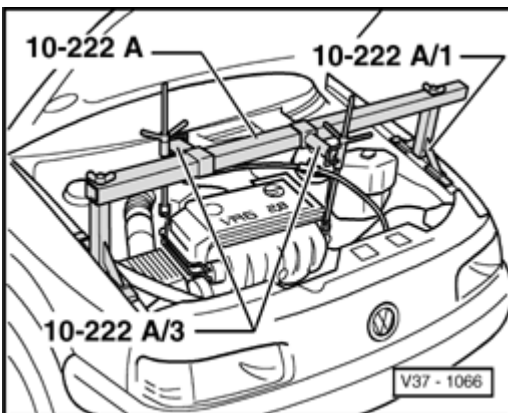
A

Fig. 2 Control arm rear mounting, installation position

One of the embossed arrows points toward the recess in the control arm and the kidney shaped opening -arrow -A- in mounting faces towards center of vehicle.



A Fig. 3 Control arm rear mounting, pressing out and in

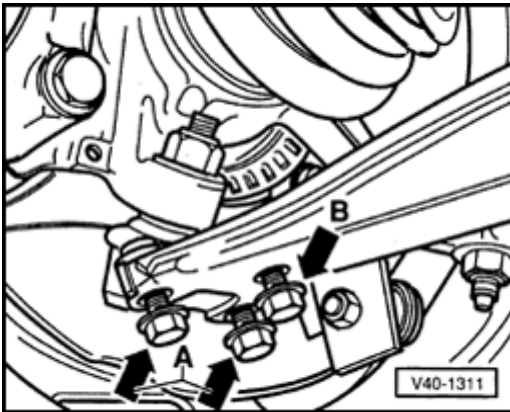


A Fig. 4 Engine/transmission assembly, supporting with 10-222 A and 10-222 A/3

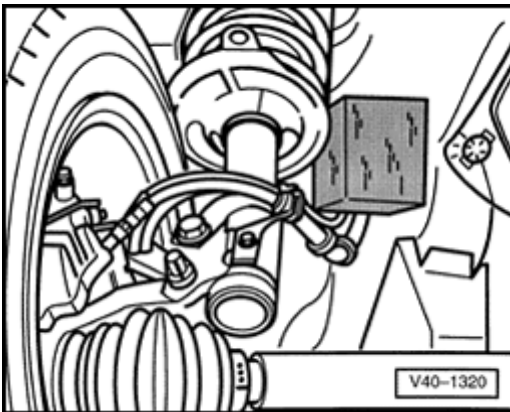
Ball joint, removing and installing (Plus running gear)

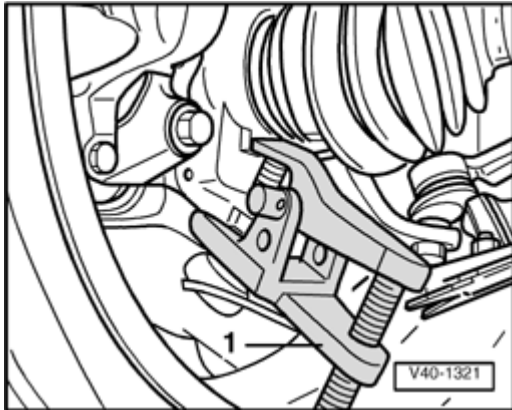
Removing

- Loosen 12-point nut with vehicle standing on its wheels.
- Disconnect drive shaft at transmission drive flange.
- Remove bolts -arrow -A-.
- Loosen bolt -arrow -B-.
- A** - Separate connection between ball joint/control arm. (First mark installation position).



- A** - Swing wheel and suspension strut outward and support.





A

- Install ball joint splitter as shown in illustration and press out ball joint.

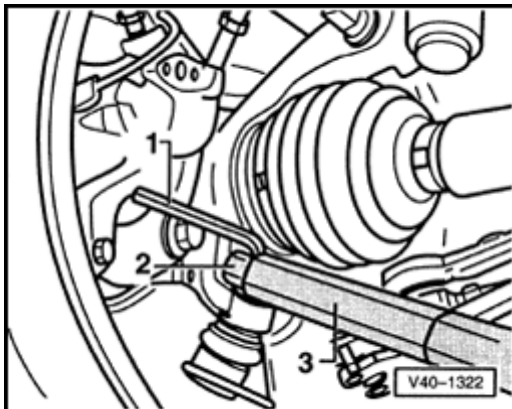
1 - Splitter. Matra V 176

Note:

- ◆ Place transmission jack VAG 1383/A, or equivalent, underneath (danger of accident through falling parts when pressing out the ball joint).
- ◆ Protect ball joint threads by threading nut on a few turns.

Installing

- Install ball joint in wheel bearing housing.



A

- Thread on new self-locking nut, and counterhold with hex key (6 mm AF).

1 - Hex key (6 mm AF), shortened by approx. 10 mm.

2 - Crowfoot insert or slotted ring socket insert ⇒ [Page 40-35](#)

3 - VAG 1331

- Secure ball joint to control arm (align to old marks).

Note:

Make sure that the boot is not damaged or twisted.

Tightening torques

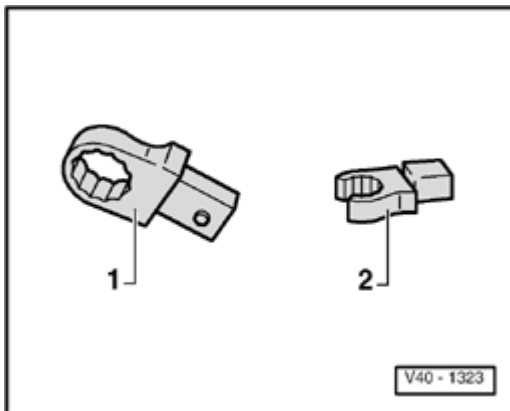
Ball joint to wheel bearing housing: 45 Nm (33 ft lb)

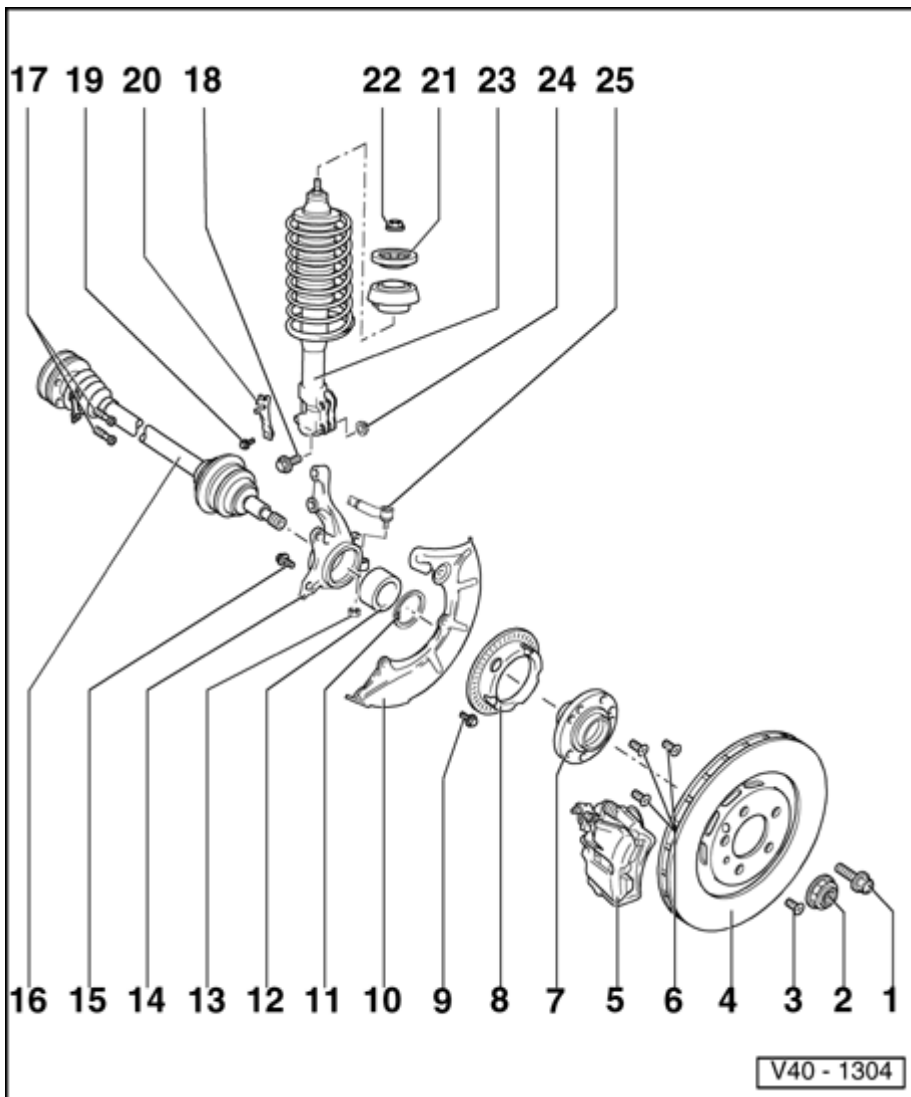
Ball joint to control arm: 35 Nm (26 ft lb)

A

1 - Box insert (commercial type, 19 mm AF)

2 - Crowfoot insert (commercial type, 19 mm AF)





Wheel bearing and suspension strut, removing and installing (Plus suspension)

Notes ⇒ [Page 40-14](#)

1 - Wheel bolt, 110 Nm (81 ft lb)

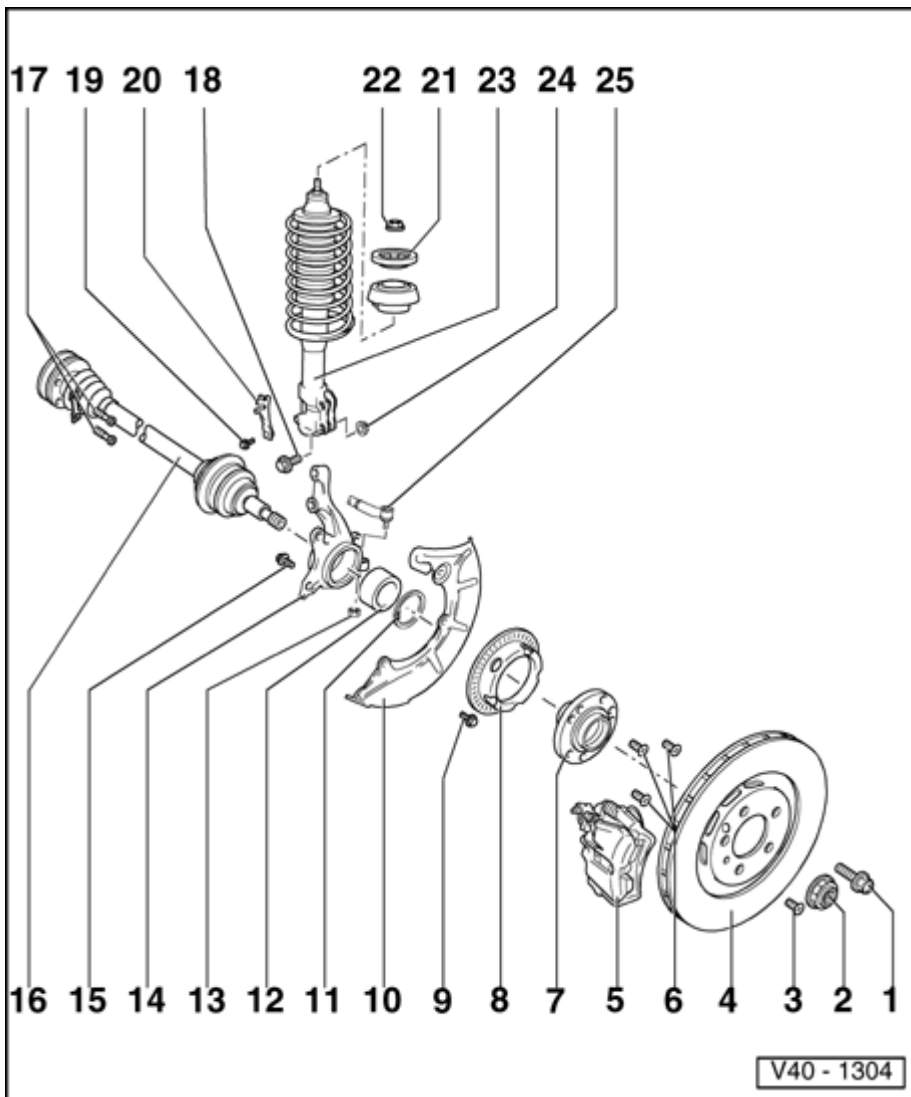
2 - Self-locking 12-point nut

- ◆ 90 Nm (66 ft lb) and turn 45° further ($\frac{1}{8}$)
- ◆ Loosening and tightening ⇒ [Page 40-44](#)
- ◆ Any paint residue and/or corrosion on thread of the outer joint must be removed before the nut is installed.

3 - Screw

4 - Brake disc

- ◆ Repair instructions ⇒ [Page 46-1](#)

**5 - Brake caliper**

- ◆ Do not loosen brake hose when working on front suspension
- ◆ Hang up with wire or similar
- ◆ Replacing brake pads ⇒ [Page 46-6](#)

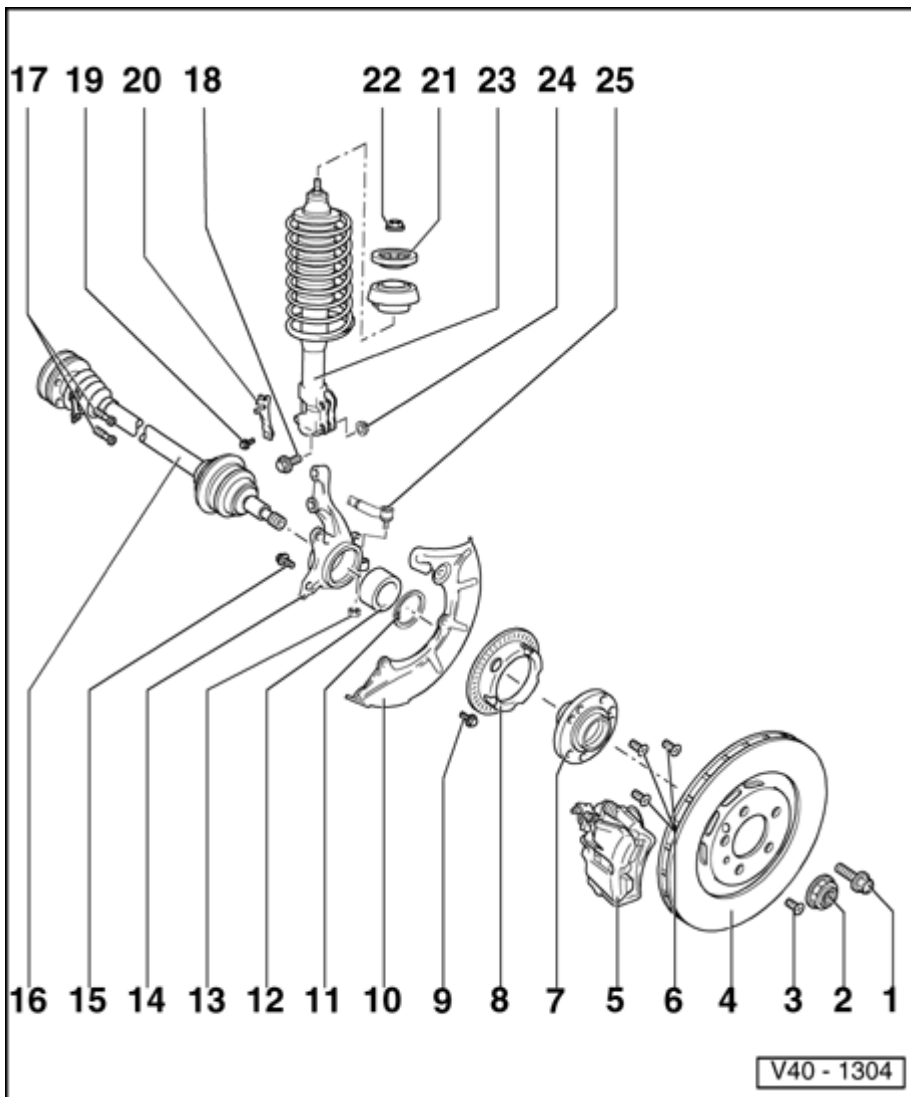
6 - Countersunk screw**7 - Hub**

- ◆ Pressing out ⇒ [Fig. 2](#)
- ◆ Pressing in ⇒ [Fig. 6](#)
- ◆ Pulling off inner race ⇒ [Fig. 3](#)

8 - Speed sensor rotor

- ◆ Only for vehicles with ABS

9 - Hex bolt, 10 Nm (7 ft lb)**10 - Splash plate**

**11 - Circlip**

- ◆ Ensure seated correctly

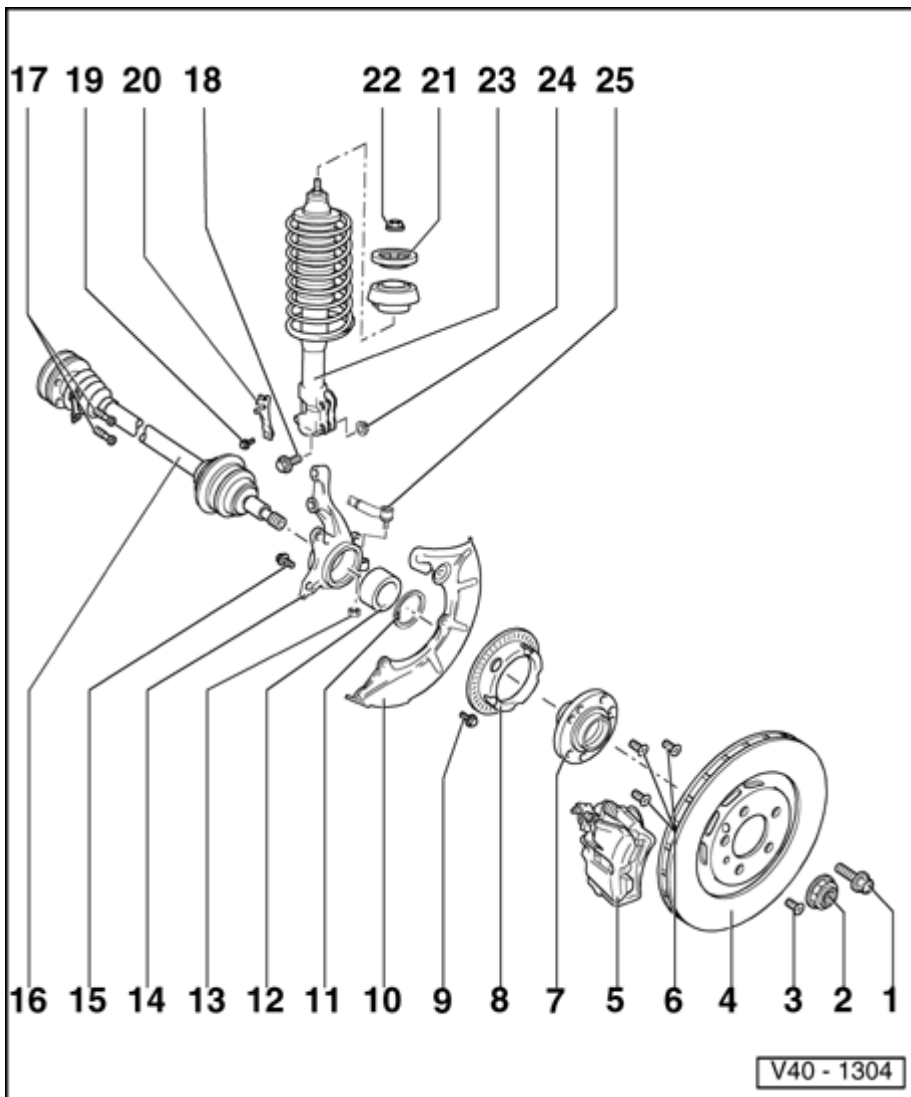
12 - Wheel bearing

- ◆ Pressing out ⇒ [Fig. 4](#)
- ◆ Always replace, as it is destroyed during pressing out
- ◆ Pressing in ⇒ [Fig. 5](#)

13 - Self-locking hex nut, 35 Nm (26 ft lb)**14 - Wheel bearing housing****15 - Self-locking bolt/washer, 125 Nm (92 ft lb)****16 - Drive shaft**

- ◆ Removing and installing ⇒ [Page 40-43](#)
- ◆ Repairing ⇒ [Page 40-46](#)

17 - Socket head multi-point bolt, 45 Nm (33 ft lb)

**18 - Hex bolt**

- ◆ Camber adjustment ⇒ [Page 44-1](#)
- ◆ Before loosening, mark installation position

19 - Hex bolt**20 - Bracket****21 - Stop****22 - Self-locking hex nut, 60 Nm (44 ft lb)**

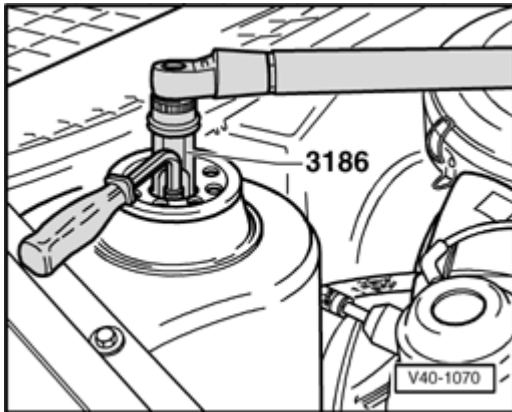
- ◆ Loosening and tightening ⇒ [Fig. 1](#)

23 - Suspension strut

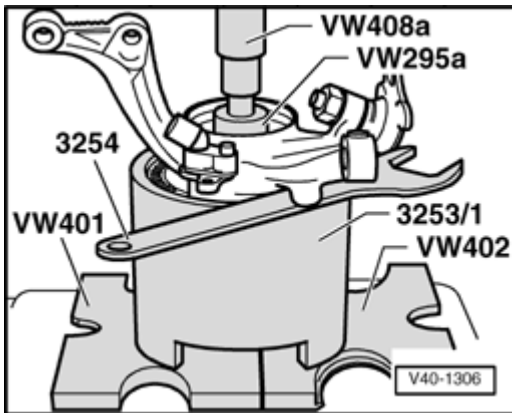
- ◆ Disassembling and assembling ⇒ [Page 40-23](#)

24 - Self-locking hex nut, 95 Nm (70 ft lb)**25 - Tie rod**

- ◆ Removing and installing ⇒ [Page 48-77](#)



A Fig. 1 Suspension strut to body, loosening and tightening



A Fig. 2 Hub, pressing out of wheel bearing housing