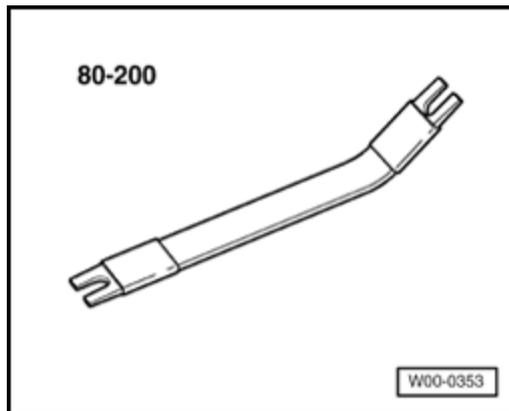


Rear axle, servicing

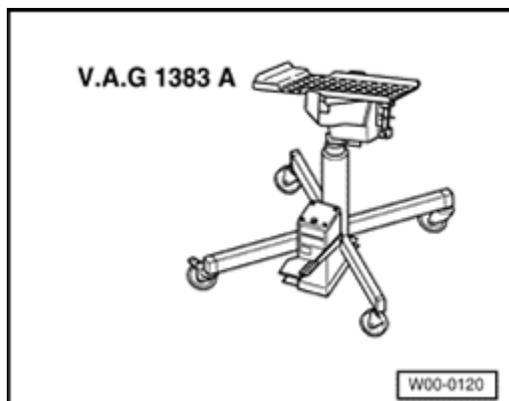
Rear axle, removing and installing

Special tools, workshop equipment, testers, measuring instruments and auxiliary items required



A

- ◆ 80-200 Removal lever

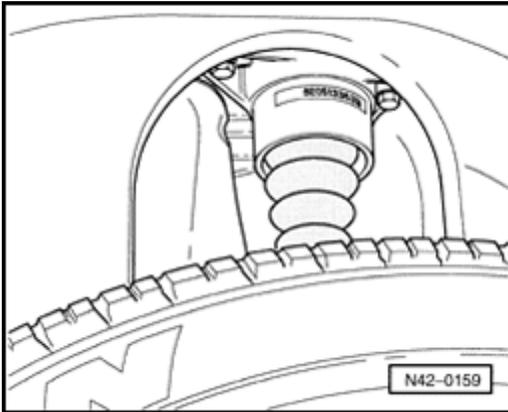


A

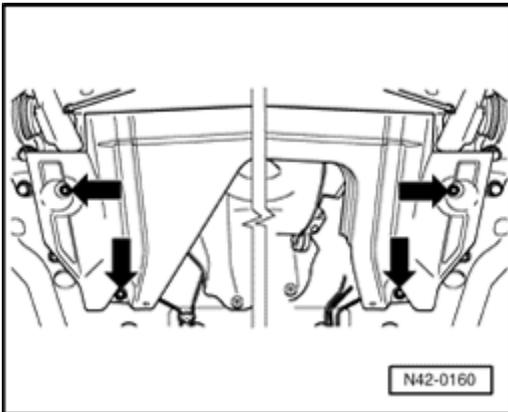
- ◆ VAG 1383 A Engine/transmission jack



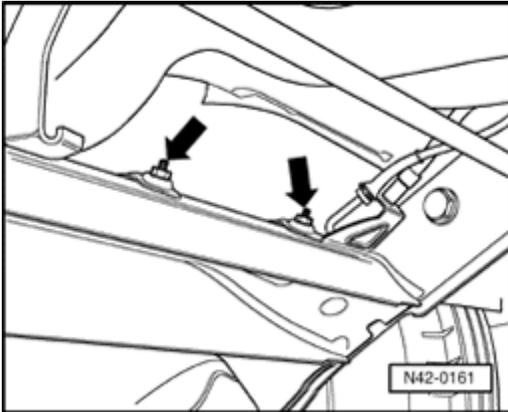
Removing

**A**

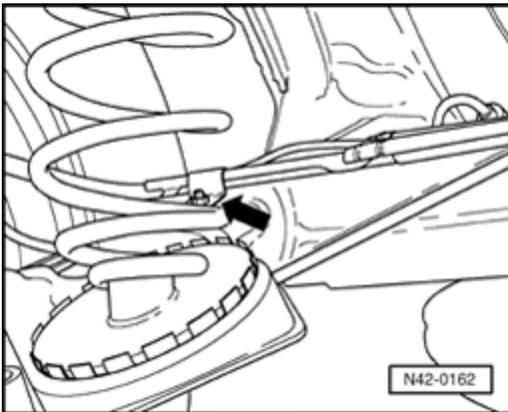
- Remove bolts with vehicle standing on its wheels (raise vehicle until the bolt is excessible).
- Raise vehicle to assembly height to relieve the pressure on the coil spring.
- Pull rear axle down and remove coil spring with the help of a second mechanic if necessary.
- Remove wheels.

**A**

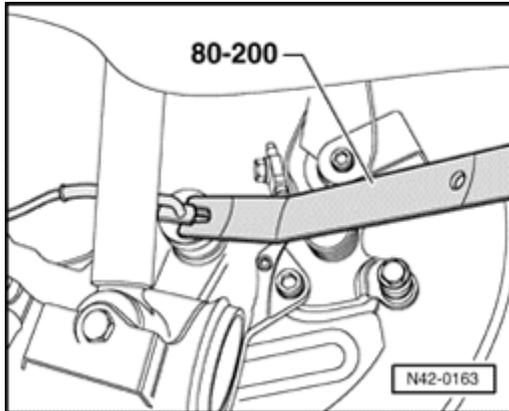
- Remove cover -arrows-.



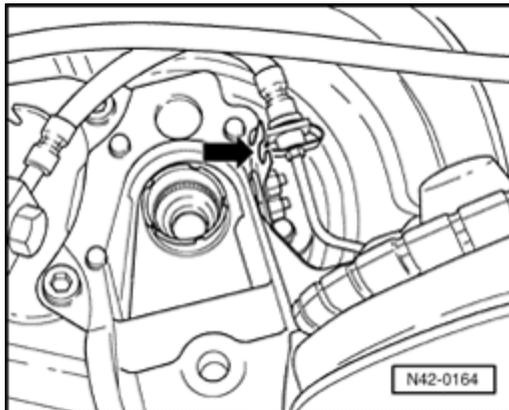
- A** - Remove retainer -arrows- for parking brake cable.



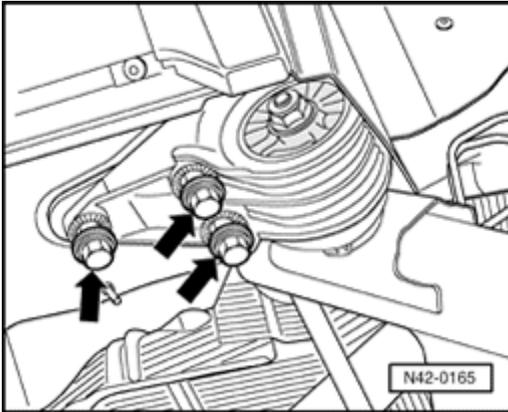
- A** - Remove retainer -arrow- for parking brake cable.

**A**

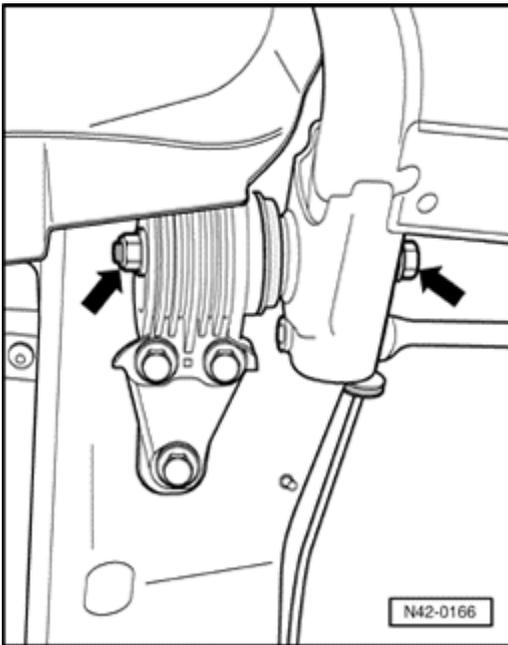
- Disconnect ABS vehicle speed sensor.
- Unclip vehicle speed sensor wiring from retainer.
- Unclip brake line.
- Remove brake caliper and hang up on body.

**A**

- Remove retainer -arrow- for brake line.

**A**

- Loosen left mounting bracket bolts -arrows-.
- Support rear axle using, e.g. VAG 1383.
- Mark installation position of mounting bracket on longitudinal member, e.g. with color or felt tip.

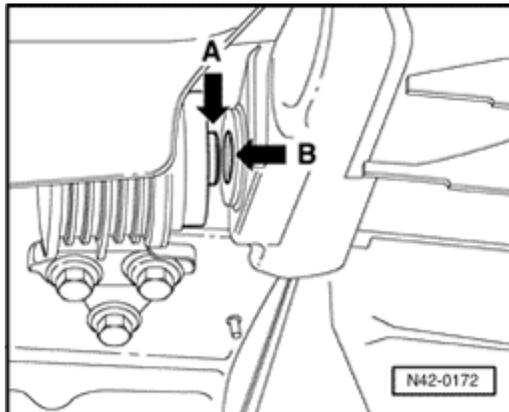
**A**

- Remove rear axle mounting bracket bolts -arrows- on both sides and take out rear axle.



Installing

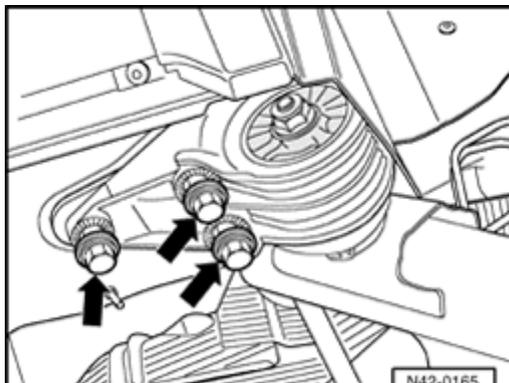
- Make sure that the contact surface is clean before installing rear axle
- Install rear axle to vehicle.



A

Make sure that the rubber mounting centralizer -arrow A- seats in the hole of the axle beam -arrow B-.

- Insert bolt for mounting bracket and rear axle and tighten nut only until mounting bracket and rear axle are in position.



A

- Tighten bolts -arrows- for mounting bracket ⇒ [Page 42-10](#) , item 8 and page ⇒ [Page 42-10](#) , item 9 .
- Loosen bolt for bearing bracket and rear axle until the nut and the bolt can be turned by hand.

CAUTION!

The mounting bracket on rear axle bolted union must be tightened only when

the vehicle is standing on its wheels!

Otherwise the rubber mounting will be stressed, resulting in a reduced service life.



Further installation in reverse order

- Install wheel and tighten ⇒ [Page 44-1](#) .

After installing check position of steering wheel during a test drive.

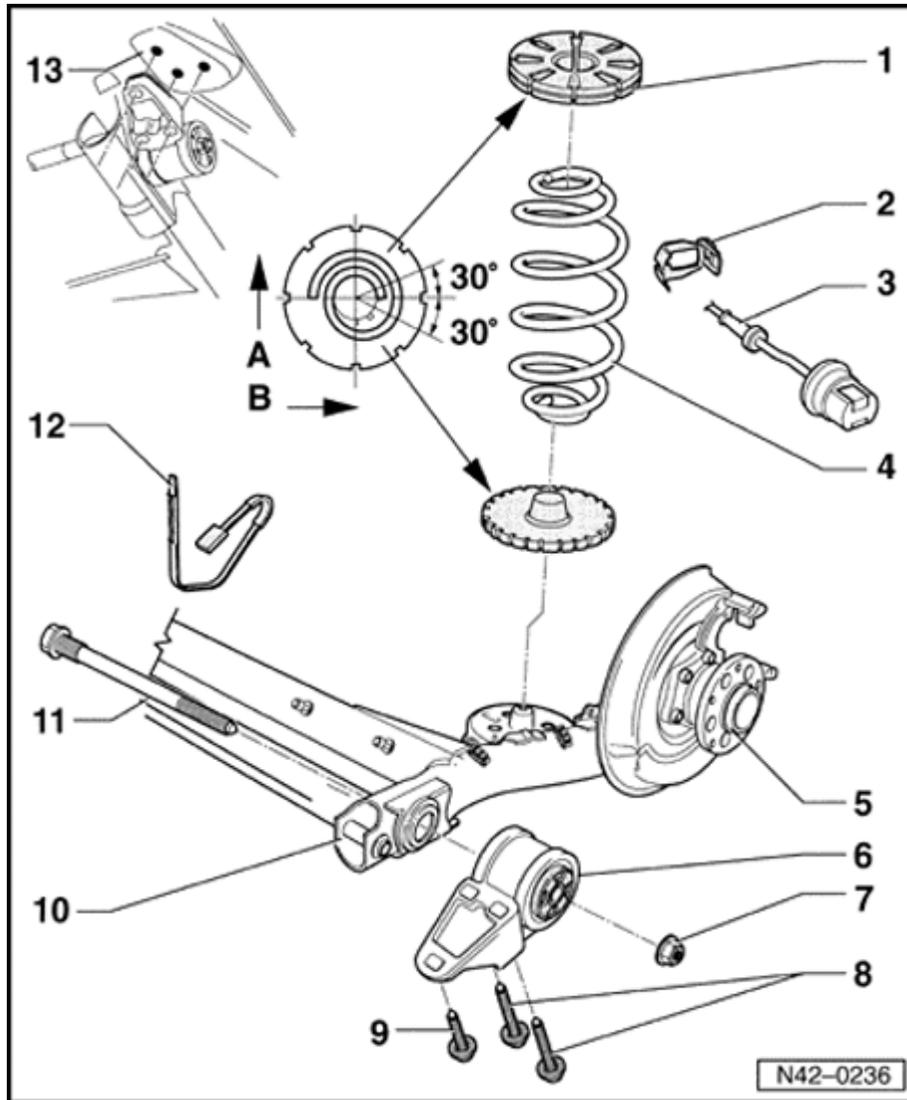
If steering wheel is not in straight ahead position the front axle tracking must be checked!

Tightening torques:

Shock absorber to body ⇒ [Page 42-17](#) , item 7

Shock absorber to rear axle ⇒ [Page 42-16](#) , item 3

Rear axle to mounting bracket ⇒ [Page 42-11](#) , item 11



Rear axle beam, assembly overview

Note:

Welding and straightening on axle beam and stub axle is not permissible.

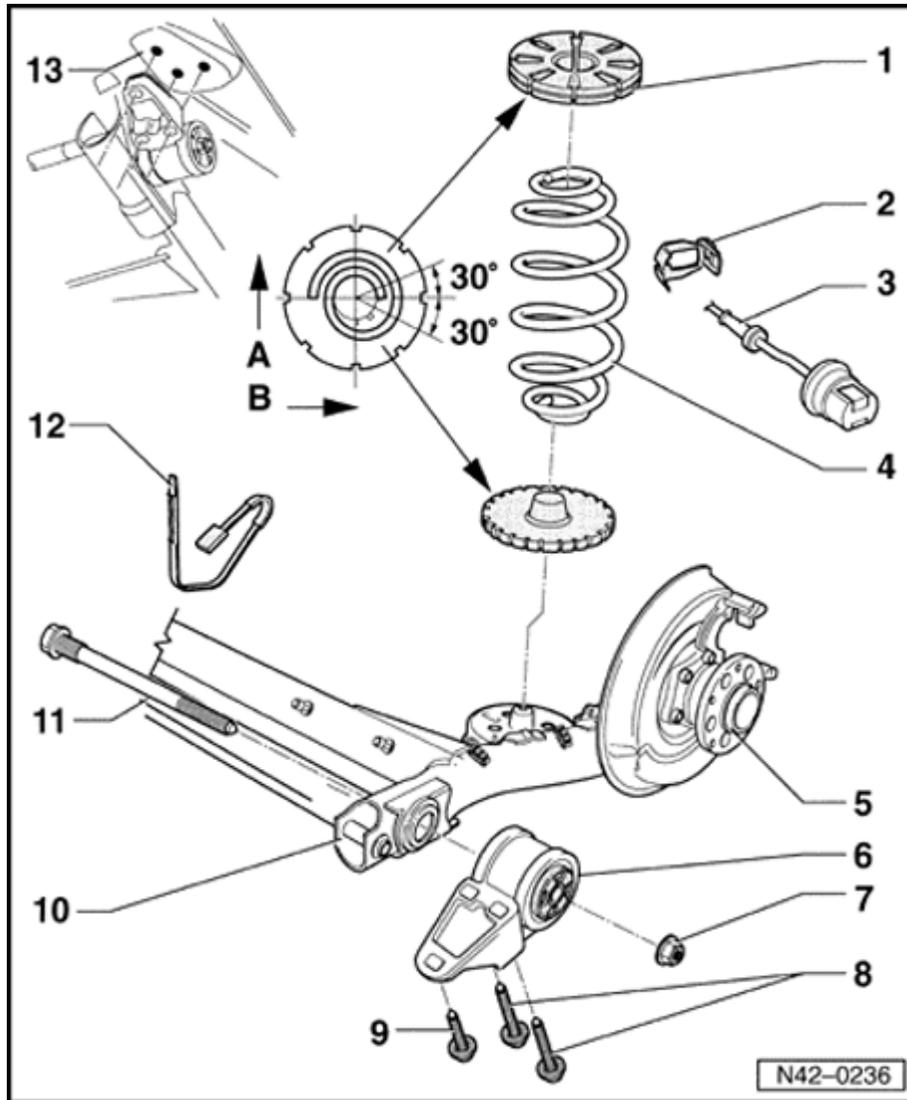
◆ Always replace self-locking nuts.

1 - Spring support

2 - Vehicle speed sensor retainer

3 - Vehicle speed sensor

◆ Only on vehicles with ABS



4 - Coil spring

- ◆ Removing: first remove upper bolt from shock absorber ⇒ [Page 42-13](#) removing and installing shock absorber

After installing, the ends of the spring must lie in area marked, as illustrated.

Arrow A points forward

Arrow B points right

A tolerance of $\pm 30^\circ$ is permissible

- ◆ Examine for paint damage and rectify paint damage if necessary

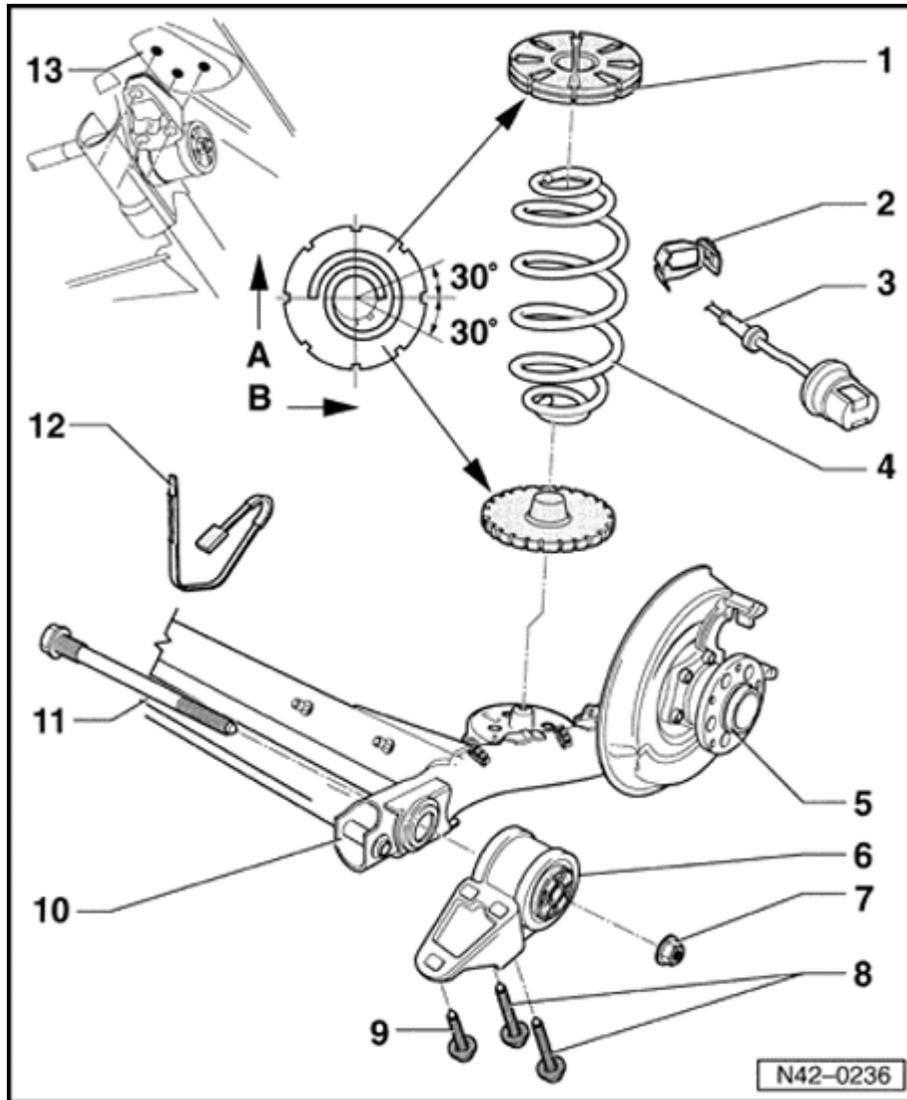
Spring allocation

The coil spring allocation for vehicles from vehicle identification No. 3B - WE 113 562 is performed via PR numbers.

These numbers are indicated on the vehicle data plate.

⇒ [Page 40-40](#) for an example.

5 - Wheel bearing



6 - Mounting bracket

- ◆ Check and if necessary adjust rear axle total track after installation
- ◆ The bearing bracket contact surface is to be clean and free of wax, paint and soil

7 - Hex nut

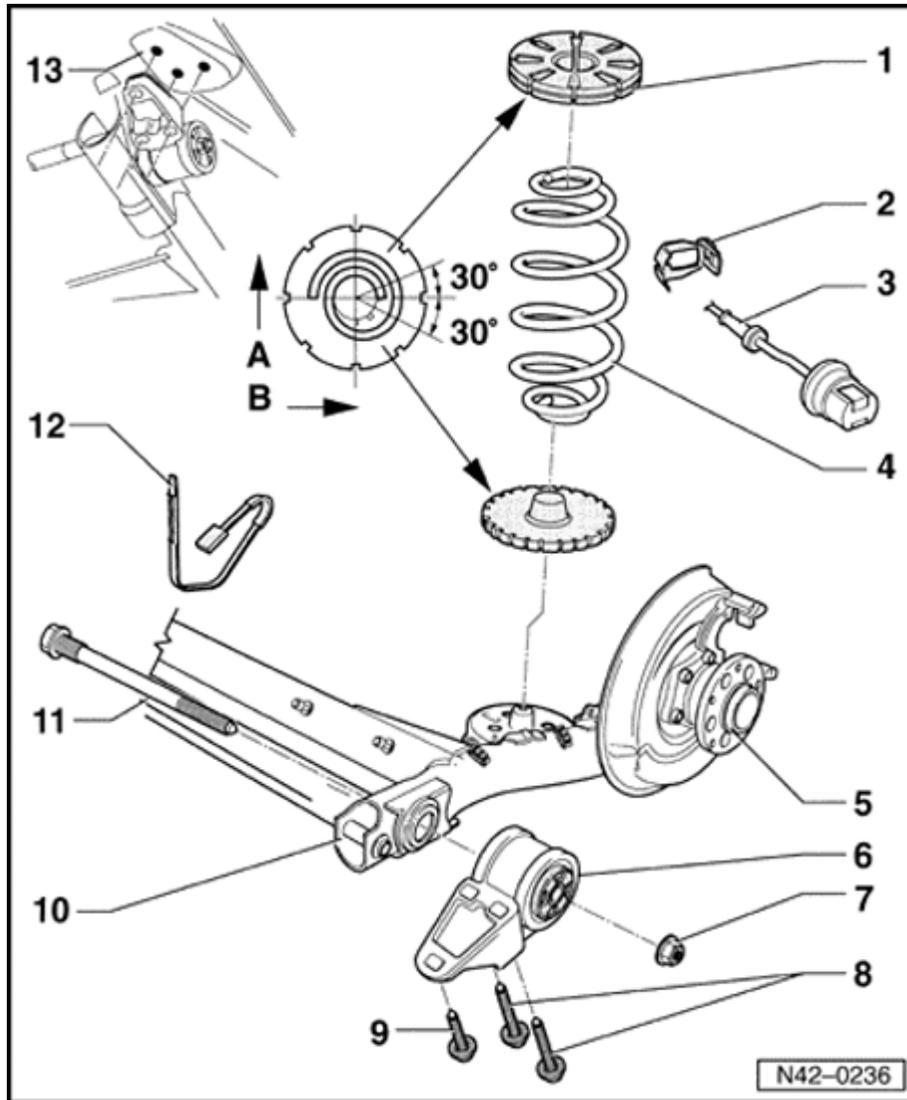
- ◆ Replace each time after removing

8 - Hex bolt M 12 x 1.5 x 90

- ◆ 110 Nm and turn 90° further
- ◆ Replace each time after removing

9 - Hex bolt M 12 x 1.5 x 60

- ◆ 110 Nm and turn 90° further
- ◆ Replace each time after removing



10 - Axle beam

- ◆ Wheel bearing/wheel hub contact surfaces and threaded holes are to be free of paint and dirt

11 - Hex bolt M 14 x 1.5 x 190

- ◆ 120 Nm and turn 90° further
- ◆ Replace each time after removing

12 - Retaining strap

for anti-roll bar

- ◆ Installing ⇒ [Page 42-12](#)

13 - Threads in longitudinal member

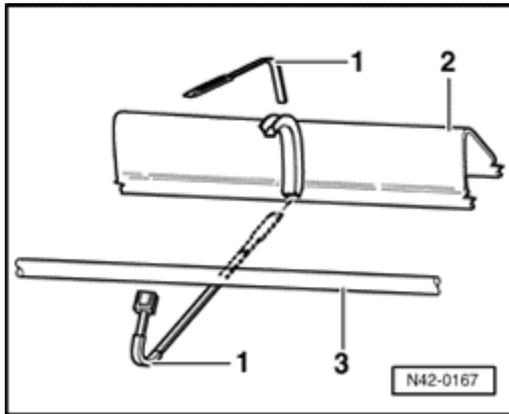
- ◆ If threads in welded nut in longitudinal member are damaged, they can be serviced using a Heli-coil® ⇒ [Page 40-27](#) .



Installing anti-roll bar retaining strap

A

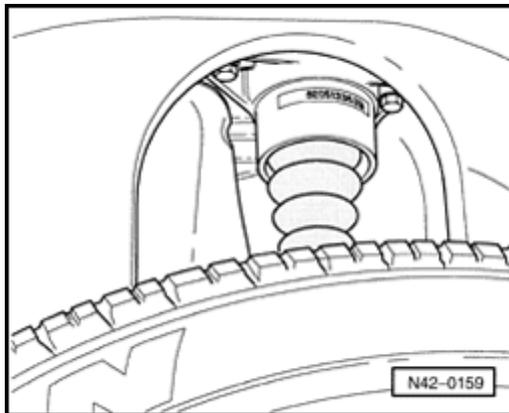
- Thread retaining strap -1- behind the retainer on axle beam -2-.
- Place retaining strap around anti-roll bar -3- and close strap
- Push anti-roll bar approx. 8 mm toward axle beam and push retaining strap into lock as far as possible.





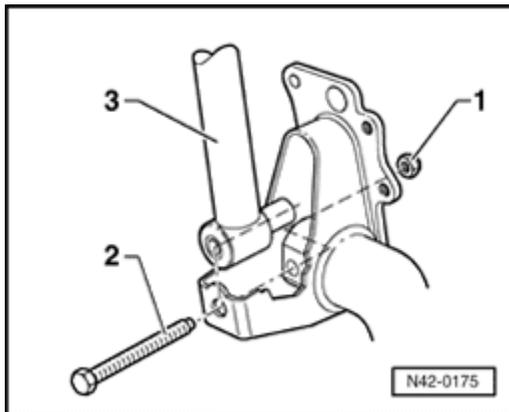
Shock absorber/spring, removing and installing

Removing



A

- Remove bolts with vehicle standing on its wheels (raise vehicle until the bolt is accessible).
- Raise vehicle to assembly height to relieve the pressure on the coil spring.
- Pull rear axle down and remove coil spring with the help of a second mechanic if necessary.



A

- Disconnect shock absorber from rear axle.
- 1 - Self-locking nut
 - 2 - Hex bolt
 - 3 - Shock absorber
- Take out shock absorber.



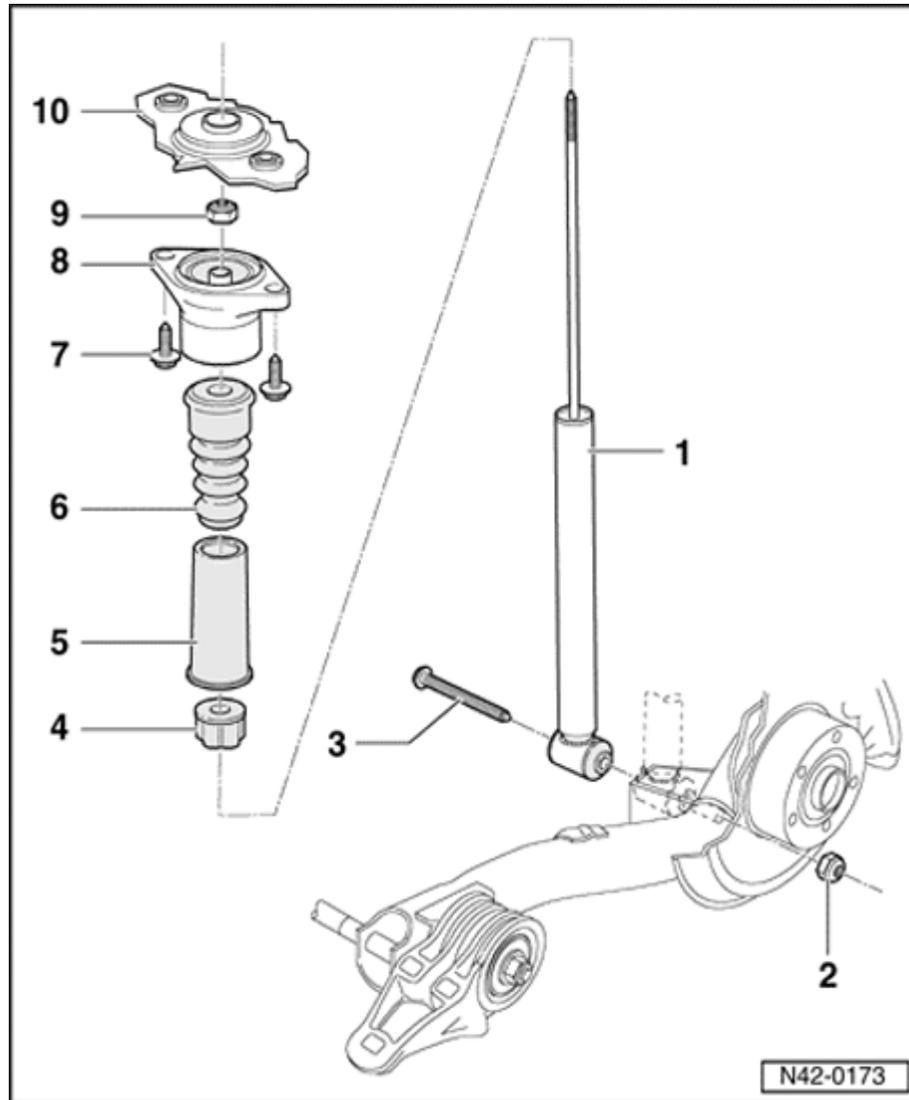
Installing

Install in reverse order.

Tightening torques:

Shock absorber to body ⇒ [Page 42-17](#) , item 7

Shock absorber to rear axle ⇒ [Page 42-16](#) , item
3



Shock absorbers on vehicles with front wheel drive, assembly overview

1 - Gas-filled shock absorber

- ◆ Can be replaced individually
- ◆ Allocation

⇒ *Replacement parts catalog*

- ◆ Disposal

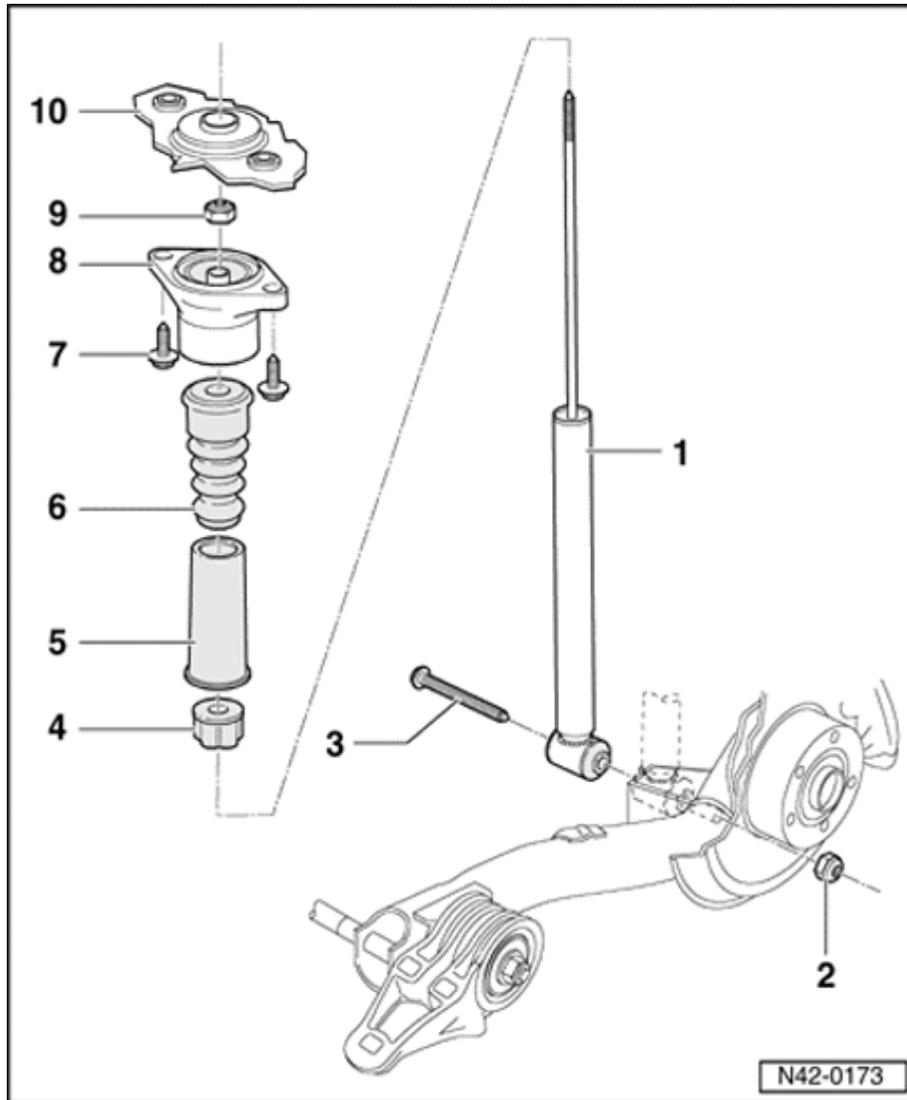
⇒ Special information; Suspension, Wheels, Steering No.3;
Leaking shock absorbers, noisy shock absorbers

Functional check

Press shock absorber together by hand. When doing this the piston rod must move over its complete length smoothly and with even force.

When the shock absorber has sufficient gas pressure the piston rod returns to its original starting position.

If the piston rod does not return to its starting position and there is no loss of oil then the shock absorber is still OK.



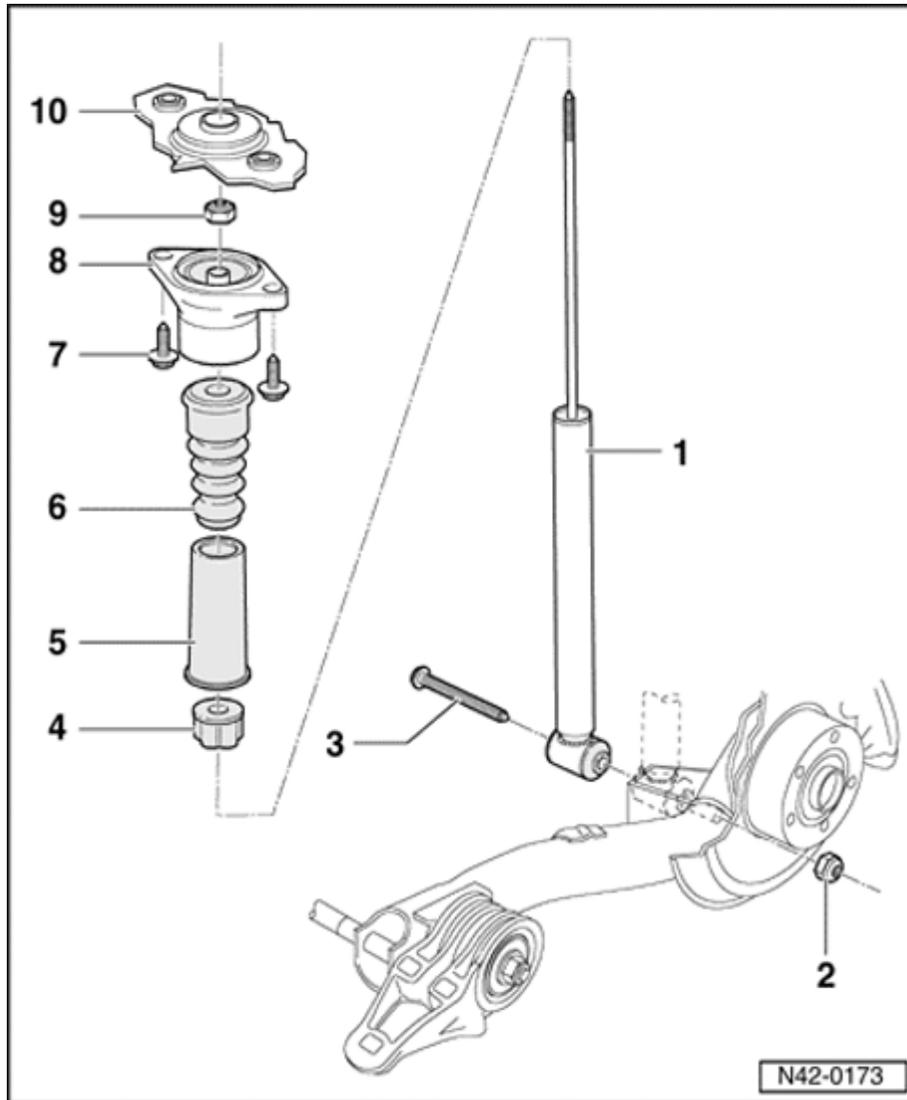
2 - Hex nut

- ◆ Replace each time after removing

3 - Hex bolt M 10 x 90

- ◆ 50 Nm and turn 90° further
- ◆ Replace each time after removing
- ◆ Only tighten when vehicle is standing on wheels.

4 - Protective cap



5 - Protective tube

6 - Stop buffer

7 - Hex bolt, 45 Nm

8 - Shock absorber mounting

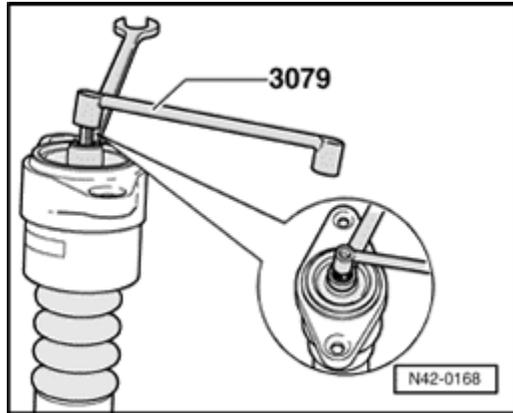
9 - Hex self-locking nut, 25 Nm

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

◆ Replace each time after removing

10 - Threads in wheel housing

◆ If thread in welded nut in wheel housing is damaged, then this can be serviced with a Heli-coil.



A

Fig. 1 Loosening and tightening shock absorber mounting threaded connection