

C6 RS6 Suspension

Torque Figures

This PDF is split into 7 sections as follows –

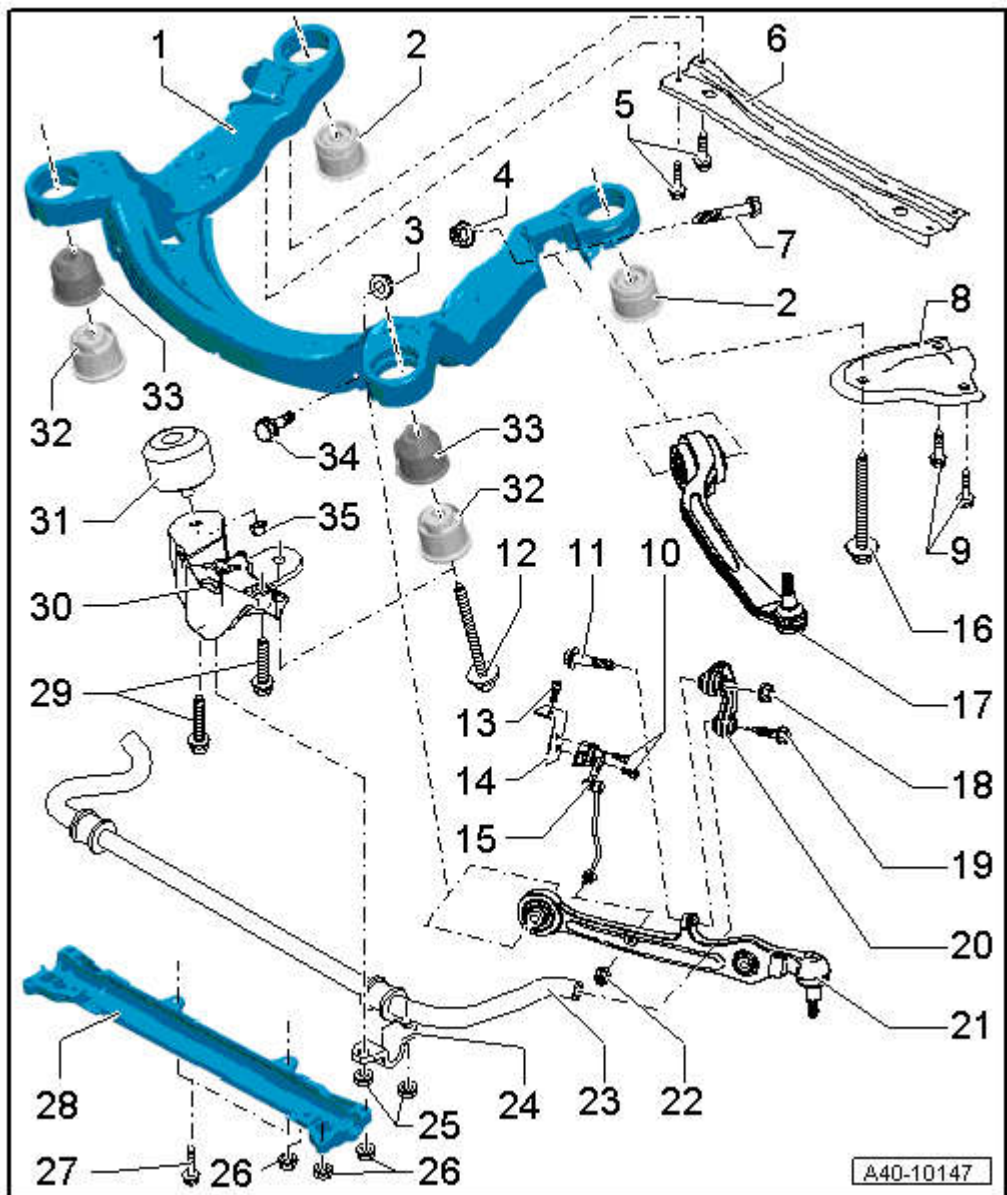
- Front Subframe, Anti-Roll Bars etc
- Front Suspension Strut, Top Mount etc
- Front Suspension Track Rods and Arms
- Front Suspension Drive Shafts
- Rear Subframe, Anti-Roll Bars etc
- Rear Wishbone, Coil Spring and Arms
- Rear Strut, Drive Shaft and more Arms

All of these procedures are taken from Elswain, the Audi technicians “Haynes Manual” and as such, they reference a lot of “Audi Special Tools”, most of which can be made or bought simply.

Any reference to a “Vehicle Diagnostic Tester” means VCDS software.

**C6 RS6 Front Subframe, Anti-
Roll Bars etc**

Subframe, console for engine mounting, anti-roll bar, cross member, coupling rod - exploded view



- 1 - Subframe
- q Removing and installing → [Chapter](#)
- 2 - Bonded rubber bush
- q Removing and installing → [Chapter](#)
- 3 - Nut
- q Always renew if removed
- 4 - Nut
- q Always renew if removed
- 5 - Bolt
- q 60 Nm +90°
- q Always renew if removed
- 6 - Cross piece for subframe

7 - Bolt

q 70 Nm +180°

q Always renew if removed

8 - Subframe support

9 - Bolt

q 55 Nm

10 - Bolt

q 5 Nm

11 - Bolt

q 40 Nm +90°

q Always renew if removed

12 - Bolt

q 115 Nm +90°

q Always renew if removed

q Tighten together with bolt → [Item](#) in diagonal sequence

q Thread in body can be repaired with Helicoil threaded wire insert (DIN 8140). The thread insert must be of the same length as the thread in the body.

13 - Bolt

q 10 Nm

14 - Retaining bracket

15 - Front left vehicle level sender -G78-; front right vehicle level sender -G289-

q Remove/install and renew only as a complete assembly → [Chapter](#)

q Lever of sender must face forwards.

q Check basic adjustment of headlights if sender mountings are loosened → [Rep. gr.94](#)

q Vehicles with air suspension: re-adapt reference position if sender mountings are loosened → [Chapter](#)

q Perform calibration of lane departure warning system if sender mountings are loosened → [Chapter](#).

16 - Bolt

q 115 Nm +90°

q Always renew if removed

q Tighten together with bolt → [Item](#) in diagonal sequence

q Thread in body can be repaired with Helicoil threaded wire insert (DIN 8140). The thread insert must be of the same length as the thread in the body.

17 - Guide link

18 - Nut

19 - Bolt

q 40 Nm +90°

q Always renew if removed

20 - Coupling rod

q Removing and installing → [Chapter](#)

21 - Track control link

22 - Nut

q 8 Nm

23 - Anti-roll bar

q Removing and installing → [Chapter](#)

24 - Clamp

q Only on vehicles with no cross member → [Item](#)

25 - Nut

q 25 Nm

q 2x

q Only on vehicles with no cross member → [Item](#)

26 - Nut

q Only on vehicles with 10-cylinder petrol engine

q 40 Nm, vehicles with 10-cylinder FSI engine

q 55 Nm, vehicles with 10-cylinder TFSI engine

27 - Bolt

q 40 Nm

q Only on vehicles with cross member → [Item](#)

28 - Cross member

q Only on vehicles with 10-cylinder petrol engine

q Removing and installing → [Chapter](#)

29 - Bolt

q 75 Nm

30 - Console for engine mounting

q Check that parts fit together positively when assembling subframe and console for engine mounting

31 - Engine mounting

q Removing and installing → [Rep. gr.10](#)

32 - Bonded rubber bush

q Hydro-bush

q All engine versions except 10-cylinder petrol engine

q Removing and installing → [Chapter](#)

33 - Aluminium bush

q Only on vehicles with 10-cylinder petrol engine

q Removing and installing → [Chapter](#)

34 - Bolt

q 70 Nm +180°

q Always renew if removed

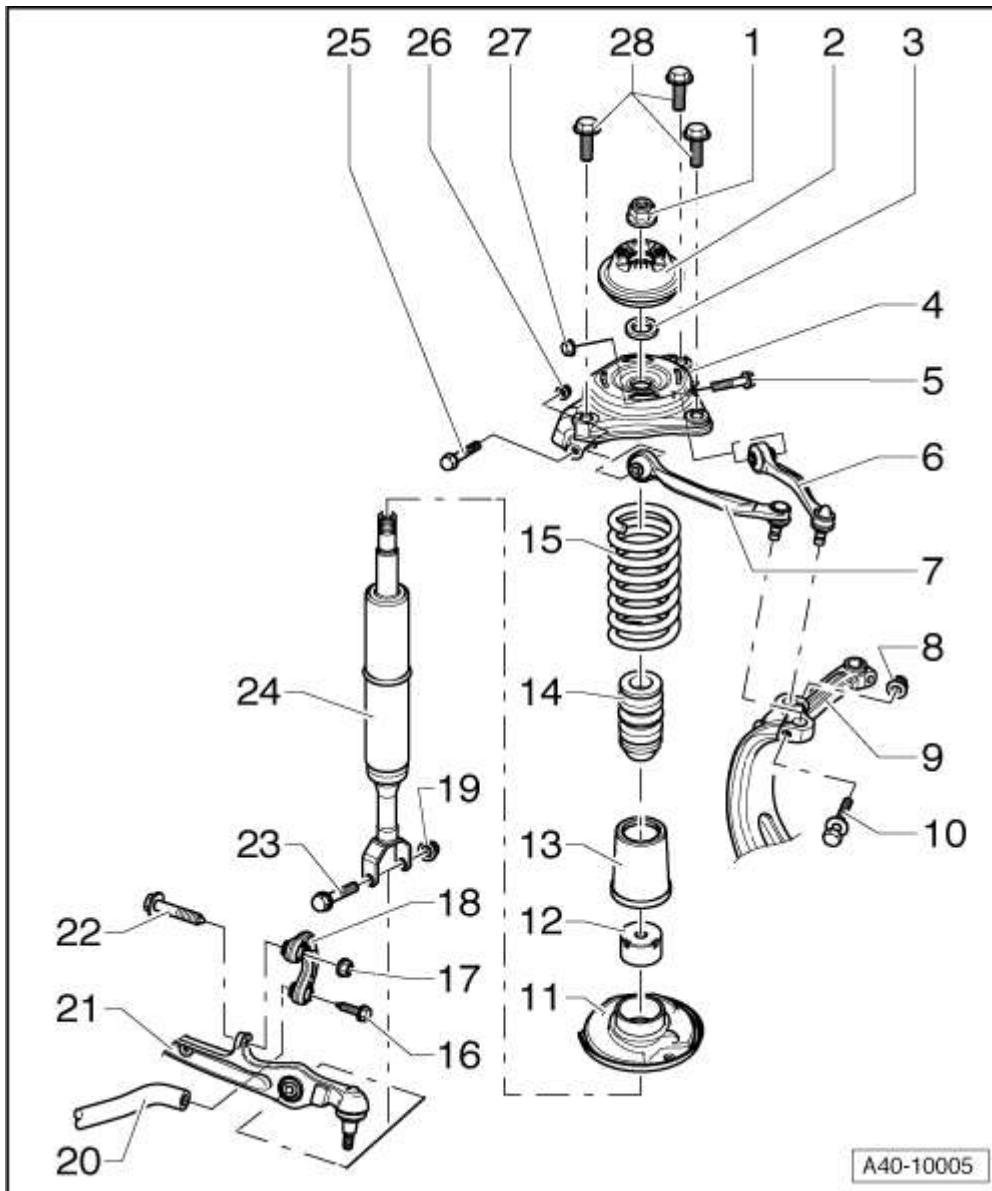
35 - Nut

q Tightening torque → [Rep. gr.10](#)

C6 RS6 Front Suspension

Strut, Top Mount etc

Suspension strut (coil springs), mounting bracket, upper links - exploded view



1 - Nut

q 50 Nm

q Always renew if removed

2 - Shock absorber mounting

3 - Washer

4 - Mounting bracket

q Removing and installing suspension strut and mounting bracket → [Chapter](#)

q Servicing suspension strut and mounting bracket → [Chapter](#)

5 - Bolt

q 50 Nm +90°

q Always renew if removed

6 - Upper link (rear)

q Removing and installing → [Chapter](#)

- q Removing and installing bush → [Chapter](#)
- 7 - Upper link (front)
- q Removing and installing → [Chapter](#)
- q Removing and installing bush → [Chapter](#)
- 8 - Nut
- q Always renew if removed
- 9 - Wheel bearing housing
- 10 - Bolt
- q 45 Nm
- q 50 Nm for RS 6 vehicles
- 11 - Spring plate
- 12 - Protective cap
- 13 - Protective sleeve
- q Secured to protective cap and auxiliary spring on RS 6 vehicles
- 14 - Auxiliary spring
- 15 - Spring
- 16 - Bolt
- q 40 Nm +90°
- q Always renew if removed
- 17 - Nut
- q Always renew if removed
- 18 - Coupling rod
- 19 - Nut
- q Always renew if removed
- 20 - Anti-roll bar
- 21 - Track control link
- 22 - Bolt
- q 40 Nm +90°
- q Always renew if removed
- 23 - Bolt
- q 90 Nm +90°
- q Always renew if removed
- 24 - Shock absorber
- q Removing and installing suspension strut and mounting bracket → [Chapter](#)
- q Servicing suspension strut and mounting bracket → [Chapter](#)
- q Note different running gear versions; see vehicle data sticker → [Chapter](#)
- q Defective shock absorbers must always be degassed and drained before disposal → [Chapter](#)
- q Checking shock absorber following removal → [Chapter](#)
- 25 - Bolt
- q 50 Nm +90°

q Always renew if removed

26 - Nut

q Always renew if removed

27 - Nut

q Always renew if removed

28 - Bolt

q 50 Nm +90°

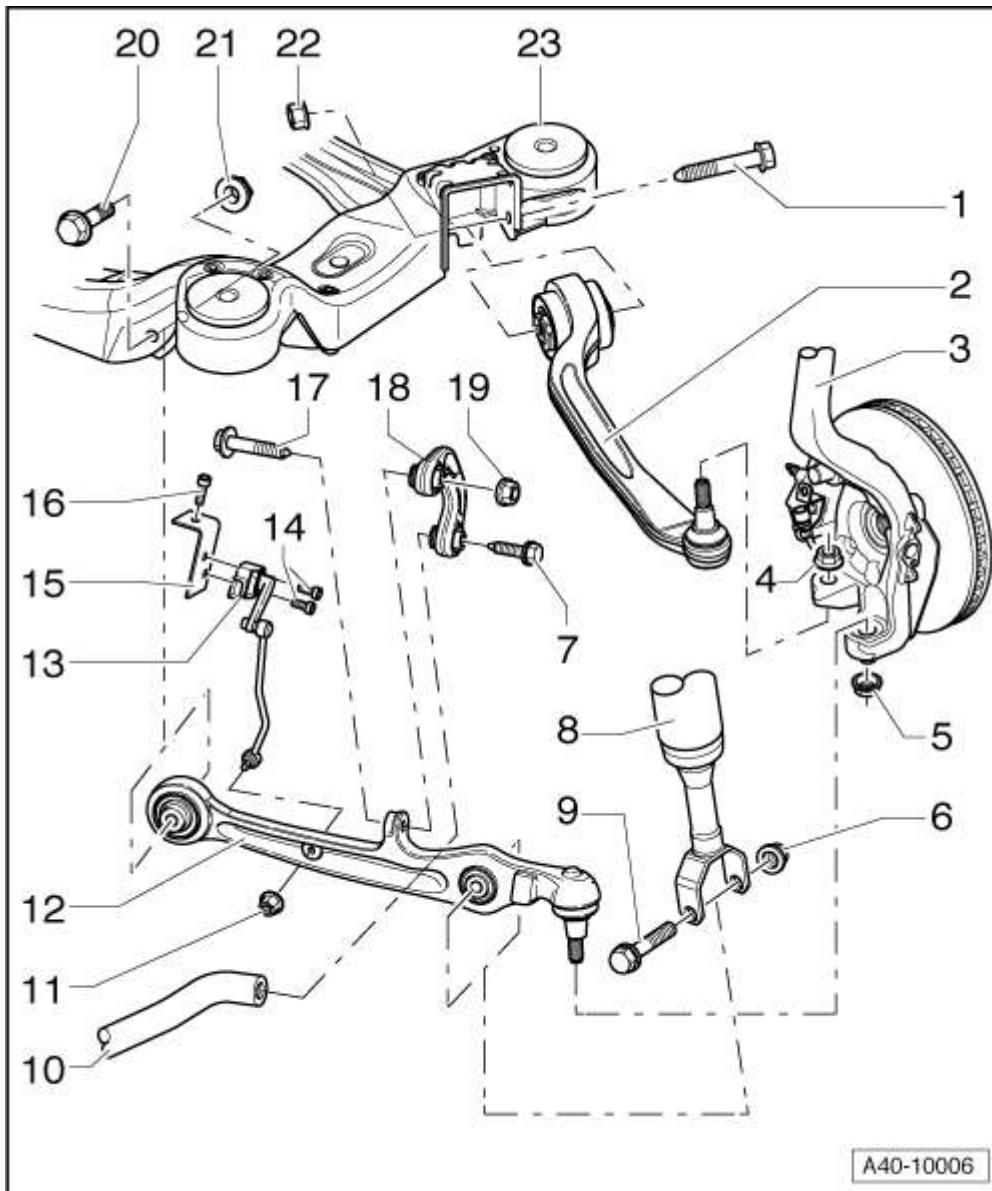
q Always renew if removed

q Observe correct tightening sequence → [Anchor](#)

C6 RS6 Front Suspension

Track Rods and Arms

Exploded view of track control link, guide link, vehicle level sender



1 - Bolt

q 70 Nm +180°

q Always renew if removed

2 - Guide link

q Removing and installing → [Chapter](#)

q Renewing guide link bush → [Chapter](#)

3 - Wheel bearing housing

4 - Self-locking nut

q 110 Nm

q Always renew if removed

q After detaching guide link from wheel bearing housing, remove residual adhesive from thread of joint pin.

5 - Self-locking nut

- q 110 Nm
- q Always renew if removed
- q After detaching track control link from wheel bearing housing, remove residual adhesive from thread of joint pin.
- 6 - Nut
 - q Always renew if removed
- 7 - Bolt
 - q 40 Nm +90°
 - q Always renew if removed
- 8 - Shock absorber
- 9 - Bolt
 - q 90 Nm +90°
 - q Always renew if removed
- 10 - Anti-roll bar
- 11 - Self-locking nut
 - q 8 Nm
 - q Always renew if removed
- 12 - Track control link
 - q Removing and installing → [Chapter](#)
 - q Renewing bush for track control link → [Chapter](#)
- 13 - Front left vehicle level sender -G78-; front right vehicle level sender -G289-
 - q Remove/install and renew only as a complete assembly → [Chapter](#)
 - q Lever of sender must face forwards.
 - q Check basic adjustment of headlights if sender mountings are loosened → [Rep. gr.94](#)
 - q Vehicles with air suspension: re-adapt reference position if sender mountings are loosened → [Chapter](#)
 - q Perform calibration of lane departure warning system if sender mountings are loosened → [Chapter](#).
- 14 - Bolt
 - q 5 Nm
- 15 - Retaining bracket
- 16 - Bolt
 - q 10 Nm
- 17 - Bolt
 - q 40 Nm +90°
 - q Always renew if removed
- 18 - Coupling rod
- 19 - Nut
 - q Always renew if removed
- 20 - Bolt
 - q 70 Nm +180°

q Always renew if removed

21 - Nut

q Always renew if removed

22 - Nut

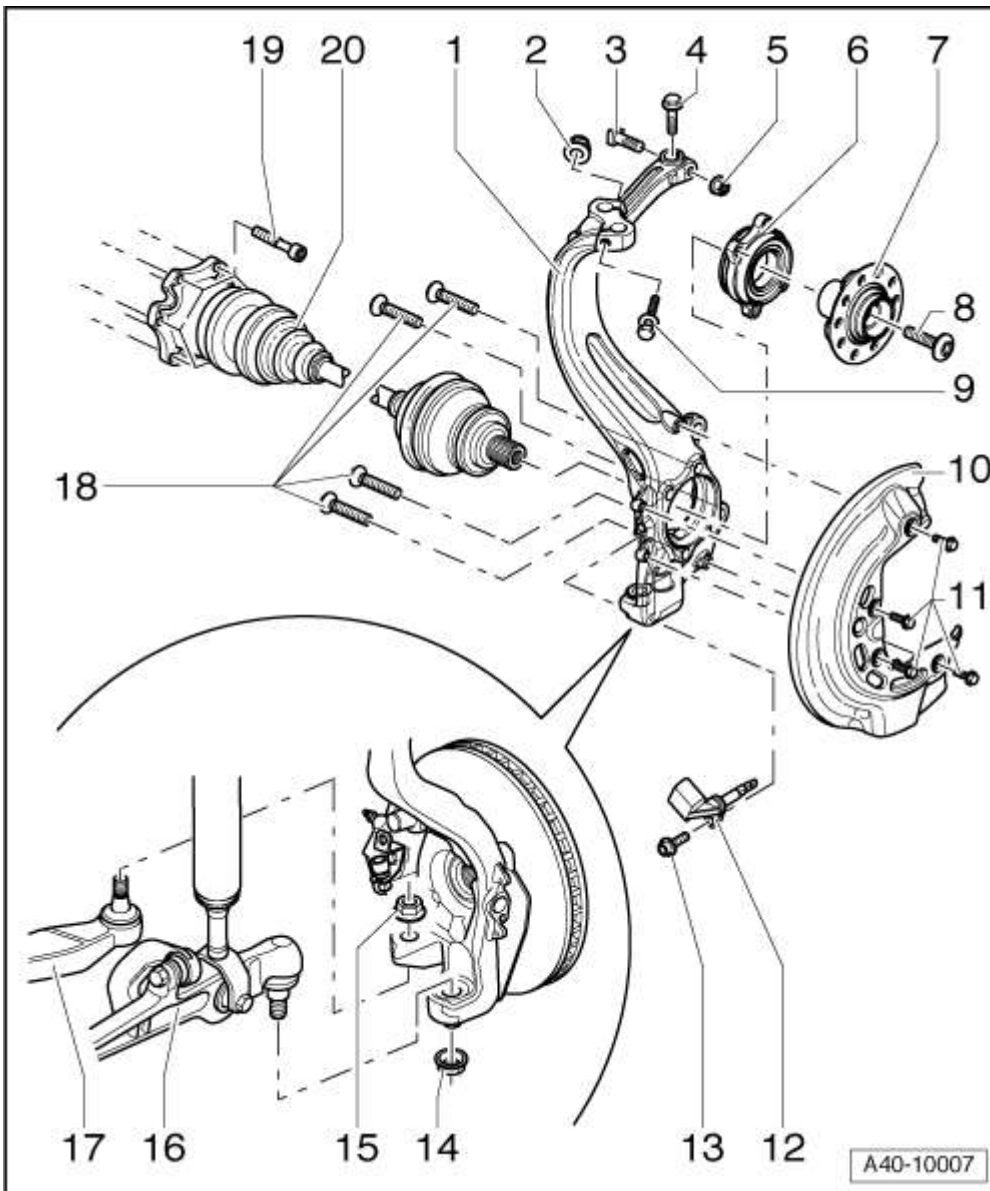
q Always renew if removed

23 - Subframe

C6 RS6 Front Suspension

Drive Shafts

Exploded view of wheel bearing housing, wheel bearing unit



1 - Wheel bearing housing

q Removing and installing → [Chapter](#)

2 - Nut

q Always renew if removed

3 - Bolt

4 - Bolt

q 5 Nm

q For adjusting toe constant „S“

q Always renew if removed

5 - Self-locking nut

q Always renew if removed

q 50 Nm

6 - Ball bearing

q Removing and installing → [Chapter](#)

7 - Wheel hub

q Removing and installing → [Chapter](#)

8 - Bolt

q 200 Nm +180°

q Always renew if removed

q Keep to specified sequence when loosening and tightening flange bolt → [Chapter](#)

9 - Bolt

q 45 Nm

q 50 Nm for RS 6 vehicles

10 - Splash plate for brakes

11 - Hexagon socket head bolt

q 10 Nm

12 - Speed sensor

13 - Hexagon socket head bolt

q 8 Nm

14 - Self-locking nut

q 110 Nm

q Always renew if removed

q After detaching track control link from wheel bearing housing, remove residual adhesive from thread of joint pin.

15 - Self-locking nut

q 110 Nm

q Always renew if removed

q After detaching guide link from wheel bearing housing, remove residual adhesive from thread of joint pin.

16 - Track control link

17 - Guide link

18 - Countersunk bolt

q 80 Nm +90°

q Always renew if removed

19 - 12-point socket head bolt

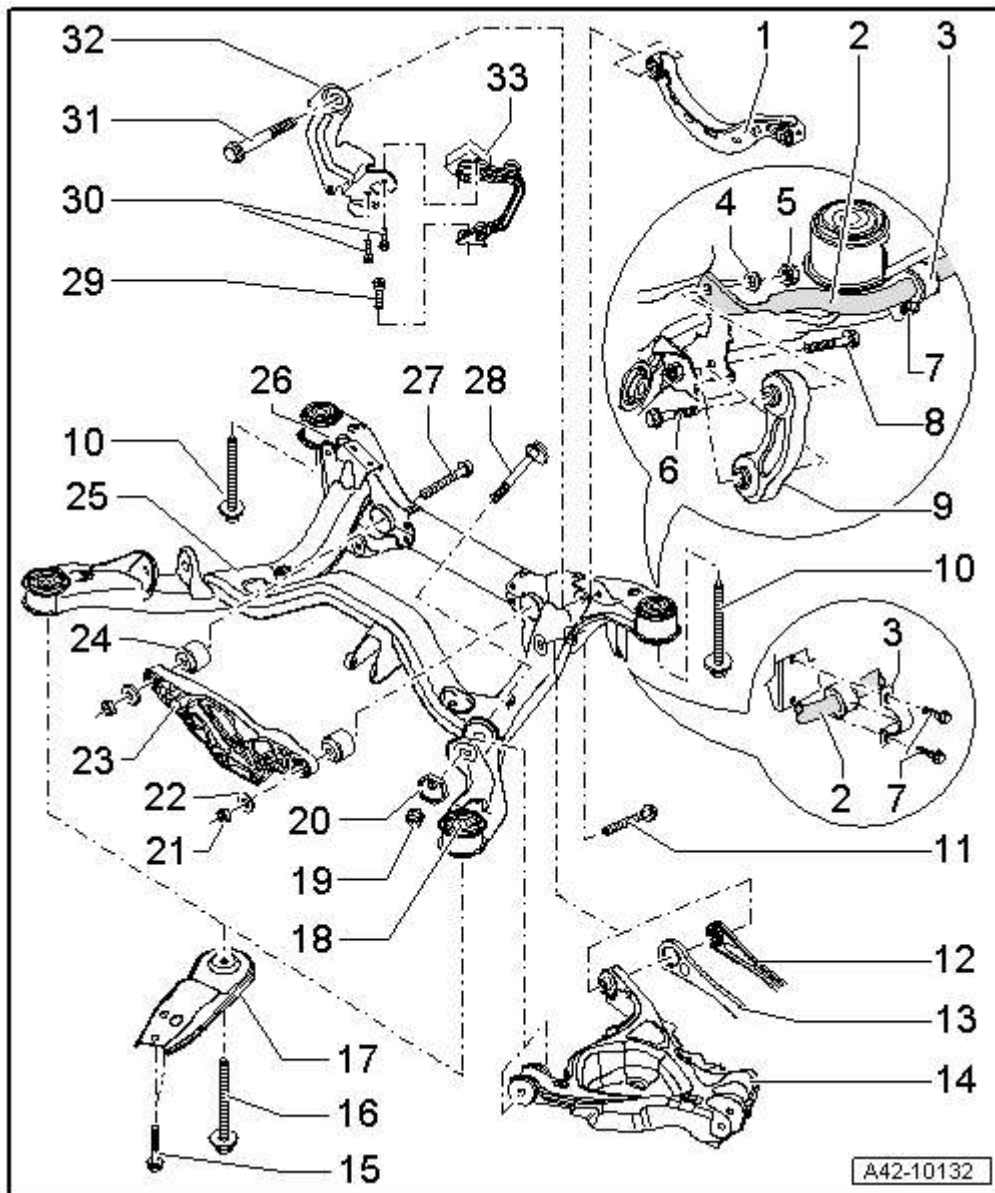
q 70 Nm

q Always renew if removed

20 - Drive shaft

C6 RS6 Rear Subframe,
Anti-Roll Bars etc

Subframe (four-wheel drive), anti-roll bar, coupling rod - exploded view



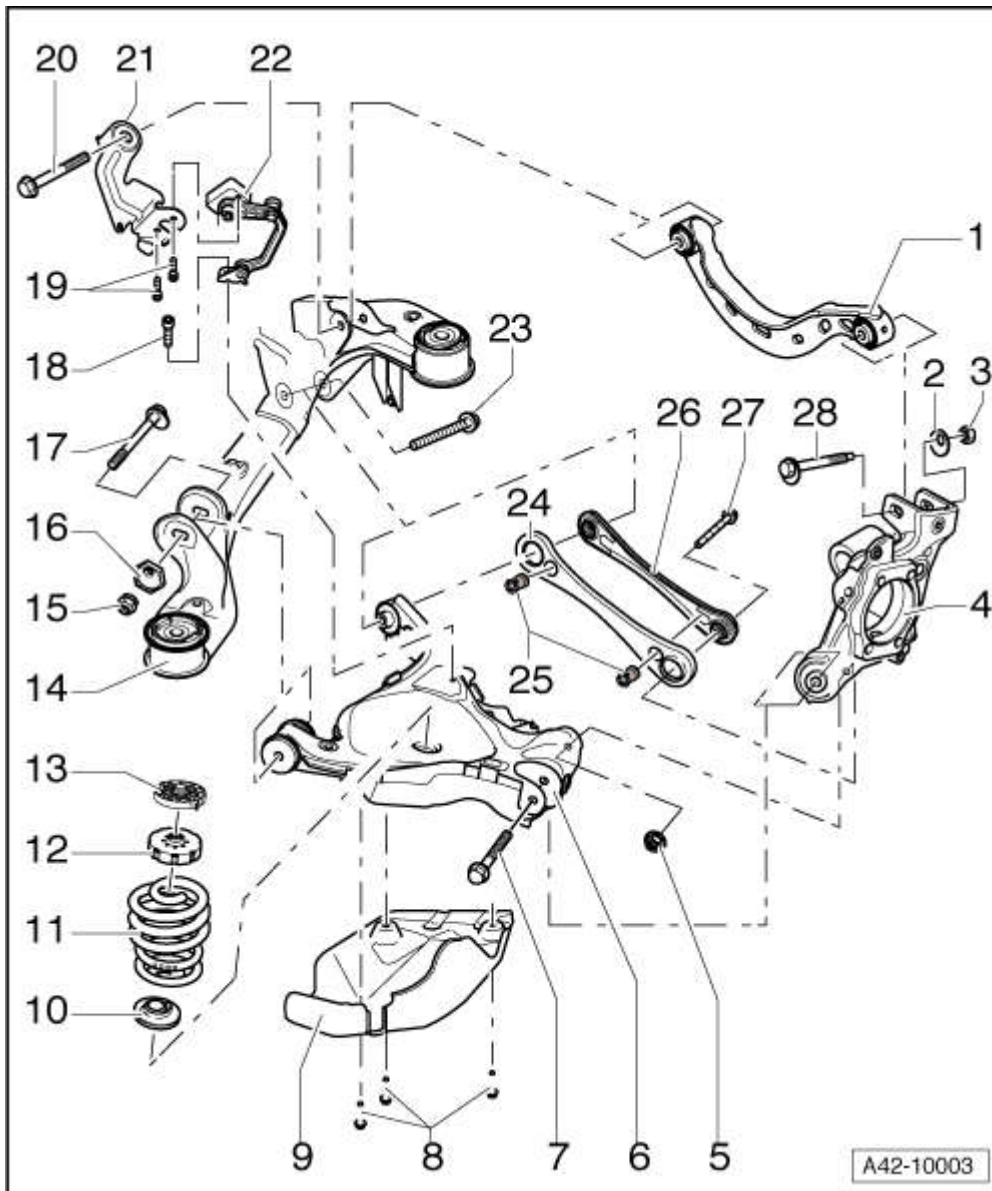
- 1 - Upper transverse link
- 2 - Anti-roll bar
- q Anti-roll bar is removed together with coupling rod
- q Removing and installing → [Chapter](#)
- q Renewing anti-roll bar bushes → [Chapter](#)
- 3 - Clamp
- 4 - Washer
- 5 - Nut
- q 65 Nm
- 6 - Bolt
- 7 - Bolt
- q 25 Nm
- 8 - Bolt

- q 65 Nm
- 9 - Coupling rod
 - q Coupling rod is removed together with anti-roll bar
 - q Removing and installing → [Chapter](#)
- 10 - Bolt
 - q 115 Nm +90°
 - q Always renew if removed
 - q Hexagon bolts must not be slackened while springs are still installed
 - q Tighten together with bolt → [Item](#) in diagonal sequence
 - q Thread in body can be repaired with Helicoil threaded wire insert (DIN 8140). The thread insert must be of the same length as the thread in the body.
- 11 - Bolt
 - q 85 Nm +90°
 - q Always renew if removed
- 12 - Track rod
- 13 - Stone deflector
- 14 - Trapezium link
- 15 - Bolt
 - q 55 Nm
- 16 - Bolt
 - q 115 Nm +90°
 - q Always renew if removed
 - q Hexagon bolts must not be slackened while springs are still installed
 - q Tighten together with bolt → [Item](#) in diagonal sequence
 - q Thread in body can be repaired with Helicoil threaded wire insert (DIN 8140). The thread insert must be of the same length as the thread in the body.
- 17 - Support
- 18 - Bonded rubber bush (front)
 - q Hydro-bush
 - q Renewing → [Chapter](#)
 - q Note correct installation position → [Chapter](#)
- 19 - Nut
 - q 95 Nm
 - q Always renew if removed
- 20 - Shim
- 21 - Nut
- 22 - Washer
- 23 - Cross member for differential
- 24 - Bonded rubber bush
 - q For cross member for differential

- q Note installation position: bonded rubber bush on right side of vehicle is marked with a yellow dot
- q Renewing → [Chapter](#)
- 25 - Subframe
- q Removing and installing subframe with attachments → [Chapter](#)
- 26 - Bonded rubber bush (rear)
- q Hydro-bush
- q Renewing → [Chapter](#)
- q Note correct installation position → [Chapter](#)
- 27 - Bolt
- q 55 Nm
- 28 - Eccentric bolt
- 29 - Bolt
- q 10 Nm
- 30 - Bolt
- q 5 Nm
- 31 - Bolt
- q 85 Nm +90°
- q Always renew if removed
- 32 - Retaining bracket
- 33 - Rear left vehicle level sender -G76-
- q Complete with mounting parts
- q Lever of sender must face outwards.
- q Renewing in vehicle → [Chapter](#)
- q Check basic adjustment of headlights if sender mountings are loosened → [Rep. gr.94](#)
- q Vehicles with air suspension: re-adapt reference position if sender mountings are loosened → [Chapter](#)

C6 RS6 Rear Wishbone, Coil Spring and Arms

Trapezium link, upper transverse link, track rod, coil spring, vehicle level sender - exploded view



1 - Upper transverse link

q Removing and installing → [Chapter](#)

2 - Eccentric washer

3 - Nut

q 95 Nm

q Always renew if removed

4 - Wheel bearing housing

5 - Nut

6 - Trapezium link

q Removing and installing → [Chapter](#)

7 - Bolt

q 85 Nm +90°

q Always renew if removed

8 - Bolt

q 25 Nm

9 - Stone deflector for trapezium link

10 - Bottom spring seat

11 - Coil spring

q Note different running gear versions; see vehicle data sticker → [Chapter](#)

q Removing and installing → [Chapter](#)

12 - Top spring seat

13 - Spacer for top spring seat

q Only fitted on heavy-duty running gear version

14 - Subframe

15 - Nut

q 95 Nm

q Always renew if removed

16 - Shim

17 - Eccentric bolt

18 - Bolt

q 10 Nm

19 - Bolt

q 5 Nm

20 - Bolt

q 85 Nm +90°

q Always renew if removed

21 - Retaining bracket

22 - Rear left vehicle level sender -G76-

q Complete with mounting parts

q Lever of sender must face outwards.

q Renewing in vehicle → [Chapter](#)

q Check basic adjustment of headlights if sender mountings are loosened → [Rep. gr.94](#)

q Vehicles with air suspension: re-adapt reference position if sender mountings are loosened → [Chapter](#)

23 - Bolt

q 85 Nm +90°

q Always renew if removed

24 - Stone deflector

q Only fitted on heavy-duty running gear version

25 - Retaining clip

26 - Track rod

q Removing and installing → [Chapter](#)

27 - Bolt

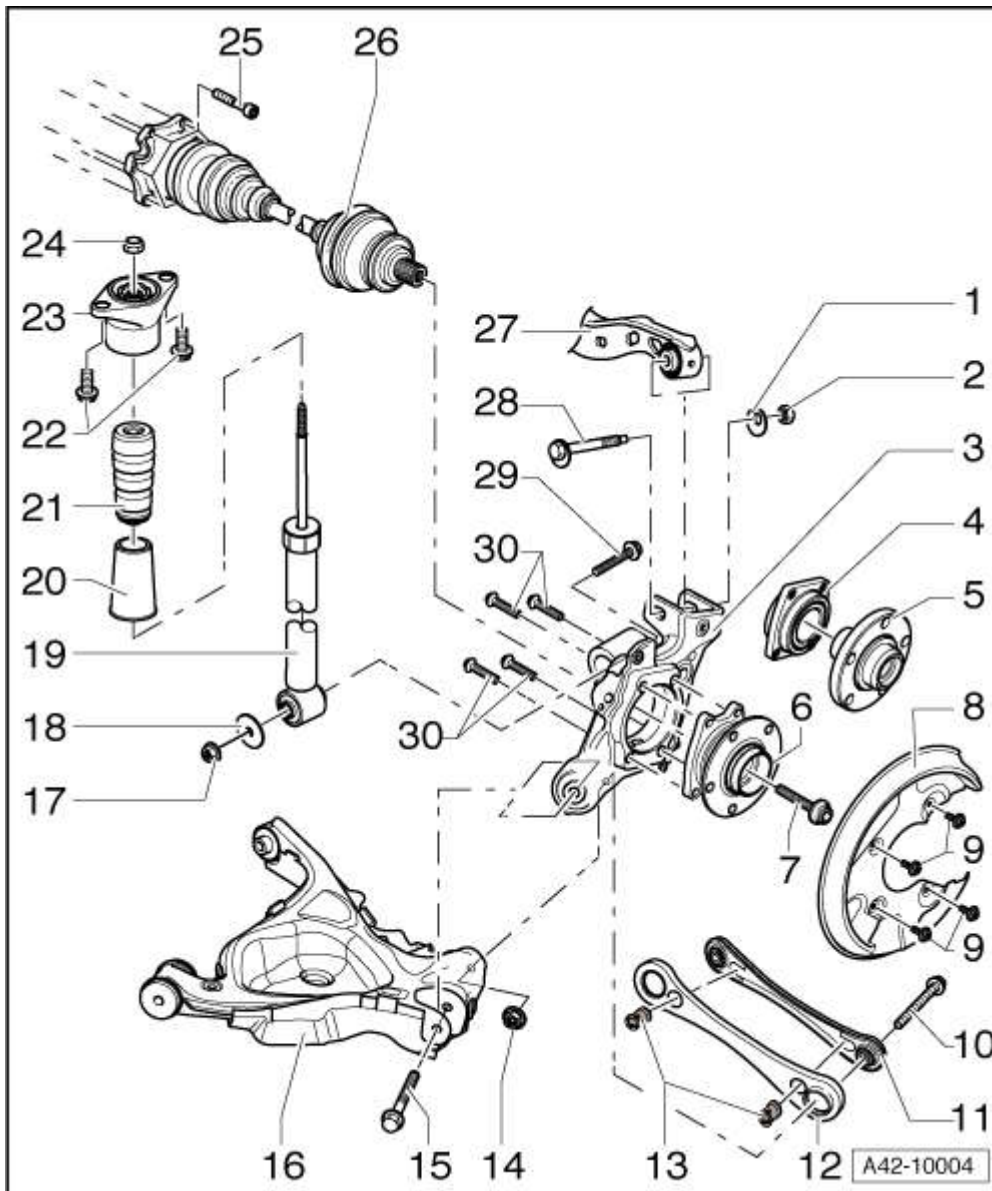
q 85 Nm +90°

q Always renew if removed

28 - Eccentric bolt

C6 RS6 Rear Strut, Drive Shaft
and more Arms

Wheel bearing housing, wheel bearing unit, shock absorber for coil springs - exploded view



1 - Eccentric washer

2 - Nut

q 95 Nm

3 - Wheel bearing housing

q Removing and installing → [Chapter](#)

4 - Ball bearing

q Items 4 and 5 are only installed in vehicles with four-wheel drive

q Servicing wheel bearing unit → [Chapter](#)

5 - Wheel hub

q Items 5 and 4 are only installed in vehicles with four-wheel drive

q Servicing wheel bearing unit → [Chapter](#)

6 - Wheel bearing unit

q Removing and installing → [Chapter](#)

- q Complete wheel bearing unit is only installed on vehicles with front-wheel drive
- q Wheel bearing unit cannot be repaired
- 7 - Bolt
- q 200 Nm +180°
- q Always renew if removed
- 8 - Splash plate for brake disc
- 9 - Hexagon bolt
- 10 - Bolt
- q 85 Nm +90°
- q Always renew if removed
- 11 - Track rod
- 12 - Stone deflector
- q Only fitted on heavy-duty running gear version
- 13 - Retaining clip
- 14 - Nut
- 15 - Bolt
- q 85 Nm +90°
- q Always renew if removed
- 16 - Trapezium link with stone deflector
- 17 - Nut
- 18 - Washer
- 19 - Shock absorber
- q Removing and installing → [Chapter](#)
- 20 - Protective sleeve
- q On RS 6 vehicles: secured to bump stop and retaining ring
- q On RS 6 vehicles: note position → [Fig.](#)
- 21 - Bump stop
- 22 - Bolt
- q 35 Nm
- 23 - Shock absorber mounting
- 24 - Nut
- q 25 Nm
- 25 - 12-point socket head bolt
- q Always renew if removed
- q 70 Nm
- 26 - Drive shaft
- 27 - Upper transverse link
- 28 - Eccentric bolt
- 29 - Bolt
- q 150 Nm +90°

- q Always renew if removed
- 30 - Countersunk bolt
- q 80 Nm +90°
- q Always renew if removed

Correct position of protective sleeve
on RS 6 vehicles

-A- $0^\circ \pm 2^\circ$ position of slot in
retaining ring on protective sleeve

