



Workshop Manual

Octavia III 2013 >

Octavia III 2014 >

Axles, steering

Edition 07.2013

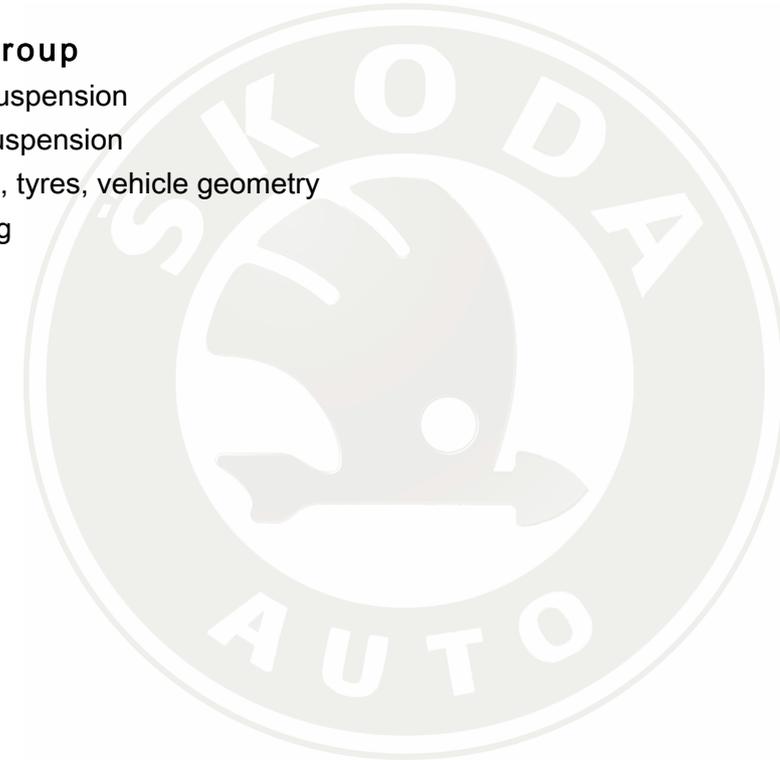
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



List of Workshop Manual Repair Groups

Repair Group

- 40 - Front suspension
- 42 - Rear suspension
- 44 - Wheels, tyres, vehicle geometry
- 48 - Steering



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

Technical information should always be available to the foremen and mechanics, because their careful and constant adherence to the instructions is essential to ensure vehicle road-worthiness and safety. In addition, the normal basic safety precautions for working on motor vehicles must, as a matter of course, be observed.

All rights reserved.
No reproduction without prior agreement from publisher.



Contents

40 - Front suspension	1
1 Repairing front axle	1
1.1 Front axle - Overview	1
1.2 Raise the wheel-bearing housing in the unladen weight position	1
2 Assembly carrier, anti-roll bar	4
2.1 Summary of components of the assembly carrier, anti-roll bar	4
2.2 Fixing the assembly carrier	5
2.3 Lower the assembly carrier in the service position	8
2.4 Removing and installing assembly carrier	12
2.5 Removing and installing the anti-roll bar	22
2.6 Removing and installing coupling rod	31
2.7 Removing and installing rubber-metal bearing for pendulum support	33
3 The wheel bearing	37
3.1 Summary of components of the wheel bearing	37
3.2 Removing and installing fixing screw of drive shaft	38
3.3 Removing and installing wheel bearing housing	41
3.4 Removing and installing the wheel hub with wheel bearing	44
4 Suspension strut	47
4.1 Installation general view of the suspension strut	47
4.2 Removing and installing the suspension strut	47
4.3 Repairing suspension strut	53
4.4 Inspect shock absorber	55
4.5 Disposing of the shock absorber	56
5 Track control arm	58
5.1 Summary of components of the track control arm	58
5.2 Removing and installing the track control arm	59
5.3 Removing and installing the steering joint	62
5.4 Inspecting the steering joint	65
5.5 Replacing front rubber-metal bearing for track control arm	65
5.6 Replacing the rear rubber-metal bearing for track control arm	67
5.7 Removing and installing front left vehicle level sensor G78	68
6 Repairing the drive shafts	71
6.1 Overview of the drive shafts	71
6.2 Removing and installing a drive shaft with CV joint	77
6.3 Removing and installing drive shaft with inner grip joint	80
6.4 Dismantle the drive shaft VL 100 -, assemble, check	83
6.5 Dismantle the drive shaft VL 107 -, assemble, check	91
6.6 Dismantle the drive shaft AAR3300i-, assemble, check	101
6.7 Designation, distinguish the diameter as specified and grease quantity for joints	108
42 - Rear suspension	111
1 Torsion beam axle	111
1.1 Raise the wheel-bearing of the rear axle in the rebound state (unladen weight position) ..	111
1.2 Summary of components of rear axle	112
1.3 Summary of components of the shock absorber and the spring of the torsion beam axle	114
1.4 Removing and installing rear axle	115
1.5 Removing and installing coil spring	119
1.6 Repairing shock absorber	120
1.7 Removing and installing shock absorber	121
1.8 removing and installing rubber-metal bearing	125
1.9 Summary of components, rear left vehicle level sender G76	131



1.10	Removing and installing rear left vehicle level sensor G76	132
2	Multi-link rear suspension	133
2.1	Raise the wheel-bearing of the rear axle in the rebound state (unladen weight position)	133
2.2	Summary of components assembly carrier - vehicles with front-wheel drive	135
2.3	Summary of components assembly carrier - vehicles with four-wheel drive	137
2.4	Secure assembly carrier - vehicles with front-wheel drive	148
2.5	Secure assembly carrier - vehicles with four-wheel drive	149
2.6	Removing and installing shaft with component parts- vehicles with front-wheel drive	150
2.7	Removing and installing shaft with component parts- vehicles with four-wheel drive	154
2.8	Repairing shock absorber	158
2.9	Removing and installing shock absorber	158
2.10	Removing and installing coil spring	162
2.11	Summary of components - anti-roll bar	168
2.12	Wheel bearing - vehicles with front-wheel drive	171
2.13	Wheel bearing - vehicles with four-wheel drive	179
2.14	Summary of components: Suspension arm- vehicles with front-wheel drive	189
2.15	Summary of components: Suspension arm- vehicles with four-wheel drive	196
2.16	Summary of components: Tie rod for rear axle - vehicles with front-wheel drive	202
2.17	Summary of components: Tie rod for rear axle - vehicles with four-wheel drive	205
2.18	Removing and installing trailing arm with bracket	208
2.19	Repairing trailing arm	211
2.20	Summary of components, rear left vehicle level sender G76 - front-wheel drive	213
2.21	Removing and installing rear left vehicle level sensor G76 - front-wheel drive	214
2.22	Summary of components, rear left vehicle level sender G76 - four-wheel drive	214
2.23	Removing and installing rear left vehicle level sensor G76 - four-wheel drive	215
3	Drive shaft	216
3.1	Summary of components	216
3.2	Removing and installing fixing screw of drive shaft	218
3.3	Removing and installing driveshaft	220
3.4	Disassembling and assembling the drive shaft	222
3.5	Checking the driveshaft	228
44	- Wheels, tyres, vehicle geometry	231
1	Chassis - Specified values of steering geometry	231
1.1	Front axle - Specified values of steering geometry	231
1.2	Torsion beam axle - Specified values of steering geometry	232
1.3	Multi-link rear suspension - Specified values of steering geometry	233
1.4	Vehicle data sticker and PR numbers	233
2	Axle alignment	234
2.1	General points	234
2.2	Measurement preliminaries	235
2.3	Axle alignment	237
2.4	Overview of the work sequence for the axle alignment	239
2.5	Check transversal inclination of the vehicle "straight-ahead position"	239
2.6	Adjusting the camber on the front axle	240
2.7	Adjust the camber on the rear axle	240
2.8	Adjusting the track on the rear axle	242
2.9	Adjusting the track on the front axle	246
2.10	Check position of steering wheel, align if necessary	248
3	Front camera for driver assistance systems	250
3.1	Calibration of the front camera for driver assistance systems	250
4	Adaptive Cruise Control	257
4.1	Calibrate Adaptive Cruise Control (ACC)	257
48	- Steering	261



1	Steering column	261
1.1	Summary of components of steering column	261
1.2	Check the steering column for damage	262
1.3	Observe handling and transportation of the steering column	262
1.4	Removing and installing steering column	263
2	Steering lock	279
2.1	Steering lock for vehicles with keyless unlocking, locking and starting "Kessy"	279
2.2	Steering lock with ignition lock housing	279
3	Steering gear	280
3.1	Summary of components - steering gear- left-hand drive	280
3.2	Summary of components - steering gear- right-hand drive	281
3.3	Removing and installing steering gear - left-hand drive	281
3.4	Removing and installing steering gear - right-hand drive	288
4	Repairing electro-mechanical steering gear	294
4.1	Removing and installing bellows	295
4.2	Removing and installing track rod	299
4.3	Removing and installing track rod ends	303



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

40 – Front suspension

1 Repairing front axle

(SRL000607; Edition 07.2013)

Front axle - Overview ⇒ [page 1](#)

Raise the wheel-bearing housing in the unladen weight position
⇒ [page 1](#)

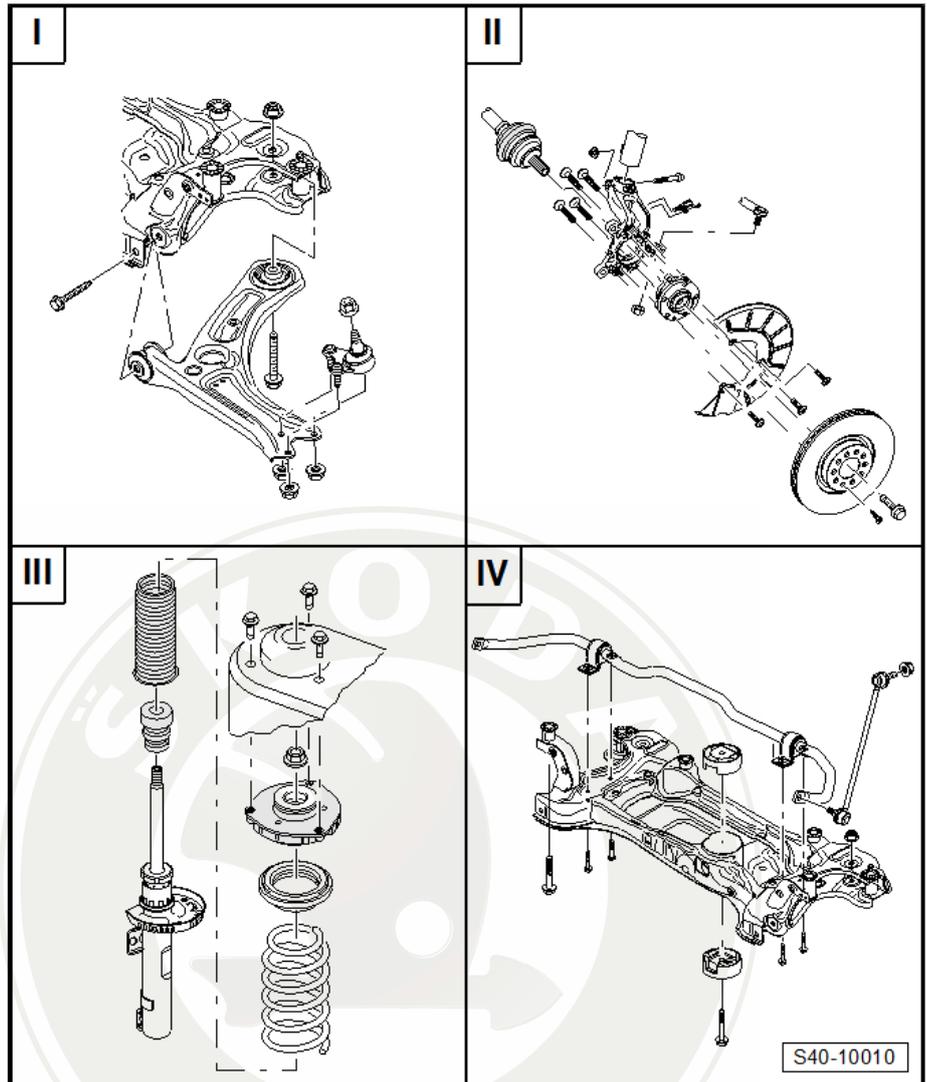
1.1 Front axle - Overview

I - Summary of components:
Assembly carrier, anti-roll bar,
track control arm ⇒ [page 4](#)

II - Installation general view of
the wheel bearing
⇒ [page 37](#)

III - Installation general view of
the suspension strut
⇒ [page 47](#)

IV - Summary of components
of the track control arm
⇒ [page 58](#)



1.2 Raise the wheel-bearing housing in the unladen weight position

Special tools and workshop equipment required

◆ Engine/gearbox jack , e.g. -V.A.G 1383A -

◆ Tensioning strap - T10038-

◆ Support - T10149-



Note

All screws must always be tightened firmly in the unladen weight position to the chassis parts with rubber-metal bearings.

Unladen weight:

Weight of the vehicle with full fuel tank and full water reservoir for windscreen wiper/washer and headlamp cleaning system, spare wheel, tool kit, jack and without driver. The spare wheel, tool kit and jack must be located in the position prescribed by the vehicle manufacturer.

Rubber-metal bearings can be twisted only to a limited extent.

Therefore the axle components with rubber-metal bearings must be put in a position before tightening, which corresponds to the position while driving (unladen weight position).

Otherwise the rubber-metal bearing will be under tension and as a result, will have a lower life.

This position on the lift platform can be simulated by lifting out the corresponding wheel-bearing housing with the engine/gearbox jack e. g. -V.A.G 1383A- and the support - T10149- .

- Before commencing work, measure e.g with a measuring tape, the dimension -a- from wheel centre to lower edge of the wheelhouse ⇒ [page 231](#) .

Measuring must be performed in the unladen weight position.

- Note the measured value -a-. It is required for tightening the screws/nuts.

Before the corresponding wheel-bearing housing is lifted, the vehicle must be lashed securely at the supporting arms of the lift platform with the tensioning straps - T10038- .

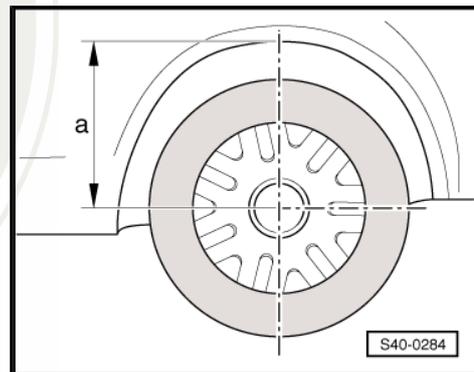


WARNING

If the vehicle is not lashed, there is a risk of the vehicle toppling off the lift platform.

Copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

- Remove wheel.
- Rotate the wheel hub until one of the holes for the wheel bolts is located at the top.
- Install support - T10149- with wheel bolt at the wheel hub.



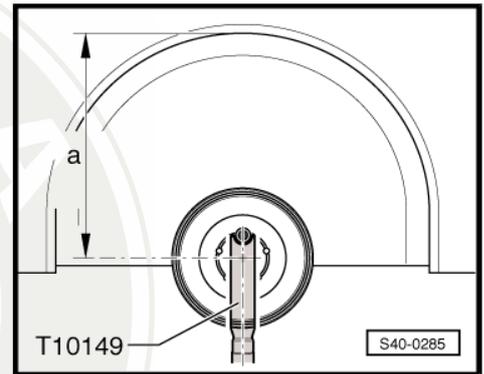
The tightening of the corresponding screw/nut to the chassis parts must only be performed, if the measured dimension -a- between the wheel hub centre and the lower edge of the wheel house is achieved before commencing work => [page 2](#) .

- Raise up the wheel-bearing housing using the engine/gearbox jack e. g. -V.A.G 1383A- until dimension -a- is achieved.



WARNING

- ◆ *Do not lift or lower the vehicle while the engine and gearbox jack is under the vehicle.*
- ◆ *Do not leave the engine/gearbox jack e. g. -V.A.G 1383A - positioned under the vehicle for longer than necessary.*



- Tighten corresponding screws/nuts to the chassis parts.
- Lower the wheel bearing housing.
- Pull out the engine/gearbox jack e.g. -V.A.G 1383A - from underneath the vehicle.
- Remove support - T10149- .
- Remove tensioning strap - T10038- .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

2 Assembly carrier, anti-roll bar

Summary of components of the assembly carrier, anti-roll bar
⇒ [page 4](#)

Fixing the assembly carrier ⇒ [page 5](#)

Lower the assembly carrier in the service position ⇒ [page 8](#)

Removing and installing the assembly carrier ⇒ [page 12](#)

Removing and installing anti-roll bar ⇒ [page 22](#)

Removing and installing coupling rod ⇒ [page 31](#)

Removing and installing rubber-metal bearing for pendulum support ⇒ [page 33](#)

2.1 Summary of components of the assembly carrier, anti-roll bar

1 - Anti-roll bar

- Assignment ⇒ Electronic Catalogue of Original Parts
- removing and installing ⇒ [page 22](#)

2 - Nut, 65 Nm

3 - Suspension strut

4 - Coupling rod

- connects anti-roll bar with suspension strut

5 - Assembly carrier

- Welded part made of steel sheet
- removing and installing ⇒ [page 12](#)

6 - Screw, 70 Nm + 180°

- replace after each removal

7 - Screw, 20 Nm + 180°

- replace after each removal

8 - Left support

9 - Screw, 20 Nm + 90°

- replace after each removal

10 - Screw, 70 Nm + 180°

- replace after each removal

11 - Right support

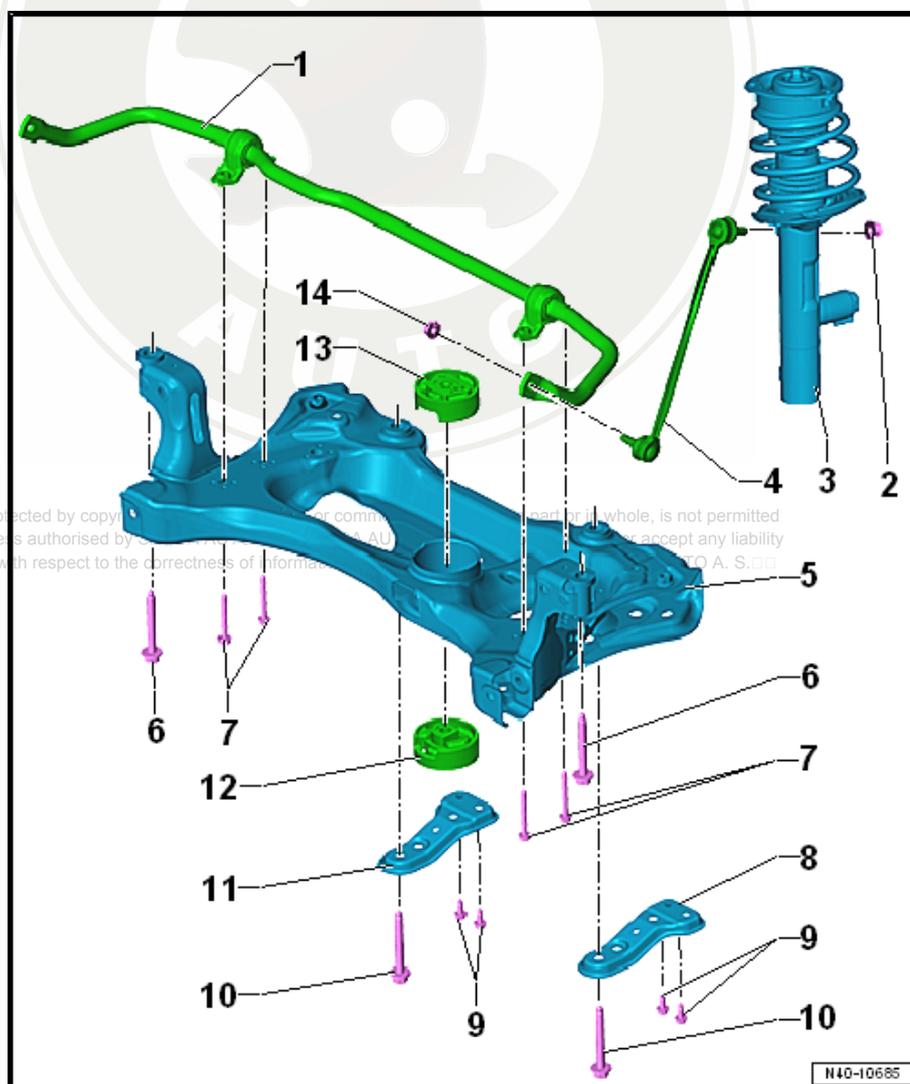
12 - Top rubber-metal bearing for pendulum support

- removing and installing ⇒ [page 33](#)

13 - Bottom rubber-metal bearing for pendulum support

- removing and installing ⇒ [page 33](#)

14 - Nut, 65 Nm



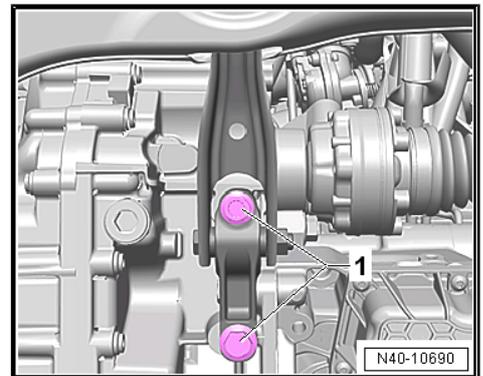
2.2 Fixing the assembly carrier

Special tools and workshop equipment required

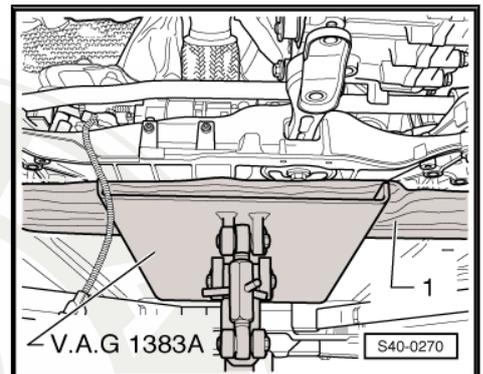
- ◆ Fixing bolt - T10486/1- , 4 pieces
- ◆ Fixing device - T10486 A-
- ◆ Engine/gearbox jack , e.g. -V.A.G 1383A-

Note

- ◆ *Fixing bolts - T 10486/1- , 2 pieces, are component parts of the fixing device - T 10486- kit. If a fixing device - T 10486- kit is part of the service equipment, fixing bolts - T 10486/1- , 2 pieces, must be added.*
- ◆ *The fixing device - T 10486 A- kit includes fixing bolts - T 10486/1- , 4 pieces, and fixing bolts - T 10486/2- , 2 pieces.*
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .
- Release screws -1- of pendulum support.



- Position the engine/gearbox jack e.g. -V.A.G 1383A- under the assembly carrier.
- For example place a piece of wood -1- between the engine/gearbox jack e.g. -V.A.G 1383A- and the assembly carrier.





- Unscrew the screws of the supports -1- and -2-.

In order to fix the assembly carrier, screw in the fixing bolts successively at the positions -3-, -5-, -7- and -8-.



Note

The locating pins - T10486/1- must only be tightened to maximum 20 Nm as otherwise the fixing bolt thread becomes damaged.

- Unscrew the fixing screw -3-, replace it with the fixing device - T10486/1- and tighten to 20 Nm.
- Unscrew the fixing screw -5-, replace it with the fixing device - T10486/1- and tighten to 20 Nm.
- Unscrew the fixing screw -8-, replace it with the fixing device - T10486/1- and tighten to 20 Nm.
- Unscrew the fixing screw -7-, replace it with the fixing device - T10486/1- and tighten to 20 Nm.

The position of the front axle is now fixed.

If it is not possible to insert the fixing devices - T10486/1- into the corresponding openings of the assembly carrier, the following measures must be carried out:

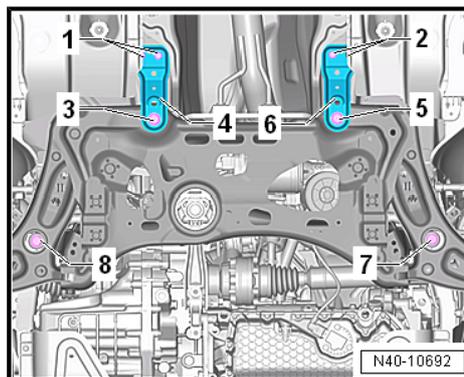
- Prepare the inlet openings in the lower area of the assembly carrier e.g. with a file so that the fixing devices - T10486/1- can be inserted into the openings.
- Treat the prepared openings against corrosion e.g.: with zinc spray - D 007 500 04- .

Installing:

Installation is carried out in the reverse order.

- Successively replace the fixing devices - T10486/1- with new screws.

Tighten screws to corresponding tightening torque
⇒ [page 7](#) to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. 01



Note

It is necessary to perform an axle alignment in the event of:
⇒ [page 237](#) .

- Perform a test drive.
- Check the steering wheel position during the test drive.



Note

If after the test drive and with the wheels pointing straight ahead the steering wheel is off straight, perform an axle alignment
⇒ [page 237](#) .



Tightening torques:

Assembly carrier to body ◆ Use new screws!	70 Nm + 180°
Wheel bolts	120 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

2.3 Lower the assembly carrier in the service position

Special tools and workshop equipment required

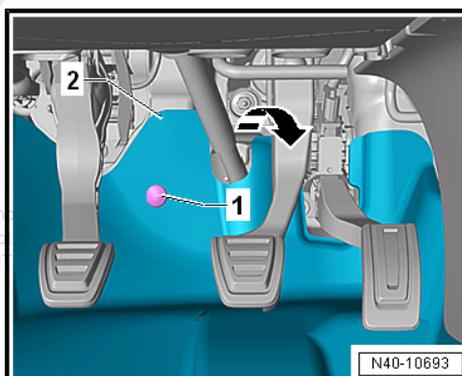
- ◆ Fixing bolt - T10486/1- , 4 pieces
- ◆ Fixing device - T10486 A-
- ◆ Engine/gearbox jack , e.g. -V.A.G 1383A-
- Secure the steering wheel with the wheels in straight ahead position with adhesive tape -arrow- against unintended turning.

Left-hand drive



- Unscrew the fixing nut -1- and pull off the foot mat in -direction of arrow-.

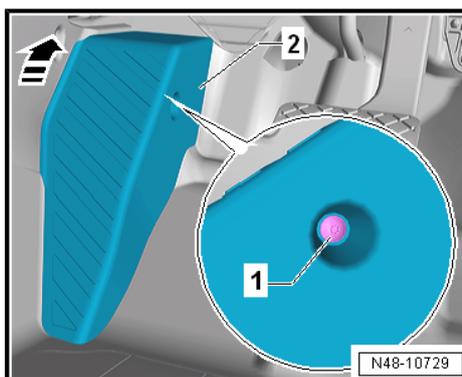
Right-hand drive



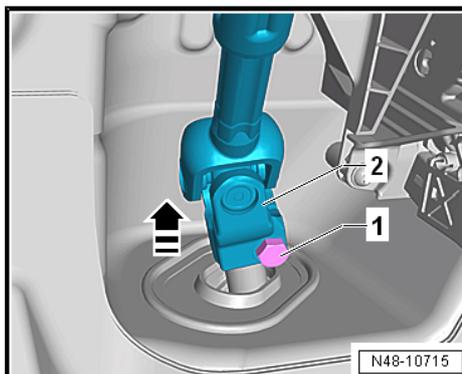
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.

- Release screw -1-.
- Unscrew bearing bolt -in direction of the arrow -.

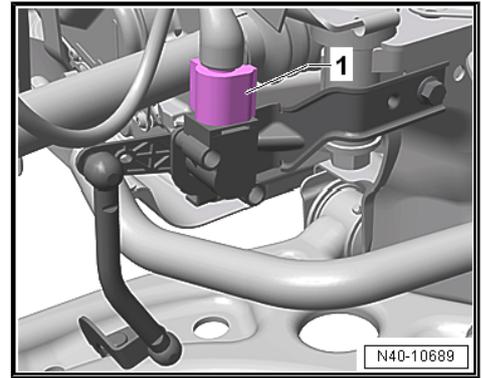
Continued for all vehicles



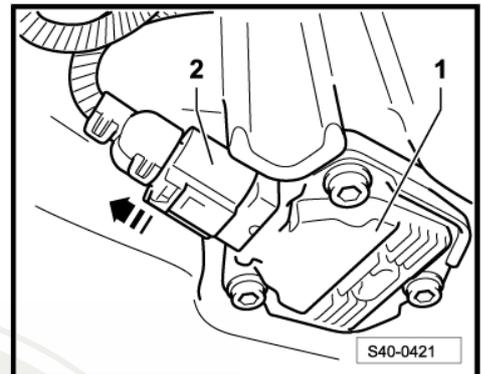
- Unscrew the fixing screw -1- and remove the universal joint -2- from the steering gear.
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .



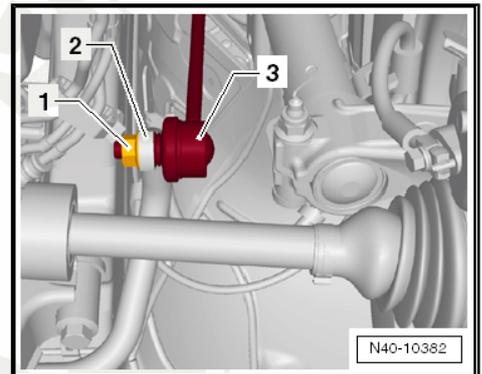
- For vehicles fitted with automatic headlight range control, disconnect the plug from the front left vehicle level sensor - G78-.



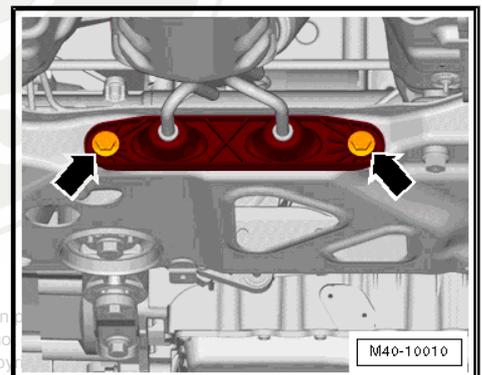
- Disconnect plug -2- for oil level and oil temperature sender - G266- -1-, if present.
- Remove connector for heating backup pump - V488- if present.



- Remove the coupling rods -3- from the anti-roll bar -2- on both vehicle sides.



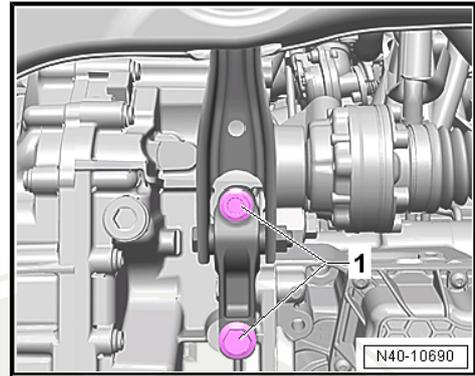
- Unbolt bracket for exhaust system -arrows- from assembly carrier.



Protected by copyright. Copying for private or commercial purposes, in
unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not
with respect to the correctness of information in this document. Copy



- Remove pendulum support from gearbox, to do so release bolts -1-.
- Fix the assembly carrier => [page 5](#) .



- Secure assembly carrier on engine/gearbox jack e.g. -V.A.G 1383A- with corresponding strap.
- Lower the assembly carrier by approx. 10 cm. While doing so observe the electrical cables.

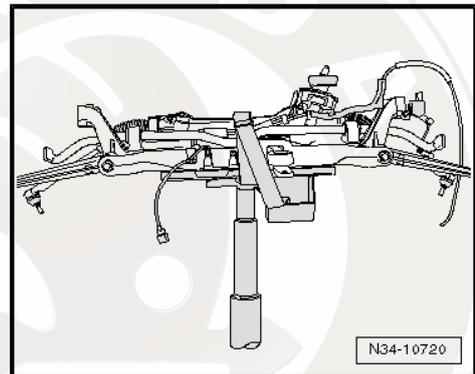
Install

Installation is carried out in the reverse order.



Note

- ◆ *When installing, make sure the steering gear boot is neither damaged nor twisted.*
- ◆ *It is necessary to perform an axle alignment in the event of:*
[=> page 237](#) .
- Perform a test drive.
- Check the steering wheel position during the test drive.



Note

If after the test drive and with the wheels pointing straight ahead the steering wheel is off straight, perform an axle alignment
[=> page 234](#) .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted without the written permission of ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability for the correctness of information in this document. Copyright by ŠKODA AUTO A. S.



Tightening torques:

Assembly carrier to body ♦ Use new bolts	70 Nm + 180°
Universal joint to steering gear ♦ Use new screw!	20 Nm + 90°
Coupling rod ♦ Counterhold the internal serration of the pivot pin	65 Nm
Wheel bolts	120 Nm
Pendulum support to gearbox ⇒ Engine; Rep. gr. 10	
Bracket for exhaust system to assembly carrier ⇒ Engine; Rep. gr. 26	

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

2.4 Removing and installing assembly carrier

2.4.1 Removing and installing assembly carrier without steering gear

Special tools and workshop equipment required

- ◆ Engine and gearbox jack e.g. -V.A.G 1383A-

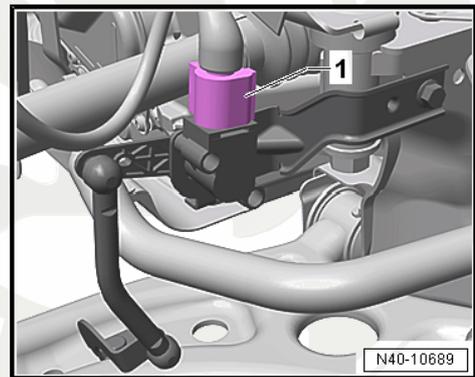
Removing:



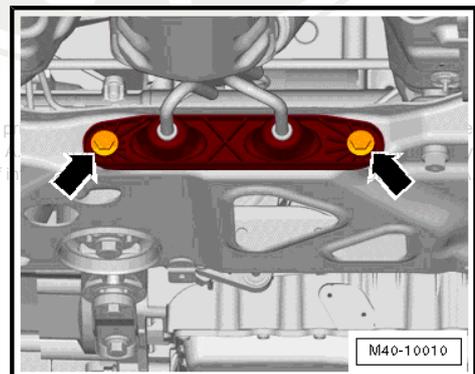
Note

The assembly carrier is removed together with the track control arms.

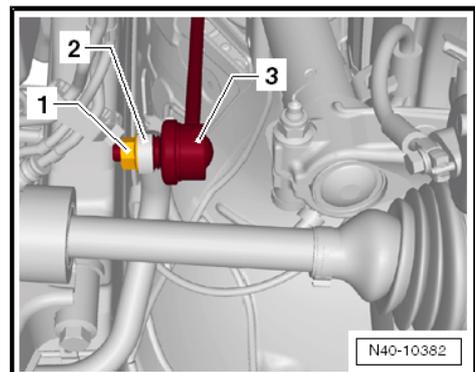
- Remove front wheels.
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .
- For vehicles fitted with automatic headlight range control, disconnect the plug from the front left vehicle level sensor - G78- .



- Unbolt bracket for exhaust system -arrows- from assembly carrier.



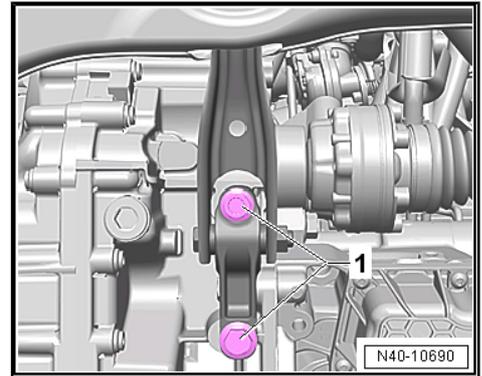
- Remove the coupling rods -3- from the anti-roll bar -2- on both vehicle sides.



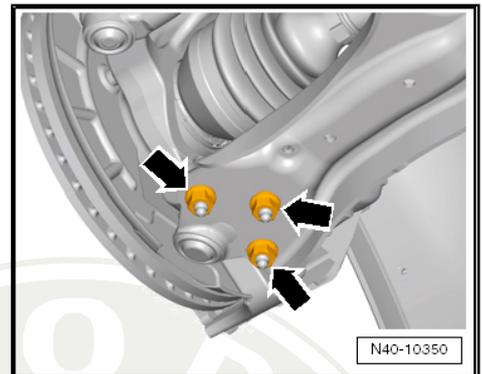
Protected by copyright. Copying for
unless authorised by ŠKODA AUTO
with respect to the correctness of

mitted
liability
S.□□

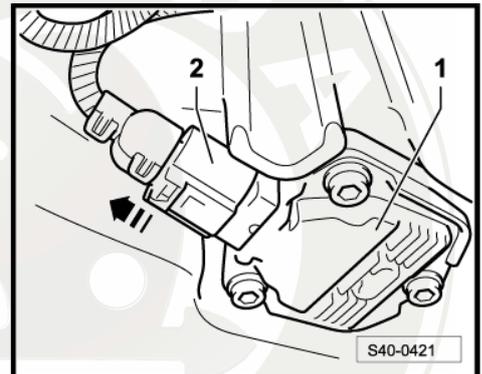
- Remove pendulum support from gearbox, to do so release bolts -1-.



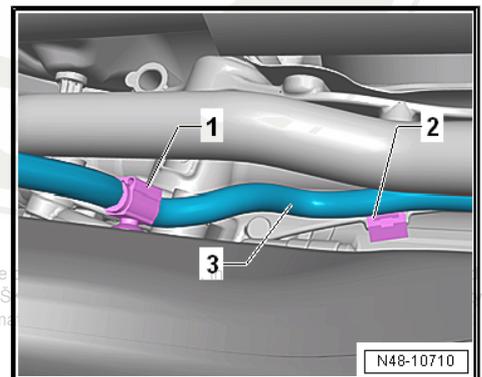
- Unscrew the nuts for the track control arm -arrows-.



- Disconnect plug -2- for oil level and oil temperature sender - G266- -1-, if present.
- Remove connector for heating backup pump - V488- if present.



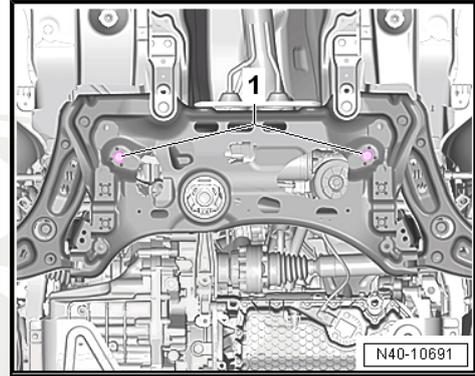
- Unclip wiring harness -3- -1-.
- Pull the wiring loom through under the anti-roll bar.



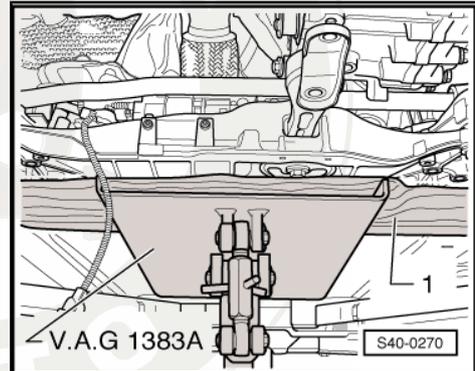
Protected by copyright. Copying for private use
unless authorised by ŠKODA AUTO A. S. S
with respect to the correctness of inform



- Release screws -1- for steering gear.
- Carefully lever off the steering gear from the assembly carrier.
- Tie up the power-steering gear e.g with wire (attach), so that it maintains its position.



- Position the engine/gearbox jack , e.g. -V.A.G 1383A- , under the assembly carrier.
- For example place a piece of wood -1- between the engine/ gearbox jack e.g. -V.A.G 1383A- and the assembly carrier.
- Fix the assembly carrier => [page 5](#) and lower it by max. 10 cm.



- Pull out the expanding rivet -arrow-.
- Lower assembly carrier.

Install

Installation is carried out in the reverse order. Protected by copyright. Copying for private or commercial purposes by ŠKODA AUTO A. S. ŠKODA AUTO with respect to the correctness of information in this document is prohibited.



Note

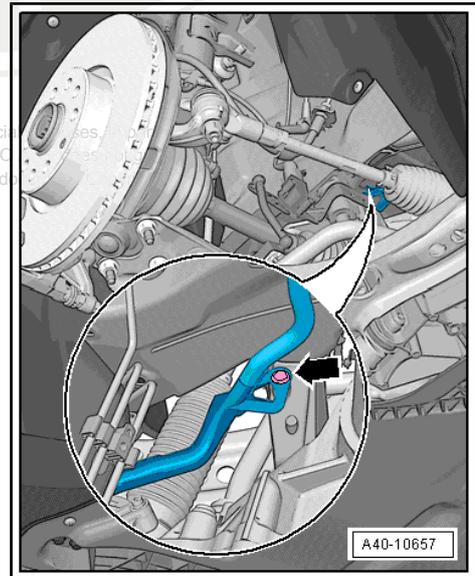
It is necessary to perform an axle alignment in the event of:
[=> page 237](#) .

- Perform a test drive.
- Check the steering wheel position during the test drive.



Note

If after the test drive and with the wheels pointing straight ahead the steering wheel is off straight, perform an axle alignment
[=> page 234](#) .





Tightening torques:

Assembly carrier to body ◆ Use new bolts	70 Nm + 180°
Steering gear to assembly carrier ◆ Use new bolts	70 Nm + 90°
Coupling rod ◆ Counterhold the internal serration of the pivot pin	65 Nm
Coupling rod for front left vehicle level sensor - G78- to track control arm	8 Nm
Steering joint to track control arm	100 Nm
Wheel bolts	120 Nm
Pendulum support to gearbox ⇒ Engine; Rep. gr. 10	
Bracket for exhaust system to assembly carrier ⇒ Engine; Rep. gr. 26	

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



2.4.2 Removing and installing assembly carrier with steering gear

Special tools and workshop equipment required

- ◆ Engine/gearbox jack , e.g. -V.A.G 1383A-
- ◆ Ball joint extractor - 3287 A-

Removing:



Note

The assembly carrier is removed together with the track control arms.

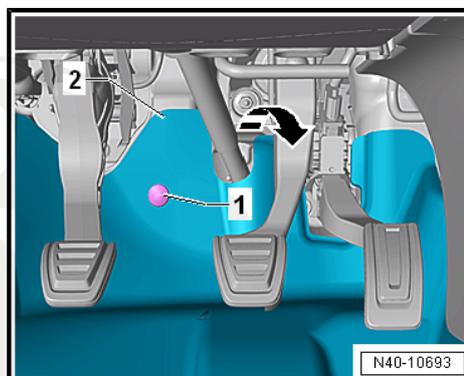
- Remove front wheels.
- Secure the steering wheel with the wheels in straight ahead position with adhesive tape -arrow- against unintended turning.

Left-hand drive



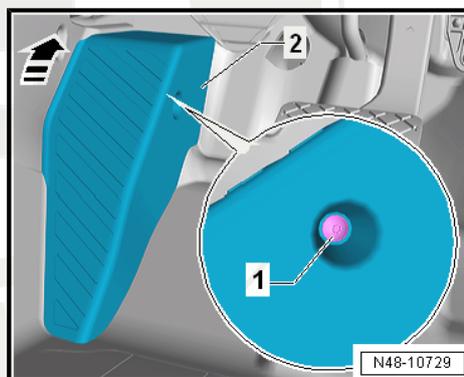
- Unscrew the fixing nut -1- and pull off the foot mat in -direction of arrow-.

Right-hand drive

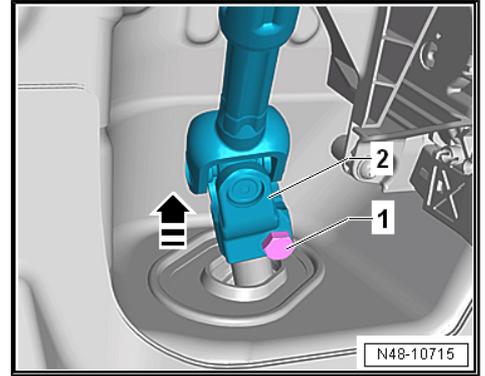


- Release screw -1-.
- Unscrew bearing bolt -in direction of the arrow -.

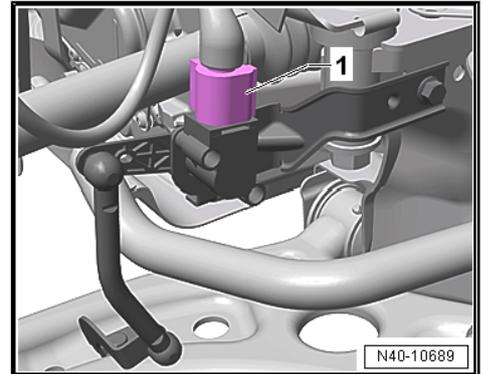
Continued for all vehicles



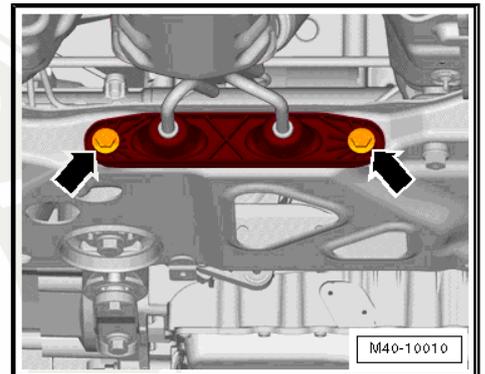
- Unscrew the fixing screw -1- and remove the universal joint -2- from the steering gear.
- Remove front wheels.
- Remove the sound dampening system => Body Work; Rep. gr. 50 .



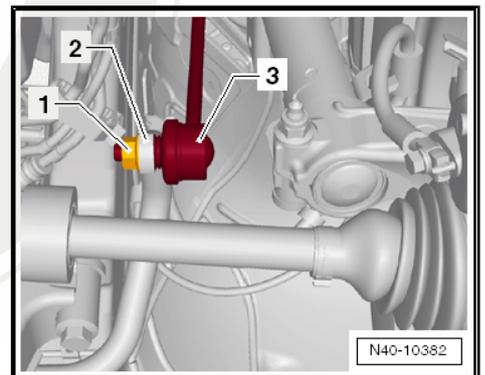
- For vehicles fitted with automatic headlight range control, disconnect the plug from the front left vehicle level sensor - G78- .



- Unbolt bracket for exhaust system -arrows- from assembly carrier.



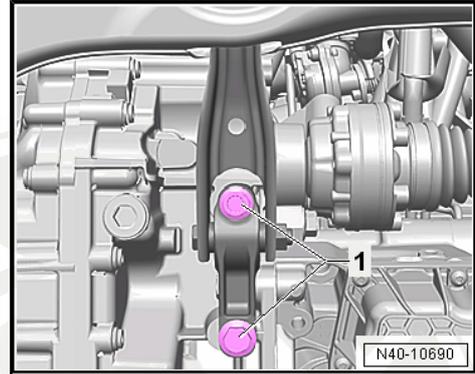
- Remove the coupling rods -3- from the anti-roll bar -2- on both vehicle sides.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



- Remove pendulum support from gearbox, to do so release bolts -1-.

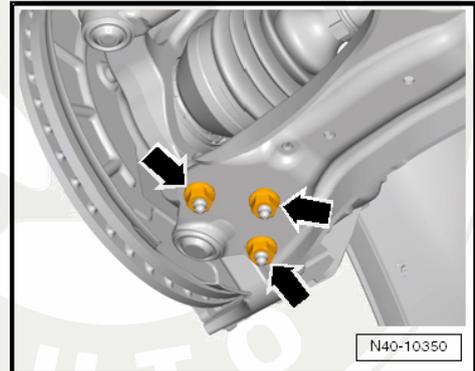


- Unscrew the nuts for the track control arm -arrows-.
- Loosen nut of track rod end on both sides, but do not unscrew yet.



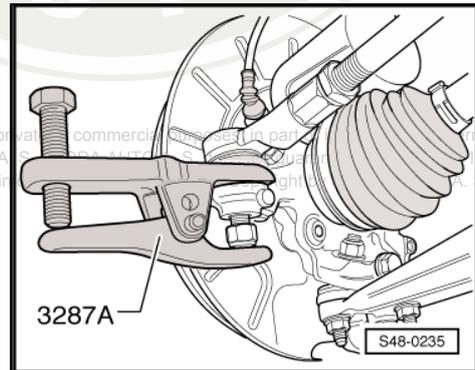
Note

To protect the thread, screw the nut a couple of thread turns onto the stud of the track rod end.

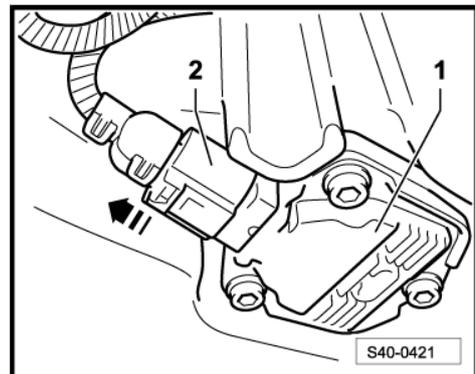


- Remove the steering joint/track rod from the wheel-bearing housing with the ball joint extractor - 3287A- .
- Unscrew nut for steering joint/track rod.

Protected by copyright. Copying for private or commercial use without permission is prohibited. ŠKODA AUTO AG is not liable for any damage or liability arising from the use of this document with respect to the correctness of its content.

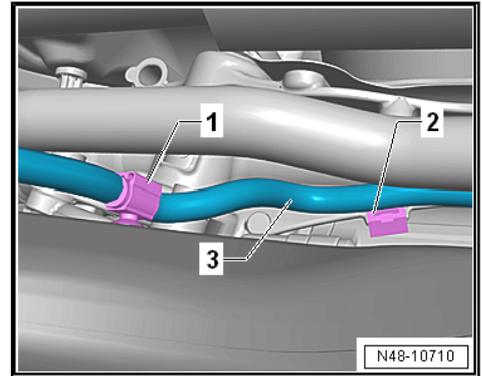


- Disconnect plug -2- for oil level and oil temperature sender - G266- -1-, if present.
- Remove connector for heating backup pump - V488- if present.



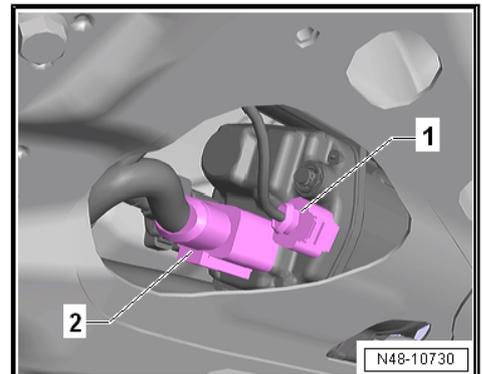
- Unclip the wiring loom -3- -1- and detach the clamp -2- from the steering gear.
- Pull the wiring loom through under the anti-roll bar.

Right-hand drive



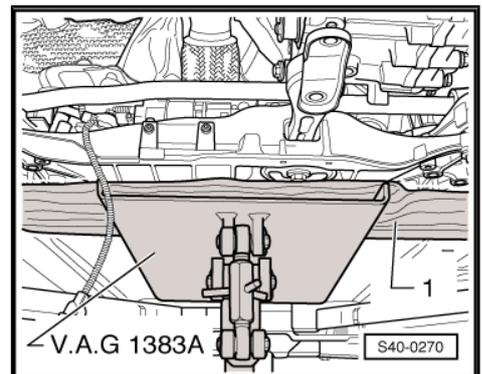
- Disconnect the plug connections -1- and -2- to the steering gear.

Continued for all vehicles



- Position the engine/gearbox jack , e.g. -V.A.G 1383A- , under the assembly carrier.
- For example place a piece of wood -1- between the engine/ gearbox jack e.g. -V.A.G 1383A- and the assembly carrier.
- Fix the assembly carrier => [page 5](#) and lower it by max. 10 cm.

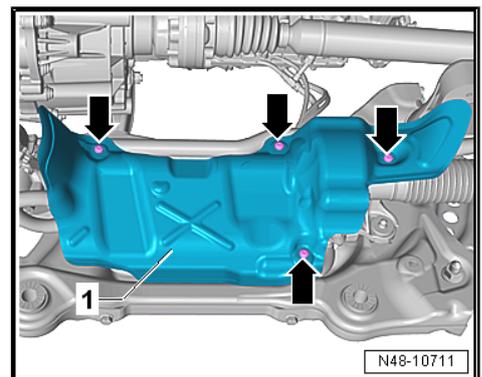
Left-hand drive



- Release screws -arrows- and remove heat shield -1-.

i Note

*The version of the heat shield depends on the vehicle equipment.
 Assignment: => Electronic Catalogue of Original Parts .*

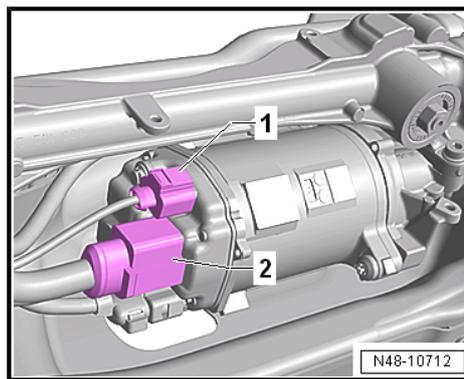


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

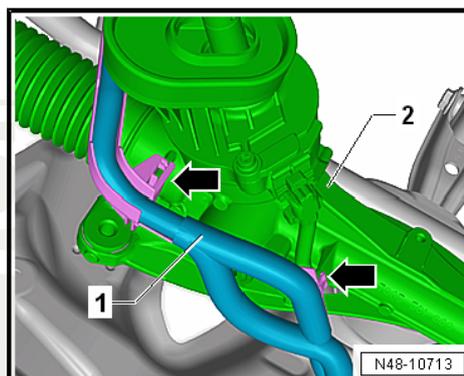


- Disconnect plug -1- and aerial cable -2-.

Continued for all vehicles



- Loosen bracket -arrows- for wiring loom from steering gear.
- Detach the wiring loom -1- from the steering gear -2-.



- Pull out the expanding rivet -arrow-.
- Lower assembly carrier.

Install

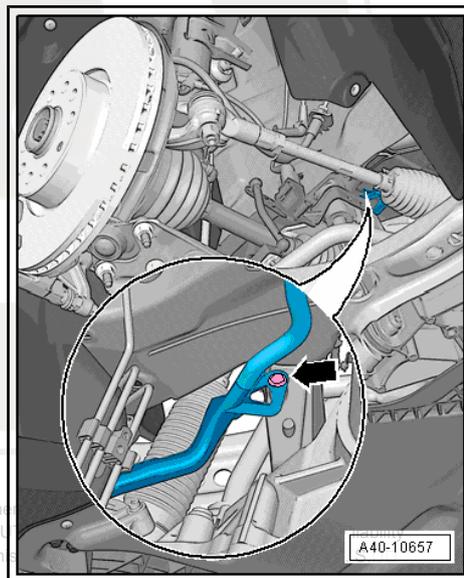
Installation is carried out in the reverse order.



Note

- ◆ Coat the sealing sleeve on the steering gear with lubricant, e.g. lubricating soap, before installing the steering gear.
- ◆ When installing, make sure the steering gear boot is neither damaged nor twisted.
- ◆ It is necessary to perform an axle alignment in the event of:
[=> page 237](#) .

- Perform a test drive.
- Check the steering wheel position during the test drive.



Note

If after the test drive and with the wheels pointing straight ahead the steering wheel is off straight, perform an axle alignment
[=> page 234](#) .



Tightening torques:

Assembly carrier to body ◆ Use new bolts	70 Nm + 180°
Steering gear to assembly carrier ◆ Use new bolts	70 Nm + 90°
Track rod end to wheel-bearing housing ◆ Counterhold the internal serration of the pivot pin	20 Nm + 90°
Universal joint to steering gear ◆ Use new screw!	20 Nm + 90°
Anti-roll bar to assembly carrier ◆ Use new bolts	20 Nm + 180°
Heat shield to steering gear	8 Nm
Coupling rod ◆ Counterhold the internal serration of the pivot pin	65 Nm
Coupling rod for front left vehicle level sensor - G78- to track control arm	8 Nm
Steering joint to track control arm	100 Nm
Wheel bolts	120 Nm
Pendulum support to gearbox ⇒ Engine; Rep. gr. 10	
Bracket for exhaust system to assembly carrier ⇒ Engine; Rep. gr. 26	



2.5 Removing and installing the anti-roll bar

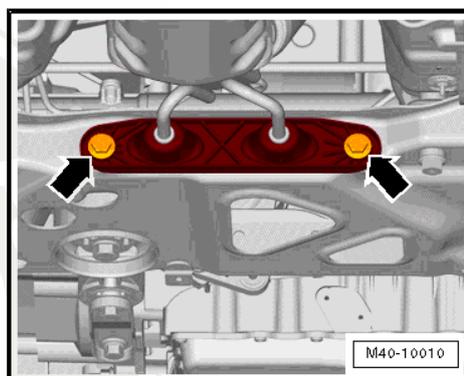
2.5.1 Removing and installing anti-roll bar - left-hand drive

Special tools and workshop equipment required

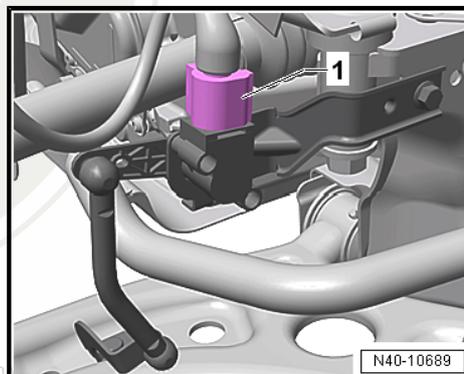
- ◆ Fixing bolt - T10486/1- , 4 pieces
- ◆ Fixing device - T10486 A-
- ◆ Engine/gearbox jack , e.g. -V.A.G 1383A-

Removing

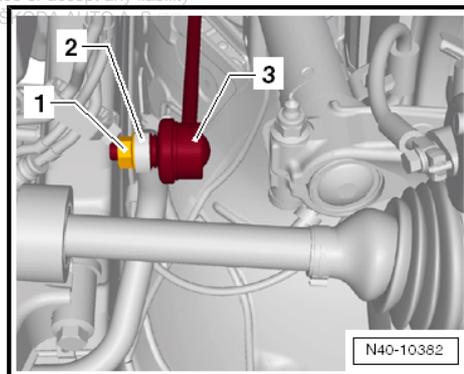
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .
- Unbolt bracket for exhaust system -arrows- from assembly carrier.



- For vehicles fitted with automatic headlight range control, disconnect the plug from the front left vehicle level sensor - G78- .



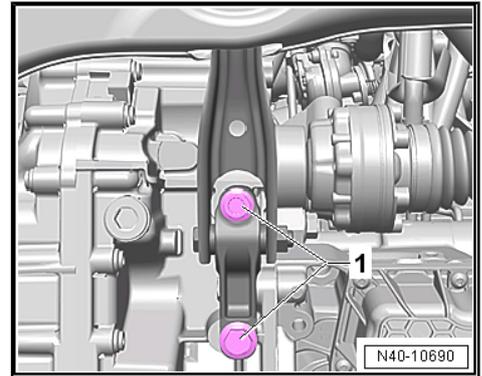
- Remove the coupling rods -3- from the anti-roll bar -2- on both vehicle sides.



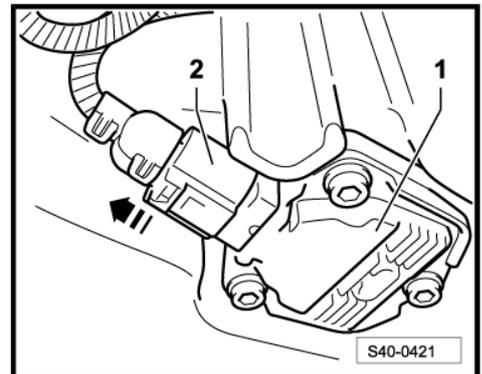
Protected by copyright. Copying for private or commercial purposes, in part or in full, is prohibited without the written permission of ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability for the accuracy of the information provided.



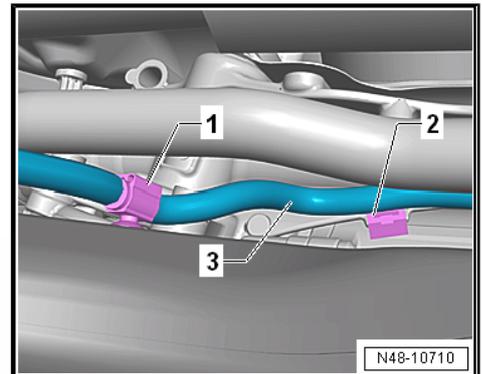
- Remove pendulum support from gearbox, to do so release bolts -1-.



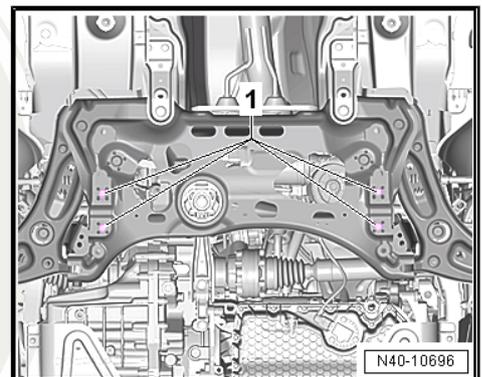
- Disconnect plug -2- for oil level and oil temperature sender - G266- -1-, if present.
- Remove connector for heating backup pump - V488- if present.



- Unclip wiring harness -3- -1-.
- Pull the wiring loom through under the anti-roll bar.

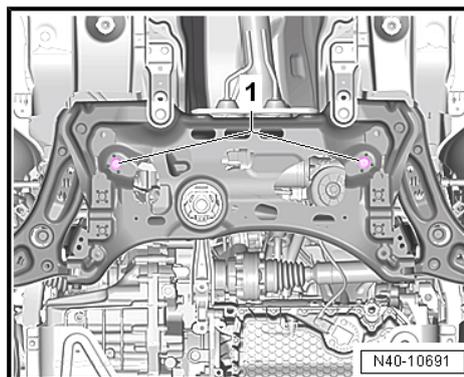


- Release screws for anti-roll bar tabs -1-.

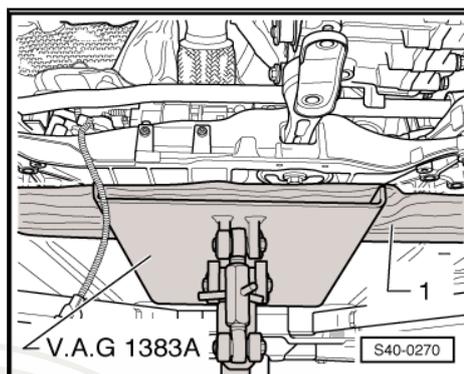




- Release screws -1- for steering gear.
- Carefully lever off the steering gear from the assembly carrier.
- Tie up the power-steering gear e.g with wire (attach), so that it maintains its position.



- Position the engine/gearbox jack , e.g. -V.A.G 1383A- , under the assembly carrier.
- For example place a piece of wood -1- between the engine/ gearbox jack e.g. -V.A.G 1383A- and the assembly carrier.
- Fix the assembly carrier => [page 5](#) and lower it by max. 10 cm.



- Pull out the expanding rivet -arrow-.
- Slightly lower the assembly carrier and pull out the anti-roll bar to the rear.

Install

Installation is carried out in the reverse order.



Note

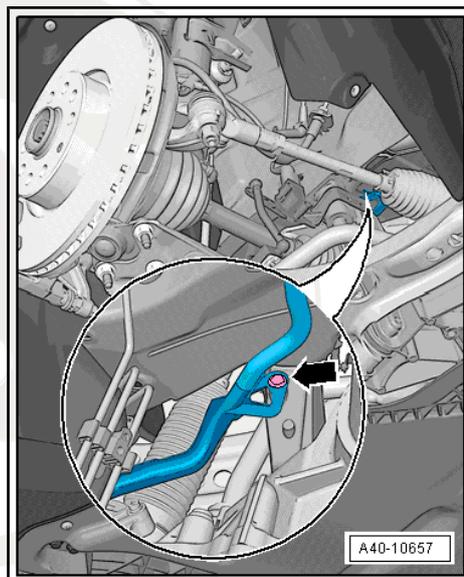
*It is necessary to perform an axle alignment in the event of:
=> [page 237](#) .*

- Perform a test drive.
- Check the steering wheel position during the test drive.



Note

*If after the test drive and with the wheels pointing straight ahead
the steering wheel is off straight, perform an axle alignment
=> [page 234](#) .*





Tightening torques:

Assembly carrier to body ♦ Use new bolts	70 Nm + 180°
Steering gear to assembly carrier ♦ Use new bolts	70 Nm + 90°
Anti-roll bar to assembly carrier ♦ Use new bolts	20 Nm + 180°
Coupling rod ♦ Counterhold the internal serration of the pivot pin	65 Nm
Pendulum support to gearbox ⇒ Engine; Rep. gr. 10	
Bracket for exhaust system to assembly carrier ⇒ Engine; Rep. gr. 26	

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



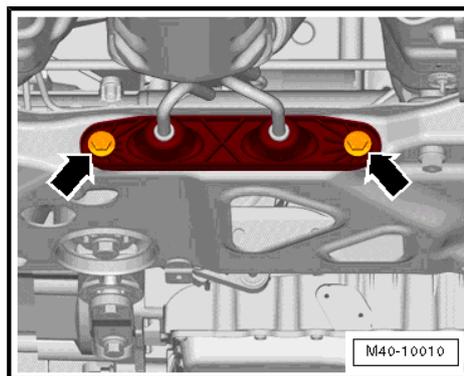
2.5.2 Removing and installing anti-roll bar - right-hand drive

Special tools and workshop equipment required

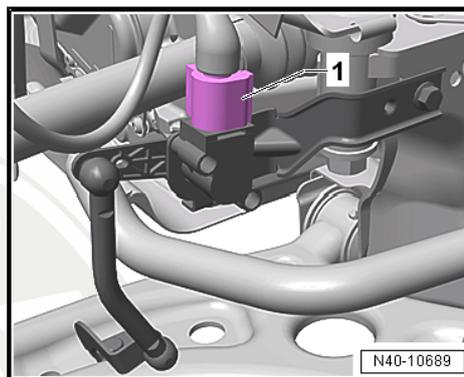
- ◆ Fixing bolt - T10486/1- , 4 pieces
- ◆ Fixing device - T10486 A-
- ◆ Engine/gearbox jack , e.g. -V.A.G 1383A-

Removing

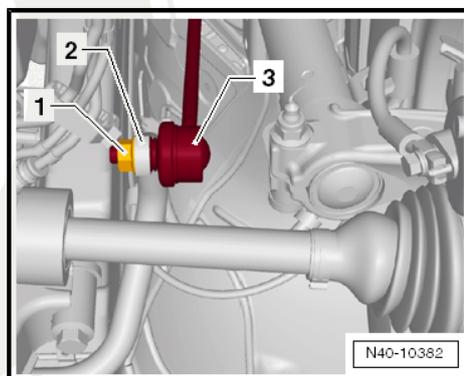
- Remove front wheels.
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .
- Unbolt bracket for exhaust system -arrows- from assembly carrier.



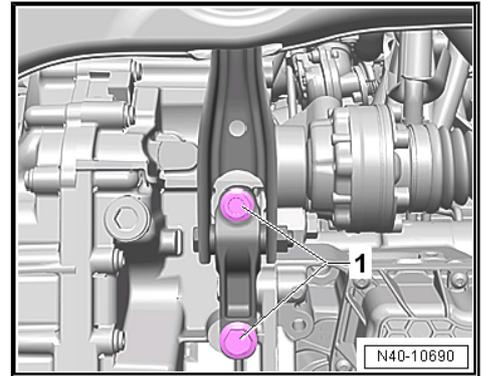
- For vehicles fitted with automatic headlight range control, disconnect the plug from the front left vehicle level sensor - G78- .



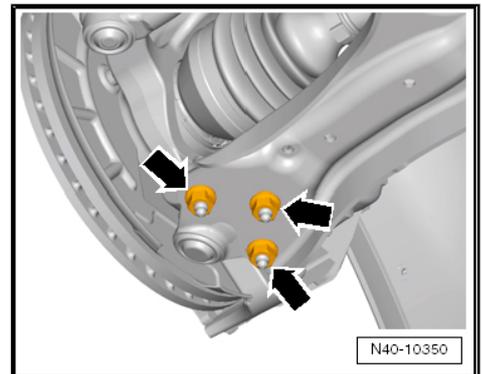
- Remove the coupling rods -3- from the anti-roll bar -2- on both vehicle sides.



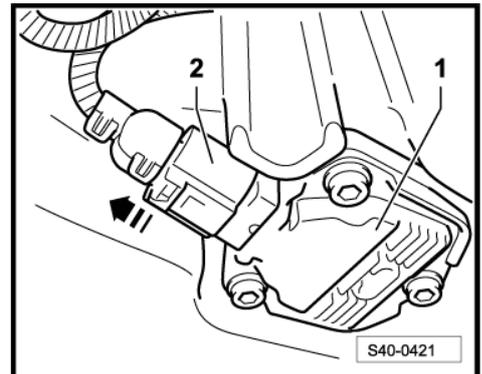
- Remove pendulum support from gearbox, to do so release bolts -1-.



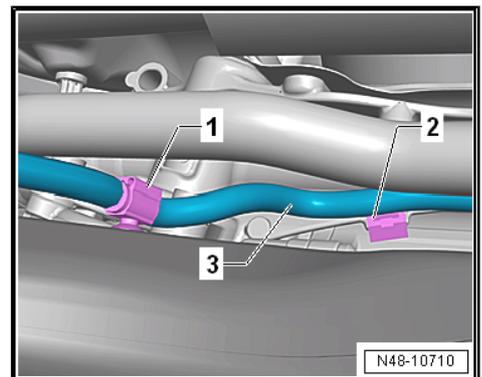
- Unscrew the nuts for the track control arm -arrows-.



- Disconnect plug -2- for oil level and oil temperature sender - G266- -1-, if present.
- Remove connector for heating backup pump - V488- if present.



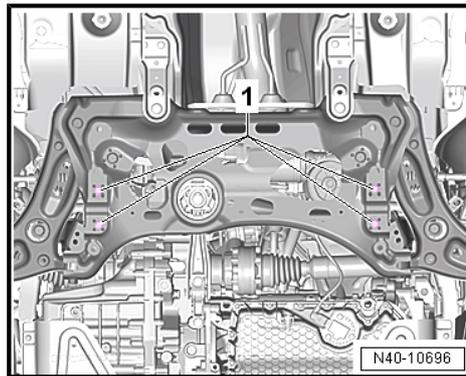
- Unclip wiring harness -3- -1-.
- Pull the wiring loom through under the anti-roll bar.



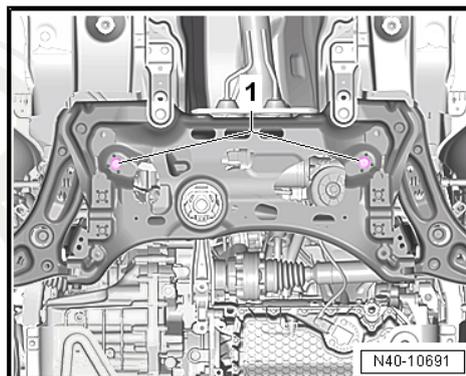
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. 000



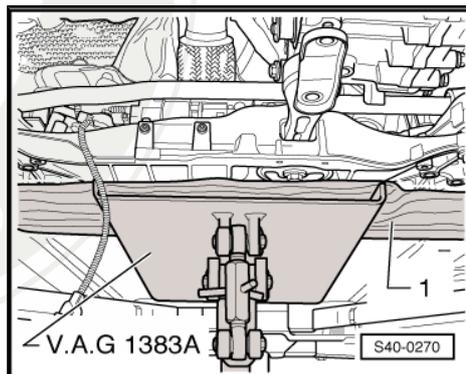
- Release screws for anti-roll bar tabs -1-.



- Release screws -1- for steering gear.
- Carefully lever off the steering gear from the assembly carrier.
- Tie up the power-steering gear e.g with wire (attach), so that it maintains its position.



- Position the engine/gearbox jack , e.g. -V.A.G 1383A- , under the assembly carrier.
- For example place a piece of wood -1- between the engine/gearbox jack e.g. -V.A.G 1383A- and the assembly carrier.
- Fix the assembly carrier => [page 5](#) and lower it by max. 10 cm.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



- Pull out the expanding rivet -arrow-.
- Lower the assembly carrier and remove anti-roll bar.

Install

Installation is carried out in the reverse order.

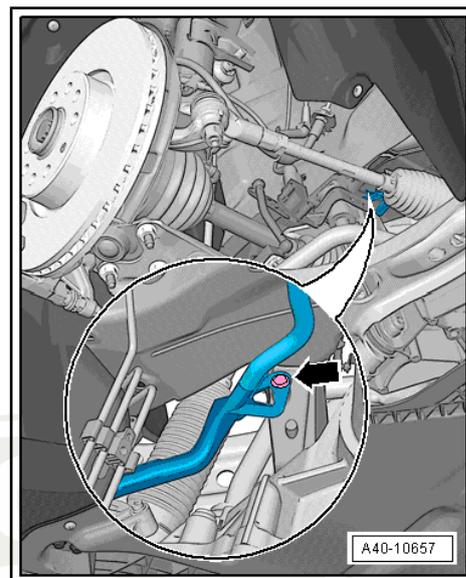
Note

*It is necessary to perform an axle alignment in the event of:
⇒ [page 237](#).*

- Perform a test drive.
- Check the steering wheel position during the test drive.

Note

*If after the test drive and with the wheels pointing straight ahead
the steering wheel is off straight, perform an axle alignment
⇒ [page 234](#).*





Tightening torques:

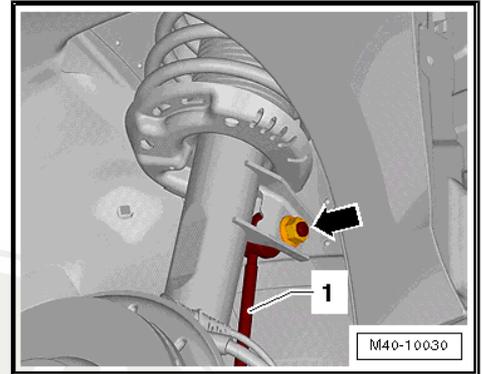
Assembly carrier to body ◆ Use new bolts	70 Nm + 180°
Steering gear to assembly carrier ◆ Use new bolts	70 Nm + 90°
Anti-roll bar to assembly carrier ◆ Use new bolts	20 Nm + 180°
Steering joint to track control arm	100 Nm
Coupling rod ◆ Counterhold the internal serration of the pivot pin	65 Nm
Wheel bolt	120 Nm
Pendulum support to gearbox ⇒ Engine; Rep. gr. 10	
Bracket for exhaust system to assembly carrier ⇒ Engine; Rep. gr. 26	

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

2.6 Removing and installing coupling rod

Removing

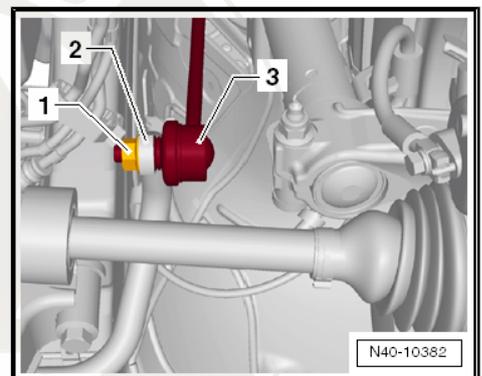
- Unscrew nut -arrow-.



- Unscrew nut -1-.
- Pull out coupling rod -3- from the anti-roll bar -2-.

Install

Installation is carried out in the reverse order.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



Tightening torque:

Coupling rod ◆ Counterhold the internal serration of the pivot pin	65 Nm
---	-------



2.7 Removing and installing rubber-metal bearing for pendulum support

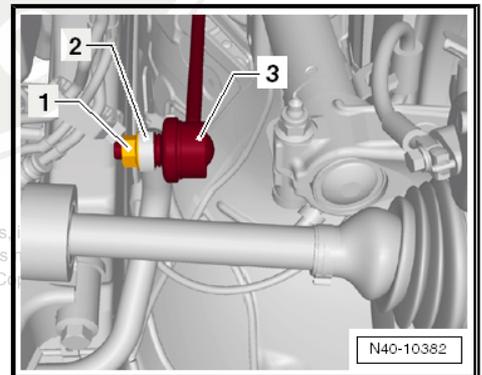
Removing

Special tools and workshop equipment required

- ◆ Hydraulic press - VAS 6178-
- ◆ Foot pump - VAS 6179-
- ◆ Assembly device - VAS 6779-
- ◆ Pressure spindle - MP3-408 (VW 412)-
- ◆ Pressure plate - MP3-407 (VW 402)-
- ◆ Pressure plate - MP3-406 (VW 401)-

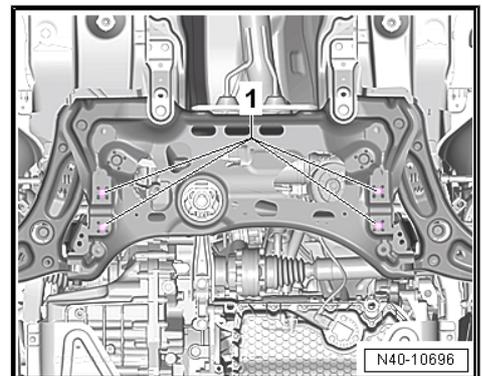
Extraction

- Remove the sound dampening system ⇒ Body Work; Rep. gr. 66 .
- Remove the coupling rods -3- from the anti-roll bar -2- on both vehicle sides.



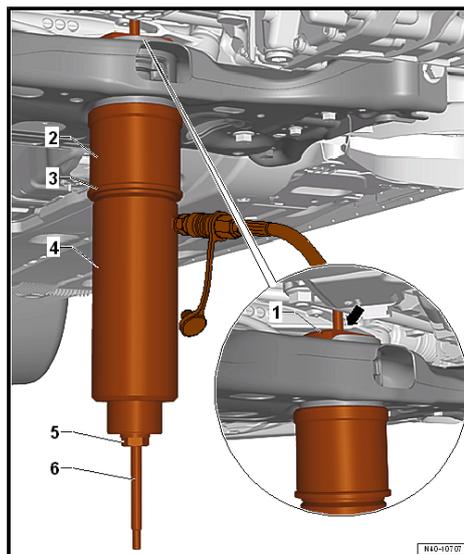
Protected by copyright. Copying for private or commercial purposes unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not accept any liability with respect to the correctness of information in this document. C

- Unscrew screws -1- for anti-roll bar clamps.
- Leave the anti-roll bar in the installation position.
- Remove pendulum support ⇒ Engine ; Rep. gr. 10 .
- Install the assembly device - VAS 6779- to the assembly carrier, as shown.



- Fit the pressure element of the assembly device - VAS 6779/1-1- onto the rubber-metal bearing with the flat side -arrow- in the driving direction.

- 1 - Pressure element - VAS 6779/1-
- 2 - Pipe - VAS 6779/4-
- 3 - Pressure element - VAS 6779/5-
- 4 - Hydraulic cylinder - VAS 6178-
- 5 - Nut - VAS 6779/3-
- 6 - Install threaded spindle on - VAS 6779/2-



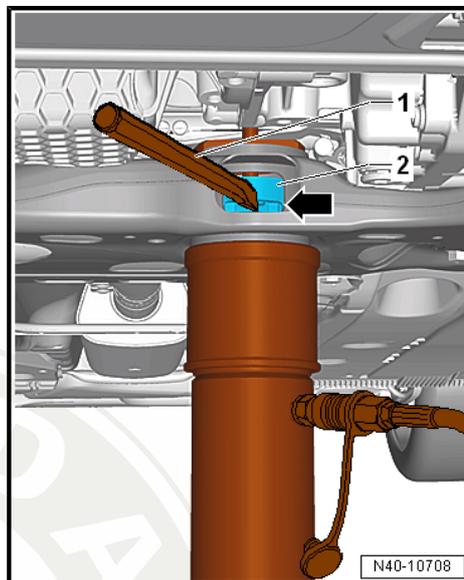
- both parts of the rubber-metal bearing -2- so that it can be seen through the opening in the assembly carrier -arrow-.
- Carry out a visual inspection of the rubber-metal bearing -2-.
 - if the upper part is deformed, it must be disrupted through the opening in the assembly carrier -arrow-.
- Push through the outer ring for the top part of the rubber-metal bearing -2- e.g. using a cold chisel -1-.



Note

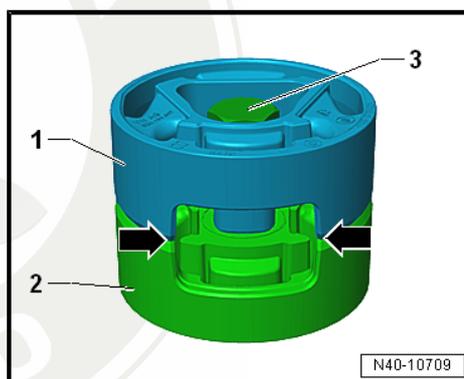
Pushing through the deformed bearing prevents tilting in the assembly carrier during removal.

- Remove both parts of the rubber-metal bearing at the same time.

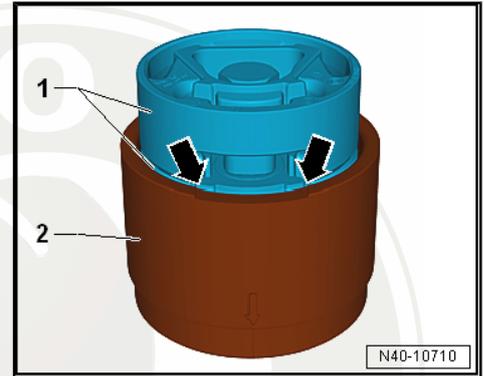


Preparing for insertion

- Place the top part -1- and bottom part -2- on top of each other so that the edges of the opening -arrows- fit together precisely.
- Screw both parts together with the previous screw -3-.
- Place the bearing into the pipe - VAS 6779/6- -2- with the side with the largest diameter- the screw points to the top.

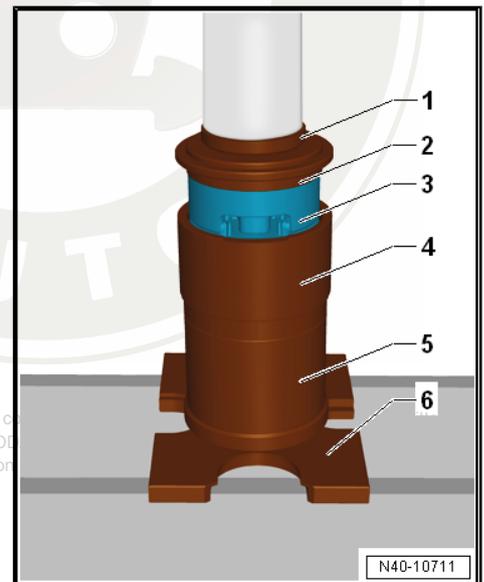


- Align the bearing -1- in the pipe - VAS 6779/6- , the edges of the opening must lie flush with the recess in the pipe - VAS 6779/6- -arrows-.



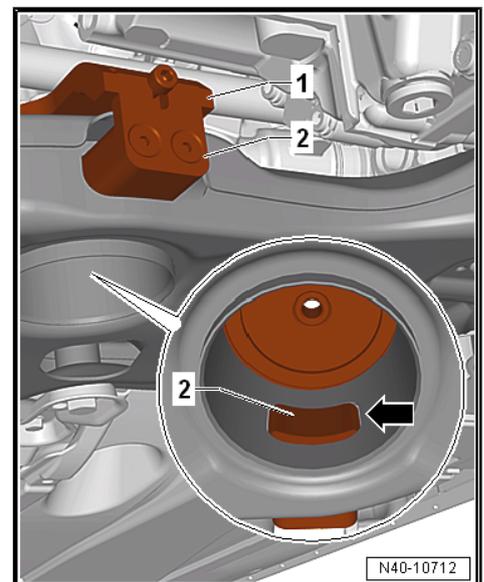
- Insert the bearing -3- into the pipe - VAS 6779/6- as far as it will go, as shown.

- 1 - Pressure spindle - MP3-408 (VW 412)-
- 2 - Pressure element - VAS 6779/5- , the side with the marking »A« must point upwards
- 3 - Rubber-metal bearing
- 4 - Pipe - VAS 6779/6-
- 5 - Pipe - VAS 6779/4-
- 6 - Pressure plate - MP3-406 (VW 401)-



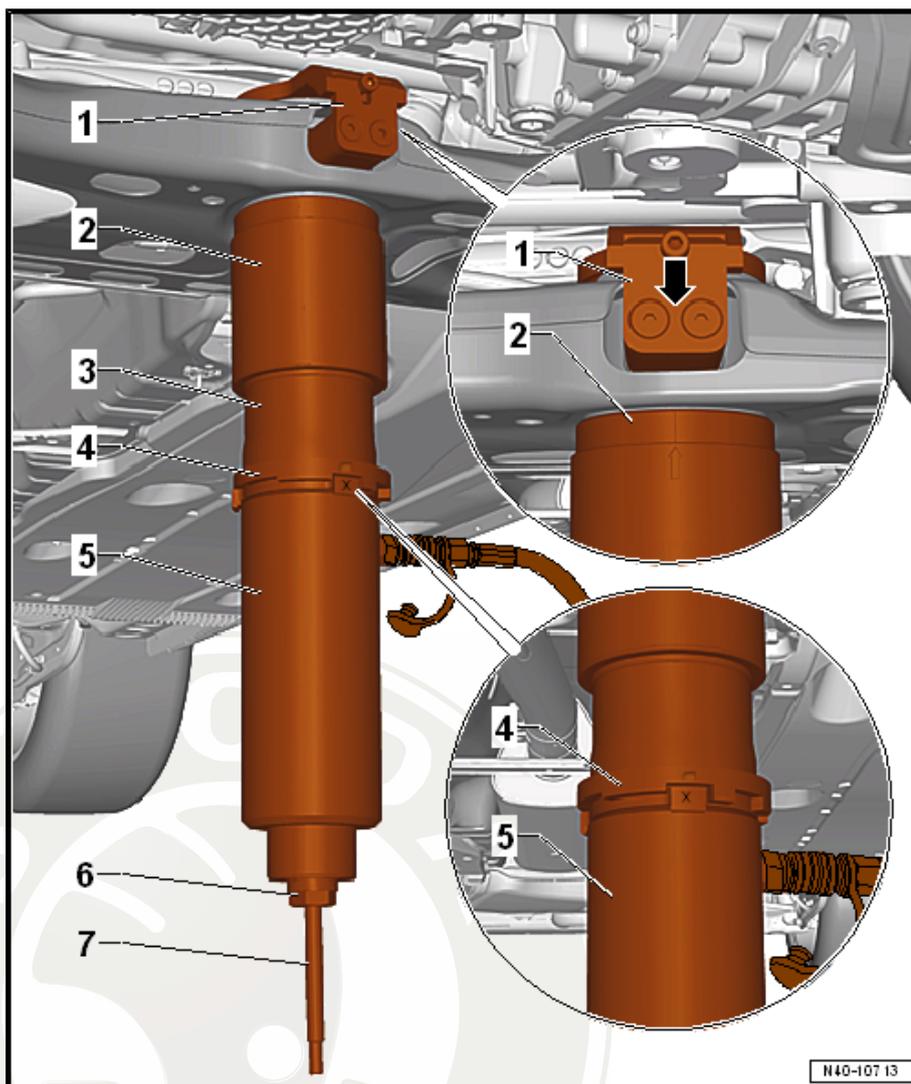
Protected by copyright. Copying for private or other use is prohibited unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. reserves the right with respect to the correctness of information.

- Fit mounting bracket - VAS 6779/7- -1- onto the assembly carrier.
- Insert the counterpart - VAS 6779/7-1- into the opening for the pendulum support in the assembly carrier.
- Screw the counterpart - VAS 6779/7-1- on the mounting bracket - VAS 6779/7- .
- Make sure that the counterpart - VAS 6779/7-1- is positioned exactly in the opening for the pendulum support in the assembly carrier.



Inserting

- Insert the threaded spindle - VAS 6779/2- -7- into the mounting bracket - VAS 6779/7- -1-.
- Assemble the assembly device - VAS 6779- , as shown.



1 - Support - VAS 6779/7-

2 - Pipe - VAS 6779/6- , -marking arrow- on the pipe must exactly face the middle between the screws on the mounting bracket - VAS 6779/7- -arrow-

3 - Thrust piece - VAS 6779/9-

4 - Composite seal - VAS 6779/8- , marking -I- on the composite seal must be on the same line as the marking -X- on the thrust piece - VAS 6779/9- .

5 - Hydraulic cylinder - VAS 6178-

6 - Hexagon nut - VAS 6779/3-

7 - Threaded spindle - VAS 6779/2-

- Draw in both parts of the rubber-metal bearing.
- Remove the assembly device - VAS 6779-
- Check the bearing of the rubber-metal bearing.
- Insert the anti-roll bar and coupling rods.
- Install pendulum support ⇒ Engine; Rep. gr. 10 .
- Install the noise insulation ⇒ Body Work; Rep. gr. 66 .

Tightening torques: ⇒ [page 168](#) .

3 The wheel bearing

Installation general view of the wheel bearing ⇒ [page 37](#)

Removing and installing fixing screw of drive shaft ⇒ [page 38](#)

Removing and installing wheel bearing housing ⇒ [page 41](#)

Removing and installing the wheel hub with wheel bearing
 ⇒ [page 44](#)

3.1 Summary of components of the wheel bearing

1 - Cover plate

2 - Screw, 12 Nm

-

3 - Wheel hub with wheel bearing

- removing and installing
 ⇒ [page 44](#)
- Sensor ring for ABS is
 built into the wheel hub
- Assignment ⇒ Electronic
 Catalogue of Original
 Parts
- cannot be repaired

4 - Screw, 200 Nm + 180°

- replace after each re-
 moval
- removing and installing
 ⇒ [page 38](#)

when loosening and tightening
 the vehicle must not stand on
 its wheels

5 - Screw, 8 Nm

6 - Front wheel speed sensor

- Clean the inner surface
 before inserting the sen-
 sor and coat with solid
 lubricant paste ⇒ Elec-
 tronic catalogue of origi-
 nal parts

7 - Wheel-bearing housing

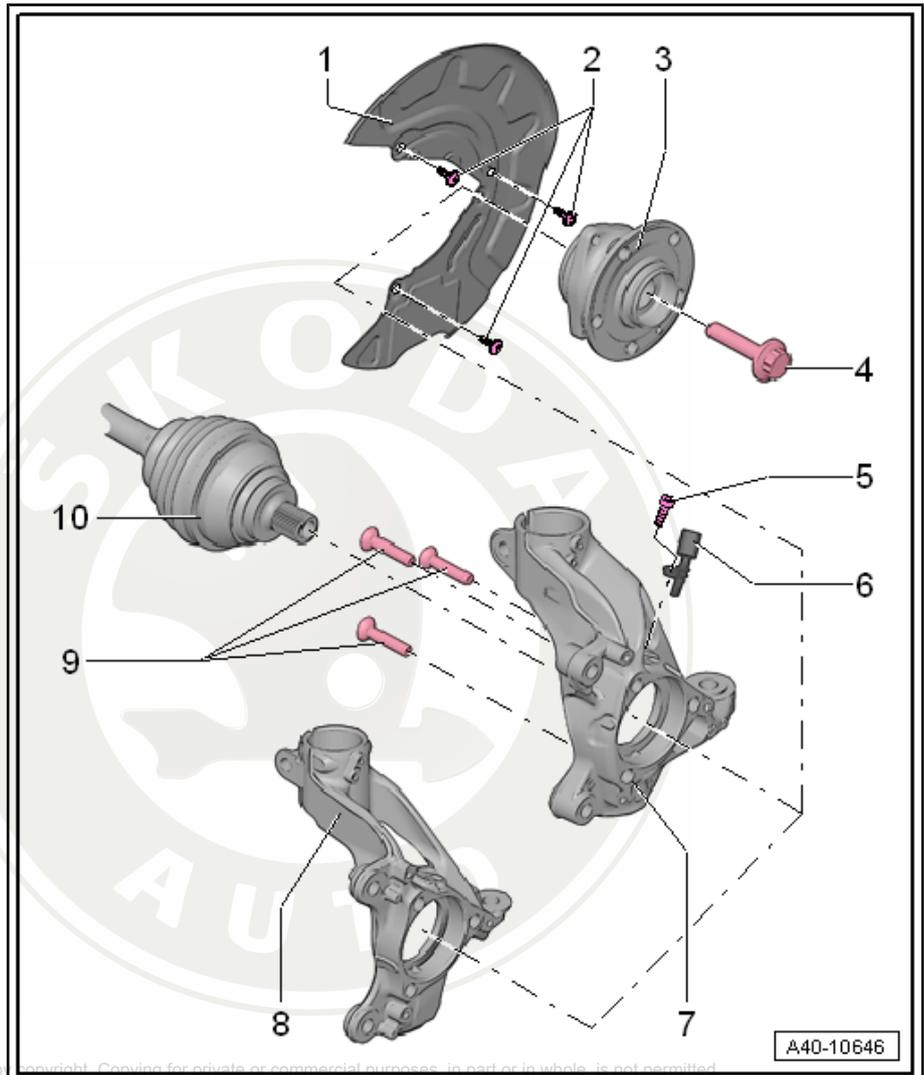
- different versions de-
 pending on model
- Assignment ⇒ Electronic Catalogue of Original Parts
- removing and installing ⇒ [page 41](#)

8 - Wheel-bearing housing

- different versions depending on model
- Assignment ⇒ Electronic Catalogue of Original Parts
- removing and installing ⇒ [page 41](#)

9 - Screw, 70 Nm + 90°

- replace after each removal



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by SKODA AUTO A. S. SKODA AUTO A. S. does not guarantee or accept any liability for the content of this document. Copyright by ŠKODA AUTO A. S.



10 - Drive shaft

- when undertaking installation work, the drive shaft must not hang down, otherwise the inner joint will be damaged
- before installing the outer joint in the wheel hub, the serration on the outer joint must be thinly coated with assembly paste ⇒ Electronic catalogue of original parts

3.2 Removing and installing fixing screw of drive shaft

Special tools and workshop equipment required

- ◆ Socket insert, 24 mm - T10361-



Note

- ◆ *If the fixing screw of the drive shaft is loosened more than 90°, the wheel bearings must not be loaded through the weight of the vehicle, i.e. the vehicle must not stand on its wheels.*
- ◆ *If the wheel bearings are loaded through the weight of the vehicle when the fixing screw for the drive shaft is removed, the inner wheel bearing will be damaged. This shortens the life of the wheel bearing.*
- ◆ *If the vehicle should be positioned on its wheels or moved, pay attention to the following points: Install an outer joint instead of the drive shaft. Tighten the fixing screw (use the one which was previously removed) of the outer joint to the tightening torque of 120 Nm.*

Remove twelve-sided bolt:

- Remove wheel trim cap, for light-alloy wheels remove the cap on the removed wheel (depending on version) ⇒ Wheels, Tyres; Rep. gr. 44 .
- Re-install light-alloy wheel (depending on the version) without cap.

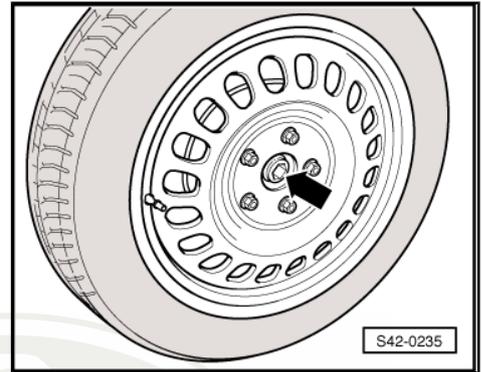
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



- Use the socket insert, 24 mm - T10361- to slacken the screw -arrow- by max. 90° on the vehicle while it is standing on its wheels, otherwise the wheel bearing may be damaged.
- Raise the vehicle until the wheels are fully off the ground.
- Depress brake pedal (assistance of second mechanic required).
- Unscrew twelve-sided bolt -arrow-.

Install twelve-sided bolt:

- Always install a new screw.



Note

The wheels should not touch the ground when tightening the drive shaft screwed connection, otherwise the wheel bearing will be damaged.

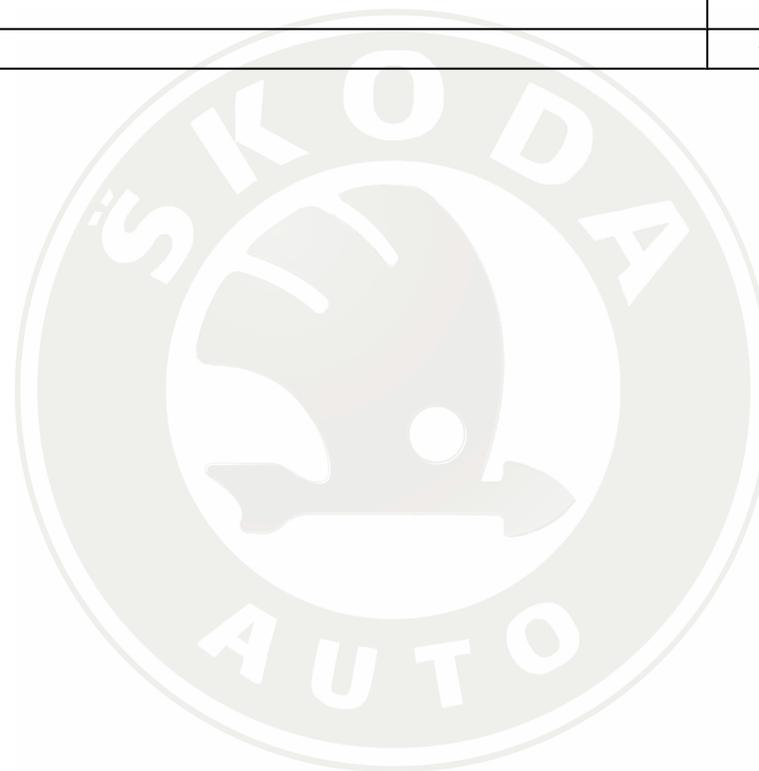
- Depress brake pedal (assistance of second mechanic required).
- Tighten the twelve-sided bolt to 200 Nm.
- Place vehicle onto its wheels.
- Depress brake pedal (assistance of second mechanic required).
- Tighten twelve-sided bolt by turning it 180°.
- Install wheel trim cap, for light-alloy wheels (depending on version) install cap.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



Tightening torques:

Fixing screw for drive shaft of front axle ◆ Use new screw!	200 Nm + 180°
Wheel bolt	120 Nm



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

3.3 Removing and installing wheel bearing housing

Special tools and workshop equipment required

- ◆ Ball joint extractor - 3287A-
- ◆ Spreader - 3424-
- ◆ Engine/gearbox jack , e.g. -V.A.G 1383A-

Removing:

Note

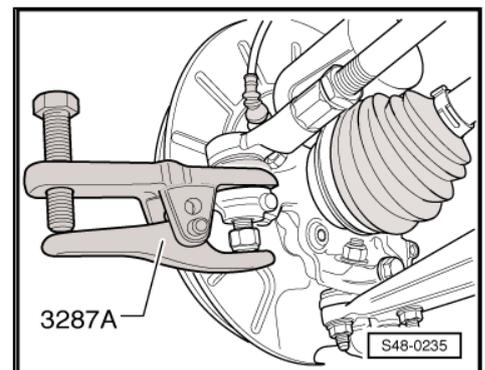
- ◆ *If the fixing screw of the drive shaft is loosened more than 90°, the wheel bearings must not be loaded through the weight of the vehicle, i.e the vehicle must not stand on its wheels.*
- ◆ *If the wheel bearings are loaded through the weight of the vehicle when the fixing screw for the drive shaft is removed, the inner wheel bearing will be damaged. This shortens the life of the wheel bearing.*
- ◆ *If the vehicle should be positioned on its wheels or moved, pay attention to the following points: Install an outer joint instead of the drive shaft. Tighten the fixing screw (use the one which was previously removed) of the outer joint to the tightening torque of 120 Nm.*

- Unscrew fixing screw of drive shaft at wheel hub ⇒ [page 38](#) .
- Remove wheel.
- Remove bracket for brake line and electrical line and place to the side.
- Remove brake caliper with brake carrier and tie with wire to the body ⇒ Brake systems; Rep. gr. 46 .
- Remove the ABS-speed sensor ⇒ Brake systems; Rep. gr. 45 .
- Remove brake disc.
- Remove cover plate from wheel bearing housing ⇒ [Item 1 \(page 37\)](#) .
- Loosen nut of track rod end, but do not unscrew yet.

Note

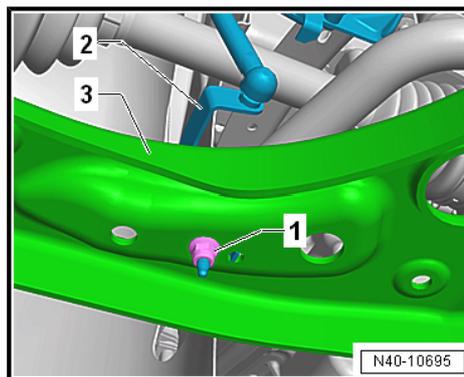
To protect the thread, screw the nut a couple of thread turns onto the pivot pin.

- Press the steering joint off the wheel-bearing housing with ball joint extractor - 3287A- and now unscrew the nut.
- Push the drive shaft as far as possible out of the wheel hub (in direction of gearbox).

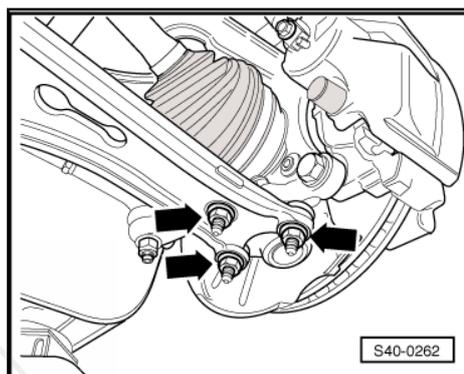




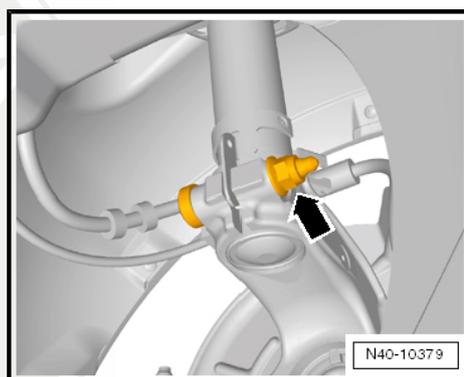
- Unscrew the nut -1- of the front left vehicle level sensor - G78- on vehicles fitted with automatic headlight range control.



- Release fixing nuts -arrows-.
- Press the steering joint off the track control arm.
- Position the engine/gearbox jack e.g. -V.A.G 1383A- under the wheel-bearing housing.



- Separate the screwed connection wheel-bearing housing/suspension strut -arrow-.



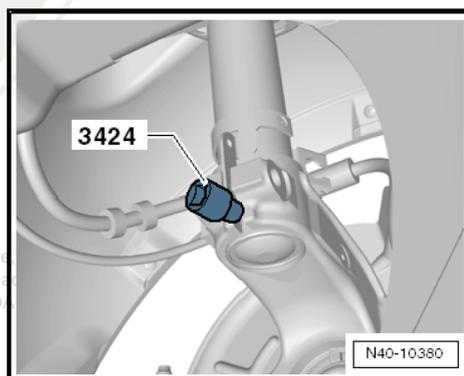
- Insert the spreader - 3424- in the slot on the wheel-bearing housing.
- Turn ratchet with spreader - 3424- 90° and remove.
- Pull wheel bearing housing from suspension strut.

Installing:

Installation is performed in the reverse order, pay attention to the following points:

- Tighten fixing screw of drive shaft to wheel hub ⇒ [page 38](#)

If the wheel-bearing housing was replaced, the vehicle must be aligned ⇒ [page 234](#) .





Tightening torques:

Wheel-bearing housing to suspension strut ♦ Use new bolt and nut ♦ The tip of bolt must point in the direction of travel	70 Nm + 180°
Steering joint to track control arm	40 Nm + 45°
Cover plate to wheel-bearing housing	12 Nm
Brake caliper to wheel-bearing housing ♦ Brake caliper PC57 with brake carrier	200 Nm
Speed sensor to wheel-bearing housing	8 Nm
Brake disc to wheel hub with wheel bearing	4.5 Nm
Track rod end to wheel-bearing housing ♦ Counterhold the internal serration of the pivot pin	20 Nm + 90°
Drive shaft to wheel hub with wheel bearing ♦ Use new screw ♦ Vehicle must not be standing on its wheels for tightening the screw	200 Nm + 180°
Holder for brake line on wheel bearing housing	15 Nm
Wheel bolts	120 Nm

3.4 Removing and installing the wheel hub with wheel bearing

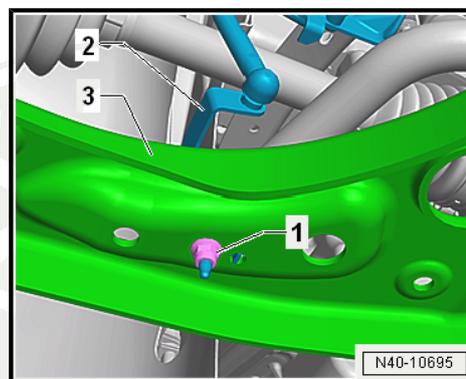
Removing

- Unscrew fixing screw of drive shaft at wheel hub ⇒ [page 38](#) .

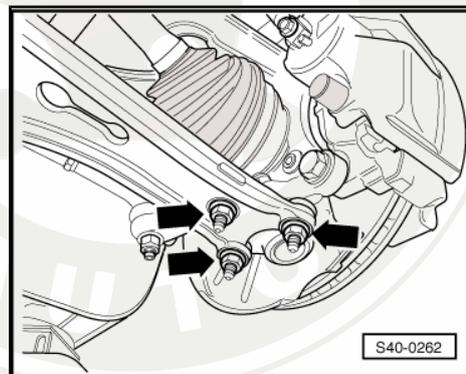


Note

- ◆ *If the fixing screw of the drive shaft is loosened more than 90°, the wheel bearings must not be loaded through the weight of the vehicle, i.e. the vehicle must not stand on its wheels.*
 - ◆ *If the wheel bearings are loaded through the weight of the vehicle when the fixing screw for the drive shaft is removed, the inner wheel bearing will be damaged. This shortens the life of the wheel bearing.*
 - ◆ *If the vehicle should be positioned on its wheels or moved, pay attention to the following points: Install an outer joint instead of the drive shaft. Tighten the fixing screw (use the one which was previously removed) of the outer joint to the tightening torque of 120 Nm.*
- Remove wheel.
 - Remove brake caliper with brake carrier and tie with wire to the body ⇒ Brake systems; Rep. gr. 46 .
 - Remove the ABS-speed sensor ⇒ Brake systems; Rep. gr. 45 .
 - Remove brake disc.
 - Unscrew the nut -1- of the front left vehicle level sensor - G78- on vehicles fitted with automatic headlight range control.



- Release fixing nuts -arrows-.
- Press the steering joint off the track control arm.
- Press the drive shaft out of the wheel hub and secure e.g. with wire to body.
- Screw steering joint to the track control arm.

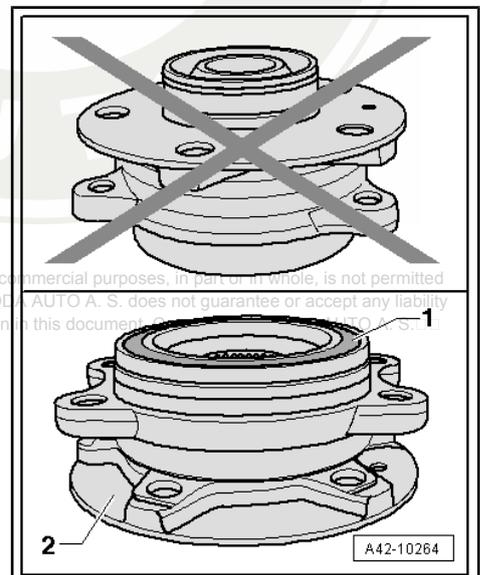
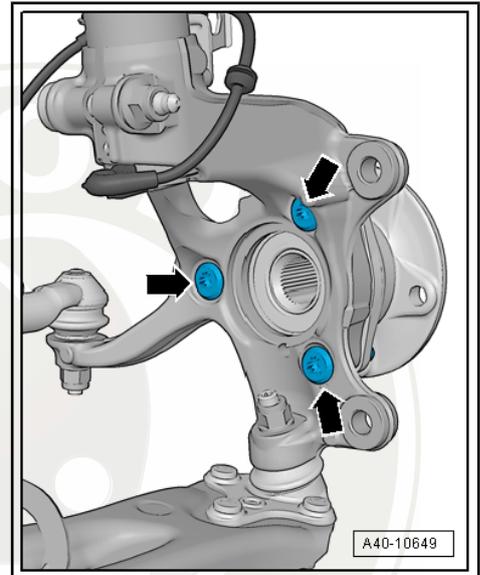


- Release screws -arrows-.
- Remove the wheel bearing out of the wheel-bearing housing.



Caution

- *Avoid any contamination or damage to the gasket when handling and storing it.*



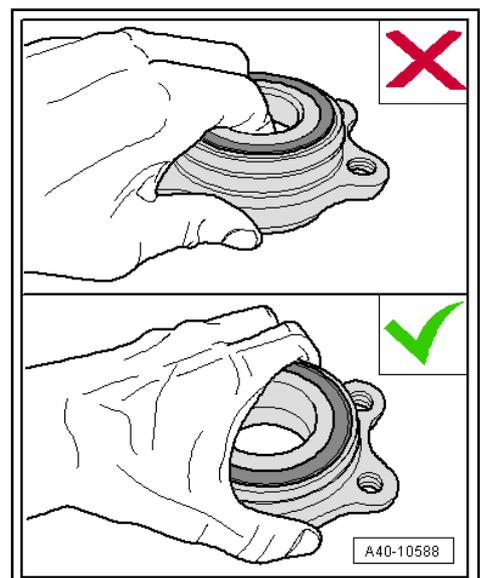
- When storing, the bearing -1- must always point upwards.
- Always position the wheel hub with wheel bearing onto the wheel hub -2-.
- When handling with bearing, never grip inside.
- Always grip the outer part of the bearing.

Installing:

Installation is performed in the reverse order, pay attention to the following points:

- Tighten fixing screw of drive shaft to wheel hub ⇒ [page 38](#) .

If the wheel-bearing housing was replaced, the vehicle must be aligned ⇒ [page 234](#)





Tightening torques:

Wheel hub with wheel bearing to wheel-bearing housing ◆ Use new screws	70 Nm + 90°
Wheel-bearing housing to suspension strut ◆ Use new bolt and nut ◆ The tip of bolt must point in the direction of travel	70 Nm + 180°
Steering joint to track control arm	40 Nm + 45°
Cover plate to wheel-bearing housing	12 Nm
Brake caliper to wheel-bearing housing ◆ Brake caliper PC57 with brake carrier	200 Nm
Speed sensor to wheel-bearing housing	8 Nm
Brake disc to wheel hub with wheel bearing	4.5 Nm
Track rod end to wheel-bearing housing ◆ Counterhold the internal serration of the pivot pin	20 Nm + 90°
Drive shaft to wheel hub with wheel bearing ◆ Use new screw ◆ Vehicle must not be standing on its wheels for tightening the screw	200 Nm + 180°
Holder for brake line on wheel bearing housing	15 Nm
Wheel bolts	120 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

4 Suspension strut

Installation general view of the suspension strut ⇒ [page 47](#)

Removing and installing the suspension strut ⇒ [page 47](#)

Repairing suspension strut ⇒ [page 53](#)

Inspecting the shock absorber ⇒ [page 55](#)

Disposing of the shock absorber ⇒ [page 56](#)

4.1 Installation general view of the suspension strut

1 - Shock absorber

- can be replaced separately
- Assignment ⇒ Electronic Catalogue of Original Parts
- check ⇒ [page 55](#)
- disposing of ⇒ [page 56](#)

2 - Buffer

3 - Boot

4 - Coil spring

- removing and installing ⇒ [page 53](#)
- Assignment ⇒ Electronic Catalogue of Original Parts
- The surface of the spring coil must not be damaged

5 - Axial grooved ball bearing

6 - Suspension strut bearing

- check fitting position ⇒ [page 50](#)

7 - Nut, 60 Nm

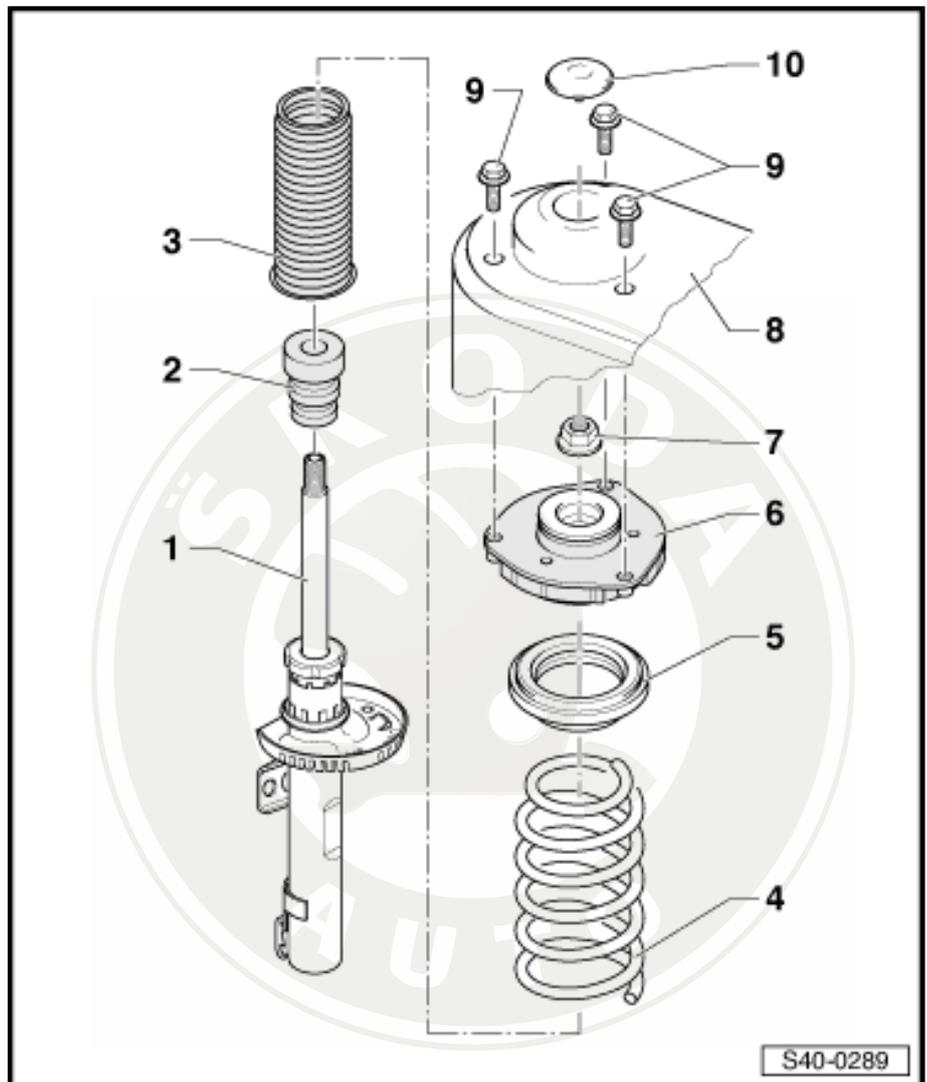
- self-locking
- replace after each removal

8 - Suspension strut dome

9 - Screw, 15 Nm + 90°

- replace after each removal

10 - Protective cap



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

4.2 Removing and installing the suspension strut

4.2.1 Removing

Special tools and workshop equipment required



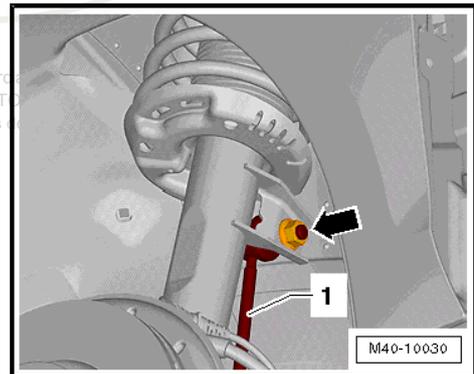
- ◆ Spreader - 3424-
- ◆ Engine/gearbox jack , e.g. -V.A.G 1383A-
- ◆ Support - T10149-
- Unscrew fixing screw of drive shaft at wheel hub => [page 38](#) .



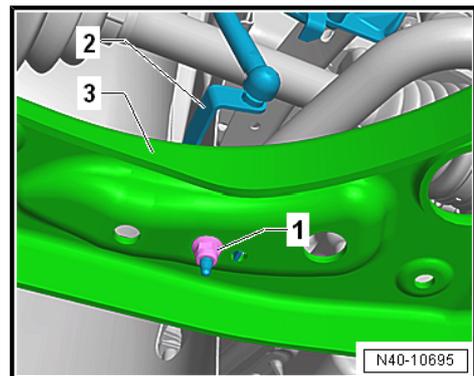
Note

- ◆ *If the fixing screw of the drive shaft is loosened more than 90°, the wheel bearings must not be loaded through the weight of the vehicle, i.e the vehicle must not stand on its wheels.*
 - ◆ *If the wheel bearings are loaded through the weight of the vehicle when the fixing screw for the drive shaft is removed, the inner wheel bearing will be damaged. This shortens the life of the wheel bearing.*
 - ◆ *If the vehicle should be positioned on its wheels or moved, pay attention to the following points: Install an outer joint instead of the drive shaft. Tighten the fixing screw (use the one which was previously removed) of the outer joint to the tightening torque of 120 Nm.*
- Remove wheel.
 - Unscrew the nut -arrow- of the coupling rod -1- from the suspension strut.

Protected by copyright. Copying for private or commercial use without the written permission of ŠKODA AUTO A. S. ŠKODA AUTO is not responsible for the correctness of information in this document.



- Unscrew the nut -1- of the front left vehicle level sensor - G78- on vehicles fitted with automatic headlight range control.

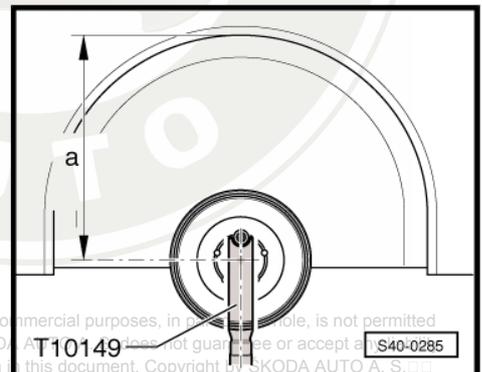
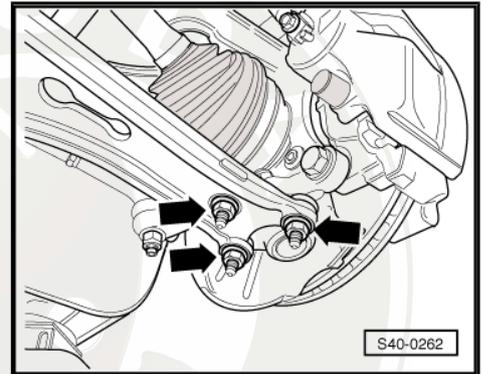


- Release fixing nuts -arrows-.
- Pull the outer joint of the drive shaft out of the wheel hub.
- Secure drive shaft with wire to body.

i Note

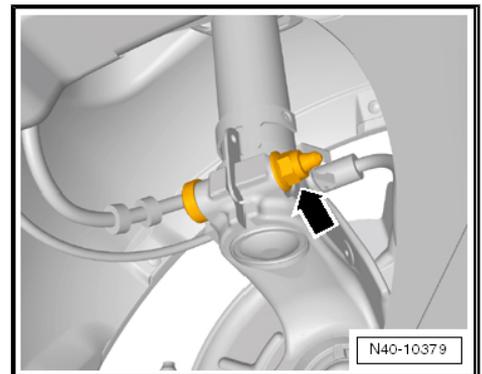
The drive shaft must not hang down, otherwise the inner joint will be damaged.

- Screw steering joint to the track control arm.
- Attach engine/gearbox jack e. g. -V.A.G 1383A- with support - T10149- to the wheel hub with a wheel bolt.

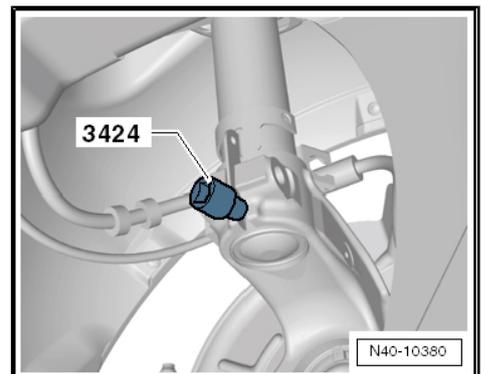


Protected by copyright. Copying for private or commercial purposes, in whole or in part, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright © ŠKODA AUTO A. S.

- Separate the screwed connection wheel-bearing housing/suspension strut -arrow-.



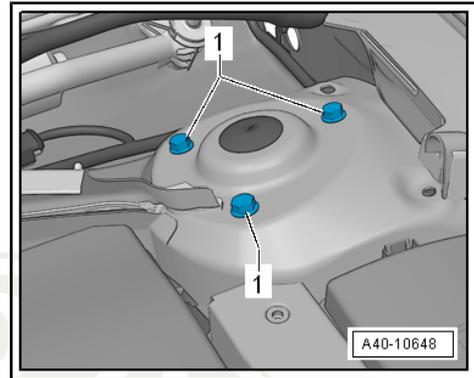
- Insert the spreader - 3424- in the slot on the wheel-bearing housing.
 - Turn ratchet with spreader - 3424- 90° and remove.
 - Press the brake disc by hand towards the suspension strut.
- Otherwise the shock absorber may tilt in the opening of the wheel-bearing housing.



- Pull wheel-bearing housing downwards away from the shock-absorber tube and lower with engine/gearbox jack e.g. -V.A.G 1383A- until the shock-absorber tube hangs free.
- Secure the wheel-bearing housing with wire.
- Remove the engine/gearbox jack e.g. -V.A.G 1383A- from underneath the wheel-bearing housing.
- Remove the cooling water tank cover => Body Work; Rep. gr. 66 .

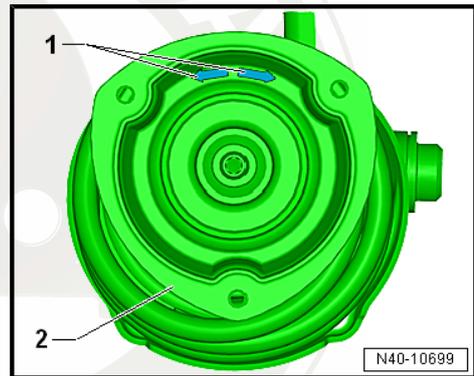


- Unscrew screws -1- for top shock-absorber fixture and take out suspension strut.



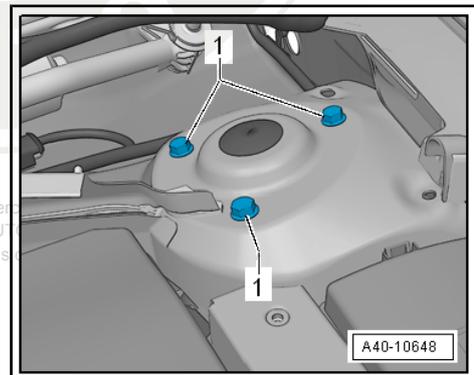
4.2.2 Install

- Insert suspension strut, while doing so one of the two markings -arrows- must point in direction of travel.



Tighten screws -1- for top shock-absorber fixture.

- Install the plenum chamber cover => Body Work; Rep. gr. 66 .

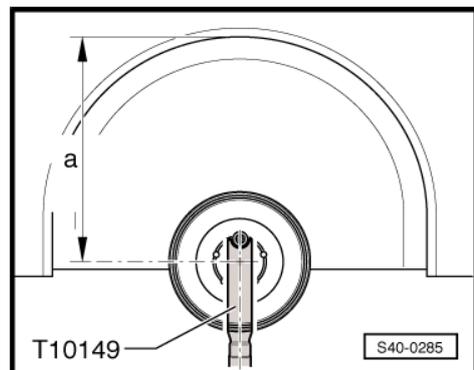


Protected by copyright. Copying for private or commercial use is prohibited without the written permission of ŠKODA AUTO A. S. ŠKODA AUTO A. S. reserves the right to change the technical specifications of the vehicle without notice. The manufacturer is not responsible for the correctness of information in this manual.

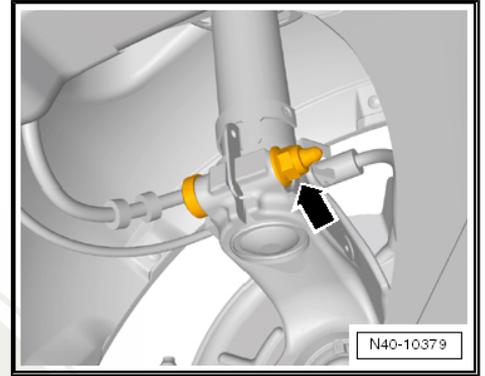
- Attach engine/gearbox jack e. g. -V.A.G 1383A- with support - T10149- to the wheel hub with a wheel bolt.
- Position the suspension strut at the wheel-bearing housing.
- Remove the wire at the wheel-bearing housing.
- Carefully raise up the wheel-bearing housing using the engine/gearbox jack to the point where the screw for the suspension strut/wheel-bearing housing can be inserted.
- When lifting, press the brake disc by hand towards the suspension strut.

Otherwise the shock absorber may tilt in the opening of the wheel-bearing housing.

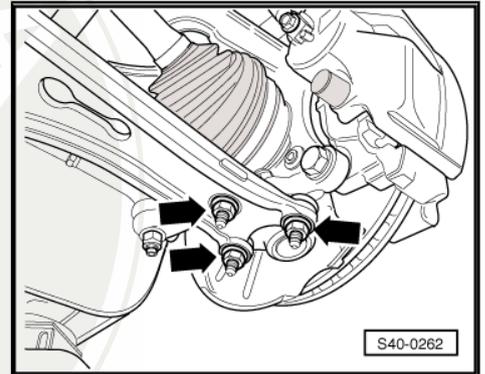
- Remove spreader - 3424- .



- Tighten the screwed connection wheel-bearing housing/suspension strut -arrow-.



- Unscrew the nuts -arrows-.
- Pull the wheel-bearing housing with steering joint out of the track control arm.
- Insert drive shaft into the wheel hub.
- Insert wheel-bearing housing with steering joint into the track control arm.
- Screw steering joint to the track control arm -arrows-.



 **Note**

Make sure the steering joint boot is neither damaged nor twisted.

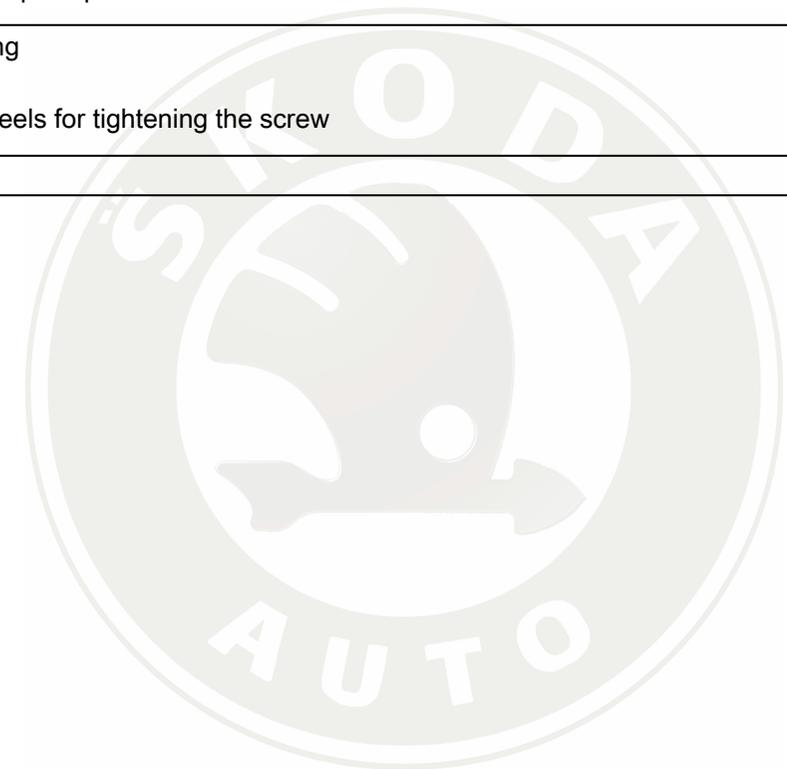
- Attach ABS speed sensor cable to the suspension strut.
- Insert coupling rod into suspension strut and tighten.
- Tighten fixing screw of drive shaft to wheel hub ⇒ [page 38](#) .
- Tighten wheel.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □



Tightening torques:

Wheel-bearing housing to suspension strut ◆ Use new nuts ◆ The tip of bolt must point in the direction of travel	70 Nm + 90°
Suspension strut to body ◆ Use new screws	15 Nm + 90°
Steering joint to track control arm	100 Nm
Coupling rod to suspension strut ◆ Use new nuts! ◆ Counterhold the internal serration of the pivot pin	65 Nm
Drive shaft to wheel hub with wheel bearing ◆ Use new screw ◆ Vehicle must not be standing on its wheels for tightening the screw	200 Nm + 180°
Wheel bolts	120 Nm



4.3 Repairing suspension strut

Special tools and workshop equipment required

- ◆ Spring tensioning device , e.g. -V.A.G 1752/1-
- ◆ Spring holder , e.g. -V.A.G 1752/5-
- ◆ Shock absorber set - T10001-

Removing the coil spring:

- Preload the coil spring with tensioning device e.g. - V.A.G 1752/1- until the top axial grooved ball bearing is released.

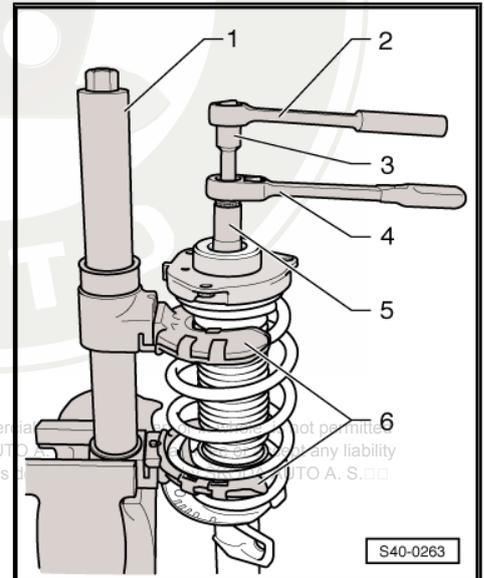
- 1- Spring tensioning device , e.g. -V.A.G 1752/1-
- 2- Torque wrench
- 3- Socket insert - T10001/8-
- 4- Ratchet - T10001/11-
- 5- Socket insert - T10001/5-
- 6- Spring holder , e.g. -V.A.G 1752/4-



WARNING

First preload the spring so that the top spring plate is relieved!

Protected by copyright. Copying for private or commercial use is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. assumes no liability for any damage or injury caused in this way.



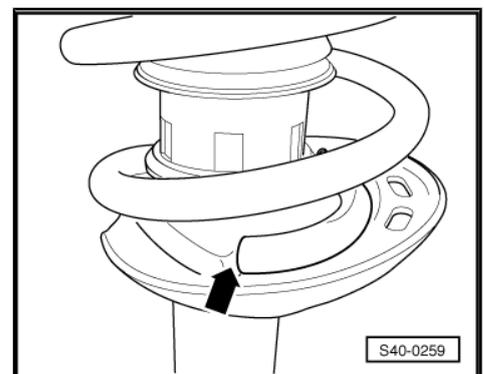
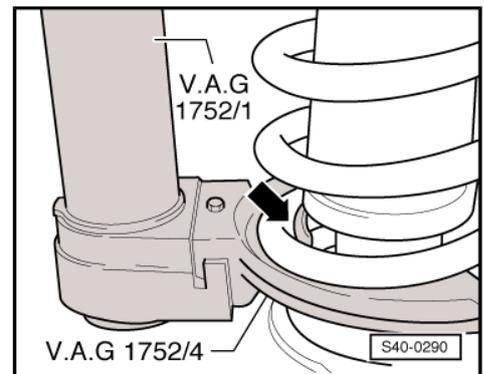
- Check correct seating of the helical spring in the spring tensioner , e.g. -V.A.G 1752/4- -arrow-.
- Unscrew nut from the piston rod.
- Remove individual parts of the suspension strut and the coil spring using the spring tensioning device , e.g. -V.A.G 1752/1- .

Installing the coil spring:

- Insert the coil spring with spring tensioner , e.g. -V.A.G 1752/1- , on the bottom spring seat.

The thread end of the helical spring must lie against the stop -arrow-.

- Tighten new nut to piston rod.
- Slacken the spring tensioning device e. g. -V.A.G 1752/1- and remove from the coil spring.
- Install suspension strut ⇒ [page 47](#) .





Tightening torque:

Suspension strut bearing to piston rod
◆ Use new nuts

60 Nm



4.4 Inspect shock absorber

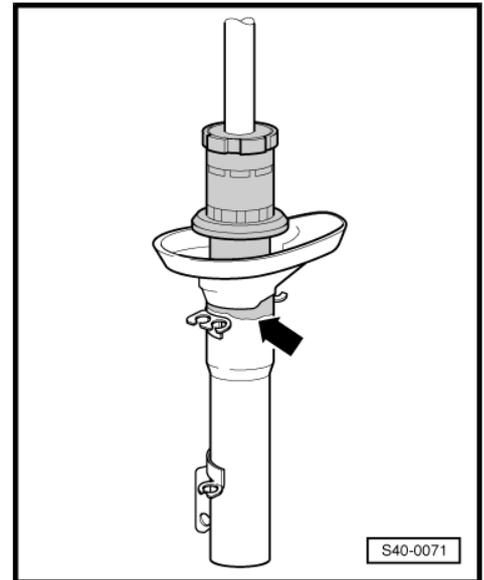
4.4.1 Leaks on the shock absorber

Minor oil leakage (sweating) on the piston rod seal does not entail the replacement of the shock absorber.

If an oil leak is visible (but blunt, dull, possibly dried by dust) and does not propagate any further than from the top shock-absorber plug (piston rod seal) to the bottom spring cap -arrow-, the shock absorber is deemed to be O.K.

Note

A slight oil leak is beneficial as the gasket is lubricated and this increases the life time. This applies for shock absorbers on the front as well as the rear axle.



4.4.2 Noises on the shock absorber

There is reason to believe that in the event of noise complaints the shock absorbers are all too often considered as the source.

Possible causes of noise may be e.g.:

- ◆ defective shock absorber
- ◆ loosened attachment of the suspension strut on the body
- ◆ defective axial grooved ball bearing
- ◆ poor operation of the suspension strut
- ◆ defective outer joint
- ◆ defective wheel bearing
- ◆ cracked welding points on body
- ◆ parts loosened, possibly overtensioned when installed (exhaust system, adapter, cover, etc.)

Note

In the event of complaints about noises interpreted as knocking or cracking noises, always first perform a test drive with the customer to determine where, when and how these noises occur (preferably on a bumpy dry road).

4.4.3 Check the shock absorber without gas pressure in the removed condition

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by SKODA AUTO A. S. SKODA AUTO A. S. shall not accept any liability with respect to the correctness of information in this document. Copyright by SKODA AUTO A. S. 2013

Defective shock absorbers become noticeable while driving because of the knocking noises caused by wheel hopping, more specifically on poor road surfaces and they must be replaced. The failure is mainly caused by the loss of oil. The shock absorber



then compresses and/or expands in jolts. It exhibits "idle", before it begins to operate.



Note

The shock absorbers are maintenance-free. It is not possible to top up the shock absorber oil.

4.4.4 Check the shock absorber with gas pressure in the removed condition

Defective shock absorbers with gas pressure are also noticeable because of loud knocking noises caused by wheel hopping and externally usually exhibit considerable oil leakage.

Manual testing, as described, can determine if the shock absorber is damaged or not:

- Compress the shock absorber by hand.
- The piston rod must move evenly over the entire stroke without jolting.
- Release the piston rod. On sufficiently pressurized shock absorbers it will automatically return to its original position.

If this is not the case, the shock absorber need not necessarily be replaced, as it will still operate as a conventional shock absorber (see instructions below).



Note

- ◆ *The absorbing function is still fully present without sufficient gas pressure as long as the oil leakage is not too large. However, the noise level may increase. On older vehicles it is possible to continue using an operational yet pressureless shock absorber without problem.*
- ◆ *Adequate gas pressure in the shock absorber improves the noise behaviour and function when driving over poor road surfaces.*

4.5 Disposing of the shock absorber

Special tools and workshop equipment required

- ◆ Drill Ø 3 mm (commercially available)
- ◆ Drill Ø 6 mm (commercially available)
- ◆ Safety goggles (commercially available)
- ◆ Oil catch container (commercially available)

4.5.1 Degassing the front and rear pressurized gas strut

Variant A: Degas by drilling out

- I - Front pressurized gas strut
- II - Rear pressurized gas strut
- Clamp the pressurized gas strut vertically in the vice in such a way that the piston points downwards.



Caution

Use safety goggles when drilling.

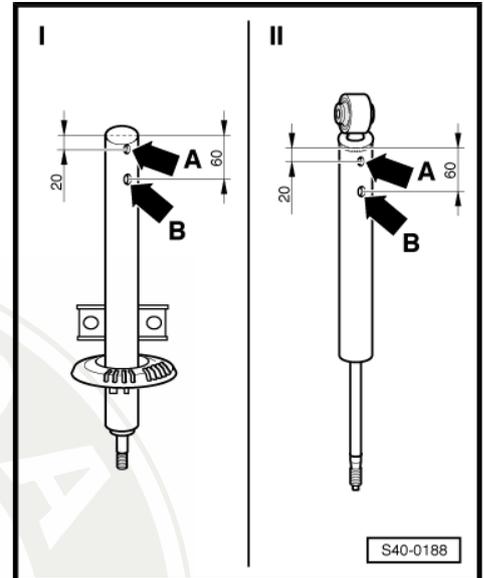
- Drill a hole \varnothing 3 mm -arrow A- through the outer pipe of the shock absorber.



Note

Gas will escape during drilling.

- Drill further until the inner pipe of the shock absorber has been drilled through (approx. 25 mm deep).
- Drill a second hole \varnothing 6 mm -arrow B- through the outer and inner shock absorber pipes.
- Hold the shock absorber over an oil catch container and move the piston rod up and down over its entire stroke until no more oil escapes.



5 Track control arm

Summary of components of the track control arm ⇒ [page 58](#)

Removing and installing the track control arm ⇒ [page 59](#)

Removing and installing the steering joint ⇒ [page 62](#)

Inspecting the steering joint ⇒ [page 65](#)

Replacing front rubber-metal bearing for track control arm
⇒ [page 65](#)

Replacing rear rubber-metal bearing for track control arm
⇒ [page 67](#)

Removing and installing front left vehicle level sensor -G78-
⇒ [page 68](#)

5.1 Summary of components of the track control arm

1 - Wheel-bearing housing

- different versions
- Assignment: ⇒ Electronic Catalogue of Original Parts
- removing and installing ⇒ [page 41](#)

2 - Nut, 60 Nm

- replace after each removal

3 - Steering joint

- removing and installing ⇒ [page 62](#)
- check ⇒ [page 65](#)
- Check fitting position ⇒ [page 59](#)

4 - Nut, 100 Nm

- replace after each removal

5 - Track control arm

- removing and installing ⇒ [page 59](#)

6 - Front rubber-metal bearing

- replace ⇒ [page 65](#)

7 - Screw, 70 Nm + 180°

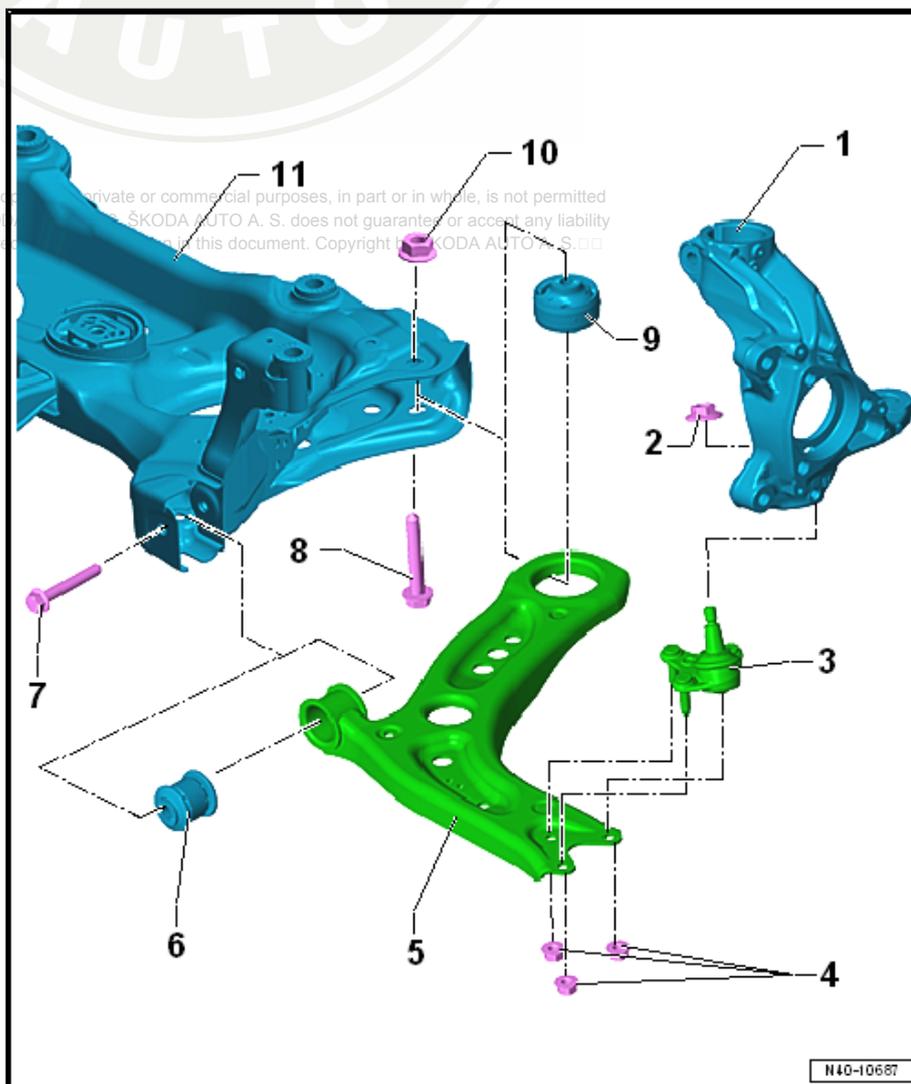
- replace after each removal
- tighten in unladen weight position ⇒ [page 1](#)

8 - Screw, 70 Nm + 180°

- replace after each removal

9 - Rear rubber-metal bearing

- replace ⇒ [page 67](#)



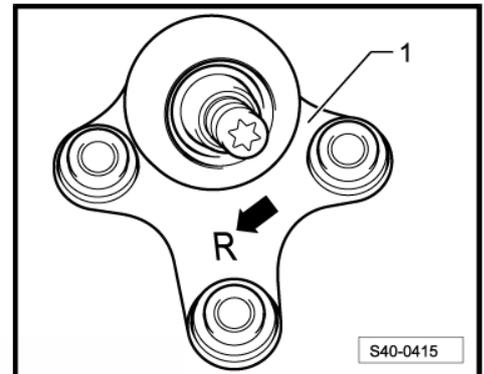
10 - Nut

11 - Assembly carrier

Fitting position according to the identification -arrow- on the steering joint

R - means right

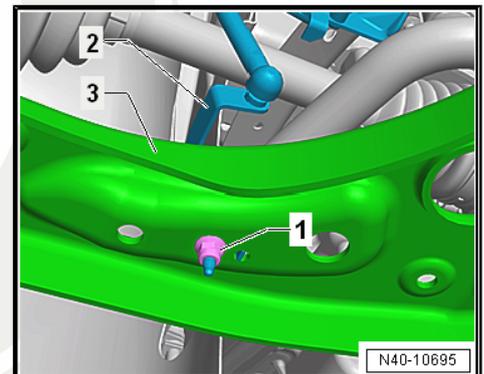
L - means left



5.2 Removing and installing the track control arm

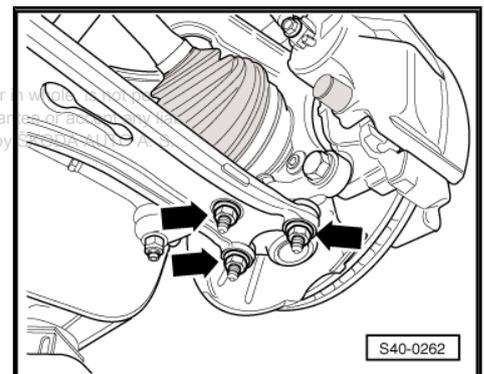
Removing:

- Remove wheel.
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .
- Unscrew the nut -1- of the front left vehicle level sensor - G78- on vehicles fitted with automatic headlight range control.



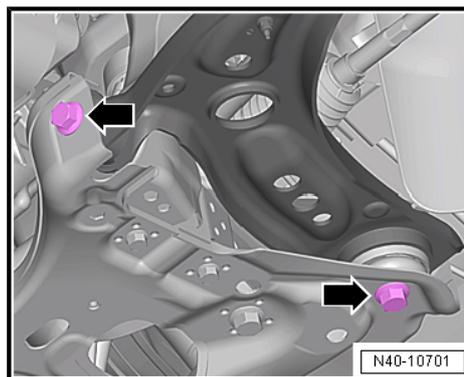
- Unscrew the nuts -arrows-.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is prohibited unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee the accuracy or appropriateness of the information with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.





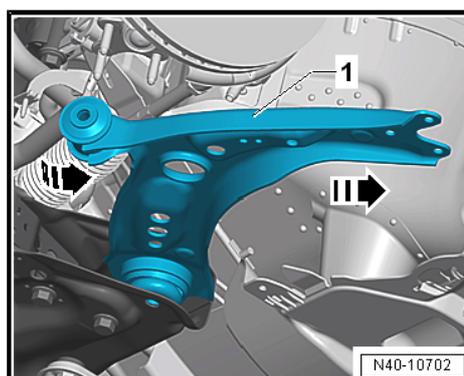
- Release screws -arrows-.
- Counterhold the rear screw nut on the top side of the assembly carrier using a wrench.



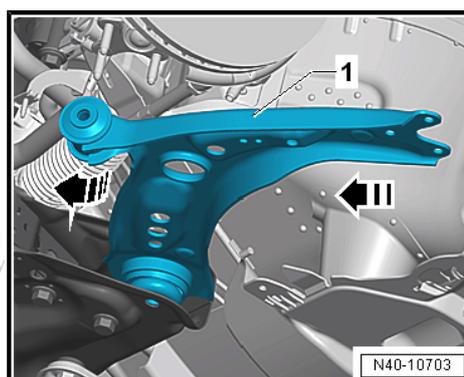
- Turn the track control arm out of the assembly carrier -in direction of arrow- and remove it.

Installing:

Installation is carried out in the reverse order.

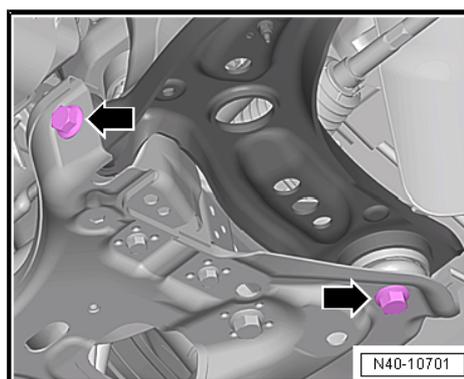


- Insert the track control arm -1- into the rear assembly carrier.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. 2013

- Insert screws -arrows-.
- Screw in new rear screw nut, but do not tighten yet.
- Move the vehicle into the unladen weight position => [page 1](#) .
- Tighten screws of track control arm -arrows-.
- If present, install the coupling rod for the front left vehicle level sensor - G78- on the track control arm (left side).
- Install the noise insulation => Body Work; Rep. gr. 50 .
- Attach the wheel.
- Perform a test drive.
- Check the steering wheel position during the test drive.



Note

If after the test drive and with the wheels pointing straight ahead the steering wheel is off straight, perform an axle alignment => [page 234](#) .



Tightening torques:

Steering joint to track control arm	100 Nm
Track control arm to assembly carrier	70 Nm + 180°
Wheel bolts	120 Nm
Coupling rod for front left vehicle level sensor - G78- to track control arm	8 Nm



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

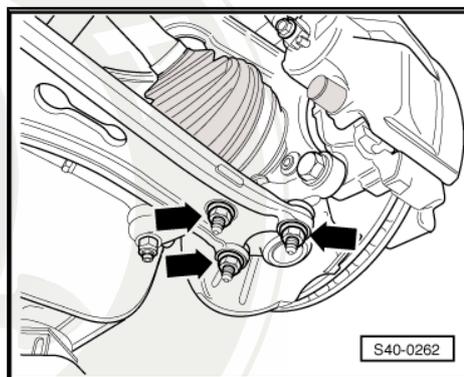
5.3 Removing and installing the steering joint

Special tools and workshop equipment required

- ◆ Ball joint extractor - 3287A-
- ◆ Engine/gearbox jack , e.g. -V.A.G 1383A -

Removing:

- Remove fixing screw of drive shaft at wheel hub => [page 38](#) .
- Remove wheel.
- Remove the coupling rod of the front left vehicle level sensor - G78- from the track control arm on vehicles fitted with automatic headlight range control (left side) => [page 68](#) .
- Unscrew the nuts -arrows-.
- Slightly pull the drive shaft out of the wheel-bearing housing.
- Pull the steering joint out of the track control arm.
- Bend the track control arm as far as necessary downwards.
- Slacken the nut of the steering joint and partially unscrew.

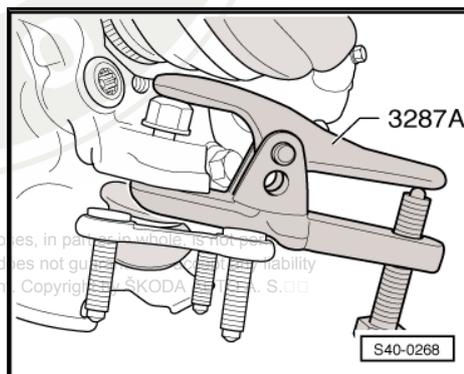


- Place the ball joint extractor - 3287A- as shown in the figure and push out the steering joint.



Note

- ◆ *Pay attention: danger of accident when pushing out the steering joint. When loosening the pivot bolt, the balljoint separator - 3287A- may fall. To prevent this, place a wooden plate underneath the engine/gearbox jack , e. g. -V.A.G 1383A - .*
- ◆ *To protect the thread, only partially unscrew the nut of the steering joint, in order to position the ball joint extractor - 3287A- .*



Installing:

- Insert steering joint in the wheel-house bearing. Note installation position => [page 59](#) .
- Screw on and tighten new self locking nut of steering joint.
- Insert drive shaft back into the wheel-bearing housing.



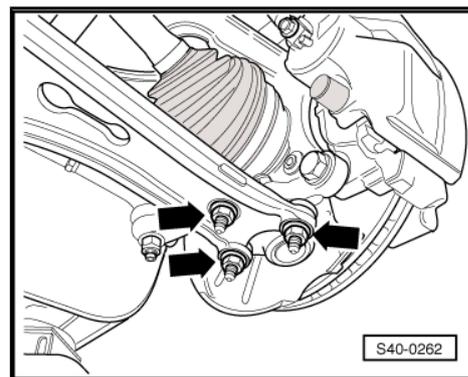
- Tighten the nuts -arrows-.
- On vehicles fitted with automatic headlight range control, install the coupling rod of the front left vehicle level sensor - G78- on the track control arm (left side) ⇒ [page 68](#) .



Note

Make sure the steering joint boot is neither damaged nor twisted.

- Tighten fixing screw of drive shaft to wheel hub ⇒ [page 38](#) .
- Tighten wheel.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



Tightening torques:

Steering joint to wheel-bearing housing ◆ Use new nuts	60 Nm
Steering joint to track control arm	100 Nm
Drive shaft to wheel hub with wheel bearing ◆ Use new screw ◆ Vehicle must not be standing on its wheels for tightening the screw	200 Nm + 180°
Wheel bolts	120 Nm
Front left vehicle level sensor - G78- at track control arm	8 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

5.4 Inspecting the steering joint

Inspecting axial play

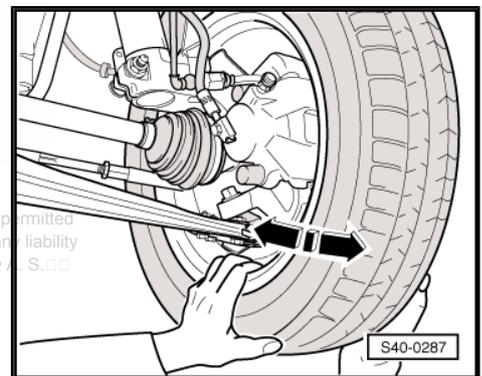
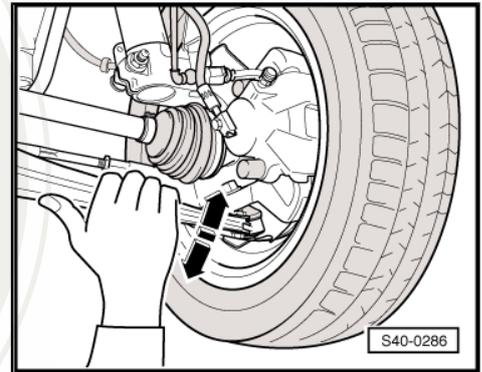
- Pull the track control arm down with force and push up again.

Inspecting radial play

- Forcefully push the wheel at the bottom towards the inside and the outside.

Note

- ◆ For these two tests no “play” may be felt or be visible.
- ◆ Observe the steering joint during the tests.
- ◆ Take into account possible wheel bearing play or “play” in top suspension strut bearing.
- ◆ Check rubber boot for damage and renew swivel joint if necessary.



5.5 Replacing front rubber-metal bearing for track control arm

Special tools and workshop equipment required

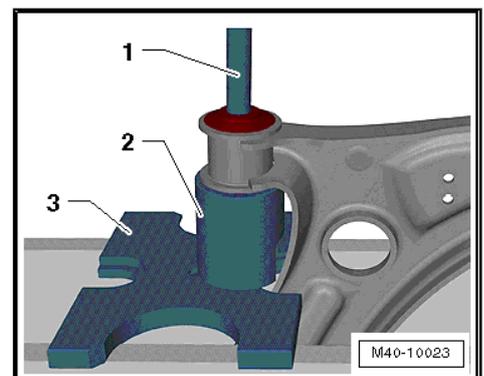
- ◆ Pressure plate - MP3-407 (VW 402)-
- ◆ Pressure spindle - MP6-405 (VW 411)-
- ◆ Pipe section - T10219/1-
- ◆ Drift - T10219/2-
- ◆ Pressure spindle - MP3-408 (VW 412)-
- Removing the track control arm ⇒ [page 59](#)

Removing front rubber-metal bearing

- Pull out rubber-metal bearing as shown.
- 1 - Pressure spindle - MP6-405 (VW 411)-
- 2 - Pipe section - T10219/1-
- 3 - Pressure plate - MP3-407 (VW 402)-

Installing front rubber-metal bearing

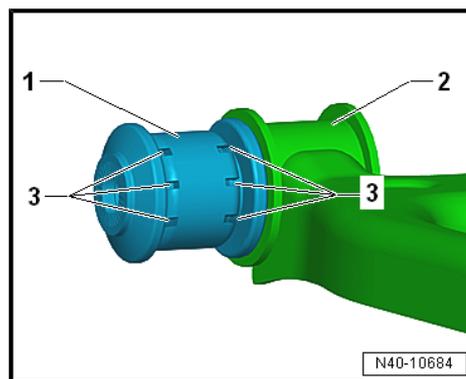
In order not to damage the rubber-metal bearing when inserting it, it must be positioned at an angle. During the press-in procedure the rubber-metal bearing straightens.



- Observe the fitting position of the rubber-metal bearing -1- to the track control arm -2-.

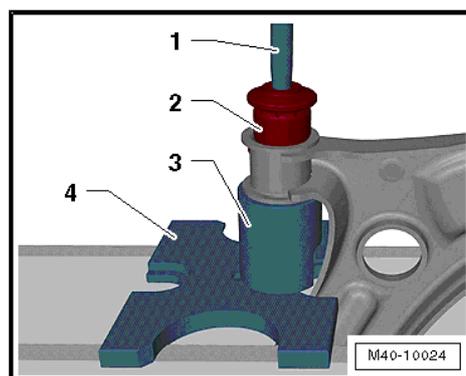
The grooves -3- must point to the track control arm -2- as shown.

- Apply assembly sliding oil - G 294 421 A1- to the outside of the rubber-metal bearing.

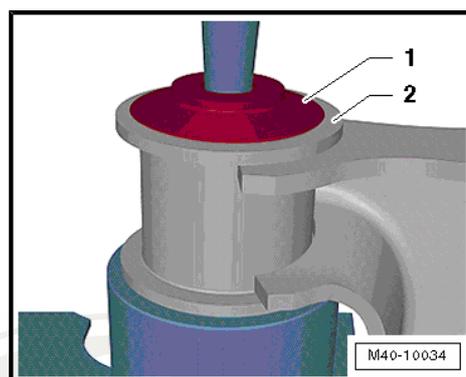


- Position the rubber-metal bearing at an angle (in direction of track control arm), at the same time the lip must slide into the hole.

- 1 - Drift - T10219/2-
- 2 - Rubber-metal bearing
- 3 - Pipe section - T10219/1-
- 4 - Pressure plate - MP3-407 (VW 402)-

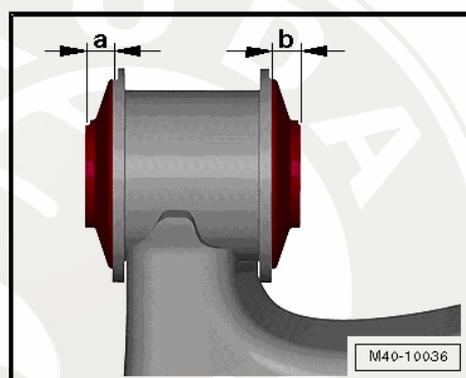


- Insert the core of the rubber-metal bearing -1- into the hole of the track control arm -2-.

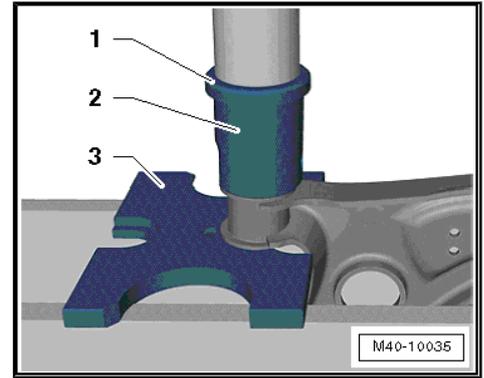


Dimensions -a- and -b- must be identical.

If the dimensions -a- and -b- are not identical:



- Slightly pull back the bearing from the track control arm.
- 1 - Pressure spindle - MP3-408 (VW 412)-
- 2 - Pipe section - T10219/1-
- 3 - Pressure plate - MP3-407 (VW 402)-
- Installing the track control arm ⇒ [page 59](#)
- Perform a test drive.
- Check the steering wheel position during the test drive.



i Note

If after the test drive and with the wheels pointing straight ahead the steering wheel is off straight, perform an axle alignment ⇒ [page 234](#).

5.6 Replacing the rear rubber-metal bearing for track control arm

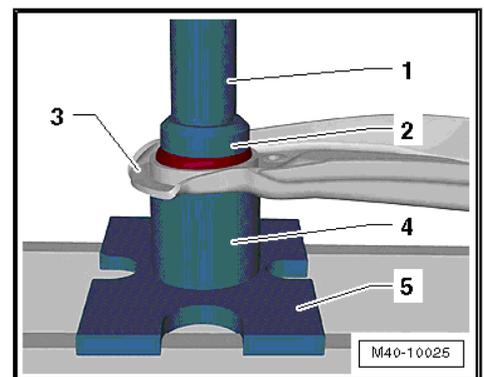
- Removing the track control arm ⇒ [page 59](#)

Special tools and workshop equipment required

- ◆ Pressure spindle - MP3-423 (VW 407)-
- ◆ Assembly device - T30016 (3348)-
- ◆ Pipe - T30019 (3345)-
- ◆ Pressure plate - MP3-407 (VW 402)-
- ◆ Pressure spindle - MP3-408 (VW 412)-
- ◆ Pressure element - T10453-

Removing rear rubber-metal bearing

- Pull out rubber-metal bearing as shown.
- 1 - Pressure spindle - MP3-423 (VW 407)-
- 2 - Assembly device - T30016 (3348)-
- 3 - Arm of wheel suspension - the hole in the arm of the wheel suspension must point upwards
- 4 - Pipe - T30019 (3345)-
- 5 - Pressure plate - MP3-407 (VW 402)-

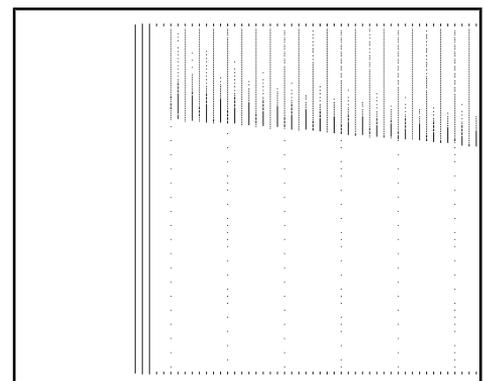


Fitting position of the rear bearing in the arm of the wheel suspension.

Insert the rubber-metal bearing in such a way that the arrow of the bearing points between the set of markings -arrows A- on the arm of the wheel suspension.

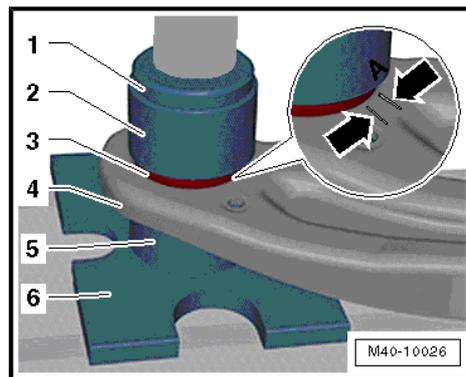
The shoulder -arrow B- must always point to the outside of the vehicle.

Insert the rubber-metal bearing.





- Insert rubber-metal bearing as shown.
- 1 - Pressure spindle - MP3-408 (VW 412)-
- 2 - Pressure element - T10453- - the marking -A- on the pressure element must point to the markings -arrows- on the arm
- 3 - Rubber-metal bearing
- 4 - Arm of wheel suspension - the hole in the arm of the wheel suspension must point downwards
- 5 - Pipe - T30016-
- 6 - Pressure plate - MP3-407 (VW 402)-



Note

Insert the rubber-metal bearing in such a way that the pressure element - T10453- rests against the arm of the wheel suspension.

- Installing the track control arm => [page 59](#)
- Perform a test drive.
- Check the steering wheel position during the test drive.



Note

If after the test drive and with the wheels pointing straight ahead the steering wheel is off straight, perform an axle alignment => [page 234](#) .

5.7 Removing and installing front left vehicle level sensor -G78-

The sensor must not be mechanically adjusted.

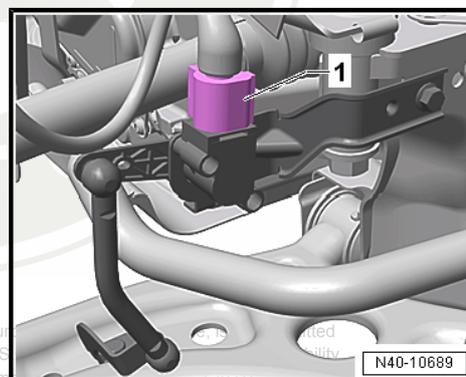
Removing:



Note

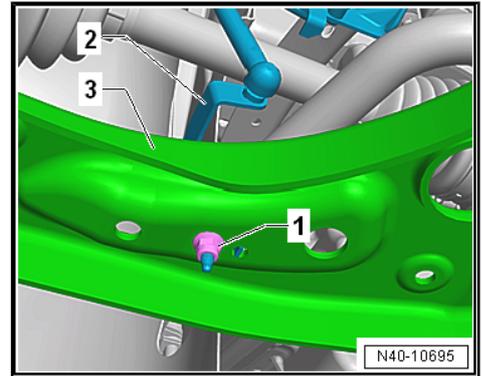
The axle in the illustration is removed for purposes of clear presentation.

- Disconnect the plug connection -1- on the front left vehicle level sensor.



Protected by copyright. Copying for private or commercial purposes without the written permission of ŠKODA AUTO A. S. ŠKODA AUTO A. S. is prohibited. We accept no responsibility for the correctness of information in this document.

- Unscrew nut -1- from track control arm (different versions).
- Pull the bracket -2- for the sensor out of the track control arm -3-.



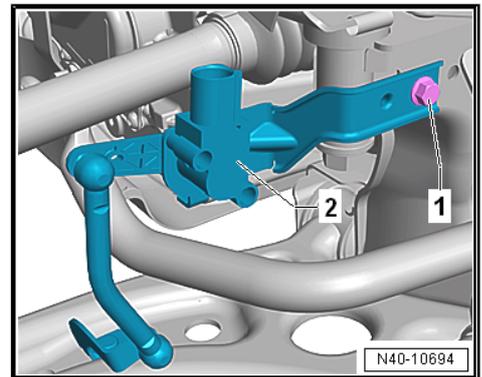
- Release screw -1- from assembly carrier and remove sender.

Installing:

Installation is carried out in the reverse order.

After installing:

- Undertake the basic setting for beam range regulation ⇒ Vehicle diagnostic tester.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



Tightening torques:

Front left vehicle level sensor - G78- to assembly carrier	8 Nm
Front left vehicle level sensor - G78- at track control arm	8 Nm



6 Repairing the drive shafts

Overview of the drive shafts ⇒ [page 71](#)

Removing and installing drive shaft with CV joint ⇒ [page 77](#)

Removing and installing drive shaft with inner grip joint
⇒ [page 80](#)

Dismantle the drive shaft VL 100 -, assemble, check
⇒ [page 83](#)

Dismantle the drive shaft VL 107 -, assemble, check
⇒ [page 91](#)

Dismantle the drive shaft AAR3300i-, assemble, check
⇒ [page 101](#)

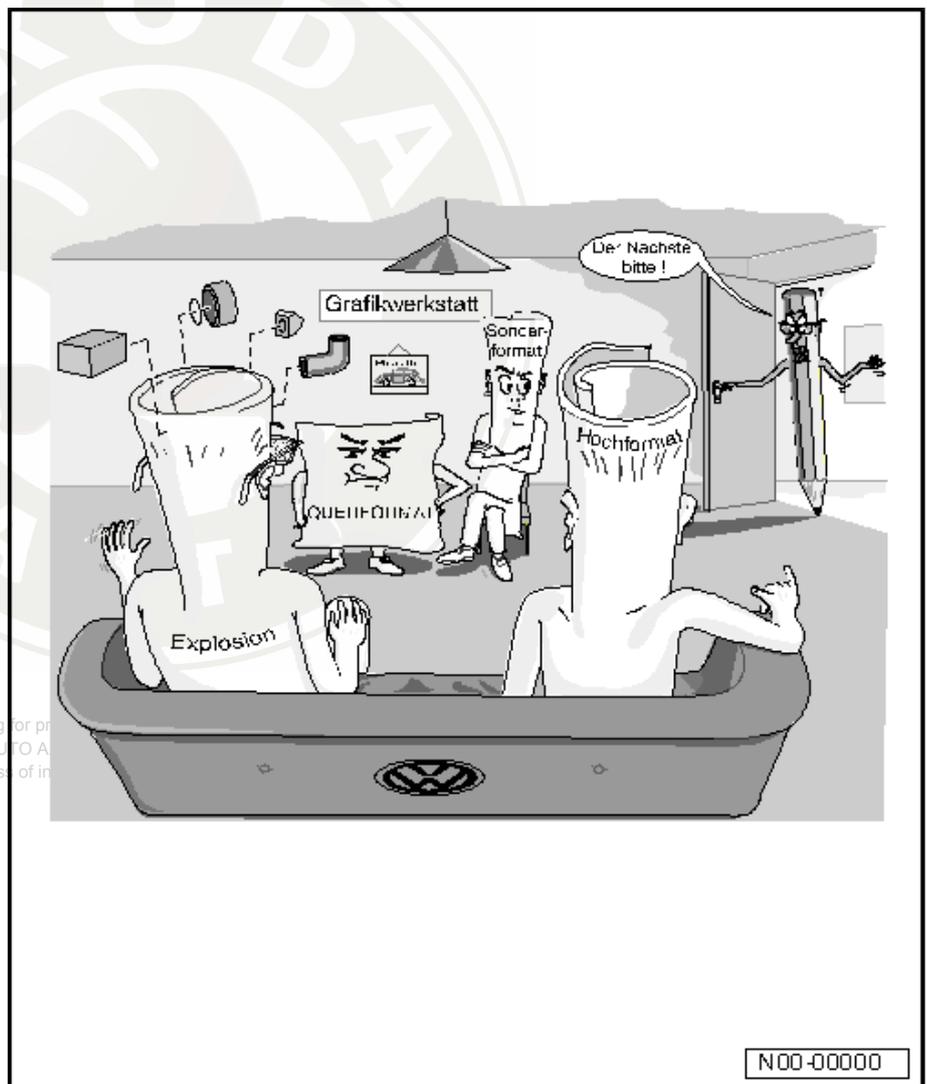
Designation, distinguish the diameter as specified and grease
quantity for joints ⇒ [page 108](#)

6.1 Overview of the drive shafts

I - Summary of components:
Drive shaft with inner CV joint
VL100 ⇒ [page 72](#)

II - Summary of components:
Drive shaft with inner CV joint
VL107 ⇒ [page 74](#)

III - Summary of components:
Drive shaft with inner tripod
joint AAR3300i ⇒ [page 76](#)



Protected by copyright. Copying for private use is permitted without prior permission, unless authorised by SKODA AUTO A.S. with respect to the correctness of information.

6.1.1 Summary of components: Drive shaft with inner CV joint VL100



Note

- ◆ Before removing the joints and the joint boots, thoroughly clean their surroundings.
- ◆ When disassembling the joint, remove the old lubricant and any dirt present.
- ◆ Clean the joint with great care.
- ◆ Dispose of old lubricant and cleaning agent in compliance with the applicable regulations.
- ◆ Place removed and cleaned parts on a clean surface and if necessary cover. Do not use fuzzy cloths!
- ◆ Carefully cover removed parts if the repair is not completed immediately.
- ◆ Only install clean components: Remove spare parts from their wrapping immediately before fitting. Do not use any parts which have been stored unwrapped (e.g. on a shelf or in a tool box).

1 - Outer CV joint complete

- must be replaced completely

2 - Screw

- removing and installing
⇒ [page 38](#)
- replace after each removal

3 - Right drive shaft

4 - Open warm-type clamp

- replace after each removal

5 - Joint boot

- inspect for tears and chafing points
- Assignment ⇒ Electronic Catalogue of Original Parts

6 - Open warm-type clamp

- replace after each removal

7 - Disc spring

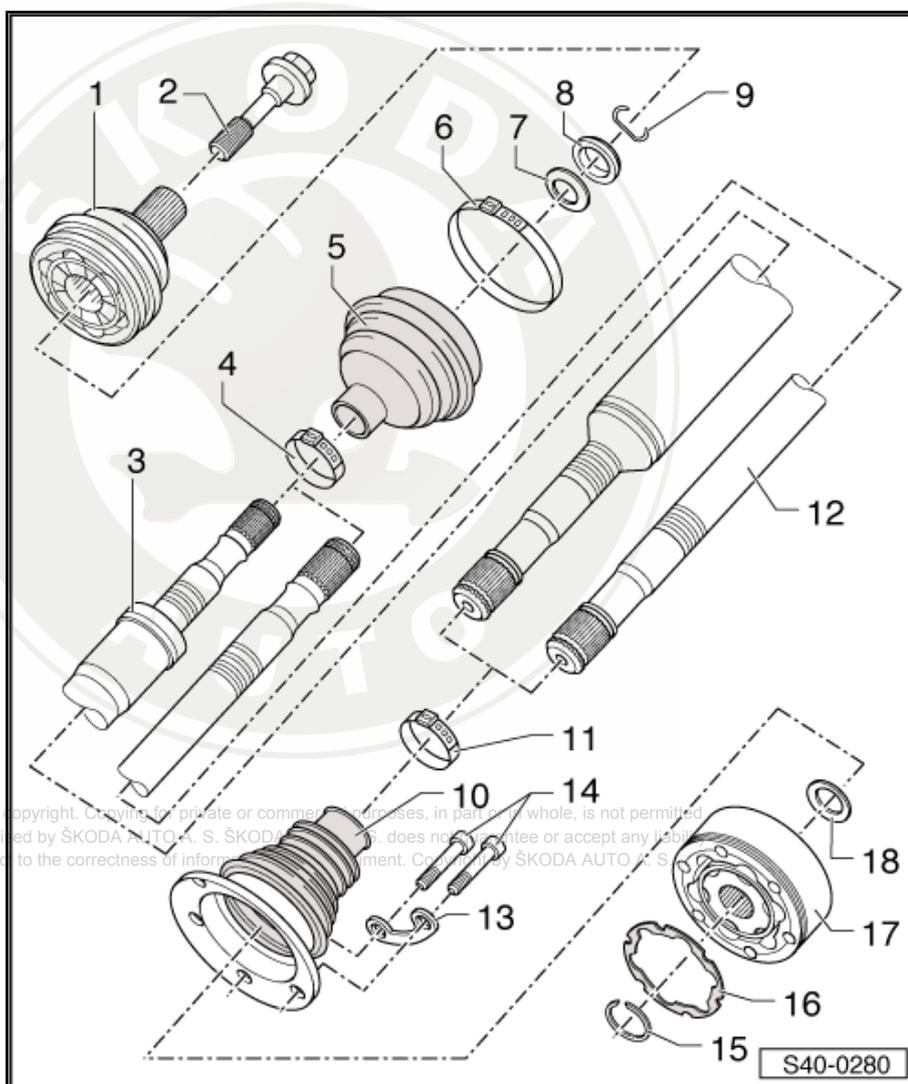
8 - Thrust ring

9 - Circlip

- replace after each removal
- insert in the shaft groove

10 - Joint boot for inner CV joint

- with sheet metal cover
- without ventilation hole
- inspect for tears and chafing points
- remove from CV joint with drift
- before the installation on the joint, cover the sealing surface with -D 454 300 A2-
- Assignment ⇒ Electronic Catalogue of Original Parts





11 - Open warm-type clamp

- replace after each removal

12 - Left drive shaft

13 - Washer

14 - Screw, 40 Nm

- replace after each removal
- first of all pre-tighten all screws crosswise to 10 Nm and subsequently tighten the screws crosswise to final torque
- M8 x 48

15 - Circlip

- remove and install e.g. with circlip pliers - VW 161A-

16 - Gasket

- The adherend must be free of grease and oil
- replace after each removal
- Pull off protective foil and stick in joint
- Assignment ⇒ Electronic Catalogue of Original Parts

17 - Inner CV joint

- must be replaced completely

18 - Disc spring

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

6.1.2 Summary of components: Drive shaft with inner CV joint VL107



Note

- ◆ Before removing the joints and the joint boots, thoroughly clean their surroundings.
- ◆ When disassembling the joint, remove the old lubricant and any dirt present.
- ◆ Clean the joint with great care.
- ◆ Dispose of old lubricant and cleaning agent in compliance with the applicable regulations.
- ◆ Place removed and cleaned parts on a clean surface and if necessary cover. Do not use fuzzy cloths!
- ◆ Carefully cover removed parts if the repair is not completed immediately.
- ◆ Only install clean components: Remove spare parts from their wrapping immediately before fitting. Do not use any parts which have been stored unwrapped (e.g. on a shelf or in a tool box).

1 - Screw

- removing and installing
⇒ [page 38](#)
- replace after each removal

2 - Outer CV joint complete

- must be replaced completely
- Assignment ⇒ Electronic Catalogue of Original Parts

3 - Circlip

- replace after each removal
- insert in the shaft groove

4 - Open warm-type clamp

- replace after each removal

5 - Joint boot

- inspect for tears and chafing points
- Assignment ⇒ Electronic Catalogue of Original Parts

6 - Open warm-type clamp

- replace after each removal

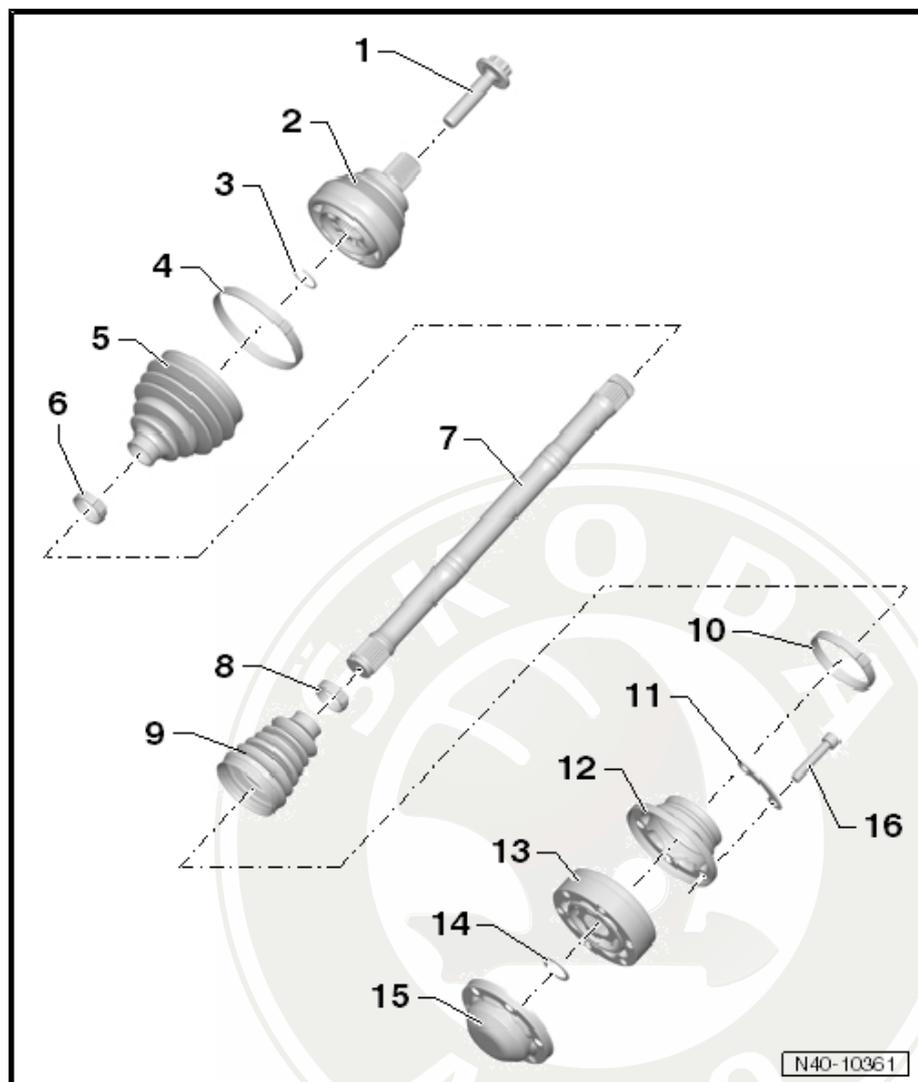
7 - Drive shaft

8 - Open warm-type clamp

- replace after each removal

9 - Joint boot for inner CV joint

- without ventilation hole
- inspect for tears and chafing points
- Assignment ⇒ Electronic Catalogue of Original Parts





10 - Open warm-type clamp

- replace after each removal

11 - Washer

12 - Cap

- carefully remove with a drift
- before the installation on the joint, cover the sealing surface with -D 454 300 A2-
- The adherend must be free of grease and oil!

13 - Inner CV joint

- must be replaced completely

14 - Circlip

- replace after each removal
- insert in the shaft groove

15 - Screw cap

- replace after each removal
- drive out of the CV joint with a drift

16 - Screw, 70 Nm

- replace after each removal
- first of all pre-tighten all screws crosswise to 10 Nm and subsequently tighten the screws crosswise to final torque
- M10 x 52



6.1.3 Summary of components: Drive shaft with inner tripod joint AAR3300i



Note

- ◆ Before removing the joints and the joint boots, thoroughly clean their surroundings.
- ◆ When disassembling the joint, remove the old lubricant and any dirt present.
- ◆ Clean the joint with great care.
- ◆ Dispose of old lubricant and cleaning agent in compliance with the applicable regulations.
- ◆ Place removed and cleaned parts on a clean surface and if necessary cover. Do not use fuzzy cloths!
- ◆ Carefully cover removed parts if the repair is not completed immediately.
- ◆ Only install clean components: Remove spare parts from their wrapping immediately before fitting. Do not use any parts which have been stored unwrapped (e.g. on a shelf or in a tool box).

1 - CV joint complete

- must be replaced completely

2 - Screw

- removing and installing ⇒ [page 38](#)
- replace after each removal

3 - Circlip

- replace after each removal
- insert in the shaft groove

4 - Thrust ring

5 - Disc spring

6 - Open warm-type clamp

- replace after each removal

7 - Joint boot for inner CV joint

- inspect for tears and chafing points
- Assignment ⇒ Electronic Catalogue of Original Parts

8 - Open warm-type clamp

- replace after each removal

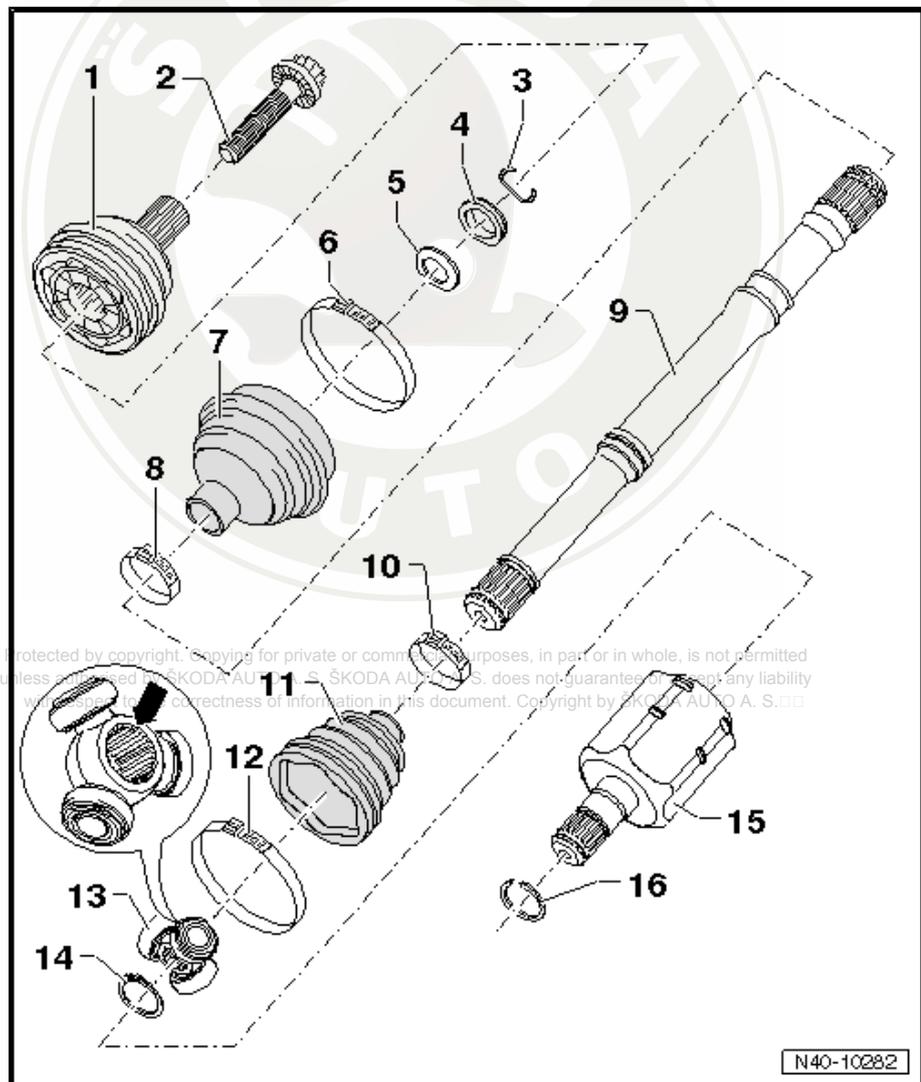
9 - Drive shaft

10 - Open warm-type clamp

- replace after each removal
- tighten, for example, using hose binding claw - V.A.G 1275-

11 - Joint boot for tripod joint

- inspect for tears and chafing points
- Assignment ⇒ Electronic Catalogue of Original Parts





12 - Open worm-type clamp

- replace after each removal
- tighten, for example, using hose binding clamp - V.A.G 1275-

13 - Tripod spider with rollers

- the chamfer -arrow- points towards the drive shaft serration

14 - Circlip

- replace after each removal
- insert with circlip pliers into the groove of the shaft

15 - Joint part with intermediate shaft

- for the right vehicle side

16 - Circlip

- replace after each removal
- insert with circlip pliers into the groove of the shaft

6.2 Removing and installing a drive shaft with CV joint

Removing:

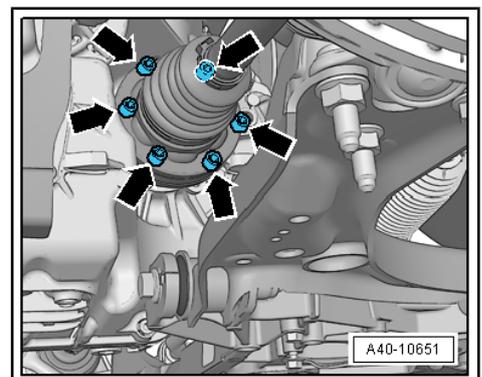
- Unscrew fixing screw of drive shaft at wheel hub ⇒ [page 38](#) .



Note

Copying for private or commercial purposes, in part or in whole, is not permitted without the written permission of ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.

- ◆ *If the fixing screw of the drive shaft is loosened more than 90°, the wheel bearings must not be loaded through the weight of the vehicle, i.e the vehicle must not stand on its wheels.*
 - ◆ *If the wheel bearings are loaded through the weight of the vehicle when the fixing screw for the drive shaft is removed, the inner wheel bearing will be damaged. This shortens the life of the wheel bearing.*
 - ◆ *If the vehicle should be positioned on its wheels or moved, pay attention to the following points: Install an outer joint instead of the drive shaft. Tighten the fixing screw (use the one which was previously removed) of the outer joint to the tightening torque of 120 Nm.*
- Remove wheel.
 - Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .
 - If present, remove the protection plate for the inner joint.
 - Unscrew drive shaft bolts -arrows- from gearbox flange.



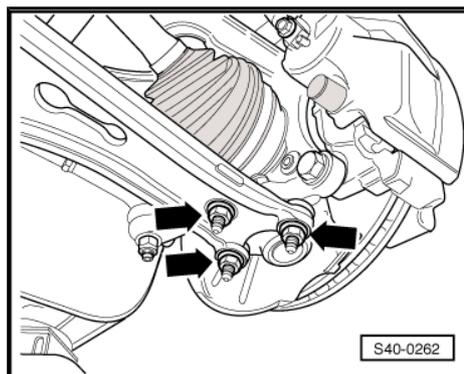


- Unscrew the nuts -arrows-.
- Pull the wheel-bearing housing with steering joint out of the track control arm.
- Pull the drive shaft out of the wheel hub.

Installing:

Remove possible paint and/or corrosion residue from the thread/ the serration of the outer joint

- Guide outer joint into wheel hub splines as far as possible.



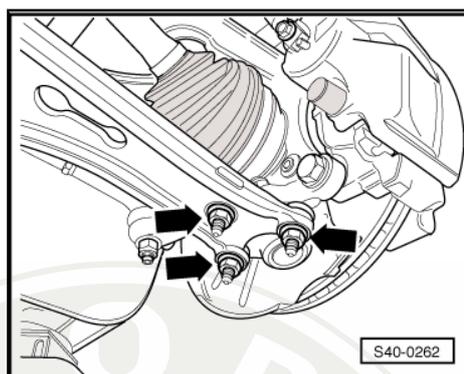
- Screw steering joint to the track control arm -arrows-.



Note

Make sure the steering joint boot is neither damaged nor twisted.

- Position the inner joint of the drive shaft and tighten new screws to 10 Nm crosswise.



Note

Use new washers and new screws.

- Tighten the screws with internal serrations crosswise according to the specified torque.
- Remove drift shaft protector (if present).
- Install the noise insulation ⇒ Body Work; Rep. gr. 50 .
- Tighten fixing screw of drive shaft to wheel hub ⇒ [page 38](#) .



Note

At the same time the vehicle must not be standing on its wheels, otherwise the wheel bearing will be damaged.

- Tighten wheel.



Tightening torques:

Drive shaft to wheel hub with wheel bearing ♦ Use new screw ♦ Vehicle must not be standing on its wheels for tightening the screw	200 Nm + 180°
Drive shaft to gearbox mounting flange ♦ First of all pre-tighten to 10 Nm crossways ♦ Use new screws!	Tighten crosswise! M8 = 40 Nm M10 = 70 Nm
Steering joint to track control arm ♦ Track control arm made of steel sheet	100 Nm
Drive shaft protector	25 Nm
Wheel bolts	120 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



6.3 Removing and installing drive shaft with inner grip joint

Special tools and workshop equipment required

- ◆ Wedge - T10161-

Removing:

- Unscrew fixing screw of drive shaft at wheel hub ⇒ [page 38](#) .

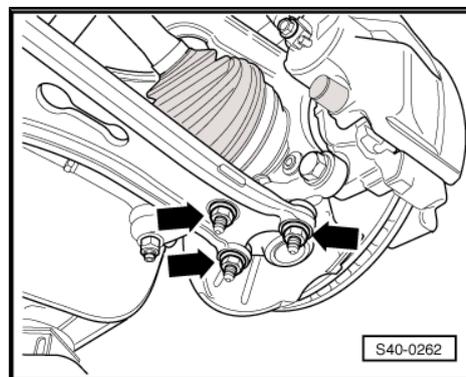


Note

- ◆ *If the fixing screw of the drive shaft is loosened more than 90°, the wheel bearings must not be loaded through the weight of the vehicle, i.e the vehicle must not stand on its wheels.*
- ◆ *If the wheel bearings are loaded through the weight of the vehicle when the fixing screw for the drive shaft is removed, the inner wheel bearing will be damaged. This shortens the life of the wheel bearing.*
- ◆ *If the vehicle should be positioned on its wheels or moved, pay attention to the following points: Install an outer joint instead of the drive shaft. Tighten the fixing screw (use the one which was previously removed) of the outer joint to the tightening torque of 120 Nm.*

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. ☐

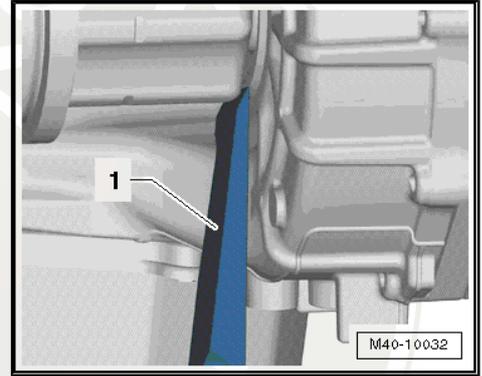
- Remove wheel.
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .
- Remove drive shaft protector from the engine (if present).
- Unscrew the nuts -arrows-.
- Pull the wheel-bearing housing with steering joint out of the track control arm.
- Pull the drive shaft out of the wheel hub and attach to the body.



- Insert the wedge - T10161- between the gearbox housing and the tripod joint.
- Press inner joint with a knock from a hammer onto the wedge - T10161- out of the gearbox.
- Remove the drive shaft.

Installing:

- Insert new circlip in the recess of the shaft for inner joint.
- Adjust the serration of the shaft for inner joint and gearbox until they engage.
- Grasp the drive shaft with the hand and slide it up to the stop in the inner joint part.
- Now slide the inner joint part with the drive shaft in the gearbox abruptly.



i Note

Under no circumstances use a hammer or similar striking tools!

- Check safe seating of the drive shaft in the gearbox by pulling the inner joint part against the resistance of the circlip.

ing for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.

i Note

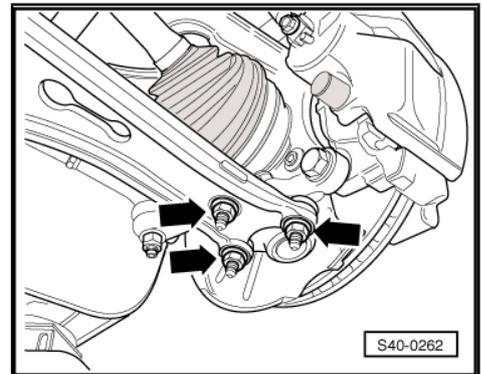
For this inspection pull only on the joint part and not on the drive shaft.

- Loosen the drive shaft from the body.
- Guide outer joint into wheel hub splines as far as possible.
- Screw steering joint to the track control arm -arrows-.
- Fix drive shaft protector to the engine (if present).
- Install the noise insulation => Body Work; Rep. gr. 50 .

i Note

Make sure the steering joint boot is neither damaged nor twisted.

- Tighten fixing screw of drive shaft to wheel hub => [page 38](#) .



i Note

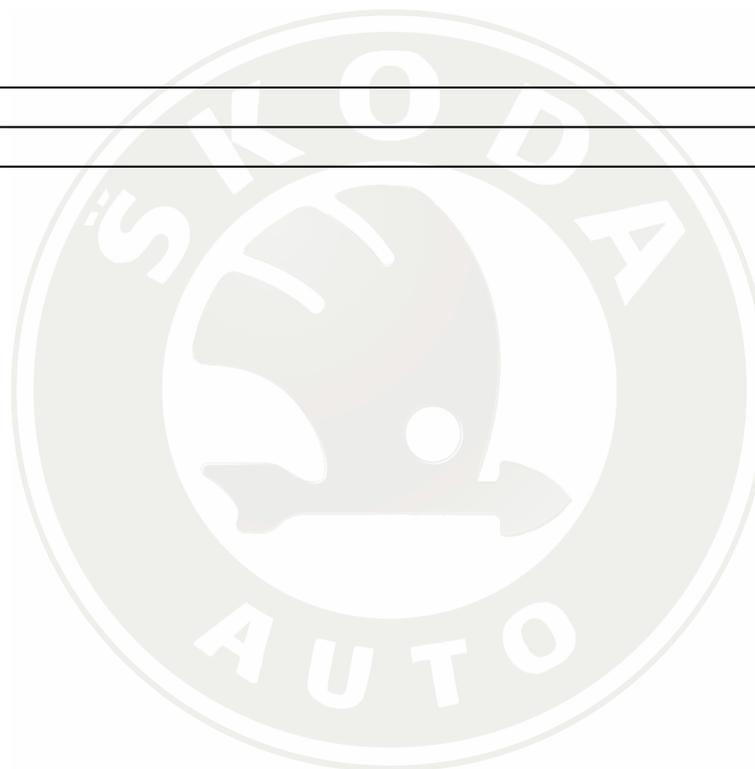
At the same time the vehicle must not be standing on its wheels, otherwise the wheel bearing will be damaged.

- Tighten wheel.



Tightening torques:

Drive shaft to wheel hub with wheel bearing ◆ Use new screw ◆ Vehicle must not be standing on its wheels for tightening the screw	200 Nm + 180°
Steering joint to track control arm ◆ Track control arm made of steel sheet	100 Nm
Drive shaft protector	25 Nm
Wheel bolts	120 Nm



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

6.4 Dismantle the drive shaft VL 100 -, assemble, check

6.4.1 Dismantling

Special tools and workshop equipment required

- ◆ Pressure plate - MP3-406 (VW 401)-
- ◆ Pressure plate - MP3-407 (VW 402)-
- ◆ Thrust piece - MP3-411 (VW 454)-
- ◆ Pressure spindle - MP3-448 (VW 408 A)-
- ◆ Pressure washer - MP3-455 (VW 447 H)-
- ◆ Thrust piece - MP6-405 (VW 411)-
- ◆ Circlip pliers , e.g. -VW 161 A-
- ◆ Tensioning pliers , e.g. -V.A.G 1682 A-
- ◆ Assembly device - T10065-

Note

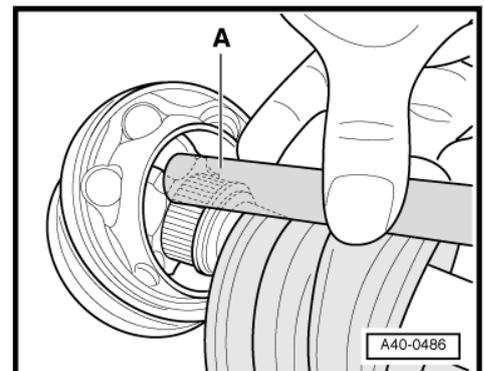
- ◆ *Before removing the joints and the joint boots, thoroughly clean their surroundings.*
- ◆ *When disassembling the joint, remove the old lubricant and any dirt present.*
- ◆ *Clean the joint with great care.*
- ◆ *Dispose of old lubricant and cleaning agent in compliance with the applicable regulations.*
- ◆ *Place removed and cleaned parts on a clean surface and if necessary cover. Do not use fuzzy cloths!*
- ◆ *Carefully cover removed parts if the repair is not completed immediately.*
- ◆ *Only install clean components: Remove spare parts from their wrapping immediately before fitting. Do not use any parts which have been stored unwrapped (e.g. on a shelf or in a tool box).*

Removing outer CV joint

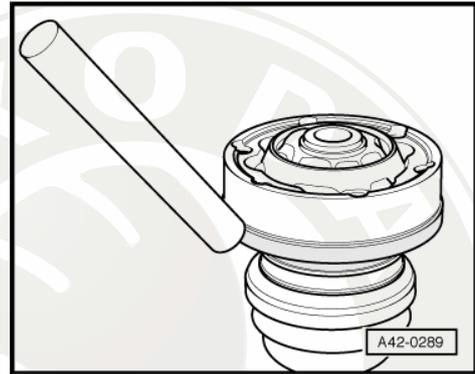
- Clamp the drive shaft in a vice with protective jaws.
- Open both warm-type clamps and remove the joint boot from the outer joint.
- Remove the CV joint from the drive shaft using a drift (copper or brass) -A-.

The drift must be positioned exactly at the tripod spider of the CV joint.

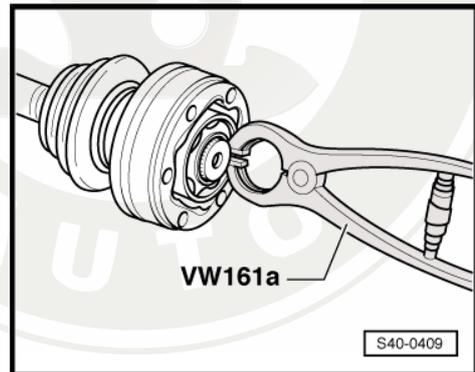
Remove inner joint



- Drive off cover and joint boot with a drift.
- Open warm-type clamp.
- Push the cover with the warm-type clamp in direction of outer joint.

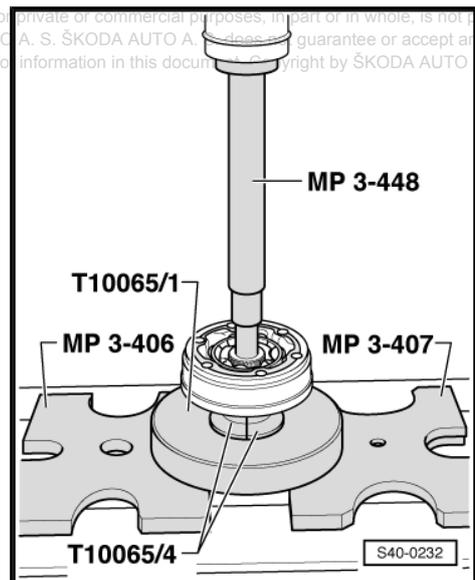


- Remove circlip with a pair of circlip pliers .
- Press the inner joint off the drive shaft.



Pressing out the inner CV joint

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



6.4.2 Assembling

Outer joint

Special tools and workshop equipment required

- ◆ Tensioning pliers , e.g. -V.A.G 1682 A-

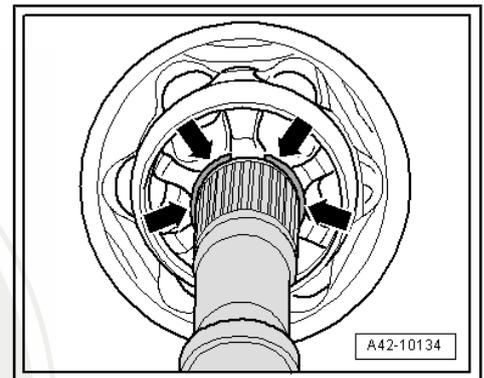
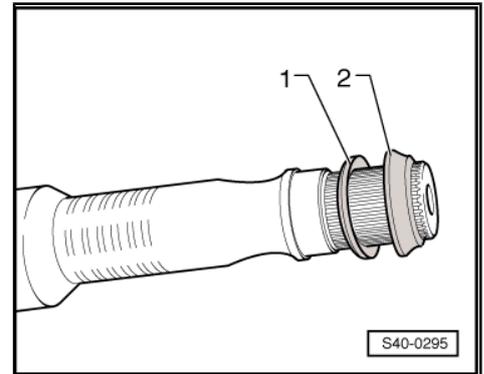
Fitting position of the disc spring and the thrust ring



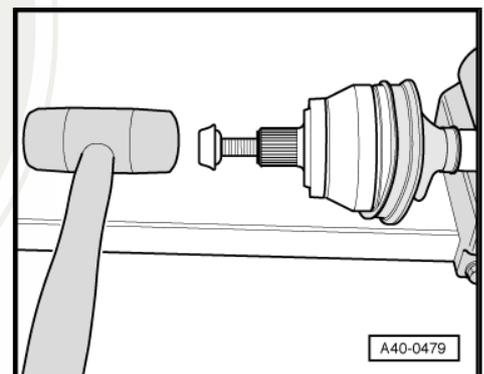
Note

The fitting position of the disc spring -1- and the thrust ring -2- is not valid for CV joints RO104 and RO3700, which do not have these parts.

- 1 - Disc spring
- 2 - Thrust ring
- Insert circlip in the groove of the shaft.
- Push the CV joint up to the circlip.
- Align the circlip upwards to the centre of the hole, see -arrows-.



- Screw the old screw for the drive shaft, as shown, into the joint.
- Drive CV joint onto drive shaft using plastic hammer until circlip engages.
- Fill the joint with the allowed grease quantity on the side of the boot, see table => [page 108](#) .
- Push the joint boot onto the joint.
- Bleed the joint boot.
- Pay attention to the correct position of the joint boot on the outer joint.

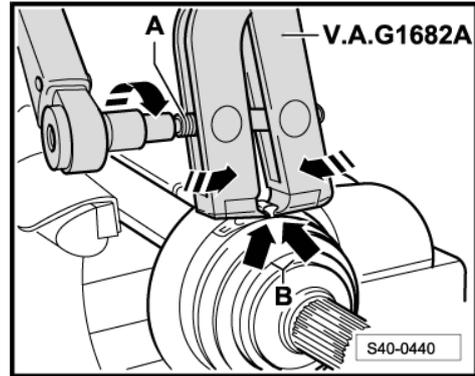


The joint boot must be positioned in the groove and must rest on the contour of the joint.

- Tighten the open warm-type clamp on the outer joint.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

Tighten the open warm-type clamp at the larger diameter

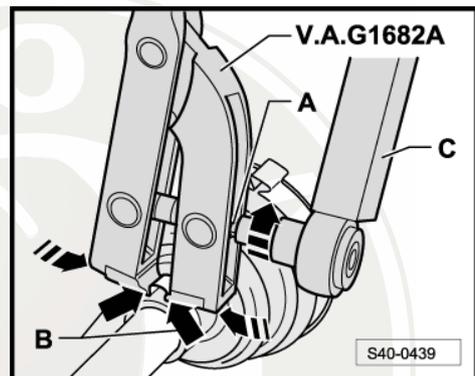


Tighten the open warm-type clamp at the smaller diameter

- Position the tensioning pliers as shown in the figure. Make sure the cutting edges of the pliers are positioned in the corners -arrows B- of the open warm-type clamp.
- Tighten the open warm-type clamp by turning the spindle with a torque wrench (do not tilt the pliers during this process).

Note

- ◆ *In view of the hard material (as opposed to rubber) of the joint boot, which requires the use of a stainless steel-open warm-type clamp, the latter can only be tightened with tensioning pliers, e. g. -V.A.G 1682 A-.*
- ◆ *Tightening torque: 25 Nm.*
- ◆ *Use torque wrench -C-.*
- ◆ *Ensure that the thread of the spindle -A- of the pliers is smooth. Lubricate if necessary with grease.*
- ◆ *If it is not smooth, e.g. if the thread is dirty, the necessary clamping force of the open warm-type clamp is not reached at the given torque.*

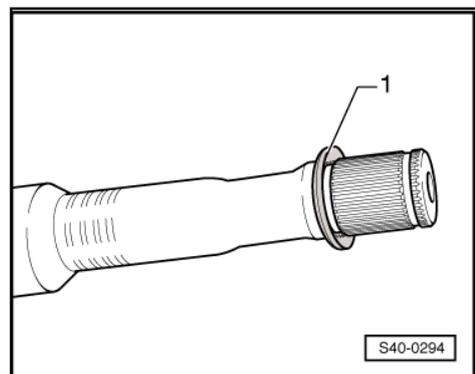


Inner CV joint

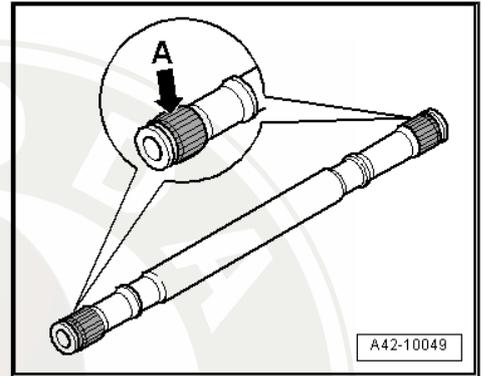
- Push a small open warm-type clamp for the joint boot onto the drive shaft.
- Push the sheet metal cover with the joint boot onto the drive shaft.
- Pay attention to the fitting position of the disc spring at the inner joint.

Fitting position of the disc spring at inner joint

- 1 - Disc spring



- Thinly coat the serration -A- with joint grease.
- Press the joint up to the stop.

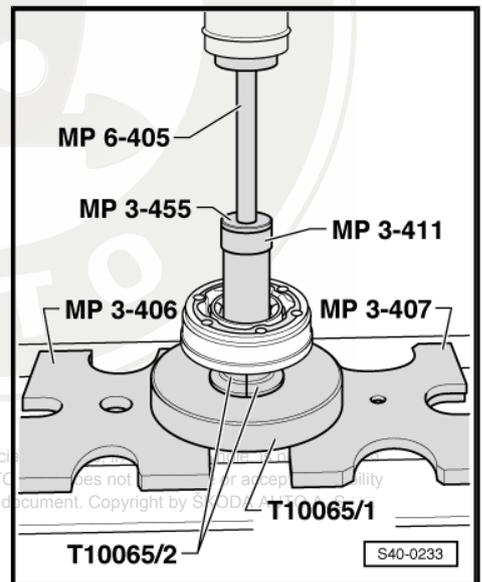


Pressing in the inner CV joint

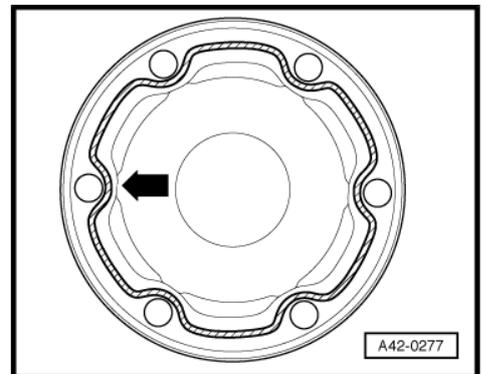
i Note

Chamfer on inner diameter of the ball hub (serration) must point towards the bearing collar of the drive shaft.

- Install circlip.
- Fill the joint with grease => [page 108](#) .
- Clean and degrease the end faces of the joint.
- Clean and degrease the end face of the sheet metal cover for the joint boot which rests against the joint.



- Apply sealant -D 454 300 A2- on the shaded surfaces of the cover.
- ◆ Sealant bead: apply continuously, Ø 2...3 mm, in the area of the holes from inside -arrow-.
- Push the sheet metal cover with the joint boot onto the joint.

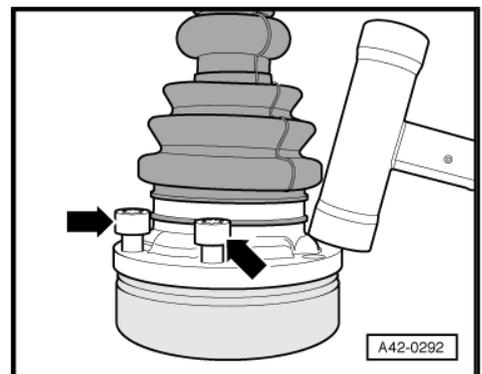


- Align the cover with the joint boot to the screw holes with screws -arrows-.

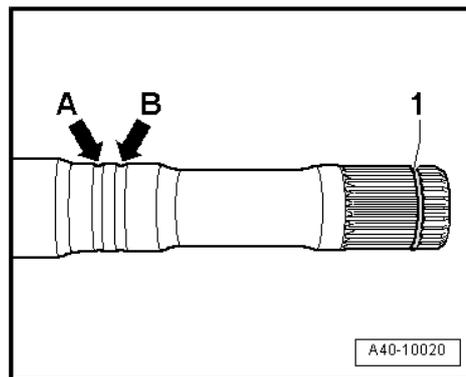
i Note

The alignment must be performed very carefully as this is no longer possible after striking it.

- Use a plastic hammer to strike the sheet metal cover with the joint boot on the joint.
- Wipe off any excess sealant, if necessary.
- Remove the protective foil from the gasket and stick the gasket into the joint from the gearbox side.



- Insert the joint boot into the outer groove of the shaft -arrow B-.
- Install warm-type clamp.

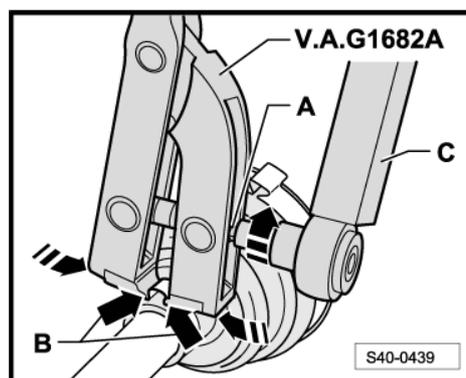


Tighten warm-type clamp

- Position the tensioning pliers as shown in the figure. Make sure the cutting edges of the pliers are positioned in the corners -arrows B- of the open warm-type clamp.
- Tighten the open warm-type clamp by turning the spindle with a torque wrench (do not tilt the pliers during this process).

Note

- ◆ *In view of the hard material (as opposed to rubber) of the joint boot, which requires the use of a stainless steel-open warm-type clamp, the latter can only be tightened with tensioning pliers, e. g. -V.A.G 1682 A-.*
- ◆ *Tightening torque: 25 Nm.*
- ◆ *Use torque wrench -C-.*
- ◆ *Ensure that the thread of the spindle -A- of the pliers is smooth. Lubricate if necessary with grease.*
- ◆ *If it is not smooth, e.g. if the thread is dirty, the necessary clamping force of the open warm-type clamp is not reached at the given torque.*

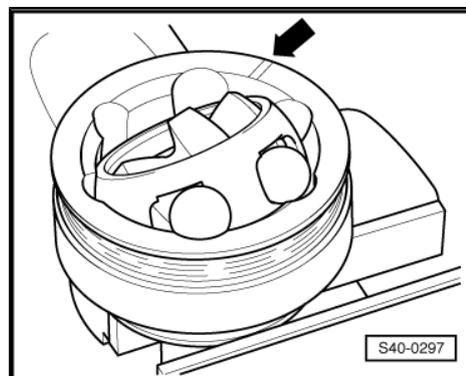


6.4.3 Inspecting outer CV joint

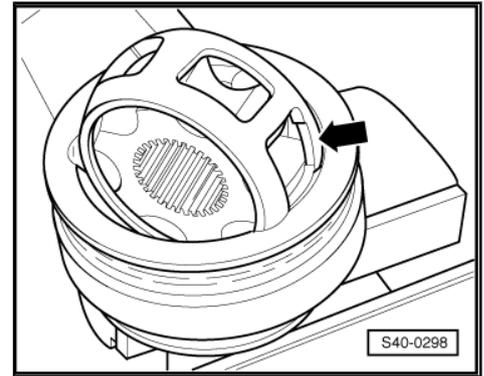
Disassemble the joint to replace badly soiled grease or if the contact surfaces of the balls must be inspected for wear and damage.

Removing:

- Mark the opposite position of the ball hub, the cage, the balls and the joint body before disassembling -arrow- (e.g. electric stylus, rubstone or felt-tip pen).
- Swivel the ball hub and the cage with balls until individual balls have to be removed.
- Remove the balls one after the other.

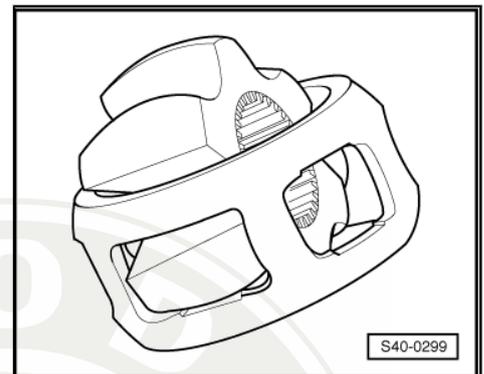


- Turn the cage until two rectangular cage windows -arrow- rest on the joint body.
- Remove cage with hub.



- Turn the hub segment in the window of the cage.
- Tilt hub out of the cage.

The 6 balls of each joint belong to a tolerance group. Inspect the axle studs, hub, cage and balls for small depressions (pitting = point erosion) and seizing marks. Load alteration shocks indicate too much torsional clearance in the joint. If this is the case, replace the joint. Smoothing and bearing marks do not justify a joint replacement.



Installing:

- Press half of the total grease quantity into the joint body.
- Insert the cage and hub in the joint body.



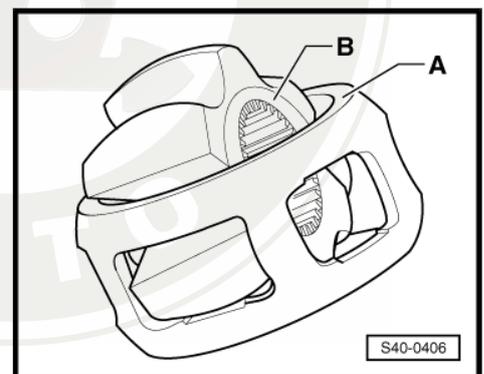
Note

Absolutely observe the opposite position of the ball hub, the cage and the joint body on joints RO104 and RO3700.

Fitting position of the ball hub -B- and the cage -A- for joints RO104 and RO3700

The shoulder of the hub -B- and the wider side of the cage -A- must point into the joint body.

- Press in opposite balls one after the other, during this process observe the prior position of the ball hub relatively to the ball cage and to the joint body.
- Spread the remaining grease in the joint from the side of the boot.



6.4.4 Inspecting inner CV joint

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted. Copyright by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. 2013

Removing:

Disassemble the joint to replace badly soiled grease or if the contact surfaces of the balls must be inspected for wear and damage.



- Rotate the ball hub and ball cage.
- Press out joint part in -direction of arrow-.
- Successively press out the balls from the cage.



Note

The ball hub and joint piece are paired. These are not interchangeable.

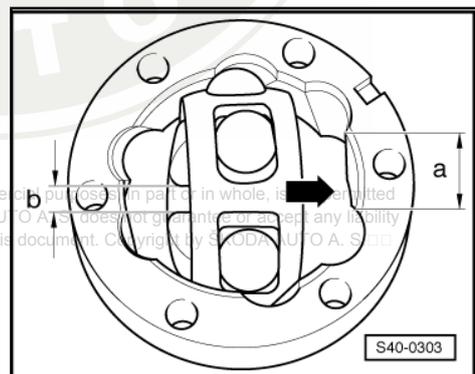
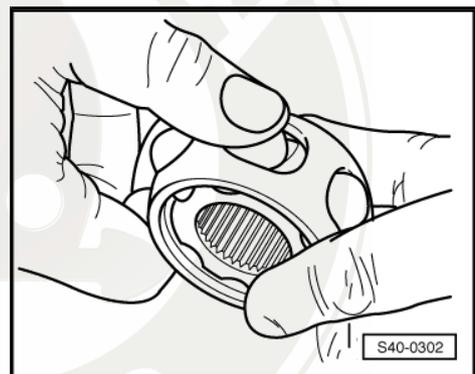
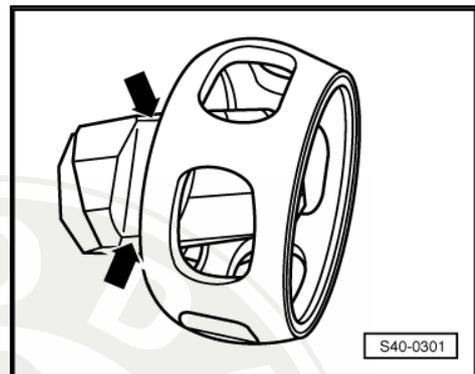
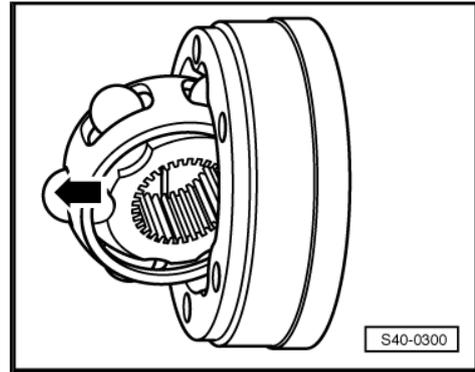
- Tilt the ball hub out of the ball cage over the ball bearing track -arrows-.
- Inspect the joint part, ball hub, ball cage and balls for small broken out depressions (pitting = point corrosion) and seizing marks.

Load alteration shocks indicate too much torsional clearance in the joint. If this is the case, replace the joint. Smoothing and bearing marks do not justify a joint replacement.

Installing:

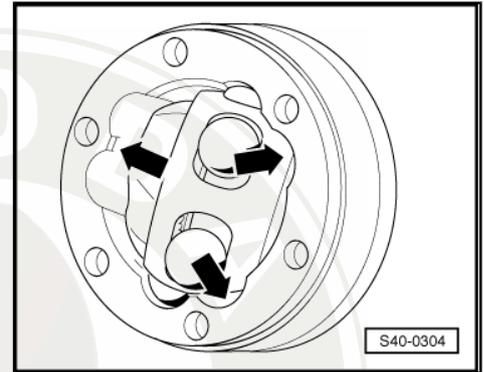
- Insert the ball hub in the ball cage over the two chamfers. The fitting location is random. Press the balls into the cage.
- Insert the hub with cage upright into the joint part.

- ◆ When inserting make sure the greatest distance -a- on the joint part is close to the short distance -b- on the hub after it has been swivelled in.
- ◆ Chamfer on inner diameter of the ball hub (serration) must point towards the largest diameter of the joint part.

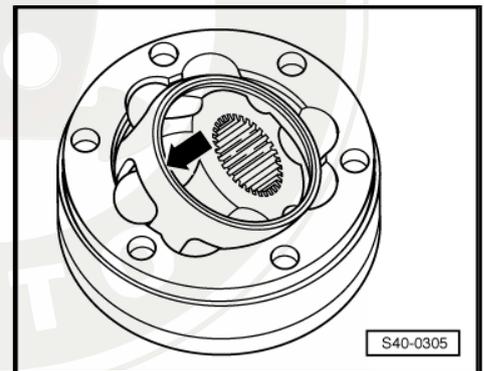


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.

- Swivel in the ball hub, to do so swivel the hub out of the cage -arrows- until the balls are at bearing track distance.



- Lock the hub with the balls into position by exerting considerable pressure on the cage -arrow-.



6.5 Dismantle the drive shaft VL 107 -, assemble, check

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. ☐☐

6.5.1 Dismantling

Special tools and workshop equipment required

- ◆ Pressure plate - MP3-406 (VW 401)-
- ◆ Pressure plate - MP3-407 (VW 402)-
- ◆ Thrust piece - MP3-411 (VW 454)-
- ◆ Pressure spindle - MP3-448 (VW 408 A)-
- ◆ Pressure washer - MP3-455 (VW 447 H)-
- ◆ Thrust piece - MP6-405 (VW 411)-
- ◆ Circlip pliers , e.g. -VW 161 A-
- ◆ Tensioning pliers , e.g. -V.A.G 1682 A-
- ◆ Assembly device - T10065-

Removing outer CV joint

- Clamp the drive shaft in a vice with protective jaws.
- Open both warm-type clamps and remove the joint boot from the outer joint.

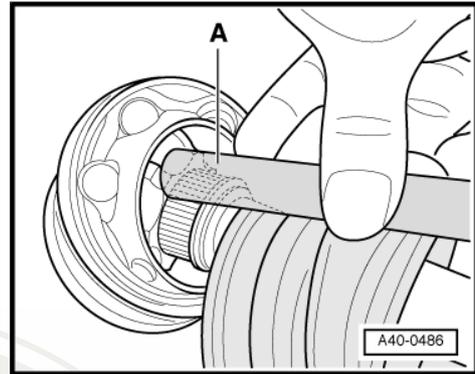


- Remove the CV joint from the drive shaft using a drift (copper or brass) -A-.

The drift must be positioned exactly at the tripod spider of the CV joint.

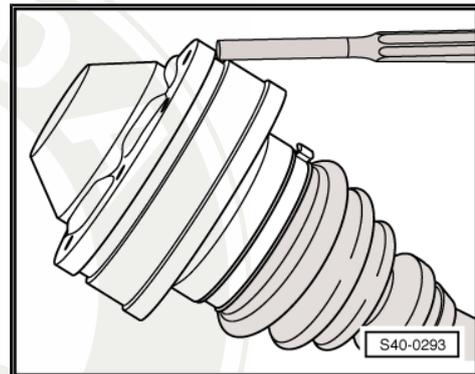
Remove inner joint

- Drive off cover for inner joint with a drift.

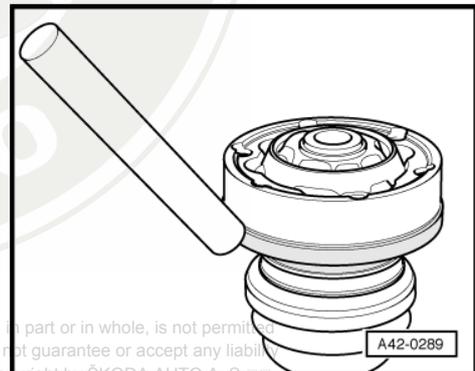


Remove cover for inner joint

- Remove open warm-type clamps, push the joint boot to the outer joint.

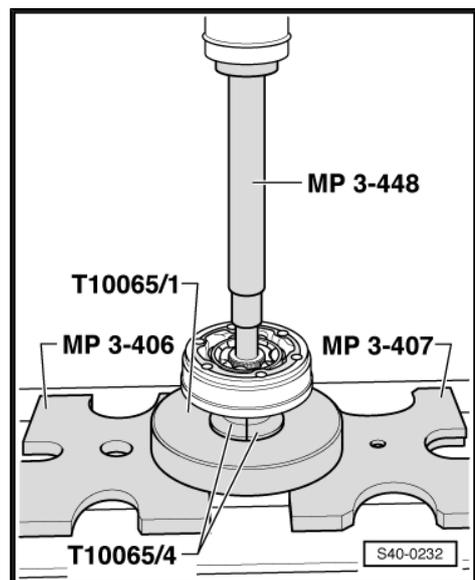


- Drive off cap of joint boot with a drift.
- Remove circlip with circlip pliers.
- Press the inner joint off the drive shaft.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright © ŠKODA AUTO A. S. 2013

Pressing out the inner CV joint



6.5.2 Assembling

Outer CV joint

Special tools and workshop equipment required

- ◆ Tensioning pliers , e.g. -V.A.G 1682 A-

The joint boot and the drive shaft must be free of grease.

- Always replace circlip -1-.
- Push on the small open warm-type clamp with the joint boot and position the joint boot onto the drive shaft according to the version.

Version with the identification groove:

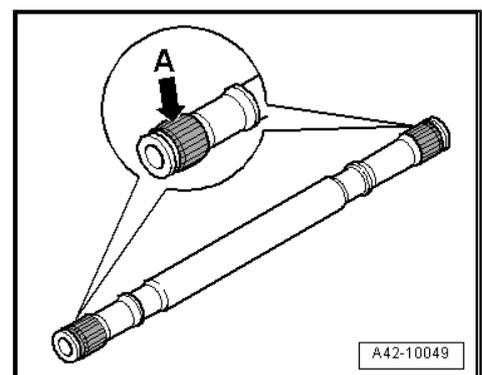
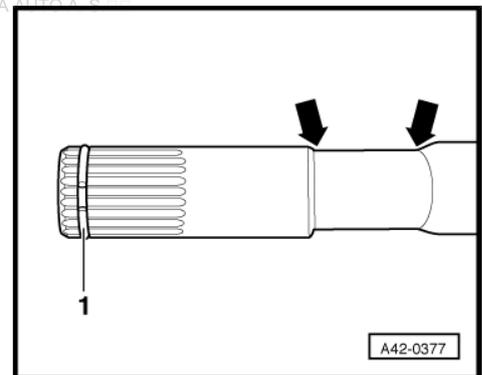
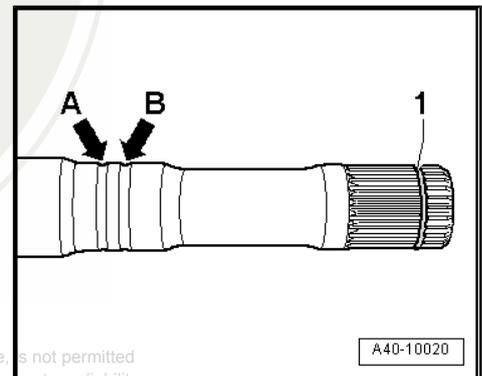
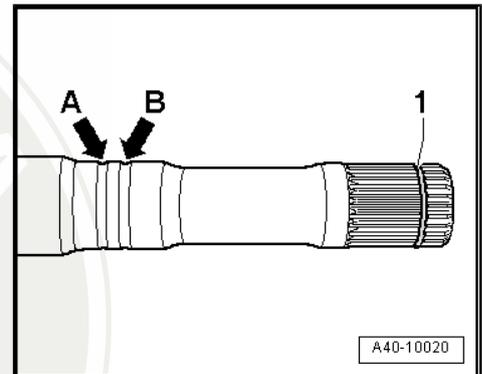
- Fit the joint boot in the outer groove -arrow B-.

The inner groove -arrow A- must remain visible ("identification groove" for a correct installation of the joint boot).

Version with deeper bearing:

- Fit the joint boot between the -arrows-.
- Fill the joint with allowed grease quantity ⇒ [page 108](#) .

- Thinly coat the serration -A- with joint grease before installing the joint.
- Observe the fitting position of the disc spring -1- and the thrust ring -2-.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.

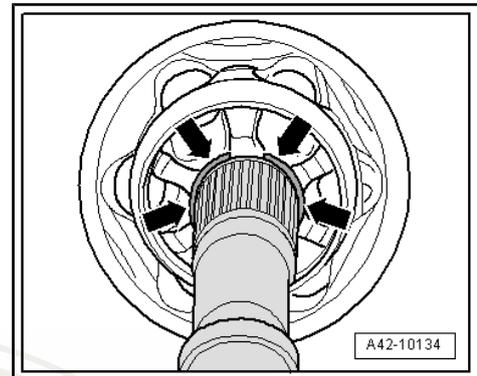
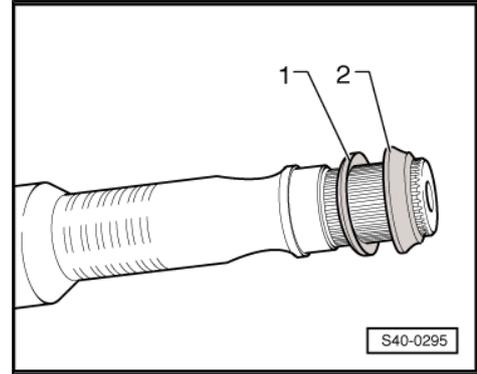
Fitting position of the disc spring and the thrust ring



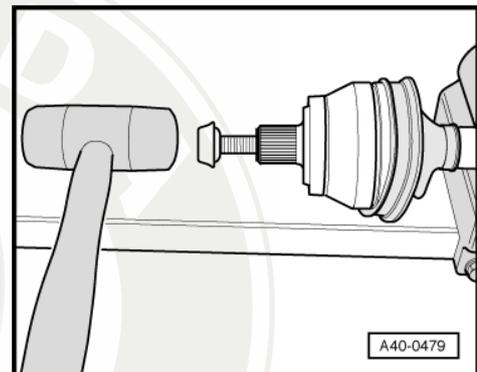
Note

The fitting position of the disc spring -1- and the thrust ring -2- is not valid for CV joints RO104 and RO3700, which do not have these parts.

- 1 - Disc spring
- 2 - Thrust ring
- Insert circlip in the groove of the shaft.
- Push the CV joint up to the circlip.
- Align the circlip upwards to the centre of the hole, see -arrows-.



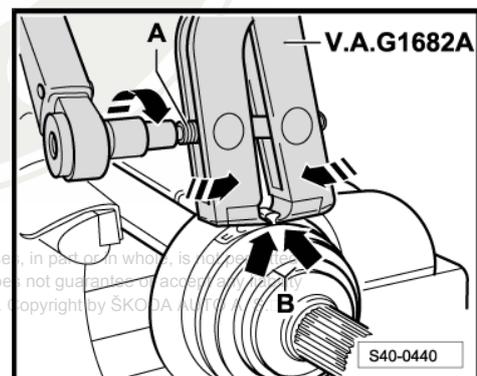
- Screw the old screw for the drive shaft, as shown, into the joint.
- Drive CV joint onto drive shaft using plastic hammer until circlip engages.
- Fill the joint with the allowed grease quantity on the side of the boot, see table => [page 108](#) .
- Push the joint boot onto the joint.
- Bleed the joint boot.
- Pay attention to the correct position of the joint boot on the outer joint.



The joint boot must be positioned in the groove and must rest on the contour of the joint.

- Tighten the open warm-type clamp on the outer joint.

Tighten the open warm-type clamp at the larger diameter

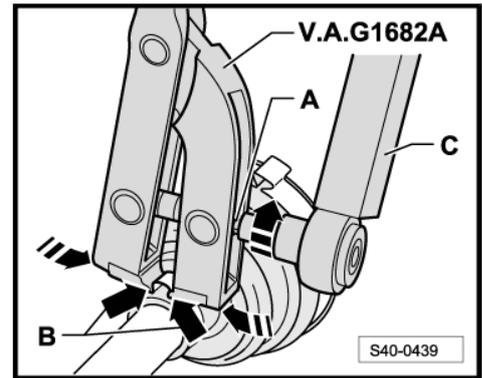


Tighten the open warm-type clamp at the smaller diameter

- Position the tensioning pliers as shown in the figure. Make sure the cutting edges of the pliers are positioned in the corners -arrows B- of the open warm-type clamp.
- Tighten the open warm-type clamp by turning the spindle with a torque wrench (do not tilt the pliers during this process).

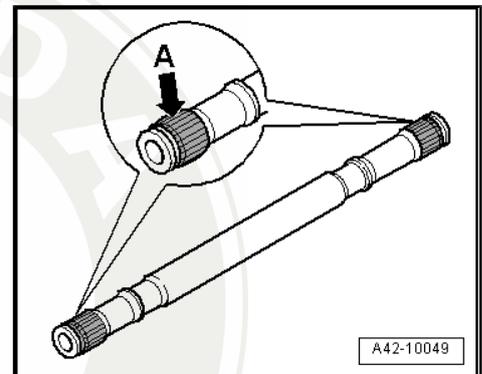
Note

- ◆ *In view of the hard material (as opposed to rubber) of the joint boot, which requires the use of a stainless steel-open warm-type clamp, the latter can only be tightened with tensioning pliers, e.g. -V.A.G 1682 A-.*
- ◆ *Tightening torque: 25 Nm.*
- ◆ *Use torque wrench -C-.*
- ◆ *Ensure that the thread of the spindle -A- of the pliers is smooth. Lubricate if necessary with grease.*
- ◆ *If it is not smooth, e.g. if the thread is dirty, the necessary clamping force of the open warm-type clamp is not reached at the given torque.*



Inner CV joint

- Push a small open warm-type clamp for the joint boot onto the drive shaft.
- Push the joint boot and the cap of the boot onto the drive shaft.
- Thinly coat the serration -A- with joint grease.
- Press the joint up to the stop.



Pressing in the inner CV joint



Note

Chamfer on inner diameter of the ball hub (serration) must point towards the bearing collar of the drive shaft.

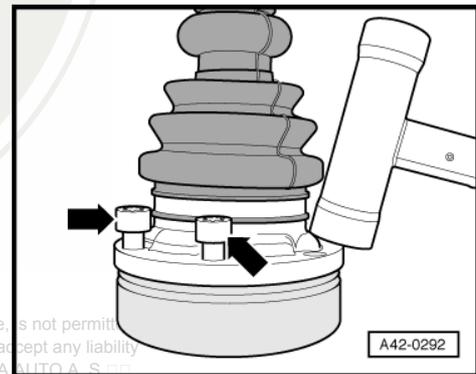
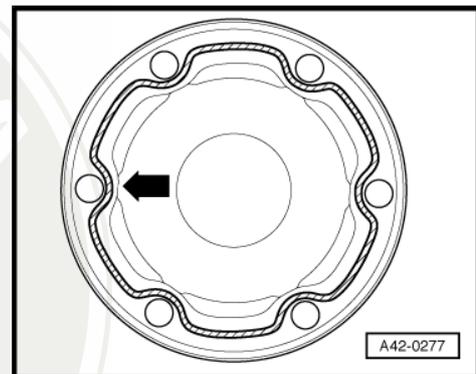
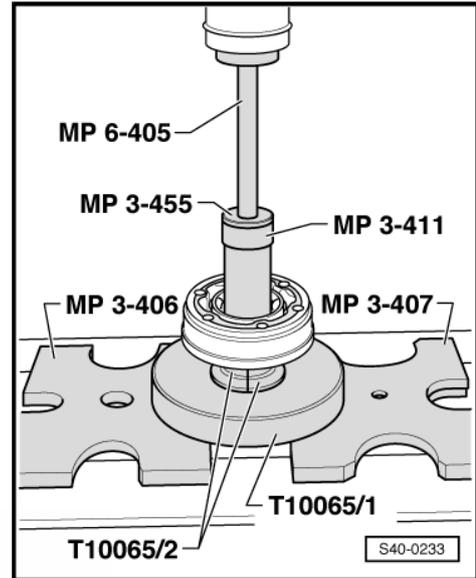
- Insert the circlip.
 - Fill the joint with grease ⇒ [page 108](#) .
 - Clean and degrease the end faces of the joint.
 - Clean and degrease the end face of the cover or the sheet metal cap for the joint boot which rests against the joint.
-
- Apply sealant -D 454 300 A2- on the shaded surfaces of the cover or the cap.
 - ◆ Sealant bead: apply continuously, Ø 2...3 mm, in the area of the holes from inside -arrow-.
 - Push the sheet metal cap of the joint boot onto the joint.
-
- Align the cap of the joint boot to the screw holes with screws -arrows-.



Note

The alignment must be performed very carefully as this is no longer possible after striking it.

- Use a plastic hammer to strike the sheet metal cap of the joint boot on the joint.
- Wipe off any excess sealant, if necessary.
- If necessary, stick the gasket into the joint from the gearbox side (remove the protective foil and stick the gasket into the joint). Assignment ⇒ Electronic Catalogue of Original Parts .

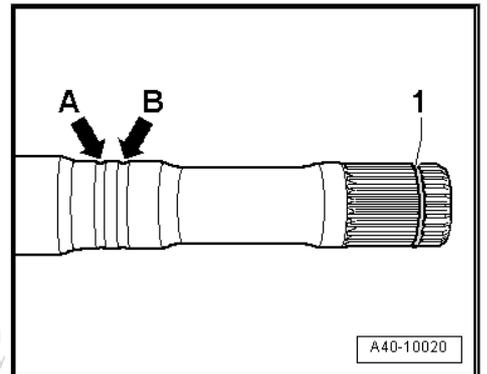
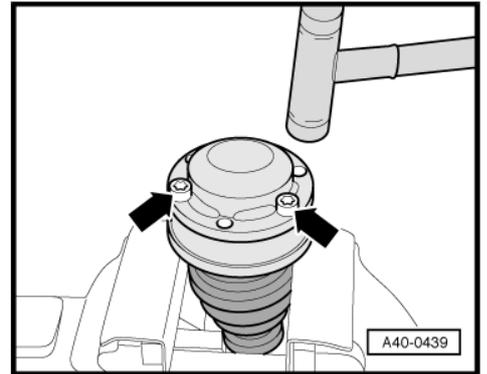


- Align the new cover to the screw holes -arrows-

i Note

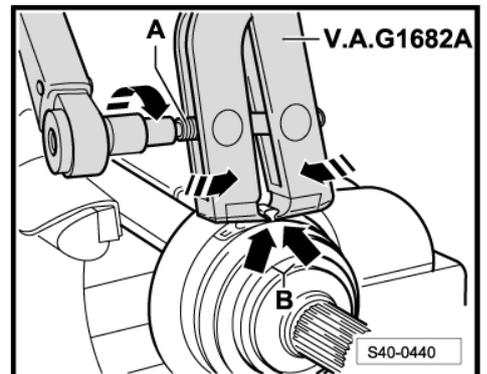
The alignment must be performed very carefully as this is no longer possible after striking it.

- Use a plastic hammer to strike the sheet metal cover on the joint.
- Wipe off any excess sealant, if necessary.
- Insert the joint boot on the joint and into the outer groove of the shaft -arrow B-
- Install warm-type clamps.



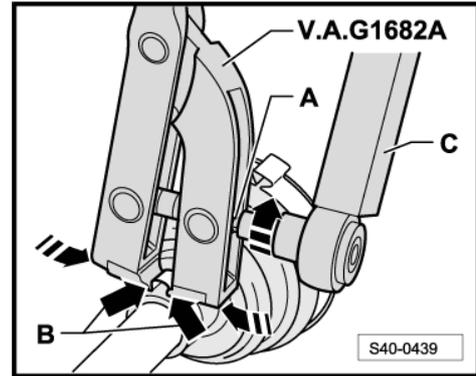
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. 00

Tighten the open warm-type clamp at the larger diameter



Tighten the open warm-type clamp at the smaller diameter

- Apply tensioning pliers , e.g. -V.A.G 1682 A- , as shown Make sure the cutting edges of the pliers are positioned in the corners -arrows B- of the open warm-type clamp.
- Tighten the open warm-type clamp by turning the spindle with a torque wrench (do not tilt the pliers during this process).



Note

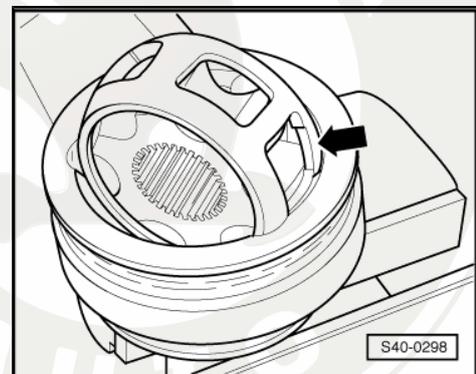
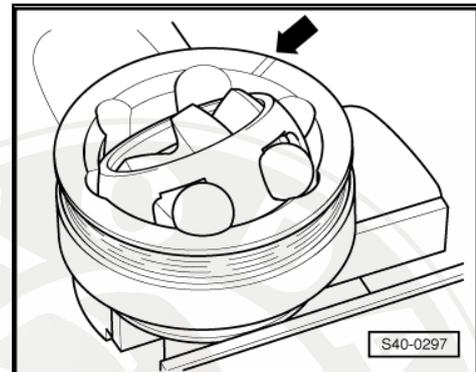
- ◆ *In view of the hard material (as opposed to rubber) of the joint boot, which requires the use of a stainless steel-open warm-type clamp, the latter can only be tightened with tensioning pliers , e. g. -V.A.G 1682 A- .*
- ◆ *Tightening torque: 25 Nm.*
- ◆ *Use torque wrench -C-.*
- ◆ *Ensure that the thread of the spindle -A- of the pliers is smooth. Lubricate if necessary with grease.*
- ◆ *If it is not smooth, e.g. if the thread is dirty, the necessary clamping force of the open warm-type clamp is not reached at the given torque.*

6.5.3 Inspecting outer CV joint

Disassemble the joint to replace badly soiled grease or if the contact surfaces of the balls must be inspected for wear and damage.

Removing:

- Mark the opposite position of the ball hub, the cage, the balls and the joint body before disassembling -arrow- (e.g. electric stylus, rubstone or felt-tip pen).
- Swivel the ball hub and the cage with balls until individual balls have to be removed.
- Remove the balls one after the other.
- Turn the cage until two rectangular cage windows -arrow- rest on the joint body.
- Remove cage with hub.

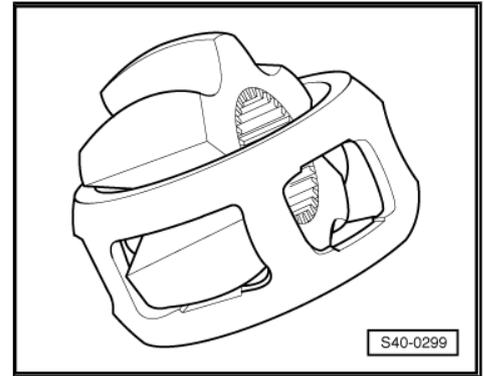


- Turn the hub segment in the window of the cage.
- Tilt hub out of the cage.

The 6 balls of each joint belong to a tolerance group. Inspect the axle studs, hub, cage and balls for small depressions (pitting = point erosion) and seizing marks. Load alteration shocks indicate too much torsional clearance in the joint. If this is the case, replace the joint. Smoothing and bearing marks do not justify a joint replacement.

Installing:

- Press half of the total grease quantity into the joint body.
- Insert the cage and hub in the joint body.



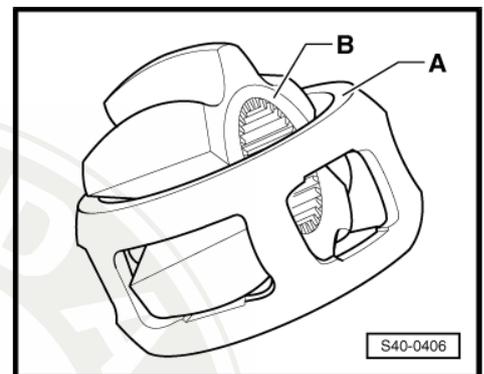
i Note

Absolutely observe the opposite position of the ball hub, the cage and the joint body on joints RO104 and RO3700.

Fitting position of the ball hub -B- and the cage -A- for joints RO104 and RO3700

The shoulder of the hub -B- and the wider side of the cage -A- must point into the joint body.

- Press in opposite balls one after the other, during this process observe the prior position of the ball hub relatively to the ball cage and to the joint body.
- Spread the remaining grease in the joint from the side of the boot.



6.5.4 Inspecting inner CV joint

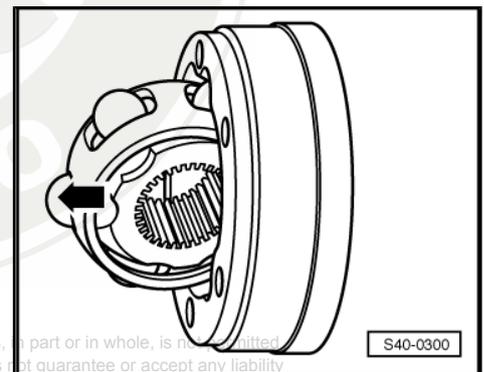
Removing:

Disassemble the joint to replace badly soiled grease or if the contact surfaces of the balls must be inspected for wear and damage.

- Rotate the ball hub and ball cage.
- Press out joint part in -direction of arrow-.
- Successively press out the balls from the cage.

i Note

The ball hub and joint piece are paired. These are not interchangeable.



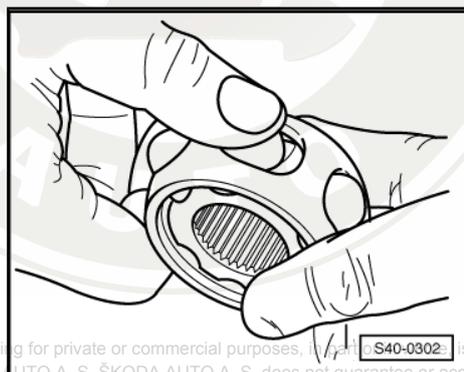
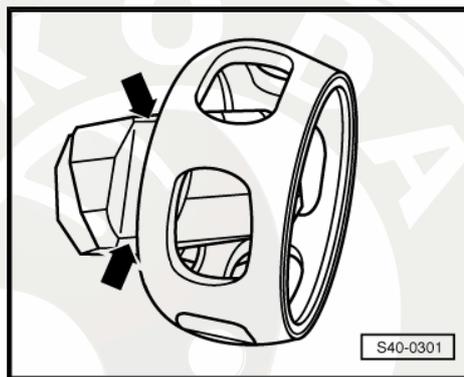


- Tilt the ball hub out of the ball cage over the ball bearing track -arrows-.
- Inspect the joint part, ball hub, ball cage and balls for small broken out depressions (pitting = point corrosion) and seizing marks.

Load alteration shocks indicate too much torsional clearance in the joint. If this is the case, replace the joint. Smoothing and bearing marks do not justify a joint replacement.

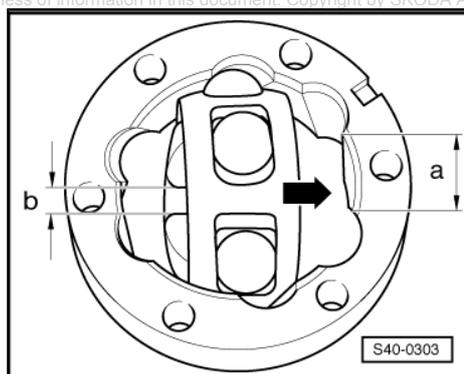
Installing:

- Insert the ball hub in the ball cage over the two chamfers. The fitting location is random. Press the balls into the cage.
- Insert the hub with cage upright into the joint part.

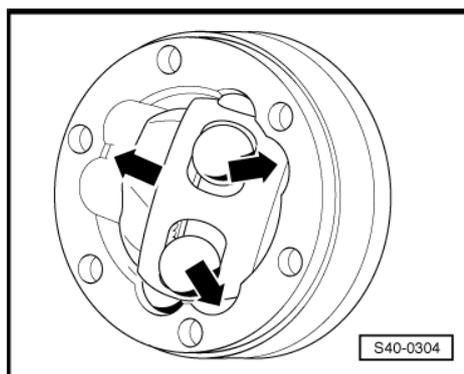


Protected by copyright. Copying for private or commercial purposes, in whole or in part, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. 07

- ◆ When inserting make sure the greatest distance -a- on the joint part is close to the short distance -b- on the hub after it has been swivelled in.
- ◆ Chamfer on inner diameter of the ball hub (serration) must point towards the largest diameter of the joint part.

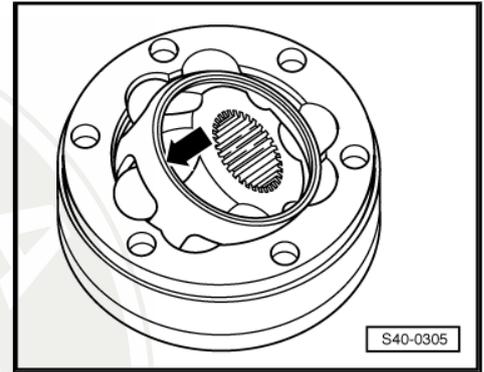


- Swivel in the ball hub, to do so swivel the hub out of the cage -arrows- until the balls are at bearing track distance.





- Lock the hub with the balls into position by exerting considerable pressure on the cage -arrow-.



6.6 Dismantle the drive shaft AAR3300i-, assemble, check

6.6.1 Dismantling

Special tools and workshop equipment required

- ◆ Pressure plate - MP3-406 (VW 401)-
- ◆ Pressure plate - MP3-407 (VW 402)-
- ◆ Pressure washer - MP3-455 (VW 447 H)-
- ◆ Pressure spindle - MP3-448 (VW 408 A)-
- ◆ Thrust piece - MP6-405 (VW 411)-
- ◆ Pipe section - MP3-4012 (VW 416 B)-
- ◆ Circlip pliers , e.g. -VW 161A-
- ◆ Hose strap pliers , e.g. -V.A.G 1275-
- ◆ Assembly device - T10065-

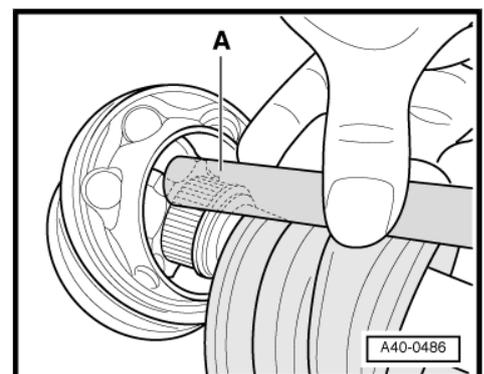
Removing outer CV joint

- Clamp the drive shaft in a vice with protective jaws.
- Open both warm-type clamps and remove the joint boot from the outer joint.
- Remove the CV joint from the drive shaft using a drift (copper or brass) -A-.

The drift must be positioned exactly at the tripod spider of the CV joint.

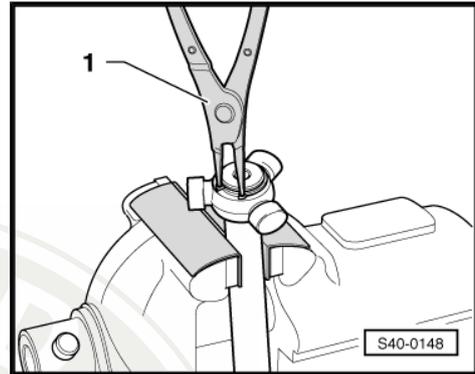
Remove inner joint

- Open both warm-type clamps at inner joint and push back the joint boot.
- Remove the joint part or the driver from the drive shaft.

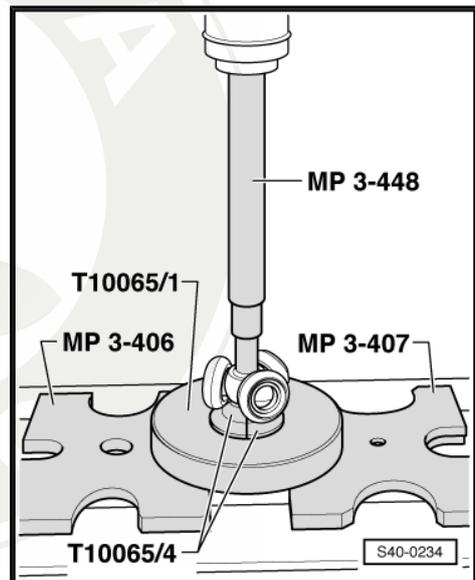




- Remove circlip with circlip pliers -1-.
- 1 - Pliers (commercially available) or e.g. -VW 161A-
- Insert the drive shaft in the press.



- Press tripod spider off the drive shaft.
- Remove the joint boot from the shaft.
- Clean the shaft, the joint part and the slot for the gasket ring.



6.6.2 Assembling

Outer CV joint

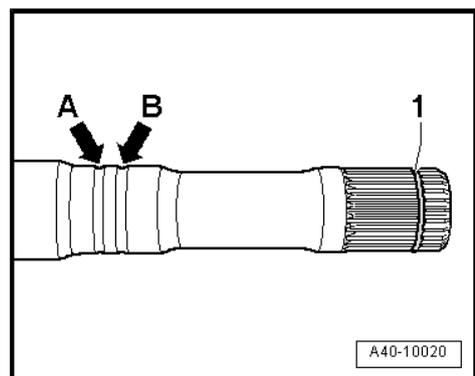
Special tools and workshop equipment required

- ◆ Tensioning pliers , e.g. -V.A.G 1682 A-

The joint boot and the drive shaft must be free of grease.

- Always replace circlip -1-.
- Push on the small open warm-type clamp with the joint boot and position the joint boot onto the drive shaft according to the version.

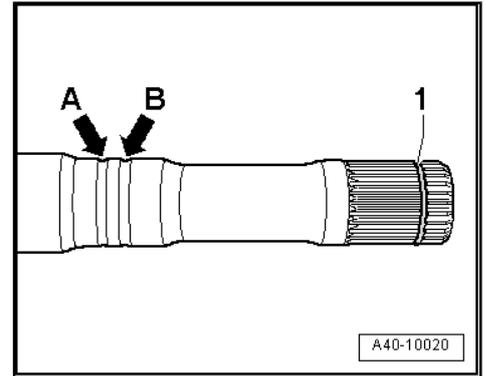
Version with the identification groove:



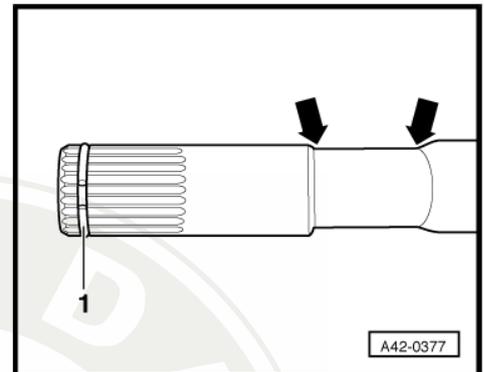
- Fit the joint boot in the outer groove -arrow B-.

The inner groove -arrow A- must remain visible ("identification groove" for a correct installation of the joint boot).

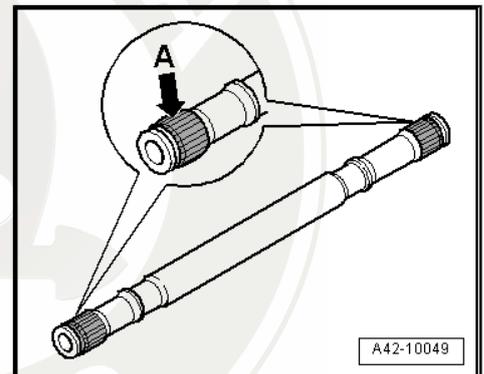
Version with deeper bearing:



- Fit the joint boot between the -arrows-.
- Fill the joint with allowed grease quantity ⇒ [page 108](#) .



- Thinly coat the serration -A- with joint grease before installing the joint.
- Observe the fitting position of the disc spring -1- and the thrust ring -2-.



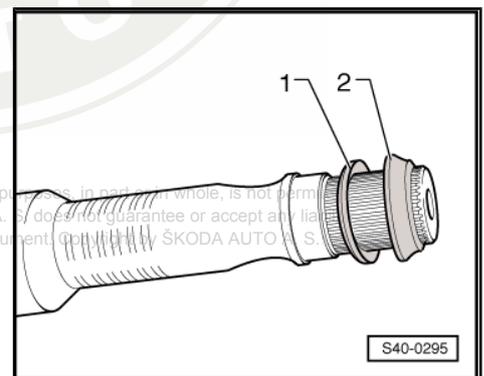
Fitting position of the disc spring and the thrust ring

Note

The fitting position of the disc spring -1- and the thrust ring -2- is not valid for CV joints RO104 and RO3700, which do not have these parts.

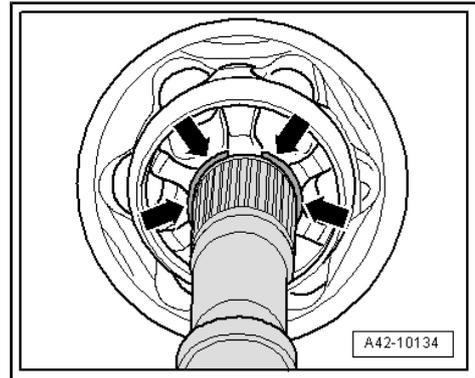
- 1 - Disc spring
- 2 - Thrust ring

- Insert circlip in the groove of the shaft.
- Push the CV joint up to the circlip.

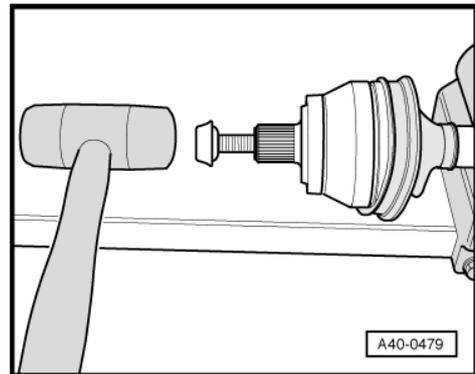




- Align the circlip upwards to the centre of the hole, see -arrows-.



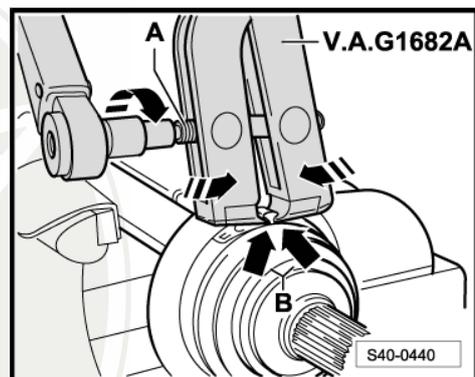
- Screw the old screw for the drive shaft, as shown, into the joint.
- Drive CV joint onto drive shaft using plastic hammer until circlip engages.
- Fill the joint with the allowed grease quantity on the side of the boot, see table ⇒ [page 108](#) .
- Push the joint boot onto the joint.
- Bleed the joint boot.
- Pay attention to the correct position of the joint boot on the outer joint.



The joint boot must be positioned in the groove and must rest on the contour of the joint.

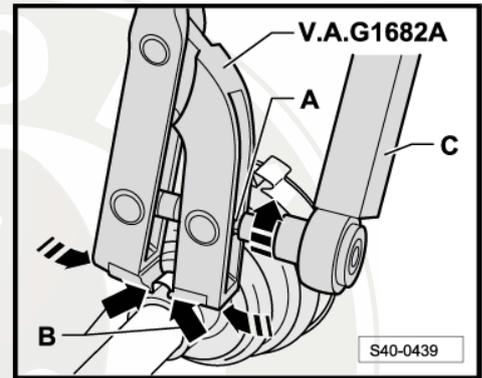
- Tighten the open warm-type clamp on the outer joint.

Tighten the open warm-type clamp at the larger diameter



Tighten the open warm-type clamp at the smaller diameter

- Position the tensioning pliers as shown in the figure. Make sure the cutting edges of the pliers are positioned in the corners -arrows B- of the open warm-type clamp.
- Tighten the open warm-type clamp by turning the spindle with a torque wrench (do not tilt the pliers during this process).



Note

- ◆ *In view of the hard material (as opposed to rubber) of the joint boot, which requires the use of a stainless steel-open warm-type clamp, the latter can only be tightened with tensioning pliers, e.g. -V.A.G 1682 A-.*
- ◆ *Tightening torque: 25 Nm.*
- ◆ *Use torque wrench -C-.*
- ◆ *Ensure that the thread of the spindle -A- of the pliers is smooth. Lubricate if necessary with grease.*
- ◆ *If it is not smooth, e.g. if the thread is dirty, the necessary clamping force of the open warm-type clamp is not reached at the given torque.*

Inner CV joint

- Push a small open warm-type clamp for the joint boot onto the drive shaft.
- Push the joint boot onto the shaft.
- Push the joint piece onto the drive shaft.

Install tripod spider:

Drive shaft in conical version

The chamfer of the tripod spider points towards the shaft and assists installation.

- If necessary, coat the serration of the drive shaft and the tripod spider with joint grease.
- Insert the tripod spider onto the shaft and press it up to the stop.
- Make sure that the force of pressure does not exceed 3.0 kN!
- Insert circlip and pay attention to correct position.
- Press 70 grams of grease for the drive shaft from the repair kit in the tripod joint.
- Slide the joint part over the rollers and hold down.
- Press 60 grams of grease for the drive shaft from the repair kit in the rear side of the tripod joint.

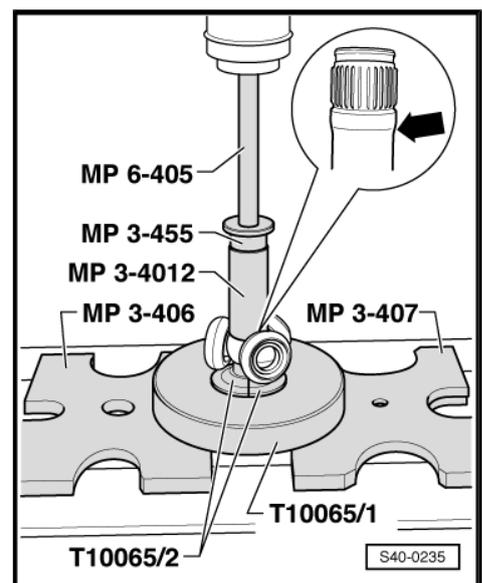
Grease ⇒ [page 108](#).

- Installing the joint boot.

Install tripod spider:

Drive shaft in cylindrical version

- If necessary, coat the serration of the drive shaft and the tripod spider with joint grease.

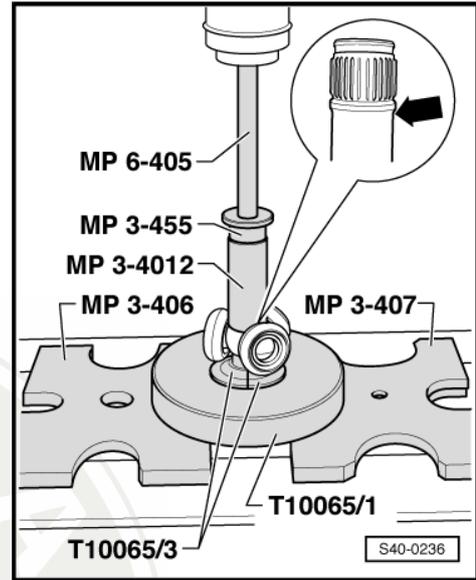




- Insert the tripod spider onto the shaft and press it up to the stop.
- Make sure that the force of pressure does not exceed 3.0 kN!
- Insert circlip and pay attention to correct position.
- Press 70 grams of grease for the drive shaft from the repair kit in the tripod joint.
- Slide the joint part over the rollers and hold down.
- Press 60 grams of grease for the drive shaft from the repair kit in the rear side of the tripod joint.

Grease ⇒ [page 108](#) .

- Installing the joint boot.

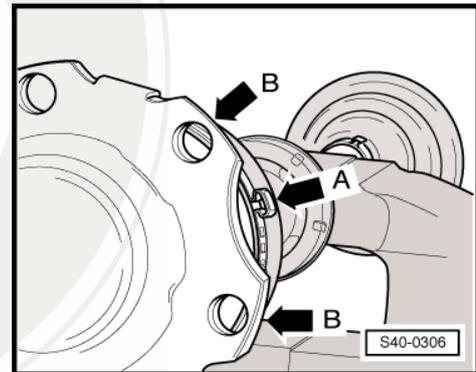


- Install warm-type clamp.



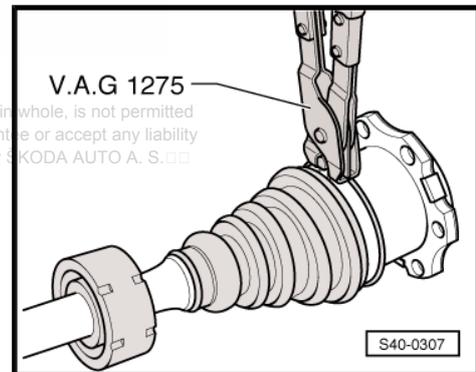
Note

In order to better guide the splined nuts when installing the drive shaft, it is necessary that the clamping pipe of the open warm-type clamp -arrow A- is located between the holes for the fixing flanges of the joint part -arrows B-.

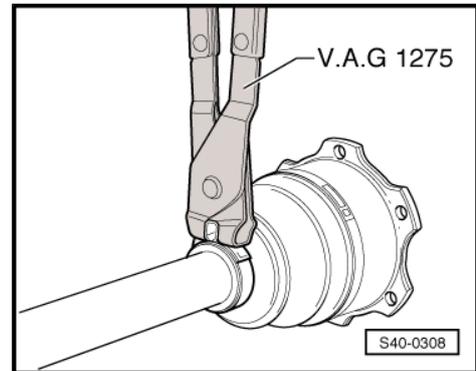


- Tighten warm-type clamp e.g. using hose binding claw - V.A.G 1275-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.



- tighten small warm-type clamp using hose binding claw - V.A.G 1275- .

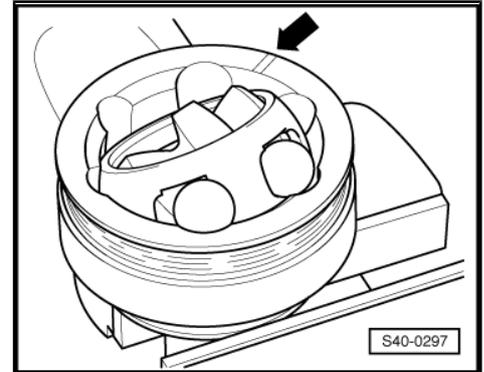


6.6.3 Inspecting outer CV joint

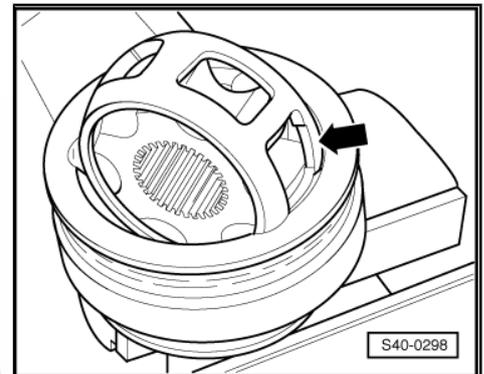
Disassemble the joint to replace badly soiled grease or if the contact surfaces of the balls must be inspected for wear and damage.

Removing:

- Mark the opposite position of the ball hub, the cage, the balls and the joint body before disassembling -arrow- (e.g. electric stylus, rubstone or felt-tip pen).
- Swivel the ball hub and the cage with balls until individual balls have to be removed.
- Remove the balls one after the other.



- Turn the cage until two rectangular cage windows -arrow- rest on the joint body.
- Remove cage with hub.

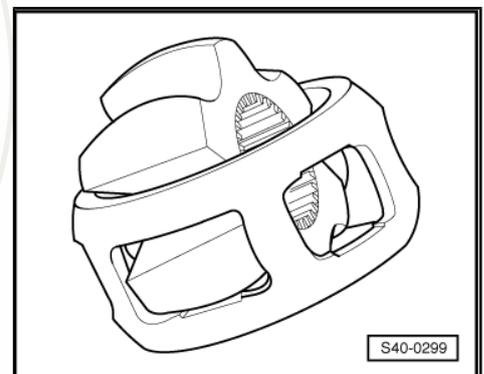


- Turn the hub segment in the window of the cage.
- Tilt hub out of the cage.

The 6 balls of each joint belong to a tolerance group. Inspect the axle studs, hub, cage and balls for small depressions (pitting = point erosion) and seizing marks. Load alteration shocks indicate too much torsional clearance in the joint. If this is the case, replace the joint. Smoothing and bearing marks do not justify a joint replacement.

Installing:

- Press half of the total grease quantity into the joint body.
- Insert the cage and hub in the joint body.



Note

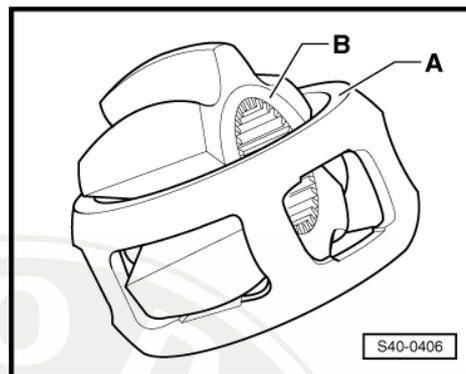
Absolutely observe the opposite position of the ball hub, the cage and the joint body on joints RO104 and RO3700.



Fitting position of the ball hub -B- and the cage -A- for joints RO104 and RO3700

The shoulder of the hub -B- and the wider side of the cage -A- must point into the joint body.

- Press in opposite balls one after the other, during this process observe the prior position of the ball hub relatively to the ball cage and to the joint body.
- Spread the remaining grease in the joint from the side of the boot.



6.7 Designation, distinguish the diameter as specified and grease quantity for joints

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



Outer CV joint			Inner CV joint		
Denomination	Diameter	Grease	Denomination	Diameter	Grease
RF90	81 mm	90 g, grind the grease evenly in the joint	VL90	90 mm	90 g, evenly in both halves of the joint
UF100	90 mm	110 g, grind the grease evenly in the joint	VL100	100 mm	110 g, evenly in both halves of the joint
UF107	98 mm	130 g, grind the grease evenly in the joint from both sides	VL107	108 mm	150 g, evenly in both halves of the joint
RO104	94 mm	120 g, grind the grease evenly in the joint	AAR2600i	74 mm ¹⁾	130 g, evenly in the joint
RO3700	100 mm	150 g, grind the grease evenly in the joint from both sides	AAR3300i	77 mm ¹⁾	130 g, evenly in the joint

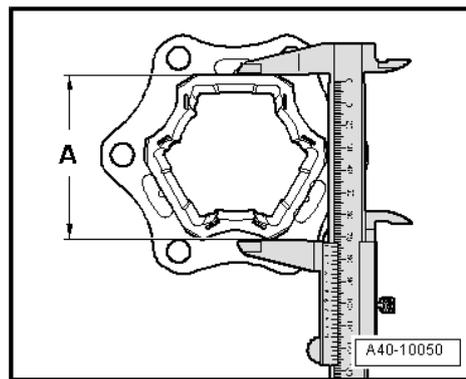
Use the relevant grease for outer joints, assignment ⇒ Electronic Catalogue of Original Parts .

Use heat-resistant grease for inner joints, assignment ⇒ Electronic Catalogue of Original Parts .





1) On tripod joints, measure the dimension -A- instead of the diameter.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □



42 – Rear suspension

1 Torsion beam axle

Raise the wheel-bearing of the rear axle in the rebound state (unladen weight position) ⇒ [page 111](#)

Summary of components of rear axle ⇒ [page 112](#)

Summary of components of the shock absorber and the spring of the torsion beam axle ⇒ [page 114](#)

Removing and installing rear axle ⇒ [page 115](#)

Removing and installing coil spring ⇒ [page 119](#)

repairing shock absorber ⇒ [page 120](#)

Removing and installing shock absorber ⇒ [page 121](#)

Removing and installing rubber-metal bearing ⇒ [page 125](#)

Summary of components, rear left vehicle level sender -G76- ⇒ [page 131](#)

Removing and installing rear left vehicle level sensor -G76- ⇒ [page 132](#)

1.1 Raise the wheel-bearing of the rear axle in the rebound state (unladen weight position)

Special tools and workshop equipment required

- ◆ Tensioning strap - T10038-
- ◆ Support - T10149-
- ◆ Engine/gearbox jack , e.g. -V.A.G 1383A-



Note

All screws must always be tightened firmly in the unladen condition (unladen weight position) to the chassis parts with rubber-metal bearings - do not load the vehicle!

Commercial purposes, in part or in whole, is not permitted used by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□□

Unladen weight:

Unladen weight of the vehicle ready for driving (full fuel tank and water reservoir for the windscreen wiper washer system, spare wheel and jack (if the vehicle was fitted at the factory with them), tool kit and without driver). The spare wheel, tool kit and jack must be located in the position prescribed by the vehicle manufacturer.

Rubber-metal bearings can be twisted only to a limited extent.

Therefore the axle components with rubber-metal bearings must be put in a position before tightening, which corresponds to the position while driving.

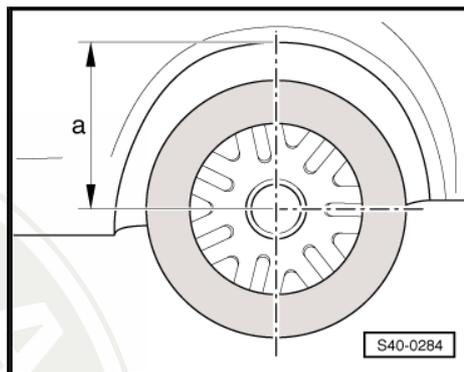
Otherwise the rubber-metal bearing will be under tension and as a result, will have a lower life.

This position on the lift platform can be simulated by lifting out the corresponding wheel suspension with the engine/gearbox jack e. g. -V.A.G 1383A- and the support - T10149- .

- Before commencing work, measure e.g with a measuring tape, the dimension -a- from wheel centre to lower edge of the wheelhouse.

Measuring must be performed when the vehicle is on the ground and in the unladen condition (unladen weight position) - do not load the vehicle.

- Note the measured value. It is required for tightening the screws/nuts.



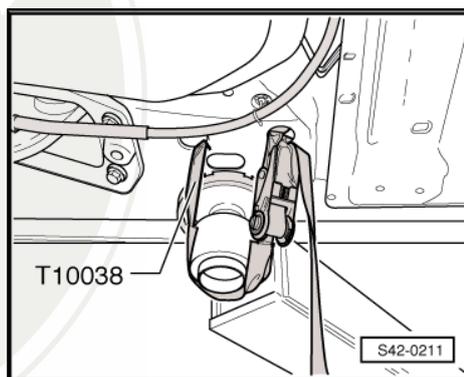
Before the corresponding wheel suspension is lifted, the vehicle must be lashed securely at the supporting arms of the lift platform with the tensioning straps - T10038- .



WARNING

If the vehicle is not lashed, there is a risk of the vehicle toppling off the lift platform.

- Remove wheel.
- Rotate the wheel hub until one of the holes for the wheel bolts is located at the top.
- Install support - T10149- with wheel bolt at the wheel hub.



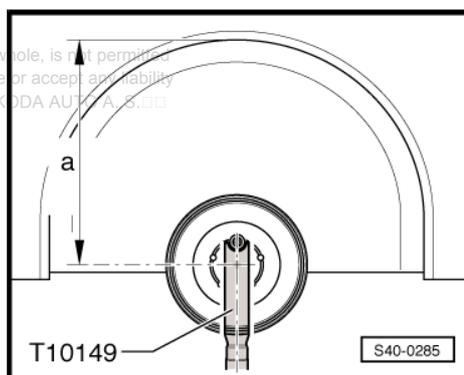
The tightening of the related screw must only be performed, if the measured dimension -a- between the wheel hub centre and the lower edge of the wheel house is achieved before commencing work.

- Raise up the wheel suspension using the engine/gearbox jack e. g. -V.A.G 1383A- until dimension -a- is achieved.



WARNING

- ◆ *Do not lift or lower the vehicle while the engine and gearbox jack is under the vehicle.*
- ◆ *Do not leave the engine/gearbox jack e. g. -V.A.G 1383A- positioned under the vehicle for longer than necessary.*



- Tighten up the corresponding screws/nuts fully to the specified tightening torque.
- Lower the wheel suspension.
- Pull out the engine/gearbox jack e.g. -V.A.G 1383A- from underneath the vehicle.
- Remove support - T10149- .
- Remove tensioning strap - T10038- .

1.2 Summary of components of rear axle

1 - Cover

2 - Screw, 50 Nm + 45°

- replace after each removal

3 - Screw, 70 Nm + 360°

- replace after each removal
- tighten in unladen weight position
⇒ [page 111](#)

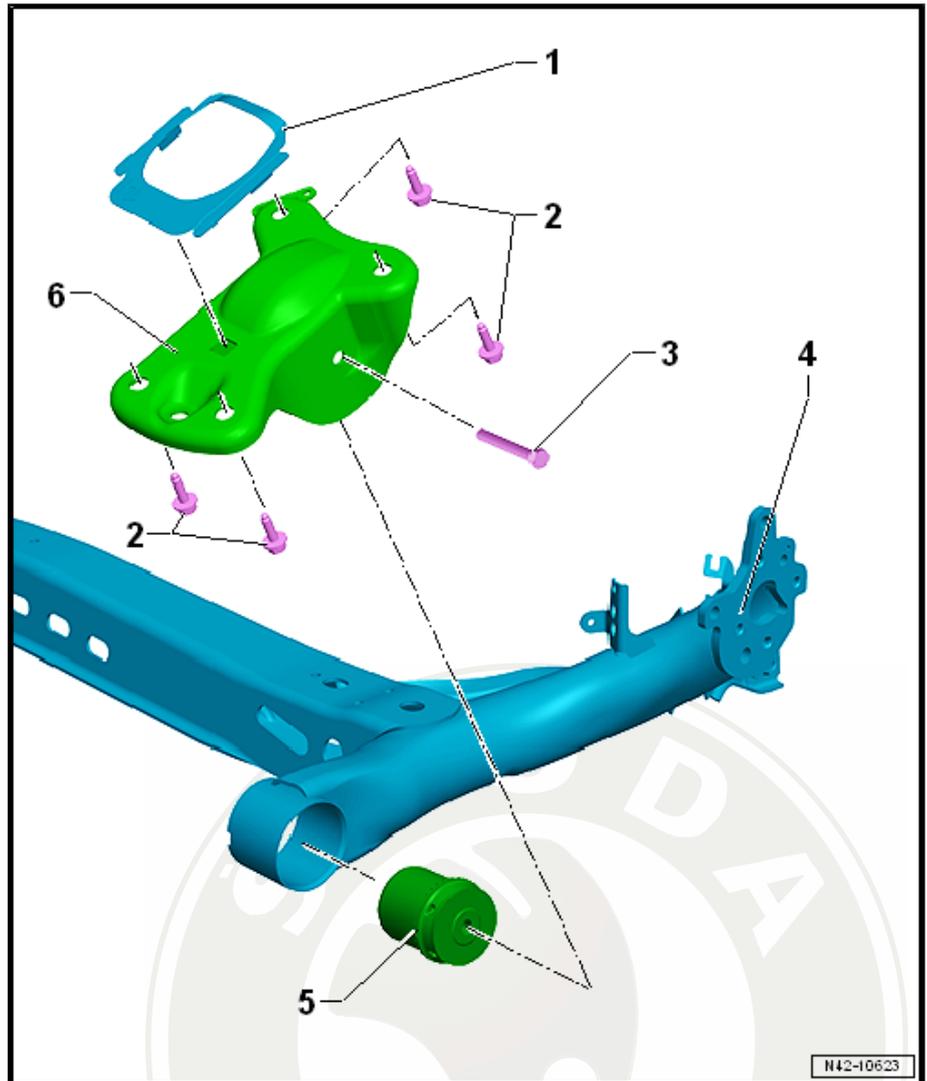
4 - Welded axle

- removing and installing
⇒ [page 115](#)

5 - Rubber-metal bearing

- Check fitting position
⇒ [page 128](#)
- removing and installing
⇒ [page 125](#)

6 - Mount for rear axle



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

1.3 Summary of components of the shock absorber and the spring of the torsion beam axle

1 - Screw, 50 Nm + 45°

- replace after each removal

2 - Shock absorber

- removing and installing ⇒ [page 121](#)
- Assignment ⇒ Electronic Catalogue of Original Parts

3 - Top spring seat

4 - Coil spring

- removing and installing ⇒ [page 119](#)
- Check fitting position ⇒ [page 114](#)

5 - Clamping ring

- After installing the stone guard, clip in straight.

6 - Bottom spring seat

- Check fitting position ⇒ [page 114](#)
- when installing, insert the stud into the hole in the axle

7 - Welded axle

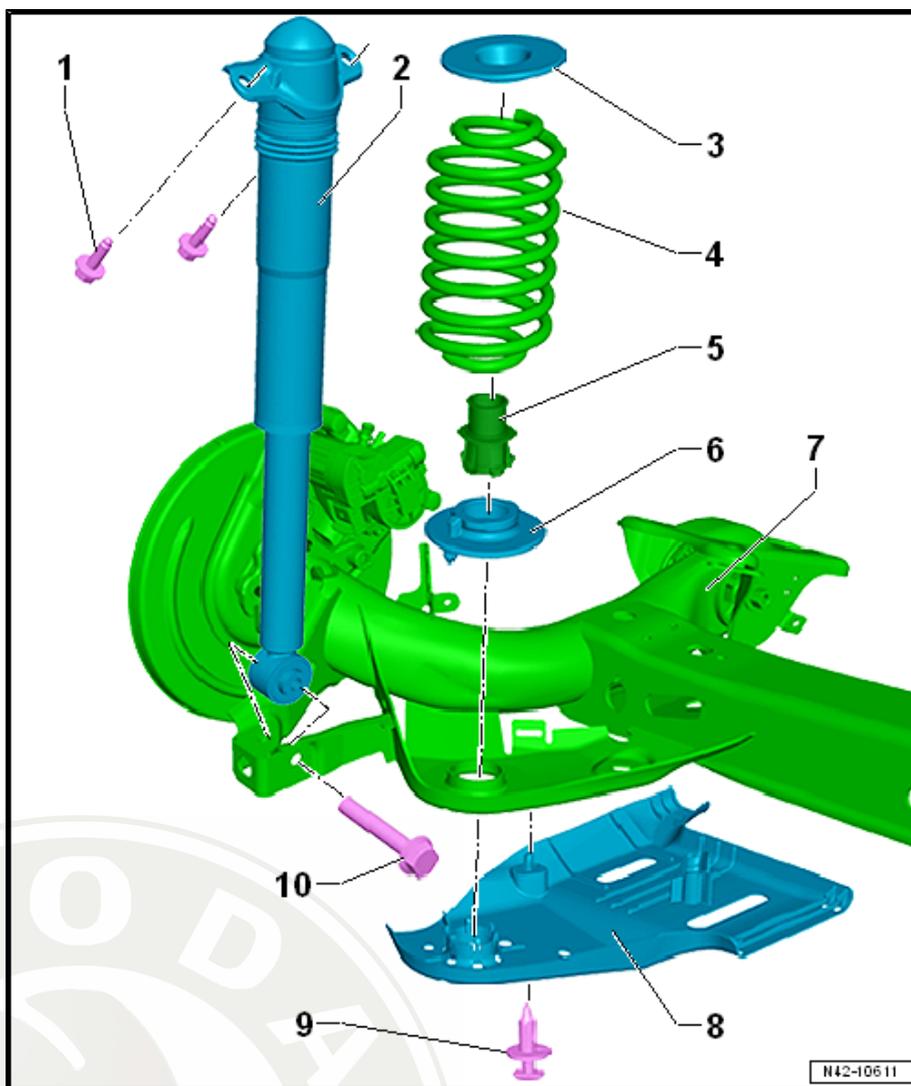
8 - Stone guard

- Assignment ⇒ Electronic Catalogue of Original Parts

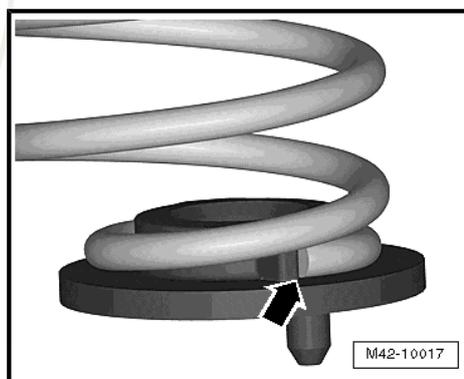
9 - Expanding rivet

10 - Screw, 70 Nm + 180°

- replace after each removal
- tighten in unladen weight position ⇒ [page 111](#)



Fitting position of the coil spring

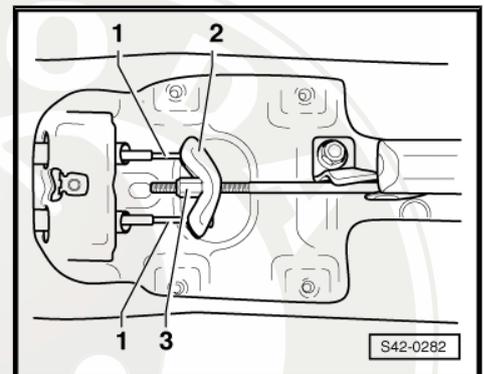


1.4 Removing and installing rear axle

Removing

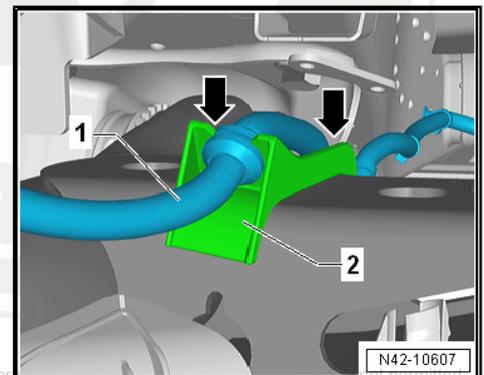
Special tools and workshop equipment required

- ◆ Spring tensioning device , e.g. -V.A.G. 1752/1-
- ◆ Spring holder , e.g. -V.A.G 1752/3A-
- ◆ Engine/gearbox jack with adapter , e.g. -V.A.G. 1383A- with -V.A.G 1359/2-
- ◆ Wooden block 490 x 270 x 50 mm for attachment -V.A.G 1359/2-
- ◆ Tensioning strap , e.g. -T10038-
- Put hand-brake back.
- Remove armrest ⇒ Body work; Rep. gr. 68 .
- Release resetting nut -3- and unhook hand-brake cables -1- from compensating clamp -2-.
- Remove wheels.
- Separate the plug connections for the wheel speed sensor on both vehicle sides.



- Pull the wheel speed sensor cables -1- on both sides out of the mounts -2- of the rear axle.

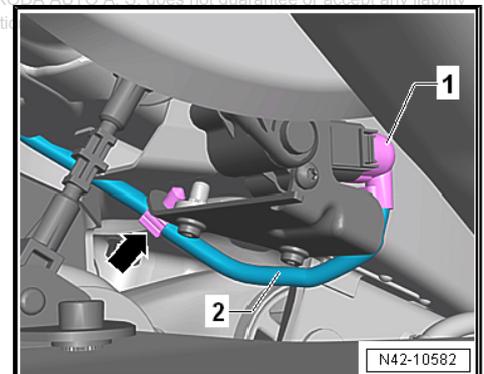
Vehicles with automatic headlight range control



- Disconnect the plug connection -1- for the rear left vehicle level sensor - G76- .
- Unclip the electrical line -2- from the clip -arrow-.

Continued for all vehicles

- Unhook the hand-brake cables from both brake calipers ⇒ Brake systems; Rep. gr. 46 .
- Pull the hand-brake cables out of the hole in the axle ⇒ Brake systems; Rep. gr. 46 .
- Remove the brake calipers on both vehicle sides and hook on the body (e.g. with wire) ⇒ Brake systems; Rep. gr. 46 .





- Unclip the brake line -1- on the right side -arrow-.



Note

The clip is destroyed and must be replaced.

- Remove coil springs ⇒ [page 119](#) .

- Now lash the vehicle securely to the lift platform using tensioning straps - T10038- .

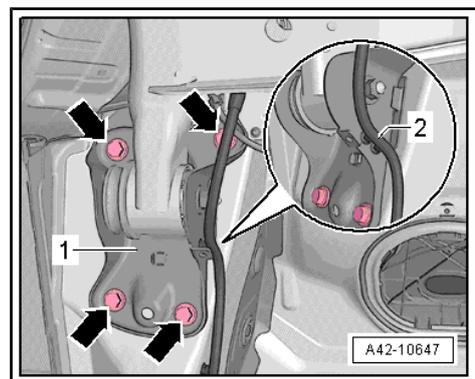
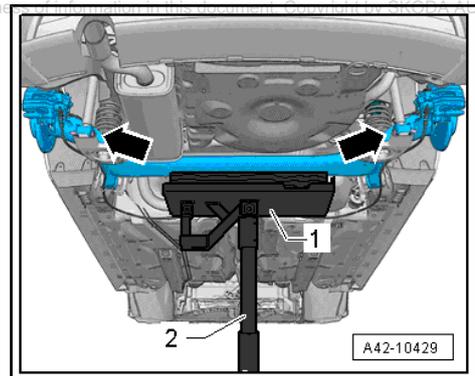
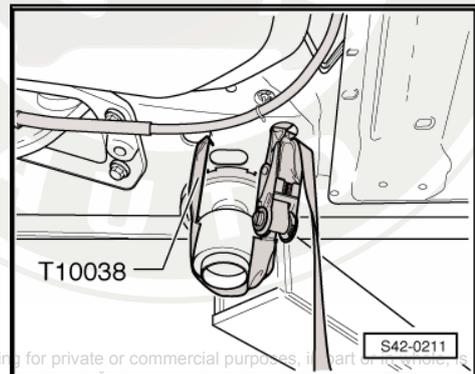
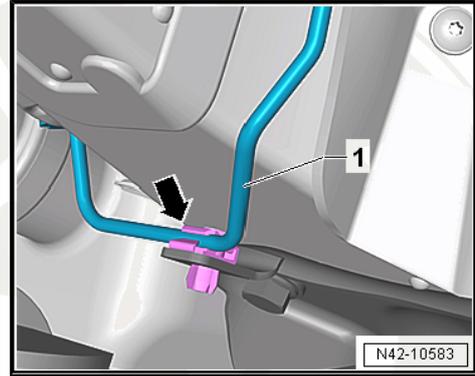


WARNING

If the vehicle is not lashed, there is a risk of the vehicle toppling off the lift platform.

- Insert wooden insert into the engine/gearbox jack-adapter.
- Support the rear axle with engine/gearbox jack with adapter.
- Secure the rear axle with tensioning strap at engine/gearbox jack-adapter.

- Mark the position of the bearing bracket for the rear axle -1- and the screws -arrows- on both sides, unscrew the screws -arrows-.



Protected by copyright. Copying for private or commercial purposes, in part or in full, is not permitted unless authorised by SKODA AUTO A. S. SKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of the information contained in this manual. SKODA AUTO A. S. ©



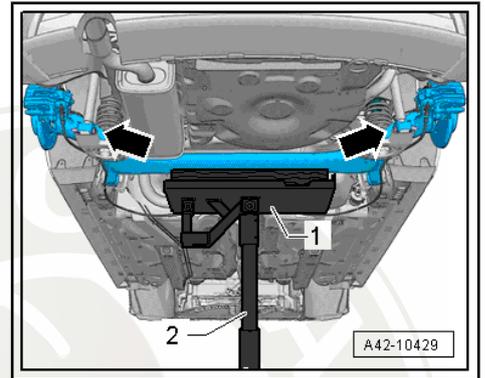
- Remove the bottom fixing screws for the shock absorber -arrows-.
- Lower the rear axle with engine/gearbox jack with adapter.

Install

Installation is performed in the reverse order, pay attention to the following points:

Note

When tightening the rubber-metal bearing screws and nuts, the bottom shock absorber mounting with axle, the axle body must be in the unladen position (unladen condition) => [page 111](#)



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



Tightening torques:

Brake line to brake hose	14 Nm
Shock absorber to rear suspension ◆ Use new screws! ◆ Tighten in unladen weight position ⇒ page 111	70 Nm + 180°
Rear suspension to bearing bracket ◆ Use new screws/nuts! ◆ Tighten in unladen weight position ⇒ page 111	70 Nm + 360°
Bearing bracket of rear axle to structure. ◆ Use new screws! ◆ Install in the marked position.	50 Nm + 45°
ABS speed sensor on axle	8 Nm
Wheel bolts	120 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □

1.5 Removing and installing coil spring

Special tools and workshop equipment required

- ◆ Tensioning device for the suspension struts , e.g. -V.A.G 1752/1-
- ◆ Spring holder , e.g. -V.A.G 1752/3A-

Removing

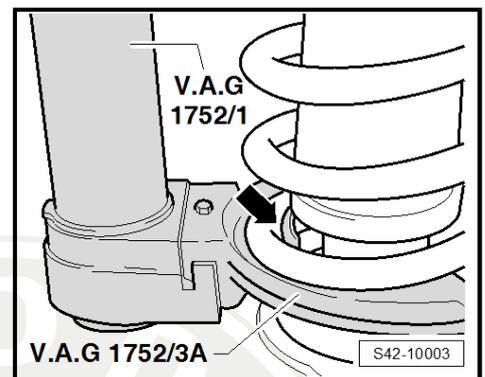
Note

To remove the left spring it is necessary due to lack of space for the spring tensioner e. g. -V.A.G 1752/1- to partially remove the rear silencer (unhook).

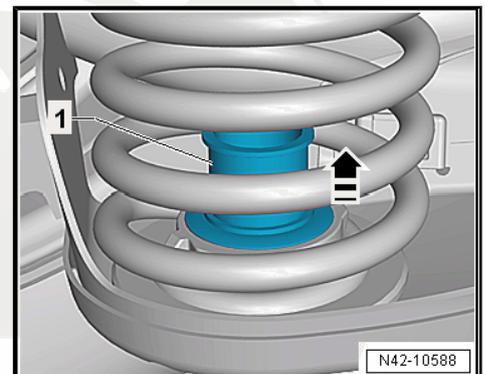
- Raise vehicle.
- Unhook the rear silencer ⇒ Engine; Rep. gr. 26 and push it to the side.

Note

- ◆ Ensure that the spring holder is positioned as close as possible to the spring coil.
- ◆ During the tensioning operation, ensure that the spring is correctly fitted in the spring tensioner -arrow-.
- ◆ Do not use impact screw driver.



- Pull out the middle part of the clamping ring -1- in the direction of the arrow-.

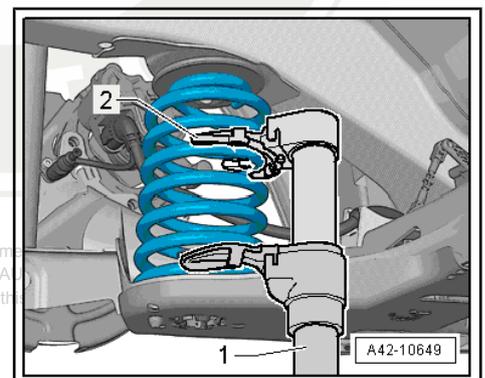


- Fit tensioning device for suspension struts , e.g. -V.A.G 1752/1- .

1 - Tensioning device for the suspension struts , e.g. -V.A.G 1752/1-

2 - Spring holder , e.g. -V.A.G 1752/3A-

- Remove coil spring.



Install

Installation is performed in the reverse order, pay attention to the following points:

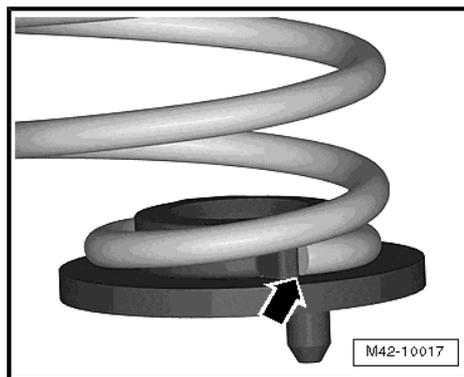
Protected by copyright. Copying for private or commercial use without the written permission of ŠKODA AUTO A. S. ŠKODA AUTO A. S. is prohibited.



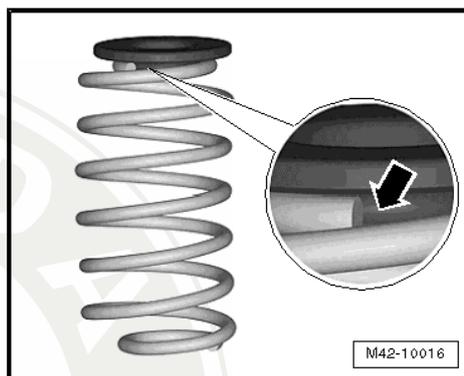
Note

The beginning of the spring -arrow- must be positioned at the stop of the bottom spring seat.

- Install the helical spring along with the spring seat.
- Insert the stud of the spring seat into the hole in the axle.



- Insert top spring seat into the upper spring coil end.
- Slacken spring. While doing so, the top spring seat must be positioned onto the lug of the body.
- Remove spring tensioning device.



1.6 Repairing shock absorber

1 - Shock absorber

- removing and installing
 => [page 121](#)
- Assignment => Electronic Catalogue of Original Parts

2 - Protective tube

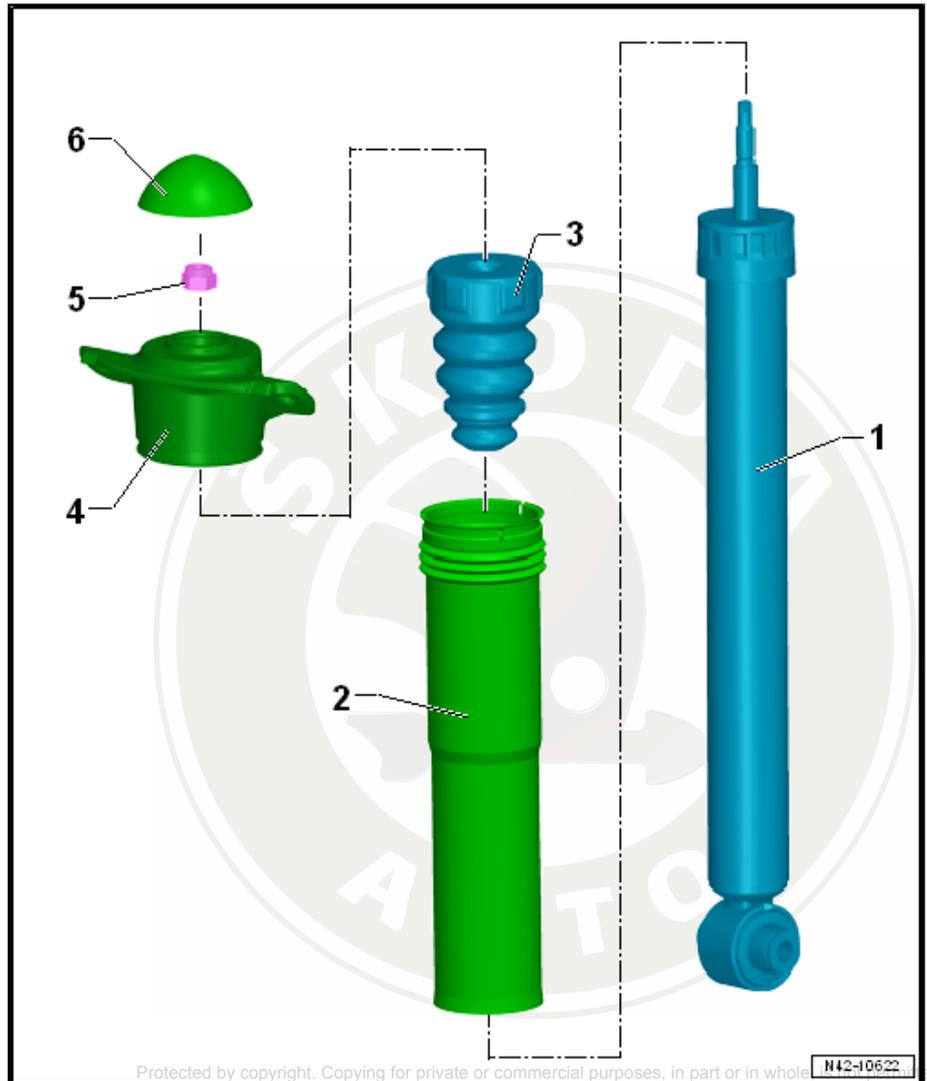
3 - Stop buffer

4 - Top shock absorber bushing

5 - Nut, 25 Nm

- replace after each removal
- slacken and tighten
 => [page 121](#)

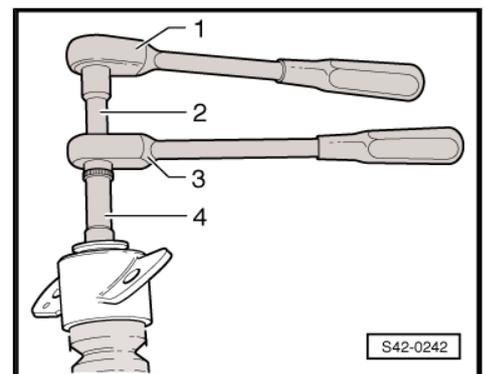
6 - Cover



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is prohibited unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.

Release the screw connection of the shock absorber bushing and tighten up again

- 1 - Ratchet (commercially available)
- 2 - Pull-off shackle - T10001/9-
- 3 - Ratchet - T10001/11-
- 4 - Pull-off shackle - T10001/1-



1.7 Removing and installing shock absorber

Special tools and workshop equipment required

- ◆ Engine/gearbox jack with adapter , e.g. -V.A.G 1383 A- with -V.A.G 1359/2-

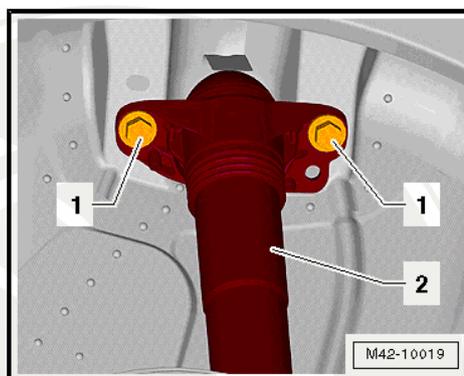


Removing



Note

- ◆ *The coil spring does not have to be removed in order to remove the shock absorber.*
- ◆ *Before commencing work, determine the measurement -a- ⇒ [page 111](#).*
- Remove wheel and raise vehicle.
- Remove the rear wheelhouse liner ⇒ Body Work; Rep. gr. 66.
- Place engine/gearbox jack with attachment below and support rear suspension at shock absorber mounting.
- Release screws -1-.



- Release screw -1-.
- Take out shock absorber.

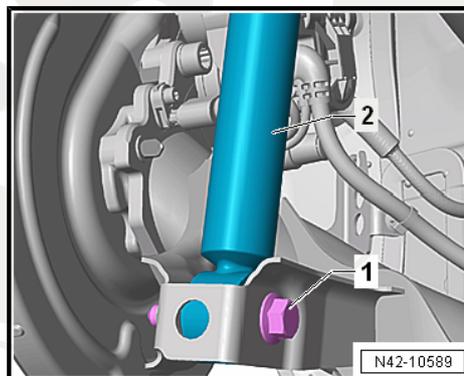
Install

Installation is performed in the reverse order, pay attention to the following points:

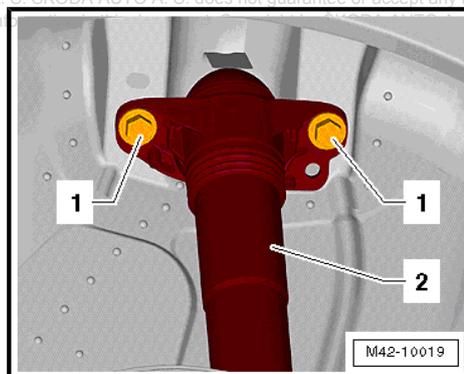


Note

When tightening the screw/nut for bottom shock absorber mounting/axle, the dimension -a- must be maintained (vehicle in unladen condition - unladen weight position) ⇒ [page 111](#).



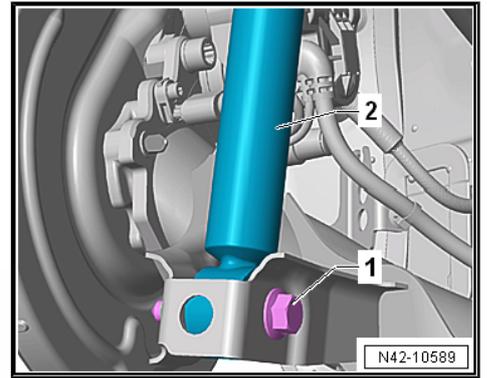
- Tighten the screws -1- to the specified tightening torque.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability for the correctness of information.



- Tighten screw -1- for shock absorber mounting/axle to the specified tightening torque - the vehicle must be in the unladen condition (unladen weight position) ⇒ [page 111](#) .
- Install the rear wheelhouse liner ⇒ Body Work; Rep. gr. 66 .
- Installing and tightening the wheel.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



Tightening torques:

Shock absorber to body ◆ Use new screws!	50 Nm + 45°
Shock absorber to rear axle ◆ Use new bolts. ◆ Tighten in unladen weight position ⇒ page 111 .	70 Nm + 180°
Wheel bolts	120 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □ □

1.8 removing and installing rubber-metal bearing

Special tools and workshop equipment required

- ◆ Assembly device - T10254-
- ◆ Assembly device - T10495-
- ◆ Hydraulic cylinder - VAS 6178-
- ◆ Foot pump - VAS 6179-
- ◆ Engine/gearbox jack with adapter , e.g. -V.A.G. 1383A- with -V.A.G. 1359/2-

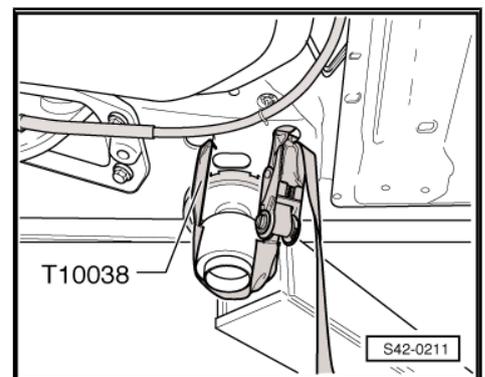
Removing

- Raise vehicle.
- Now lash the vehicle securely to the lift platform using tensioning straps - T10038- .

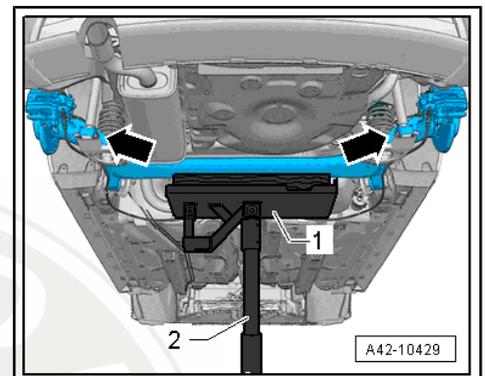


WARNING

If the vehicle is not lashed, there is a risk of the vehicle toppling off the lift platform.

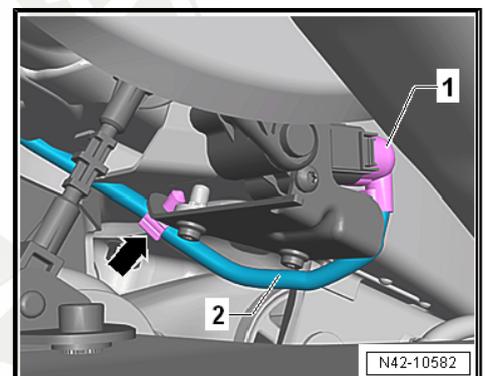


- Insert wooden insert into the engine/gearbox jack-adapter.
- Support the rear axle with engine/gearbox jack with adapter.
- Secure the rear axle with tensioning strap at engine/gearbox jack-adapter.



Vehicles with rear left vehicle level sensor - G76-

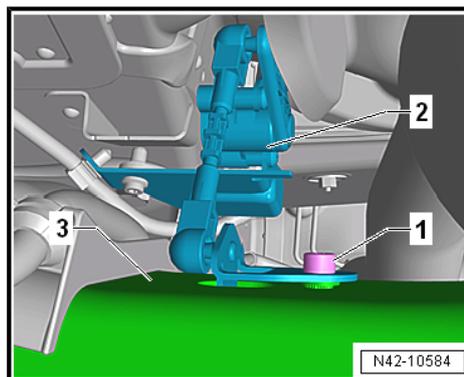
- Unplug connector -1-.
- Unclip the electrical line -2- from the clip -arrow-.





- Release screw -1-.
- Pull the lever for the rear left vehicle level sensor - G76- -2- out of the rear axle -3-.

Continued for all vehicles

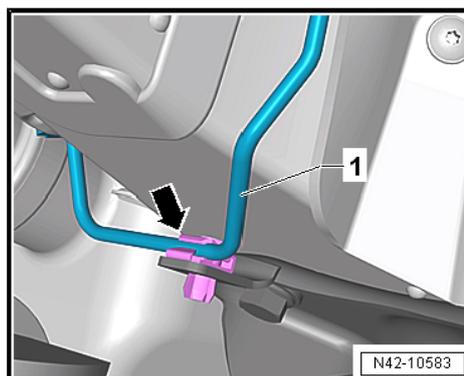


- Unclip the brake line -1- on the right side -arrow-.

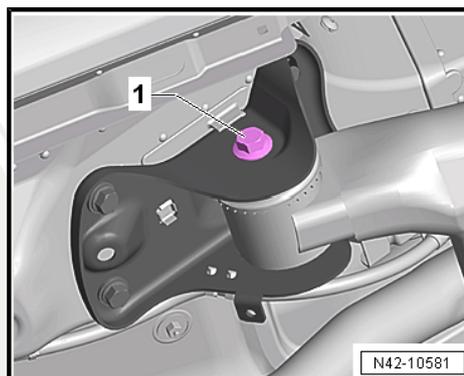


Note

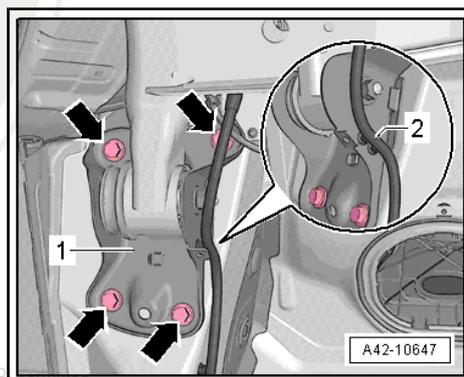
The clip is destroyed and must be replaced.



- Slacken the screw -1- on the relevant side.



- Mark the position of the bearing bracket for the rear axle -1- and the screws -arrows- on both vehicle sides, unscrew the screws -arrows-.



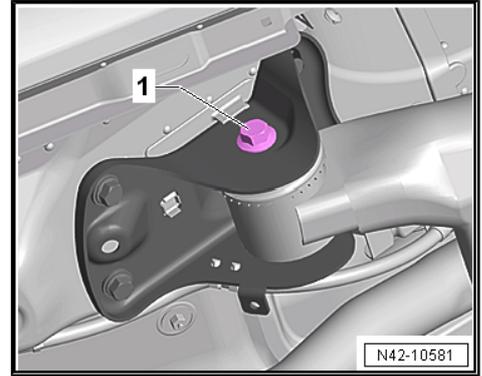
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted without the prior written consent of ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. 00

- Only lower the axle until the screw -1- can be removed.

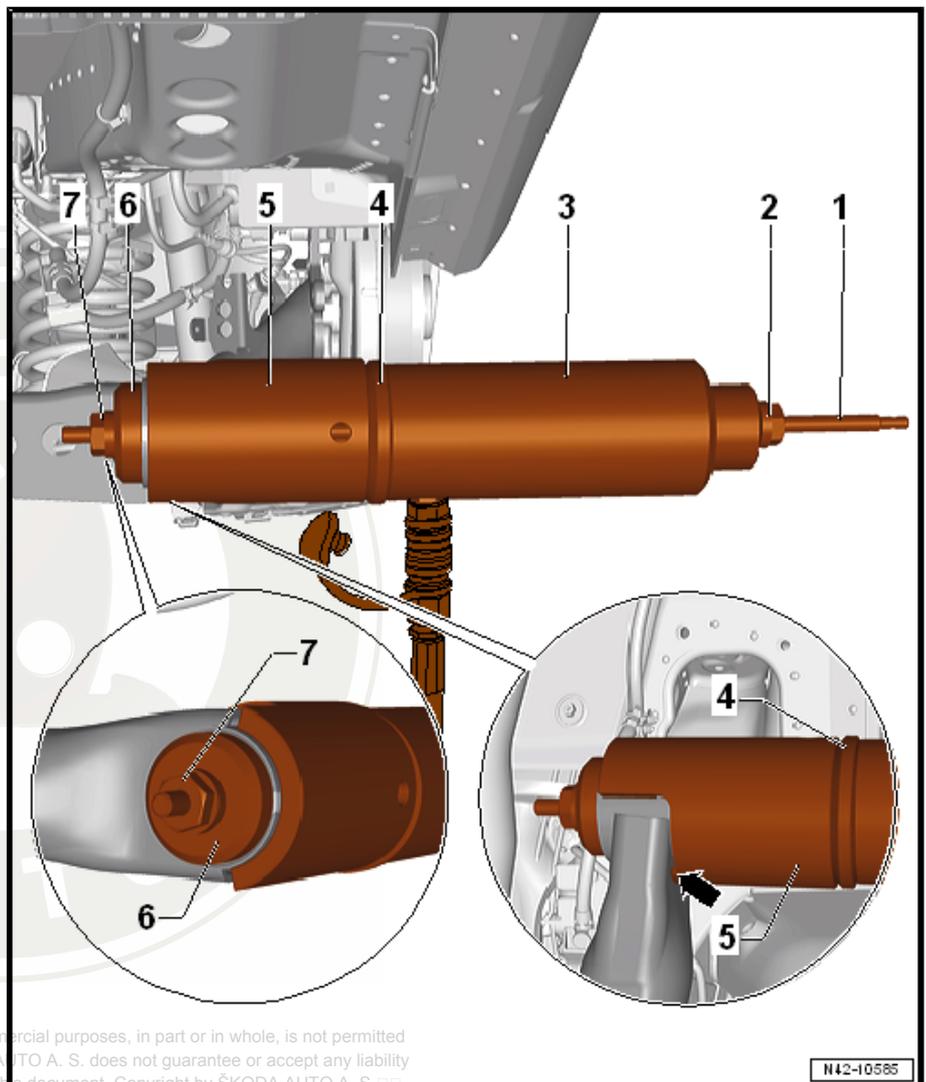


Caution

Make sure that the electrical cables and the brake lines are not damaged.



- Position assembly devices, as shown, screw together and counterhold by hand.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.

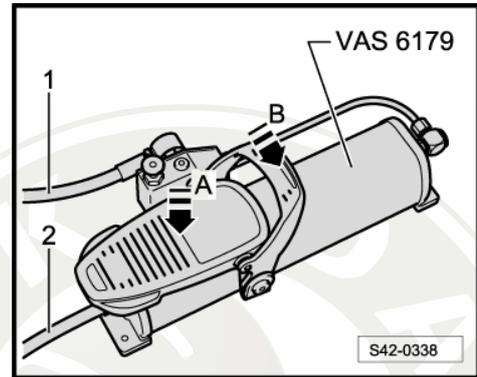
- 1 - Assembly device (screw) - T10254/5-
- 2 - Assembly device (nut) - T10254/4-
- 3 - Hydraulic cylinder - VAS 6178-
- 4 - Assembly device (pressure plate) - T10495/3-
- 5 - Assembly device (tube) - T10495/2-



- 6 - Assembly device (pressure plate) - T10495/1-
- 7 - Assembly device (nut) - T10254/4-
- Carefully depress the pedal of the hydraulic pump - VAS 6179-
-arrow A-

The hydraulic cylinder - VAS 6178- is therefore activated.

- Pull the rubber-metal bearing out of the axle body.
- Counterhold the assembly devices by hand when completing the pull-out process.



- Carefully depress the pedal of the hydraulic pump - VAS 6179-
-arrow B-

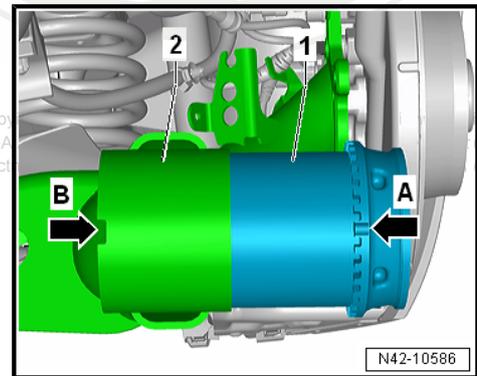
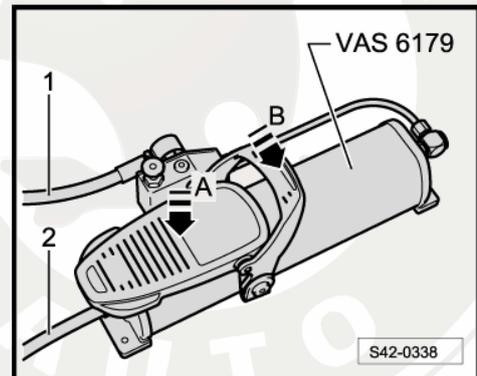
While doing so, the hydraulic cylinder - VAS 6178- returns to the initial position.

- Remove assembly devices and unscrew assembly device (nut) - T10254/4- .

Install

- Pay attention to the fitting position of the rubber-metal bearing -1-.

The peg -A- of the rubber-metal bearing -1- must always point towards the recess -B- in the axle body -2-.



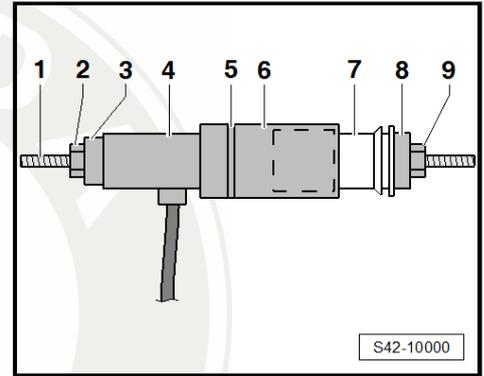
Protected by copyright. Copying or reproduction in any form or by any means, unless authorised by ŠKODA AUTO A. S., is prohibited with respect to the correct

is not permitted. ŠKODA AUTO A. S. shall not be held liable for any liability.



– Position assembly devices, as shown, screw together and counterhold by hand.

- 1 - Assembly device (screw) - T10254/5-
- 2 - Assembly device (nut) - T10254/4-
- 3 - Assembly device (pressure plate) - T10254/1-
- 4 - Hydraulic cylinder - VAS 6178-
- 5 - Assembly device (pressure plate) - T10495/3-
- 6 - Assembly device (tube) - T10495/2-
- 7 - Rubber-metal bearing
- 8 - Assembly device (pressure plate) - T10495/1-
- 9 - Assembly device (nut) - T10254/4-



- Insert the rubber-metal bearing up to the stop.
- Check fitting position ⇒ [page 128](#) .

Further installation occurs in reverse order.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



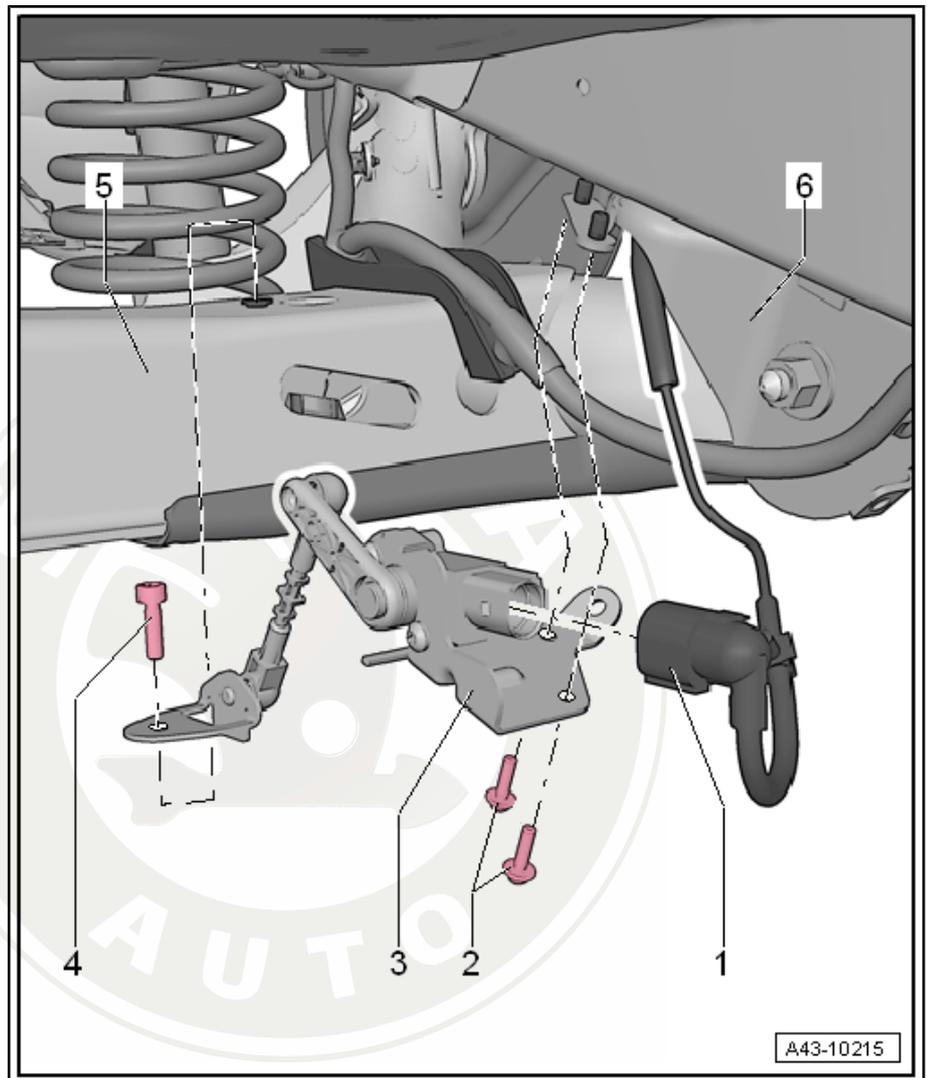
Tightening torques:

Rear suspension to bearing bracket ◆ Use new screws! ◆ Tighten in unladen weight position ⇒ page 111	70 Nm + 360°
Bearing bracket of rear axle to structure. ◆ Use new screws! ◆ Install in the marked position.	50 Nm + 45°
Vehicle level sensor to axle.	8 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

1.9 Summary of components, rear left vehicle level sender -G76-

- 1 - Plug connection
- 2 - Screw, 5 Nm
- 3 - Vehicle level sensor -G76-
- 4 - Screw, 8 Nm
- 5 - Assembly carrier
- 6 - Hanger



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



1.10 Removing and installing rear left vehicle level sensor -G76-

Removing

- Pull off plug connection -1-.
- Unscrew screws -2- and -4-.
- Remove vehicle level sender -G76- -3-.

Install

Installation is carried out in the reverse order.

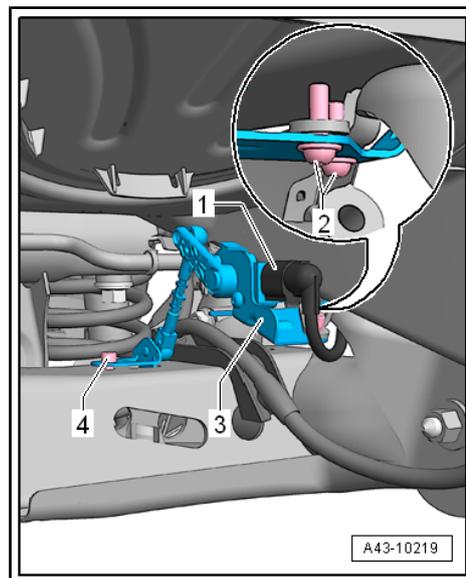


Note

The lever for the vehicle level sender -G76- must face away from the driving direction.

- Carry out a basic setting of the headlights ⇒ Electrical system; Rep. gr. 94 .

Tightening torques ⇒ [page 131](#)





2 Multi-link rear suspension

Raise the wheel-bearing of the rear axle in the rebound state (unladen weight position) ⇒ [page 133](#)

Summary of components assembly carrier - vehicles with front-wheel drive ⇒ [page 135](#)

Summary of components assembly carrier - vehicles with four-wheel drive ⇒ [page 137](#)

Secure assembly carrier - vehicles with front-wheel drive ⇒ [page 148](#)

Secure assembly carrier - vehicles with four-wheel drive ⇒ [page 149](#)

Removing and installing shaft with component parts- vehicles with front-wheel drive ⇒ [page 150](#)

Removing and installing shaft with component parts- vehicles with four-wheel drive ⇒ [page 154](#)

repairing shock absorber ⇒ [page 158](#)

Removing and installing shock absorber ⇒ [page 158](#)

Removing and installing coil spring ⇒ [page 162](#)

Summary of components - anti-roll bar ⇒ [page 168](#)

Wheel bearing - vehicles with front-wheel drive ⇒ [page 171](#)

Wheel bearing - vehicles with four-wheel drive ⇒ [page 179](#)

Summary of components: Suspension arm- vehicles with front-wheel drive ⇒ [page 189](#)

Summary of components: Suspension arm- vehicles with four-wheel drive ⇒ [page 196](#)

Summary of components: Tie rod for rear axle - vehicles with front-wheel drive ⇒ [page 202](#)

Summary of components: Tie rod for rear axle - vehicles with four-wheel drive ⇒ [page 205](#)

Removing and installing trailing arm with bracket ⇒ [page 208](#)

Repairing trailing arm ⇒ [page 211](#)

Summary of components, rear left vehicle level sender -G76- - front-wheel drive ⇒ [page 213](#)

Removing and installing rear left vehicle level sensor -G76- - front-wheel drive ⇒ [page 214](#)

Summary of components, rear left vehicle level sender -G76- - four-wheel drive ⇒ [page 214](#)

Removing and installing rear left vehicle level sensor -G76- - four-wheel drive ⇒ [page 215](#)

2.1 Raise the wheel-bearing of the rear axle in the rebound state (unladen weight position)

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorized. ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

Special tools and workshop equipment required

- ◆ Tensioning strap - T10038-
- ◆ Support - T10149-
- ◆ Engine/gearbox jack , e.g. -V.A.G 1383A -



All screws must always be tightened firmly in the unladen weight position to the chassis parts with rubber-metal bearings.

Unladen weight:

Weight of the vehicle with full fuel tank and full water reservoir for windscreen wiper/washer and headlamp cleaning system, spare wheel, tool kit, jack and without driver. The spare wheel, tool kit and jack must be located in the position prescribed by the vehicle manufacturer.

Rubber-metal bearings can be twisted only to a limited extent.

Therefore the axle components with rubber-metal bearings must be put in a position before tightening, which corresponds to the position while driving (unladen weight position).

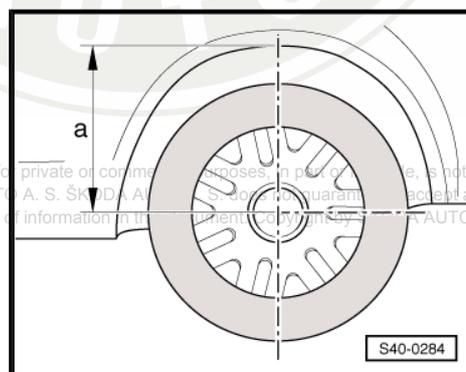
Otherwise the rubber-metal bearing will be under tension and as a result, will have a lower life.

This position on the lift platform can be simulated by lifting out the axle on one side with the engine/gearbox jack e.g. -V.A.G 1383A- and the support - T10149 - .

- Before commencing work, measure e.g with a measuring tape, the dimension -a- from wheel centre to lower edge of the wheelhouse => [page 233](#) .

Measuring must be performed in the unladen weight position.

- Note the measured value -a-. It is required for tightening the screws/nuts.



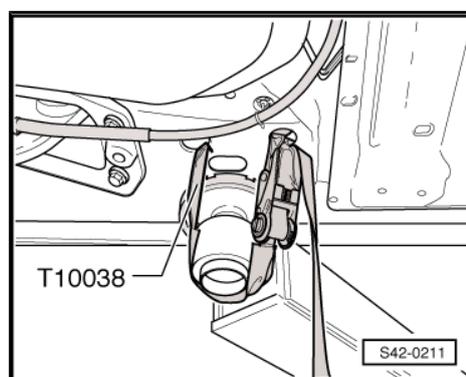
Before the axle on one side is lifted, the vehicle must be lashed securely at the supporting arms of the lift platform with the tensioning straps - T10038- .



WARNING

If the vehicle is not lashed, there is a risk of the vehicle toppling off the lift platform.

- Remove wheel.
- Rotate the wheel hub until one of the holes for the wheel bolts is located at the top.



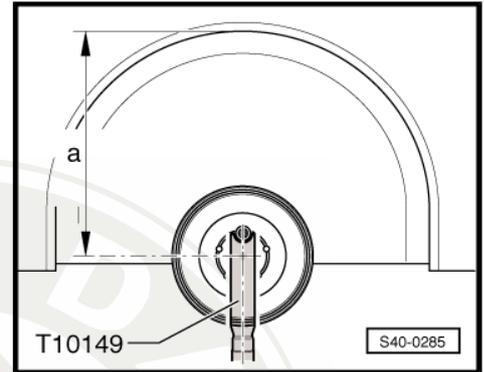
- Install support - T10149- with wheel bolt at the wheel hub.
- Raise up the wheel-bearing housing using the engine/gearbox jack e. g. -V.A.G 1383A- until dimension -a- is achieved.

The tightening of the corresponding screw/nut to the chassis parts must only be performed, if the measured dimension -a- between the wheel hub centre and the lower edge of the wheel house is achieved before commencing work => [page 134](#) .



WARNING

- ◆ *Do not lift or lower the vehicle while the engine and gearbox jack is under the vehicle.*
- ◆ *Do not leave the engine/gearbox jack e. g. -V.A.G 1383A - positioned under the vehicle for longer than necessary.*



- Tighten corresponding screws/nuts on the chassis parts to the specified tightening torque.
- Lower the wheel bearing housing.
- Pull out the engine/gearbox jack from underneath the vehicle.
- Remove support - T10149- .
- Remove tensioning strap - T10038- .

2.2 Summary of components assembly carrier - vehicles with front-wheel drive

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



1 - Assembly carrier

- removing and installing
⇒ [page 150](#)
- fix ⇒ [page 148](#)

2 - Screw, 70 Nm + 180°

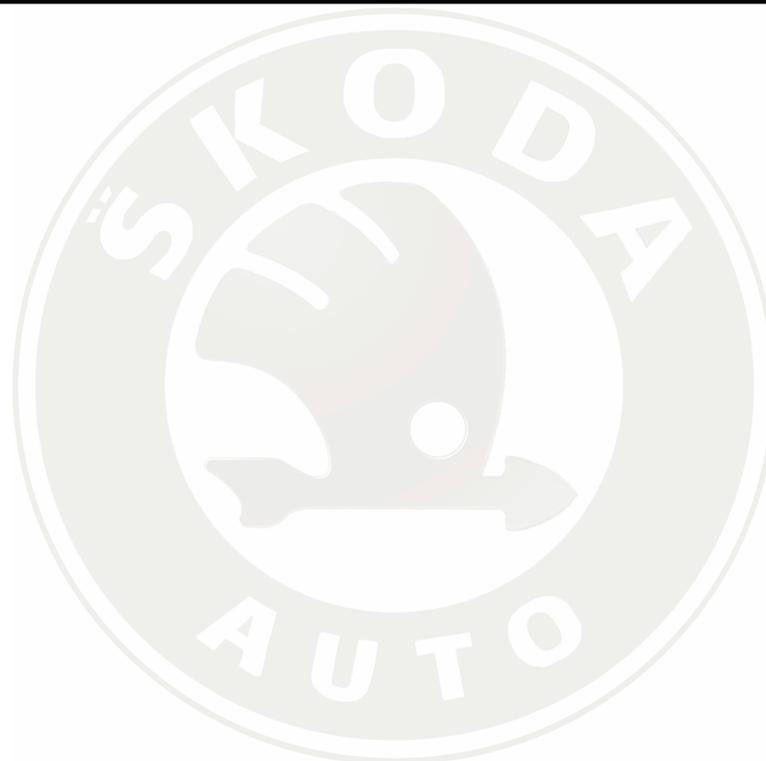
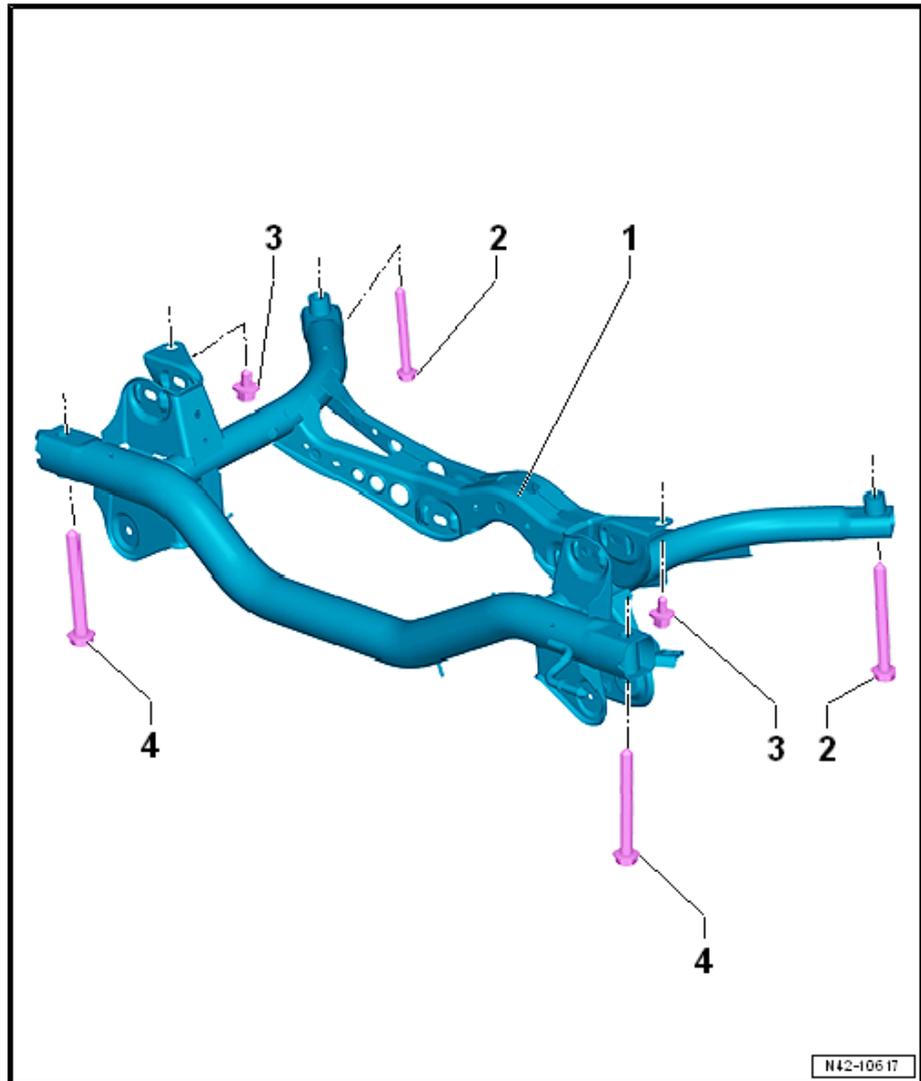
- replace after each re-
moval

3 - Screw, 50 Nm + 45°

- replace after each re-
moval

4 - Screw, 70 Nm + 180°

- replace after each re-
moval





Note

- ◆ If the rubber-metal bearing is faulty, also replace the bearing on the other side of the assembly carrier. Assignment ⇒ *Electronic Catalogue of Original Parts* .
- ◆ Before replacing the faulty rubber-metal bearing, also check the other bearings for damage.
- ◆ If there are visible cracks or other signs of damage on these bearings, replace them.
- ◆ Before removing the rubber-metal bearing, mark its position vis-a-vis the assembly carrier.
- ◆ To remove the rubber-metal bearing, lower the front and, where necessary, rear assembly carrier. The assembly carrier need not be removed.

Removing front rubber-metal bearing

- Remove wheels.
- Remove coil springs ⇒ [page 162](#) .
- Disconnect the propeller shaft from the rear final drive ⇒ Gearbox; Rep. gr. 39 .
- Remove the rear silencer ⇒ Engine; Rep. gr. 26 .
- Slacken the spring clip -1- on both sides.
- Unclip the brake line from the holder.



Note

Do not separate the brake lines.

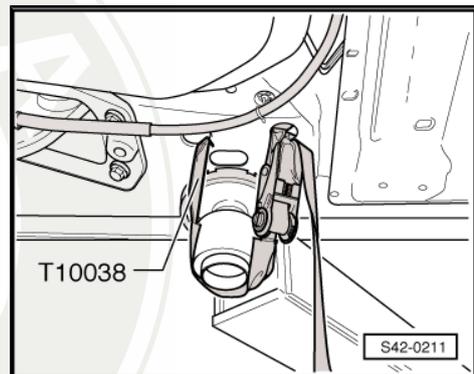
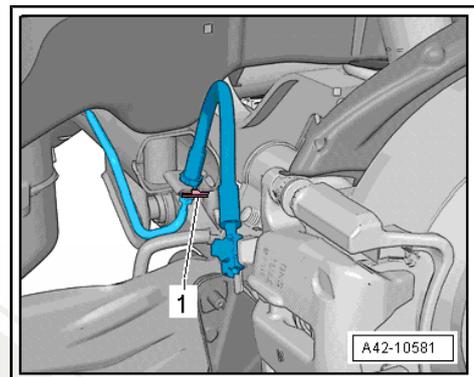
- Lash the vehicle to the lift platform using the tensioning straps - T10038- .



WARNING

If the vehicle is not lashed, there is a risk of the vehicle toppling off the lift platform.

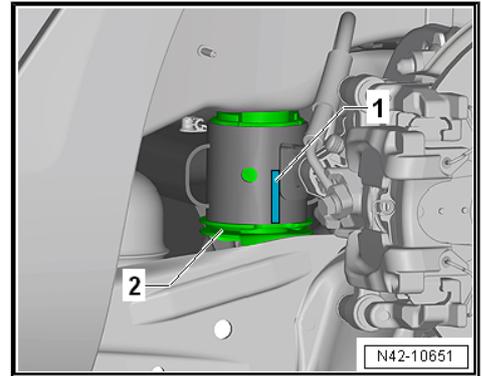
- Fix the assembly carrier ⇒ [page 149](#) .



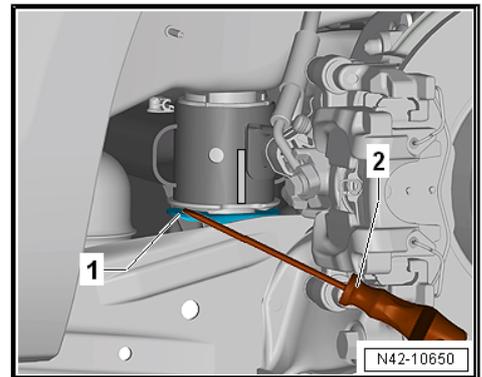
- Mark the position of the rubber-metal bearing to the assembly carrier -1- e.g with a felt-tip pen.

i Note

Make the marking on the assembly carrier -1- in the middle of the recess of the rubber-metal bearing.



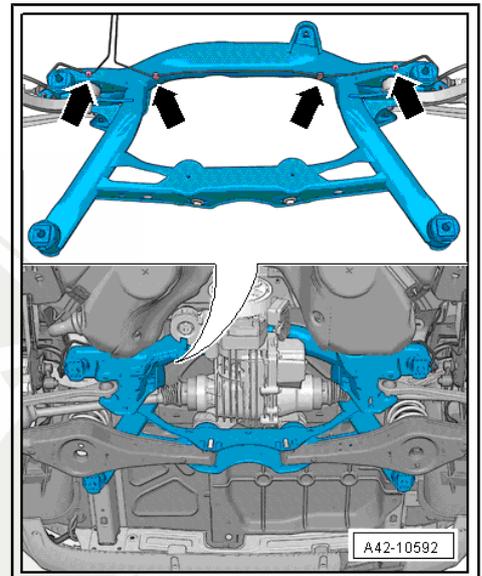
- Using a screwdriver -2- pry open the anti-rotation mechanism-1-.
- Lower subframe no more than 10 cm.



- Unclip left brake line -arrows-.

i Note

- ◆ *The fig. shows the assembly carrier from above and in the removed condition for purposes of clear presentation.*
- ◆ *The clips are destroyed and must be replaced.*





- Position the special tools as shown in the figure.
- 1- Nut - T10263/5-
- 2- Assembly device - T10356/1-
- 3- Assembly carrier
- 4- Assembly device - T10356/2- , the side with the sleeve faces the assembly carrier
- 5- Hydraulic cylinder e.g. -VAS 6178-
- 6- Nut - T10263/5-
- 7- Screw - T10263/4-
- Pretension special tool.
- Pull out the rubber-metal bearing by actuating the pump.

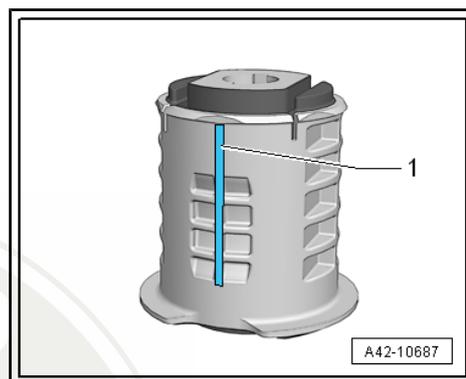
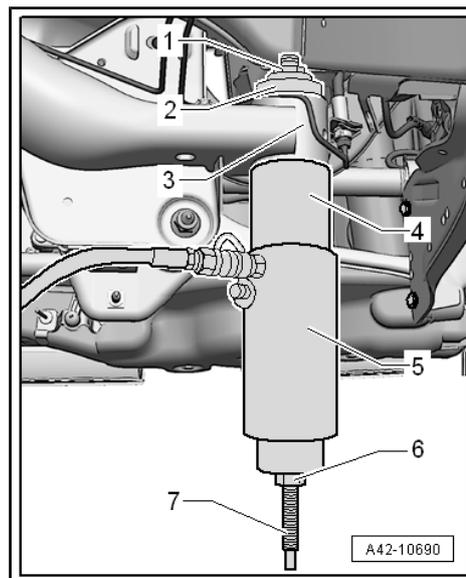


Note

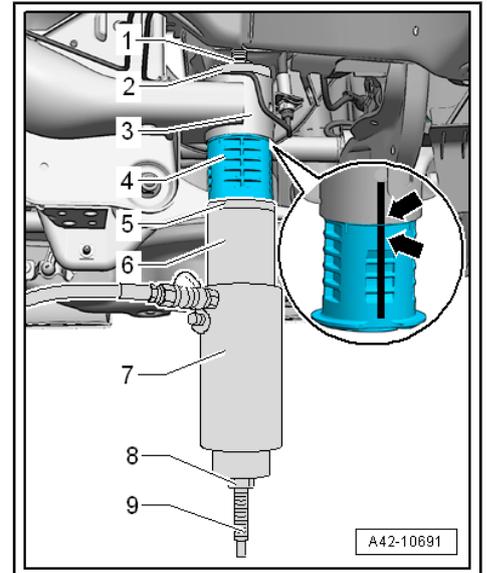
- ◆ *When pulling out the rubber-metal bearing, the outer ring of the bearing is sheared off. This is done with a loud bang.*
- ◆ *After removing the rubber-metal bearing, it must be removed from the pipe - T10356/2- by tapping it lightly with a hammer.*

Installing front rubber-metal bearing

- To aid with assembly, make a mark -1- on the catch of the rubber-metal bearing.
- Grease the external edge of the rubber-metal bearing with assembly paste.



- Position the special tools as shown in the figure.
- 1 - Nut - T10263/5-
- 2 - Assembly device - T10356/7- , the mark -A- faces the assembly carrier
- 3 - Assembly carrier
- 4 - Align the rubber-metal bearing to the markings made before -arrows- (marks on a single line)
- 5 - Assembly device - T10356/8-
- 6 - Assembly device - T10356/2-
- 7 - Hydraulic cylinder e.g. -VAS 6178-
- 8 - Nut - T10263/5-
- 9 - Screw - T10263/4-
- Check the position of the rubber-metal bearing, correct where necessary.
- Pretension special tool with rubber-metal bearing.
- Carefully install the rubber-metal bearing by actuating the pump, until the collar rests »free of gap« against the assembly carrier.
- Further assembling occurs in reverse order.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



Tightening torques:

Assembly carrier on body ◆ Use new screws!	70 Nm + 180°
Shock absorber to suspension arm ◆ Use new screws and nuts! ◆ Tighten in unladen weight position! ⇒ page 133	70 Nm + 180°
Wheel-bearing housing to bottom suspension arm ◆ Use new screws and nuts!	70 Nm + 180°
Rear part of exhaust system	⇒ Engine; Rep. gr. 26
Propshaft	⇒ Gearbox; Rep. gr. 39
Wheel bolts	120 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

2.3.2 Removing and installing the rear rubber-metal bearing(s)

Special tools and workshop equipment required

- ◆ Tensioning strap - T10038-
- ◆ Fixing device - T10096-
- ◆ Assembly device - T10263-
- ◆ Assembly device - T10356-
- ◆ Engine and gearbox jack , e.g. -V.A.G 1383 A-
- ◆ Hydraulic cylinder e.g. -VAS 6178-
- ◆ Foot pump , e. g. -VAS 6179-

Note

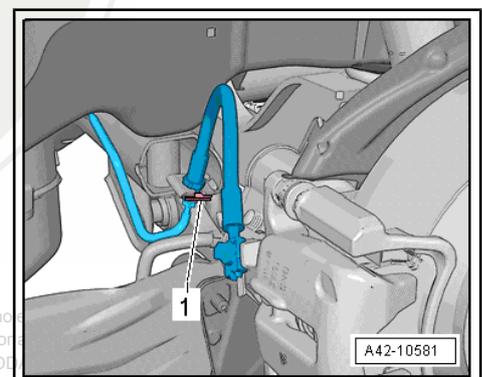
- ◆ *If the rubber-metal bearing is faulty, also replace the bearing on the other side of the assembly carrier. Assignment ⇒ Electronic Catalogue of Original Parts .*
- ◆ *Before replacing the faulty rubber-metal bearing, also check the other bearings for damage.*
- ◆ *If there are visible cracks or other signs of damage on these bearings, replace them.*
- ◆ *Before removing the rubber-metal bearing, mark its position vis-a-vis the assembly carrier.*
- ◆ *To remove the rubber-metal bearing, lower the front and, where necessary, rear assembly carrier. The assembly carrier need not be removed.*

Removing rear rubber-metal bearing

- Remove wheels.
- Remove coil springs ⇒ [page 162](#) .
- Disconnect the propeller shaft from the rear final drive ⇒ Gearbox; Rep. gr. 39 .
- Remove the rear silencer ⇒ Engine; Rep. gr. 26 .
- Slacken the spring clip -1- on both sides.
- Unclip the brake line from the holder.

Note

Do not separate the brake lines.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is prohibited without the written permission of ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee the accuracy of information in this document. Copyright by ŠKODA AUTO A. S.



- Lash the vehicle to the lift platform using the tensioning straps - T10038- .



WARNING

If the vehicle is not lashed, there is a risk of the vehicle toppling off the lift platform.

- Fix the assembly carrier => [page 149](#) .

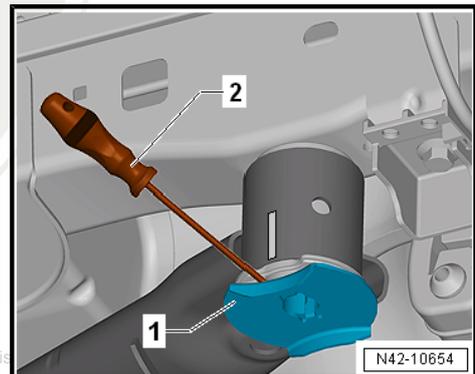
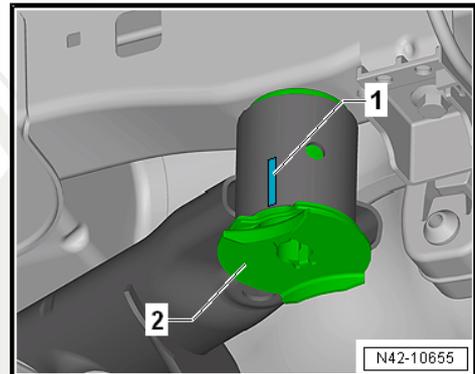
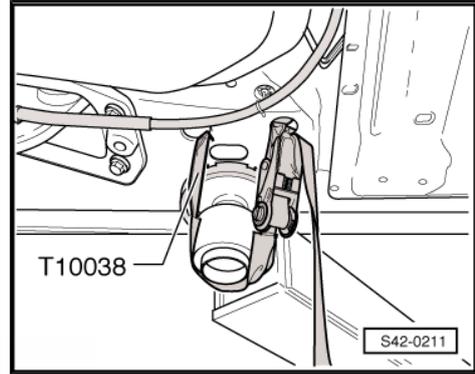
- Mark the installation position of the rubber-metal bearing -2- to the assembly carrier -1- e.g with a felt-tip pen.



Note

Make the marking on the assembly carrier -1- in the middle of the recess of the rubber-metal bearing -2-.

- Using a screwdriver -2- pry open the anti-rotation mechanism-1-.
- Lower subframe no more than 10 cm.

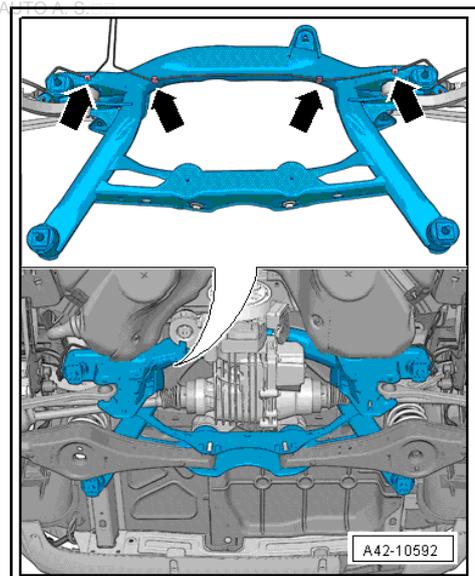


- Unclip left brake line -arrows-.



Note

- ◆ *The fig. shows the assembly carrier from above and in the removed condition for purposes of clear presentation.*
- ◆ *The clips are destroyed and must be replaced.*



– Position the special tools as shown in the figure.

- 1 - Nut - T10263/5-
 - 2 - Assembly device - T10356/5-
 - 3 - Assembly carrier
 - 4 - Assembly device - T10356/6- , the side with the sleeve faces the assembly carrier
 - 5 - Hydraulic cylinder e.g. -VAS 6178-
 - 6 - Nut - T10263/5-
 - 7 - Screw - T10263/4-
- Pretension special tool.
- Pull out the rubber-metal bearing by actuating the pump.

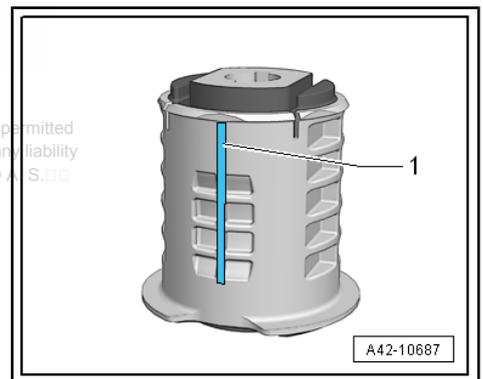
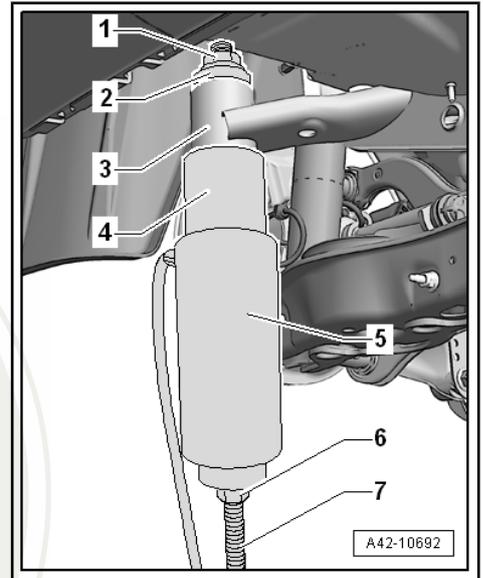
 **Note**

- ◆ *When pulling out the rubber-metal bearing, the outer ring of the bearing is sheared off. This is done with a loud bang.*
- ◆ *After removing the rubber-metal bearing, it must be removed from the pipe - T10356/2- by tapping it lightly with a hammer.*

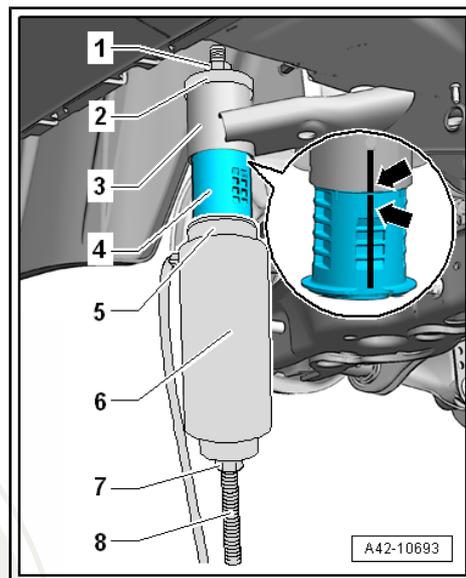
Installing rear rubber-metal bearing

- To aid with assembly, make a mark -1- on the catch of the rubber-metal bearing.
- Grease the external edge of the rubber-metal bearing with assembly paste.

Copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.



- Position the special tools as shown in the figure.
- 1 - Nut - T10263/5-
- 2 - Assembly device - T10356/7- , the mark -B- \ faces the assembly carrier
- 3 - Assembly carrier
- 4 - Align the rubber-metal bearing to the markings made before -arrows- (marks on a single line)
- 5 - Assembly device - T10356/8-
- 6 - Assembly device - T10356/2-
- 7 - Hydraulic cylinder e.g. -VAS 6178-
- 8 - Nut - T10263/5-
- 9 - Screw - T10263/4-
- Check the position of the rubber-metal bearing, correct where necessary.
- Pretension special tool with rubber-metal bearing.
- Carefully install the rubber-metal bearing by actuating the pump, until the collar rests »free of gap« against the assembly carrier.
- Further assembling occurs in reverse order.





Tightening torques:

Assembly carrier on body ♦ Use new screws!	70 Nm + 180°
Shock absorber to suspension arm ♦ Use new screws and nuts! ♦ Tighten in unladen weight position! ⇒ page 133	70 Nm + 180°
Wheel-bearing housing to bottom suspension arm ♦ Use new screws and nuts!	70 Nm + 180°
Rear part of exhaust system	⇒ Engine; Rep. gr. 26
Propshaft	⇒ Gearbox; Rep. gr. 39
Wheel bolts	120 Nm

2.4 Secure assembly carrier - vehicles with front-wheel drive

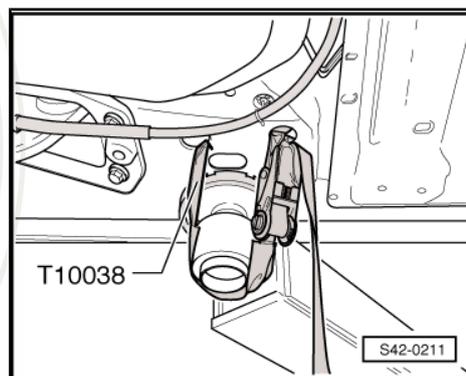
Special tools and workshop equipment required

- ◆ Fixing device - T10096-
- ◆ Engine/gearbox jack , e.g. -V.A.G 1383A-
- ◆ Tensioning straps - T10038-
- Now lash the vehicle securely to the lift platform using tensioning straps - T10038- .

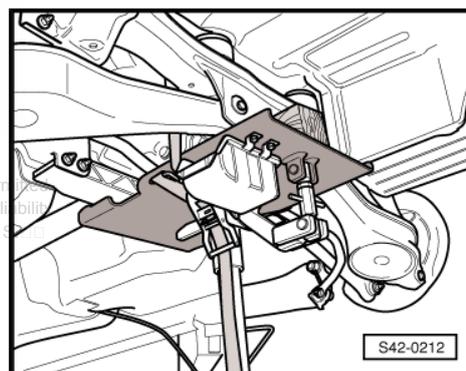


WARNING

If the vehicle is not lashed, there is a risk of the vehicle toppling off the lift platform.

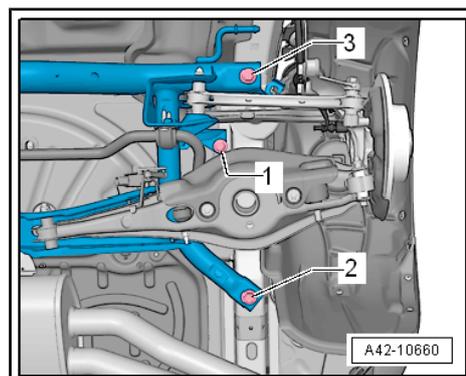


- Position engine/gearbox jack e. g. -V.A.G 1383A- with gearbox mount - V.A.G 1359/2- under the assembly carrier and secure it with tensioning strap .

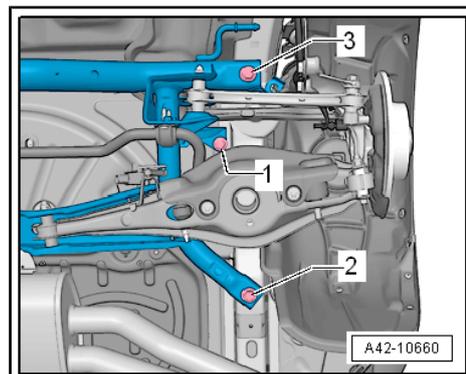


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.

- Screw out the screws -1- on both sides.
- The screws -2- and -3- must be replaced with fixing devices - T10096- in order to fix the assembly devices.



- Unscrew fixing screws -2- on both sides and replace with fixing devices - T10096- .



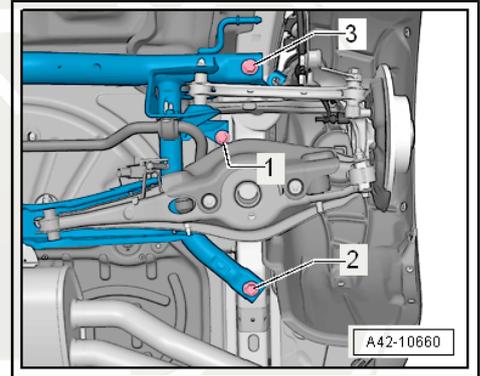


- Unscrew fixing screws -3- on both sides and replace with fixing devices - T10096- .

i Note

The locating pins - T10096- must only be tightened to maximum 20 Nm as otherwise the fixing bolt thread becomes damaged.

The assembly carrier is now fixed.



2.5 Secure assembly carrier - vehicles with four-wheel drive

Special tools and workshop equipment required

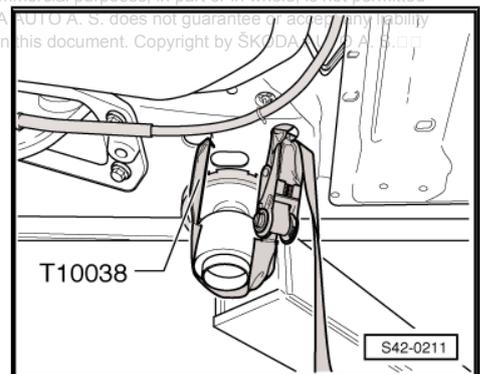
- ◆ Fixing device - T10096-
- ◆ Engine and gearbox jack e.g. -V.A.G 1383A-
- ◆ Tensioning straps - T10038-
- Lash the vehicle to the lift platform using the tensioning straps - T10038- .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted without the prior written consent of SKODA AUTO A. S. SKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by SKODA AUTO A. S. 2013

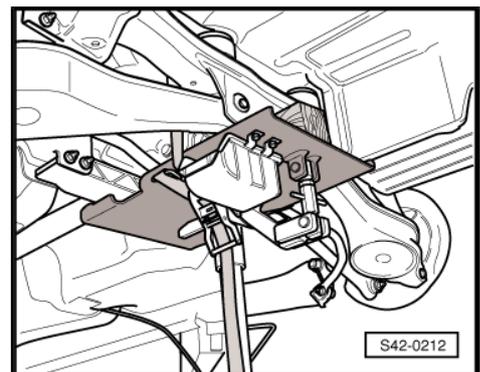


WARNING

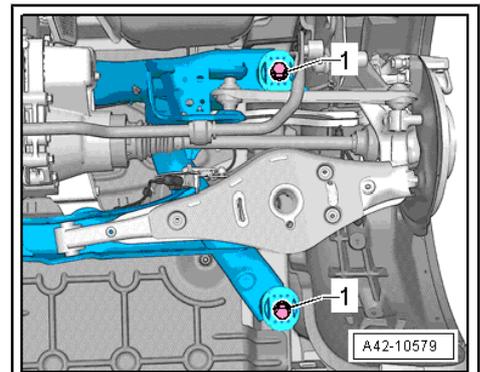
If the vehicle is not lashed, there is a risk of the vehicle toppling off the lift platform.



- Position engine/gearbox jack e. g. -V.A.G 1383A- with gearbox mount - V.A.G 1359/2- under the assembly carrier and secure it with tensioning strap .



The screws -1- must be replaced with fixing devices - T10096- in order to fix the assembly carrier.





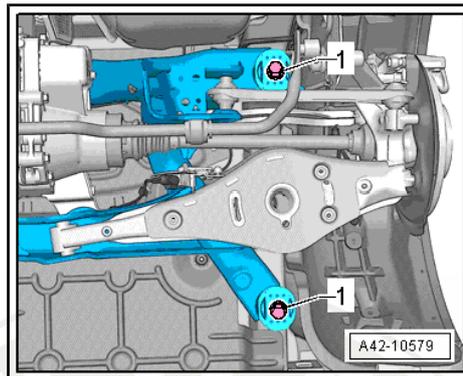
- Unscrew securing bolts -1- in turn on both sides and replace with fixing devices - T10096- .



Note

The locating pins - T10096- may be tightened only to a maximum of 20 Nm; otherwise the threads of the locating pins may be damaged.

The assembly carrier is now fixed.



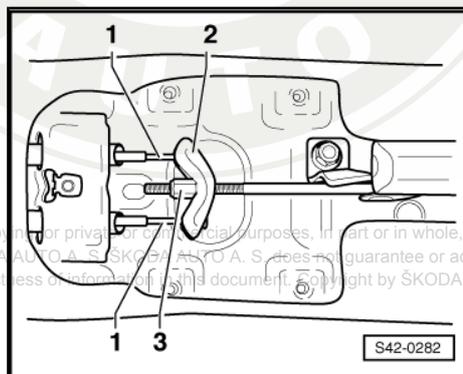
2.6 Removing and installing shaft with component parts- vehicles with front-wheel drive

Special tools and workshop equipment required

- ◆ Fixing device - T10096-
- ◆ Engine/gearbox jack , e.g. -V.A.G 1383A-
- ◆ Tensioning straps - T10038-

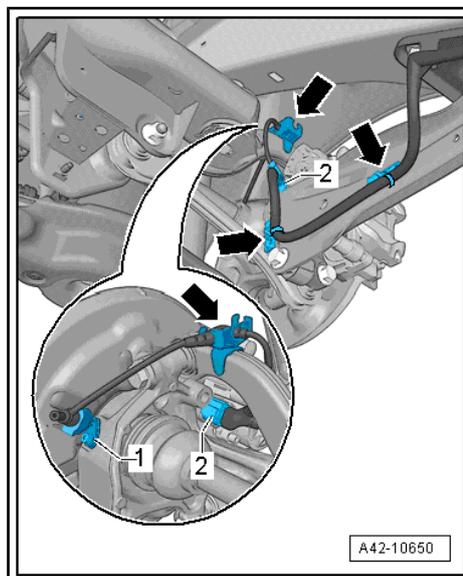
Removing

- Put hand-brake back.
- Remove armrest ⇒ Body work; Rep. gr. 68 .
- Release resetting nut -3- and unhook hand-brake cables -1- from compensating clamp -2-.
- Raise vehicle and remove wheels.

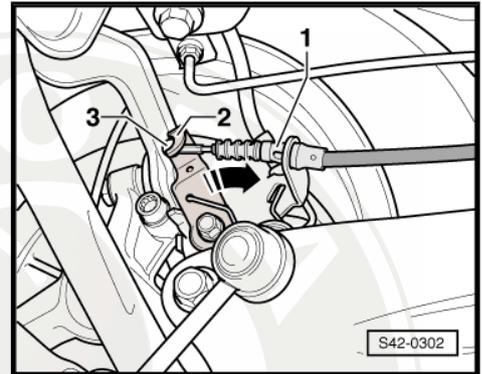


Protected by copyright. Copying for private or official purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. [1]

- Separate the plug connections for the wheel speed sensor -1- on both vehicle sides.
- Detach the wheel speed sensor cable -arrows- from the suspension arm.



- Press the lever -2- in the -direction of the arrow- and while doing so unhook the hand-brake cable -3-.
- Slacken the spring bushing -1- for the hand-brake cable from the bracket on the brake caliper.
- Pull the hand-brake cable out of the grommet at the trailing arm => Brake systems; Rep. gr. 46 .

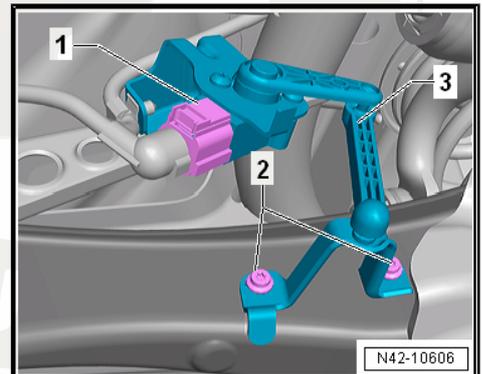


Vehicles with rear left vehicle level sensor - G76-

- Unplug connector -1-.
- Release screws -2-.
- Detach the rear left vehicle level sensor - G76- -3- from the track control arm.

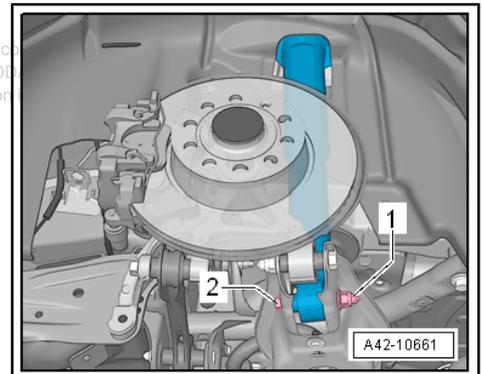
Continued for all vehicles

- Remove coil springs => [page 162](#) .



- Release nut -1- and screw -2-.

Protected by copyright. Copying for private or other use without the express written permission of ŠKODA AUTO A. S. ŠKODA AUTO is not responsible for the correctness of information.

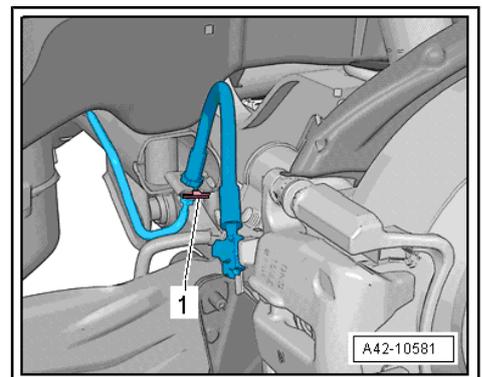


- Slacken the spring clip -1- on both sides.
- Unclip the brake line from the holder.

i Note

Do not separate the brake lines.

- Remove the brake calipers with brake carriers and hook on the body (e.g. with wire) => Brake systems; Rep. gr. 46 .
- Remove the spring washer of the silencer from the assembly carrier => Engine; Rep. gr. 26 .





- Now lash the vehicle securely to the lift platform using tensioning straps - T10038- .



WARNING

If the vehicle is not lashed, there is a risk of the vehicle toppling off the lift platform.

- Fix the assembly carrier => [page 148](#) .

- Mark the installation position of the bracket versus the body.
- Release screws -arrows-.
- Carefully lower assembly carrier to maximum 30 mm.



Note

Ensure adequate clearance of brake and electric lines when lowering.

- Unclip brake line -1- -arrows-.



Note

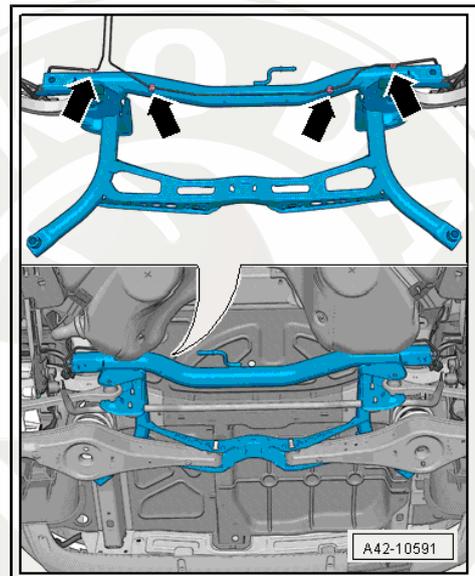
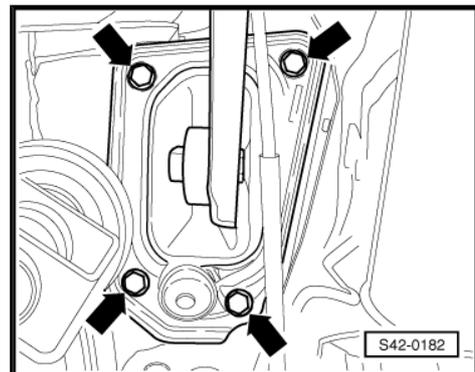
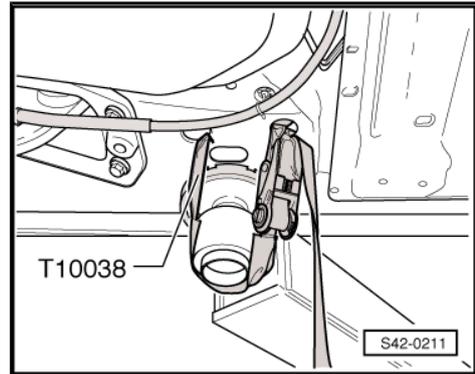
- ◆ *The fig. shows the assembly carrier from above and in the removed condition for purposes of clear presentation.*
- ◆ *The clips are destroyed and must be replaced.*

- Lowering assembly carrier with attached parts.

Installing assembly carrier with its component parts:

Installation occurs in reverse order to removal. Pay attention to the following:

- Carry out axle alignment => [page 234](#) .





Tightening torques:

Bracket to body ◆ Use new screws!	50 Nm + 45°
Assembly carrier to body ◆ Use new screws!	70 Nm + 180°
Wheel speed sensor	8 Nm
Wheel bolts	120 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

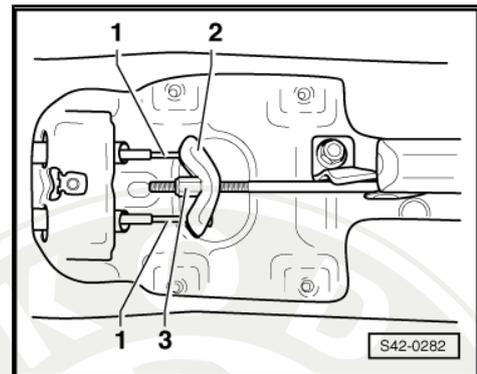
2.7 Removing and installing shaft with component parts- vehicles with four-wheel drive

Special tools and workshop equipment required

- ◆ Fixing device - T10096-
- ◆ Engine and gearbox jack e.g. -V.A.G 1383A-
- ◆ Tensioning straps - T10038-

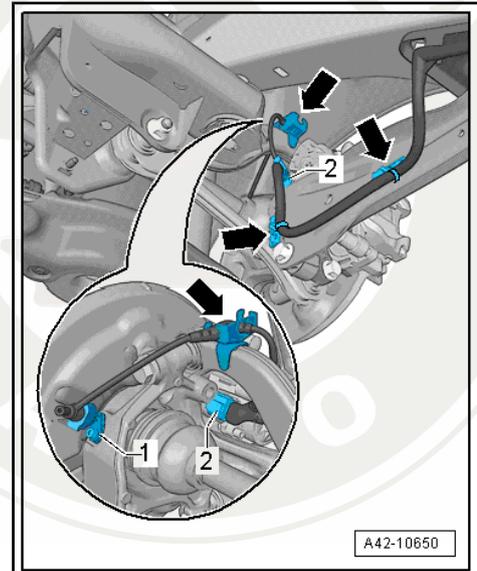
Removing

- Put hand-brake back.
- Remove armrest ⇒ Body work; Rep. gr. 68 .
- Release resetting nut -3- and unhook hand-brake cables -1- from compensating clamp -2-.
- Raise vehicle and remove wheels.



- Separate the plug connections for the wheel speed sensor -1- on both vehicle sides.
- Detach the wheel speed sensor cable -arrows- from the suspension arm.

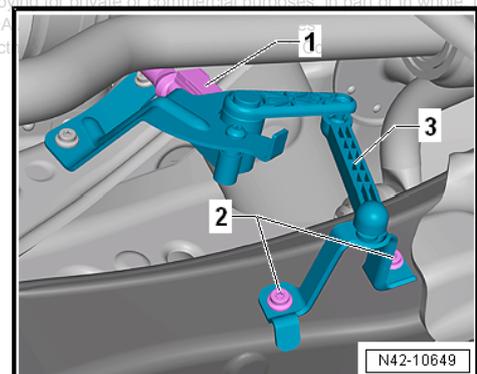
Vehicles with vehicle level sender -G76-



- Unplug connector -1-.
- Remove screws -2-.
- Remove vehicle level sender -G76- -3- from the suspension arm.

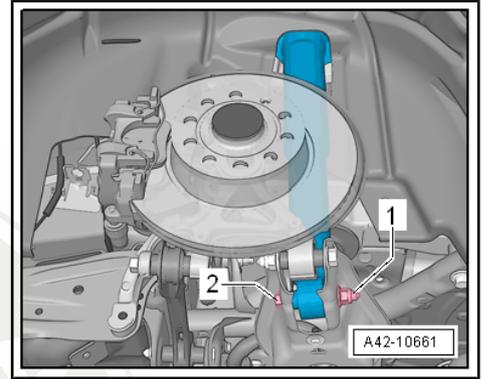
Continued for all vehicles

- Remove coil springs ⇒ [page 162](#) .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. with respect to the correct use of the information.

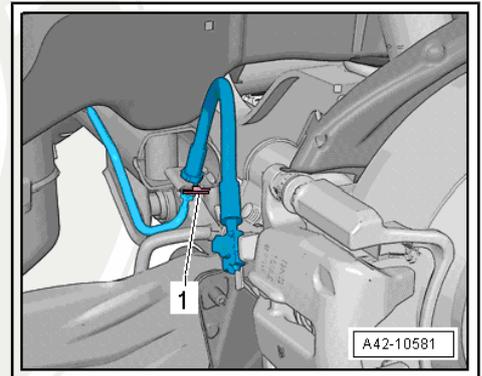
- Remove the nuts -1- on both sides, and remove the bolt -2-.



- Remove the spring clips -1- on both sides of the vehicle.
- Unclip the brake line from the holder.

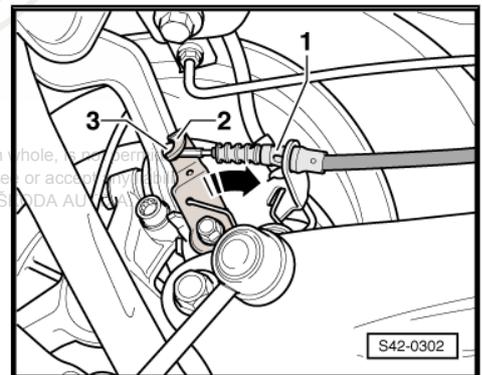
i Note

Do not separate the brake lines.

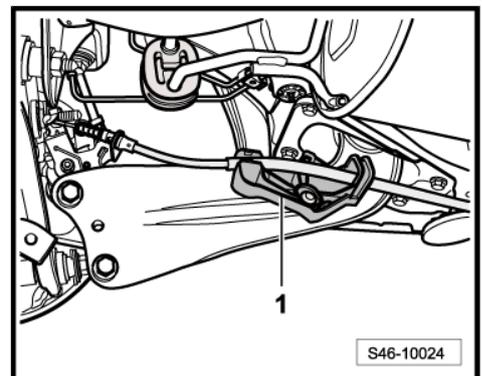


- Slacken the spring bushing -1- for the hand-brake cable from the bracket on the brake caliper.
- Press the lever at brake caliper -2- in the -direction of the arrow- and unhook the hand-brake cable -3-.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is prohibited unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.



- Unhook the hand-brake cable from the retaining clip -1- and pull out of the guide tube.
- Remove the brake calliper and e.g. secure with wire in such a way that the weight of the brake calliper does not burden or damage the brake hose => braking systems; Rep. gr. 46 .
- Disconnect the propeller shaft from the rear final drive => Gearbox; Rep. gr. 39 .
- Remove the rear silencer => Engine; Rep. gr. 26 .





- Lash the vehicle to the lift platform using the tensioning straps - T10038- .



WARNING

If the vehicle is not lashed, there is a risk of the vehicle toppling off the lift platform.

- Fix the assembly carrier => [page 149](#) .

- Mark the installation position of the bracket versus the body.
- Release screws -arrows-.
- Carefully lower assembly carrier to maximum 20 mm.
- Unplug connector for Haldex coupling.
- Lower assembly carrier approx. a further 30 mm.



Note

When lowering, make sure that there is adequate clearance of the brake lines, electrical wires and centering stud to the prop-shaft.

- Unclip the brake line on both sides -arrows-.



Note

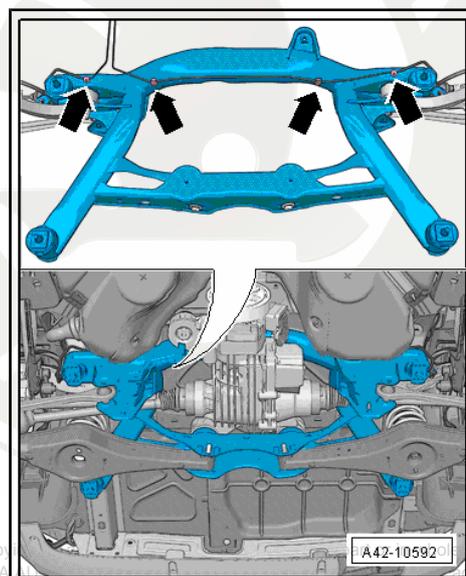
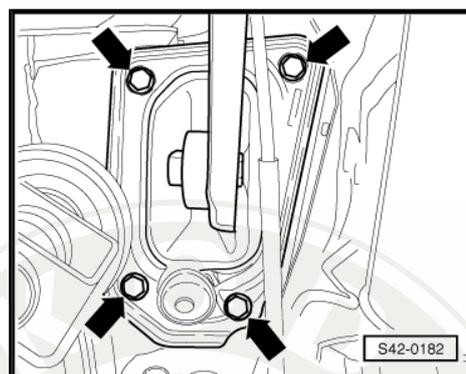
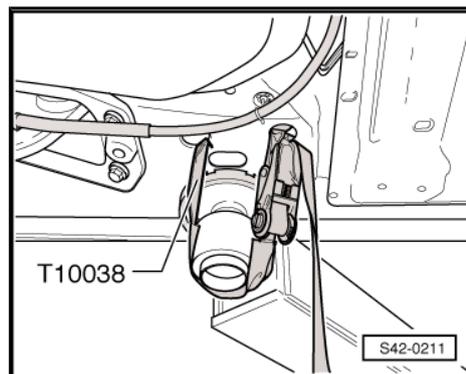
After unclip the brake line, the clips are destroyed and must be replaced.

- Lower assembly carrier.

Installing assembly carrier with its component parts:

Installation occurs in reverse order to removal. Pay attention to the following:

- Carry out axle alignment => [page 234](#) .



Protected by copyright. Copying or reproduction in any form is not permitted unless authorised by ŠKODA. ŠKODA is not permitted to accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. 2013



Tightening torques:

Bracket to body ◆ Use new screws!	50 Nm + 45°
Assembly carrier to body ◆ Use new screws!	70 Nm + 180°
Shock absorber to bottom suspension arm ◆ Use new screws and nuts!	70 Nm + 180°
Wheel bolts	120 Nm
Vehicle level sensor at suspension arm.	5 Nm
Propshaft at final drive	⇒ Gearbox; Rep. gr. 39

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

2.8 Repairing shock absorber

1 - Shock absorber

- removing and installing
⇒ [page 121](#)
- Assignment ⇒ Electronic Catalogue of Original Parts

2 - Protective tube

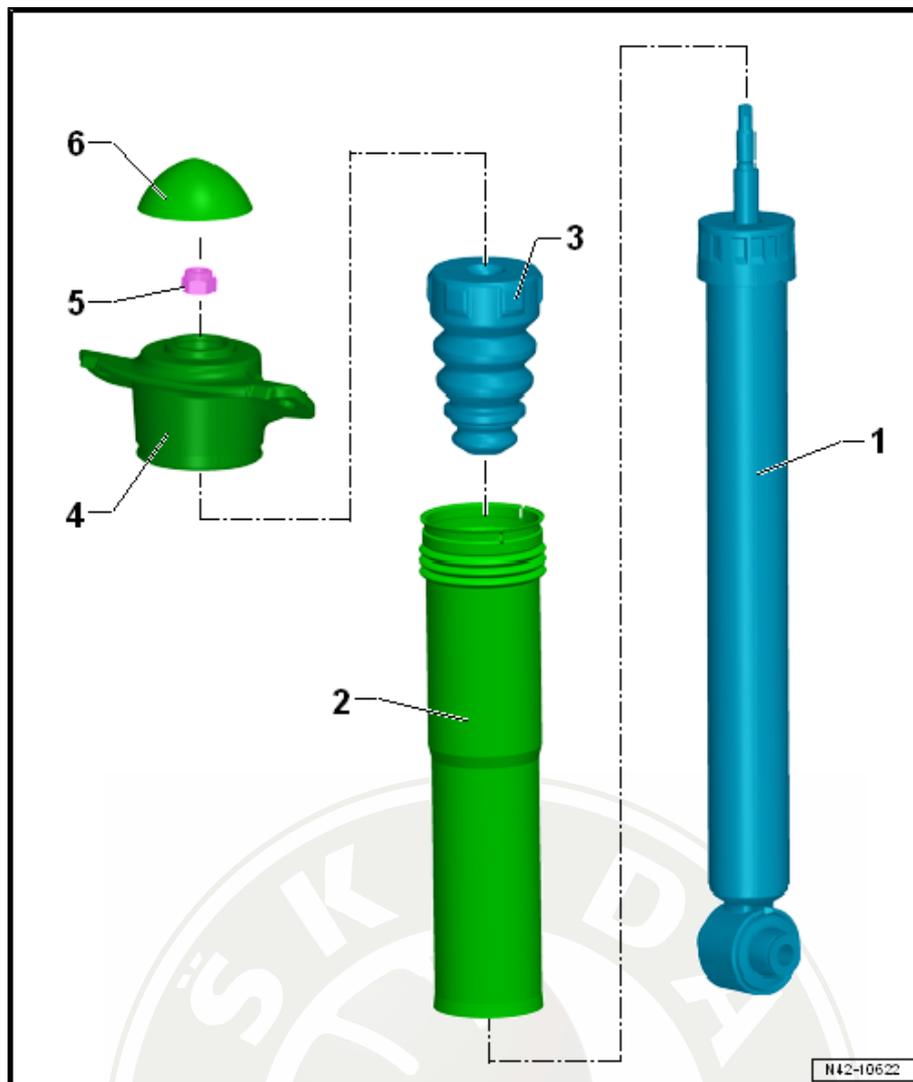
3 - Stop buffer

4 - Top shock absorber bushing

5 - Nut, 25 Nm

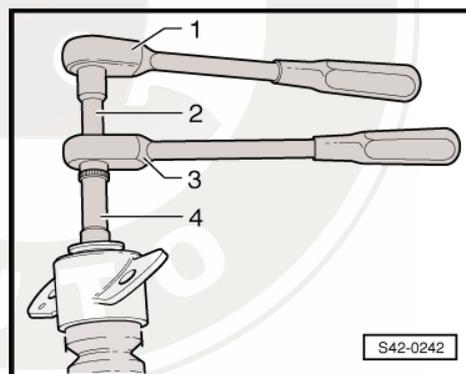
- replace after each removal
- slacken and tighten
⇒ [page 158](#)

6 - Cover



Release the screw connection of the shock absorber bushing and tighten up again

- 1 - Ratchet (commercially available)
- 2 - Pull-off shackle - T10001/9-
- 3 - Ratchet - T10001/11-
- 4 - Pull-off shackle - T10001/1-



2.9 Removing and installing shock absorber

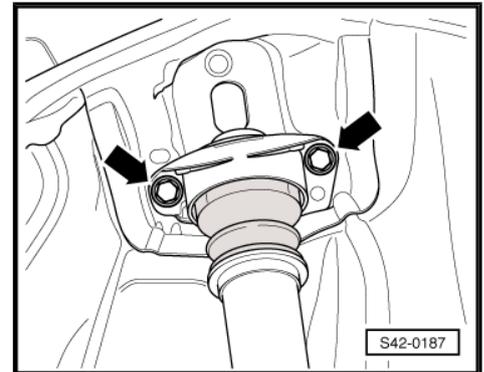
Special tools and workshop equipment required

- ◆ Engine and gearbox jack e.g. -V.A.G 1383A-

Removing:

- Remove wheel.

- Partly remove wheelhouse liner ⇒ Body Work; Rep. gr. 66 .
- Position the engine/gearbox jack e.g. -V.A.G 1383A- with gearbox mount - V.A.G 1359/2- under the bottom suspension arm.
- Raise the suspension arm until the dimension "a" is reached ⇒ [page 133](#) .
- Release screws -arrows-.



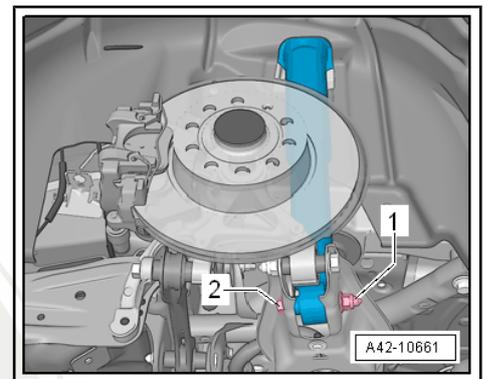
- Release nut -1- and screw -2-.
- Take out shock absorber.

Installing:

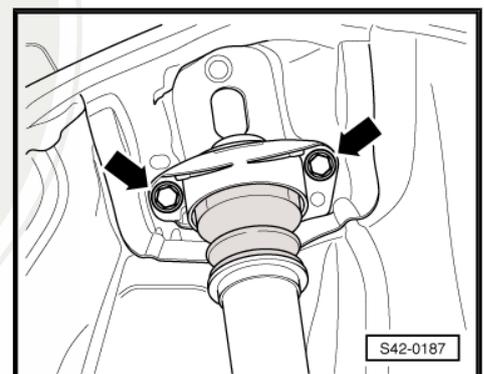
Installation is carried out in the reverse order. Pay attention to the following:

 **Note**

The bolted connection of the shock absorber to the suspension arm must only be performed, if the dimension "a" between the wheel hub centre and the lower edge of the wheel house is respected (unladen weight position)! ⇒ [page 133](#)



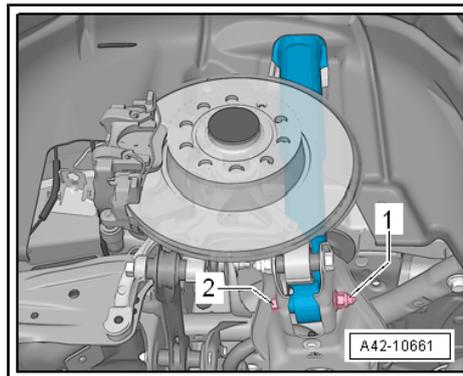
- Insert shock absorber and tighten screws -arrows-.





Tighten the screw -2- with nut -1-.

- Install wheelhouse liner ⇒ Body Work; Rep. gr. 66 .
- Installing and tightening the wheel.





Tightening torques:

Shock absorber to body ♦ Use new screws!	50 Nm + 45°
Shock absorber to suspension arm ♦ Use new screws and nuts! ♦ Tighten in unladen weight position! ⇒ page 133	70 Nm + 180°
Wheel bolts	120 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



2.10 Removing and installing coil spring

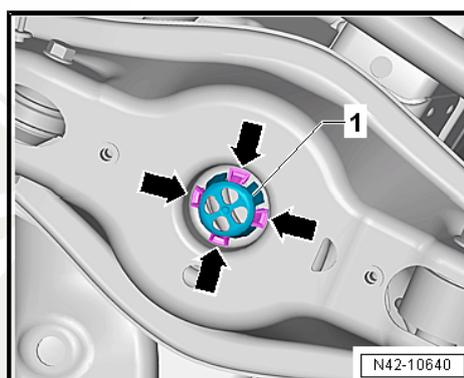
2.10.1 Removing and installing coil spring - left side

Special tools and workshop equipment required

- ◆ Tensioning device for the suspension struts , e.g. -V.A.G 1752-
- ◆ Spring holder , e.g. -V.A.G 1752/3A-
- ◆ Adapter e.g. -V.A.G 1752/9 -

Removing

- Remove wheel.
- Press the pegs -arrows- of the assembly aid -1- towards the inside.
- Remove assembly aid -1-.



- Insert spring tensioning device -3-.



WARNING

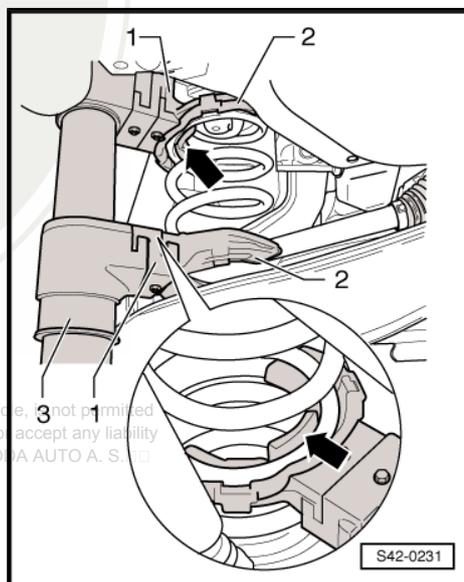
Check correct seating of the helical spring in the spring tensioner , e.g. -V.A.G 1752/3A- (risk of accident).

- Tension helical spring sufficiently until it can be taken out.
- Remove coil spring.

1 - Adapter e.g. -V.A.G 1752/9-

2 - Spring holder , e.g. -V.A.G 1752/3A-

3 - Spring tensioning device , e.g. -V.A.G 1752/1-



Installing:

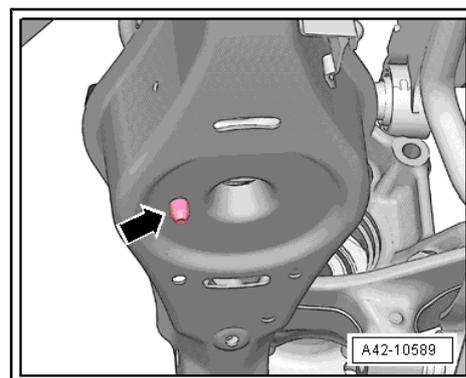
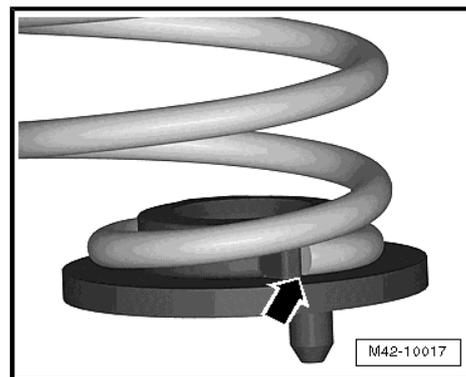
Installation is carried out in the reverse order. Pay attention to the following:

- Inspect spring seats for damage, if necessary replace.

 **Note**

The beginning of the spring -arrow- must be positioned at the stop of the bottom spring seat.

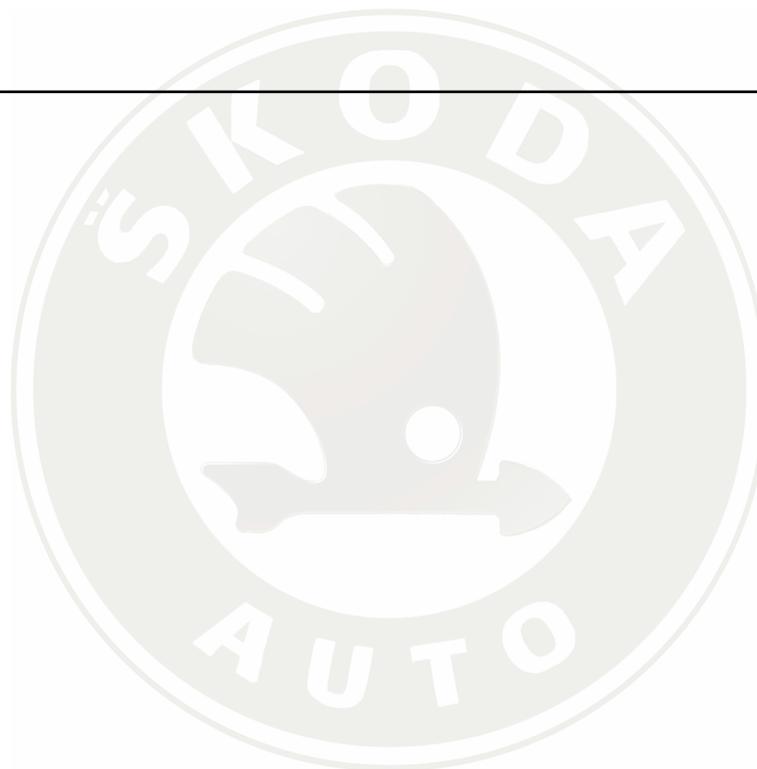
- Install the helical spring along with the spring seat.
- Insert the stud of the spring seat into the hole of the bottom suspension arm -arrow-.
- Insert top spring seat into the upper spring coil end.
- Slacken spring. While doing so, the top spring seat must be positioned onto the lug of the body.
- Remove spring tensioning device.
- Installing and tightening the wheel.





Tightening torque:

Wheel bolts	120 Nm
-------------	--------



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

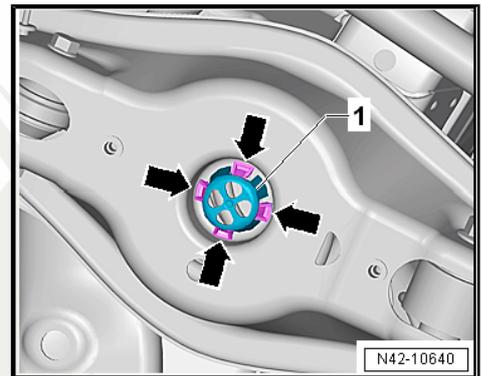
2.10.2 Removing and installing coil spring - right side

Special tools and workshop equipment required

- ◆ Tensioning device for the suspension struts , e.g. -V.A.G 1752-
- ◆ Spring holder , e.g. -V.A.G 1752/3A-
- ◆ Adapter e.g. -V.A.G 1752/9 -

Removing

- Determine dimension "a" ⇒ [page 133](#) .
- Remove wheel.
- Press the pegs -arrows- of the assembly aid -1- towards the inside.
- Remove assembly aid -1-.



- Insert spring tensioning device -3-.



WARNING

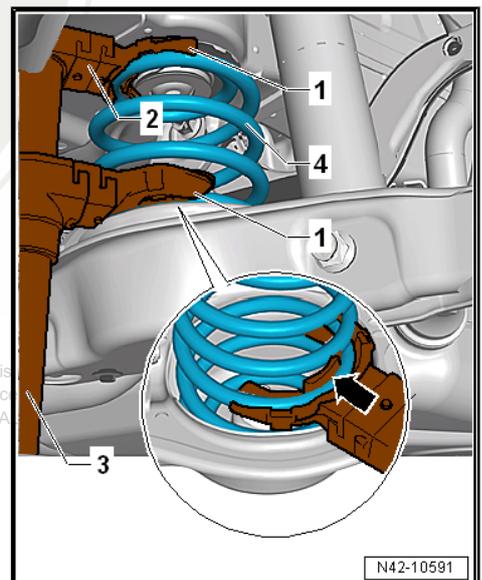
Check correct seating of the helical spring in the spring tensioner , e.g. -V.A.G 1752/3A- (risk of accident).

- 1 - Spring holder , e.g. -V.A.G 1752/3A -
- 2 - Adapter e.g. -V.A.G 1752/9-
- 3 - Spring tensioning device , e.g. -V.A.G 1752/1-

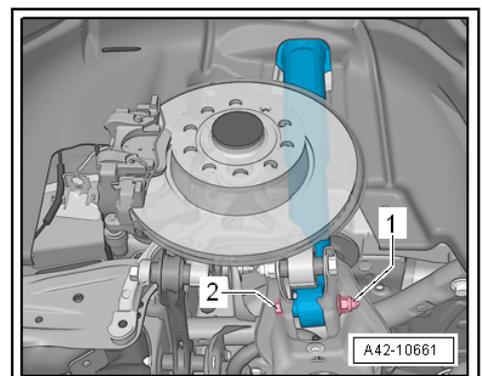
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is prohibited without the express authorisation of ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.

- 4 - Spring

- Pre-tension coil spring.



- Release screw -2- with nut -1-.



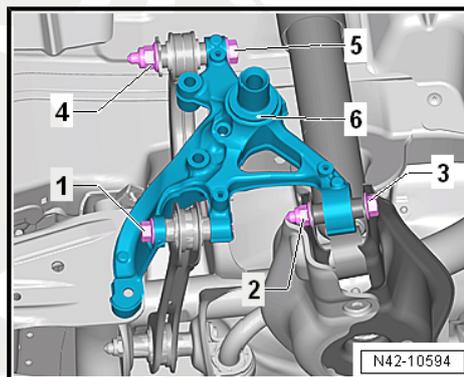


- Release screw -3- with nut -2-.
- Remove coil spring.

Installing:

Installation is carried out in the reverse order. Pay attention to the following:

- Inspect spring seats for damage, if necessary replace.

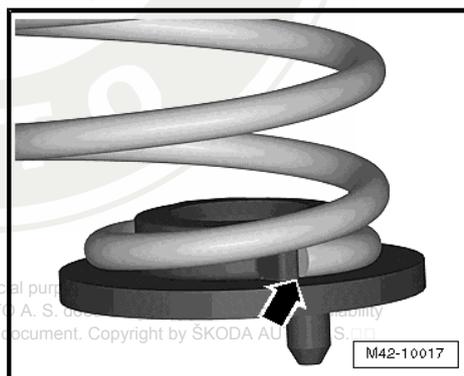


Note

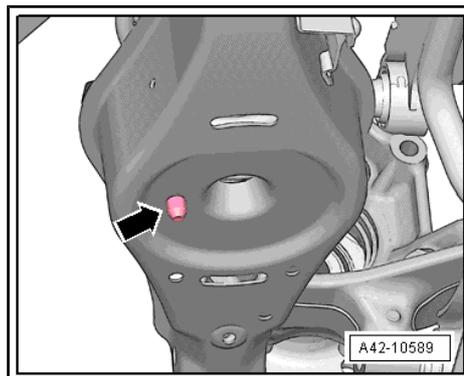
The beginning of the spring -arrow- must be positioned at the stop of the bottom spring seat.

- Install the helical spring along with the spring seat.

Protected by copyright. Copying for private or commercial purposes without the written permission of ŠKODA AUTO A. S. is prohibited. ŠKODA AUTO A. S. does not assume any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. 2013



- Insert the stud of the spring seat into the hole of the bottom suspension arm -arrow-.
- Insert top spring seat into the upper spring coil end.
- Slacken spring. While doing so, the top spring seat must be positioned onto the lug of the body.
- Install the bottom screw of the shock absorber and the wheel bearing housing and tighten, tighten in unladen weight position => [page 133](#) .
- Remove spring tensioning device.
- Installing and tightening the wheel.





Tightening torque:

Wheel-bearing housing to bottom suspension arm ♦ Use new screws and nuts!	70 Nm + 180°
Shock absorber to suspension arm ♦ Use new screws and nuts! ♦ Tighten in unladen weight position! ⇒ page 133	70 Nm + 180°
Wheel bolts	120 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

2.11 Summary of components - anti-roll bar

Vehicles with front-wheel-drive

1 - Bottom suspension arm

2 - Nut, 20 Nm + 180°

- replace after each removal

3 - Coupling rod

- removing and installing
 ⇒ [page 170](#)

4 - Screw, 20 Nm + 90°

- do not tilt when tightening
- replace after each removal

5 - Screw

- replace after each removal

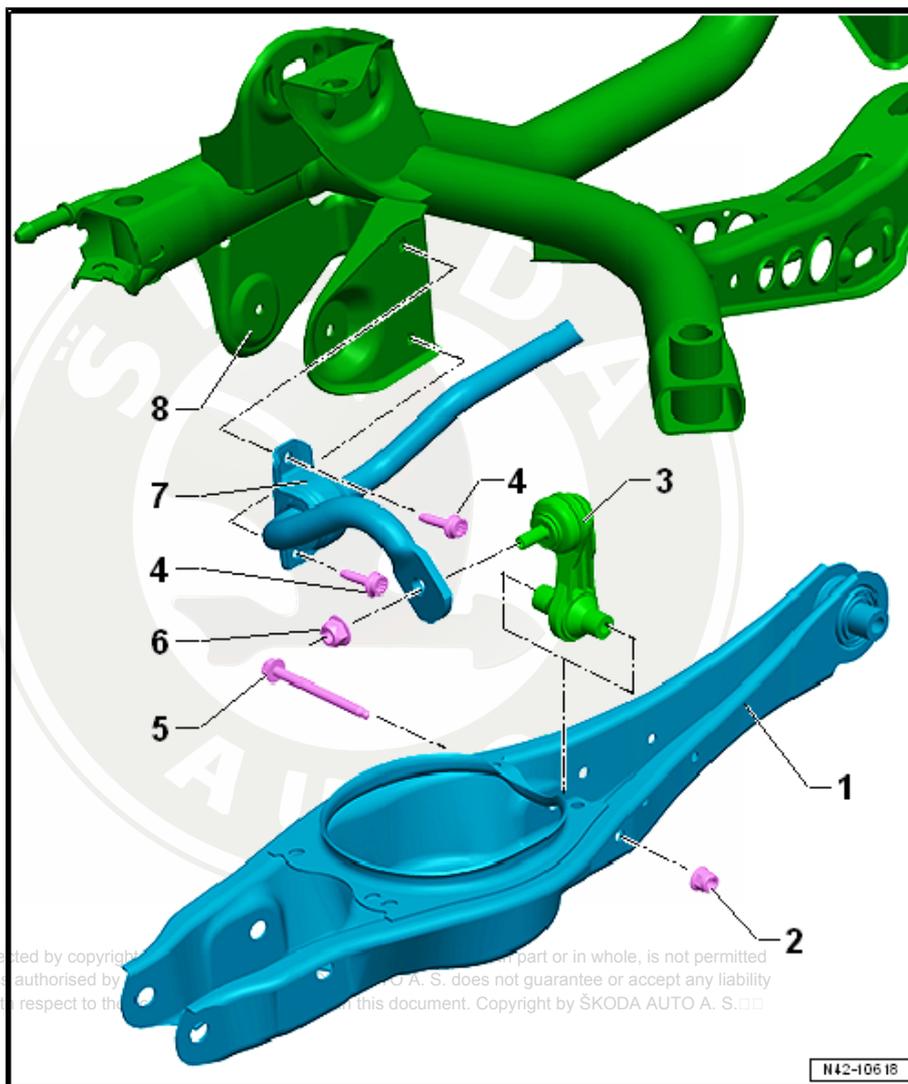
6 - Nut, 55 Nm

- counterhold the internal serration of the coupling rod hanger when tightening

7 - Anti-roll bar

- with rubber-metal bearing
- removing and installing
 ⇒ [page 169](#)

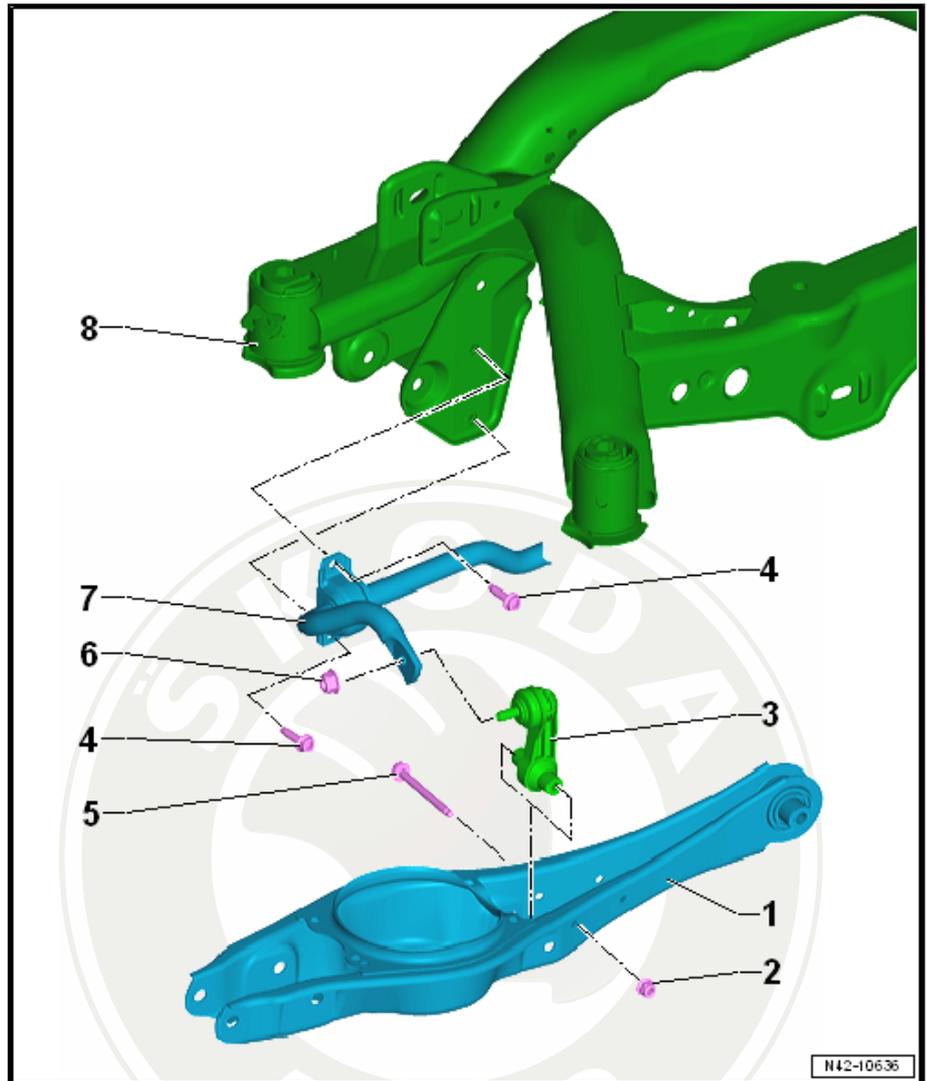
8 - Assembly carrier



Protected by copyright. All rights reserved. No part or in whole, is not permitted unless authorised by SKODA AUTO A. S. does not guarantee or accept any liability with respect to the content of this document. Copyright by SKODA AUTO A. S. □□

Vehicles with four-wheel drive

- 1 - Bottom suspension arm
- 2 - Nut, 20 Nm + 180°
 - replace after each removal
- 3 - Coupling rod
 - removing and installing
 ⇒ [page 170](#)
- 4 - Screw, 20 Nm + 90°
 - replace after each removal
- 5 - Screw
 - replace after each removal
- 6 - Nut, 55 Nm
 - counterhold the internal serration of the coupling rod when tightening
- 7 - Anti-roll bar
 - removing and installing
 ⇒ [page 169](#)
- 8 - Assembly carrier



2.11.1 Removing and installing the anti-roll bar

Removing:

Note

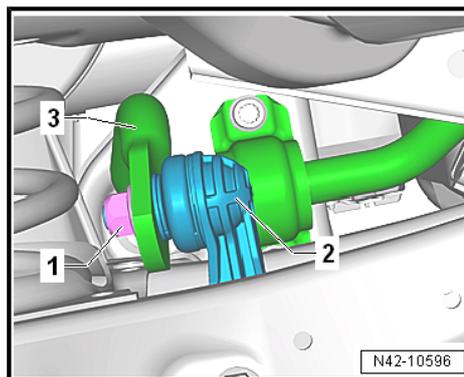
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.

The following description relates to the left vehicle side, the work procedure is the same for the right side.

- Determine dimension "a" ⇒ [page 133](#) .
- Position the engine/gearbox jack e.g. -V.A.G 1383A- with gearbox mount - V.A.G 1359/2- under the bottom suspension arm.
- Raise the suspension arm until the dimension "a" is reached
 ⇒ [page 133](#) .



- Unscrew nut -1- and pull coupling rod -2- out of anti-roll bar -3-.



- Release screws -arrows-.
- Repeat the work steps for the right vehicle side.
- Remove anti-roll bar.

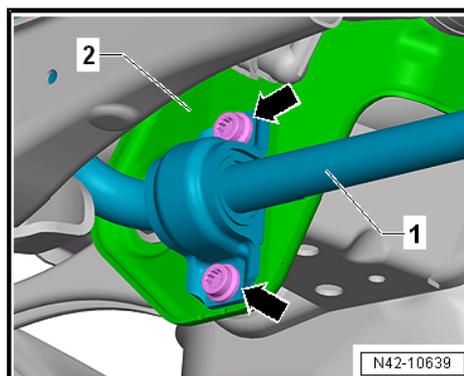
Installing:

Installation is carried out in the reverse order. Pay attention to the following:



Note

The bolted connection of the coupling rod must only be performed, if the measured dimension "a" between the wheel hub centre and the lower edge of the wheel house is respected (unladen weight position)! => [page 133](#)



Tightening torques: => [page 168](#) .

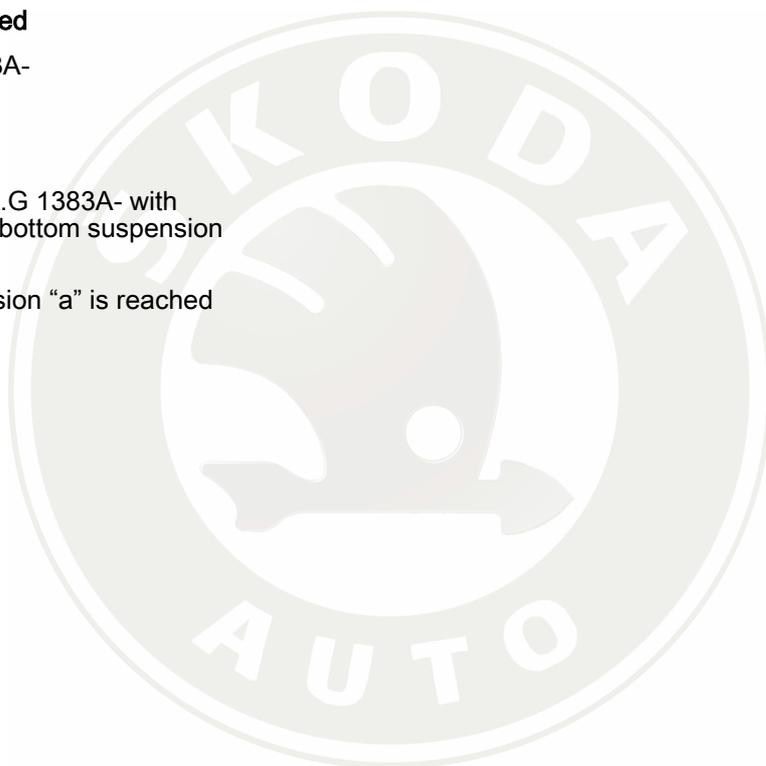
2.11.2 Removing and installing coupling rod

Special tools and workshop equipment required

- ◆ Engine and gearbox jack e.g. -V.A.G 1383A-

Removing:

- Determine dimension "a" => [page 133](#) .
- Position the engine/gearbox jack e.g. -V.A.G 1383A- with gearbox mount - V.A.G 1359/2- under the bottom suspension arm.
- Raise the suspension arm until the dimension "a" is reached => [page 133](#) .



- Remove nut -1-.
- Release screw -4- and nut -3-.
- Remove coupling rod.

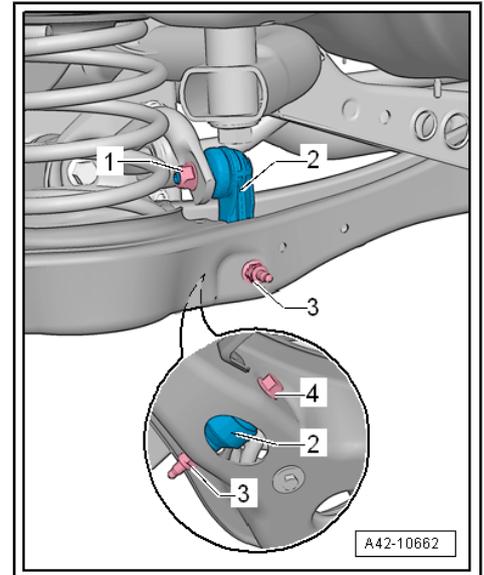
Installing:

Installation is carried out in the reverse order. Pay attention to the following:

Note

The bolted connection of the coupling rod must only be performed, if the measured dimension "a" between the wheel hub centre and the lower edge of the wheel house is respected (unladen weight position)! => [page 133](#)

Tightening torques: => [page 168](#) .



2.12 Wheel bearing - vehicles with front-wheel drive

1 - Wheel-bearing housing

- removing and installing
=> [page 172](#)

2 - Rubber-metal bearing

- removing and installing
=> [page 175](#)

3 - Screw

- Tightening torque =>
Brake systems; Rep. gr. 46

4 - Brake disc

- removing and installing
=> Brake systems; Rep. gr. 46

5 - Dust cap for wheel hub

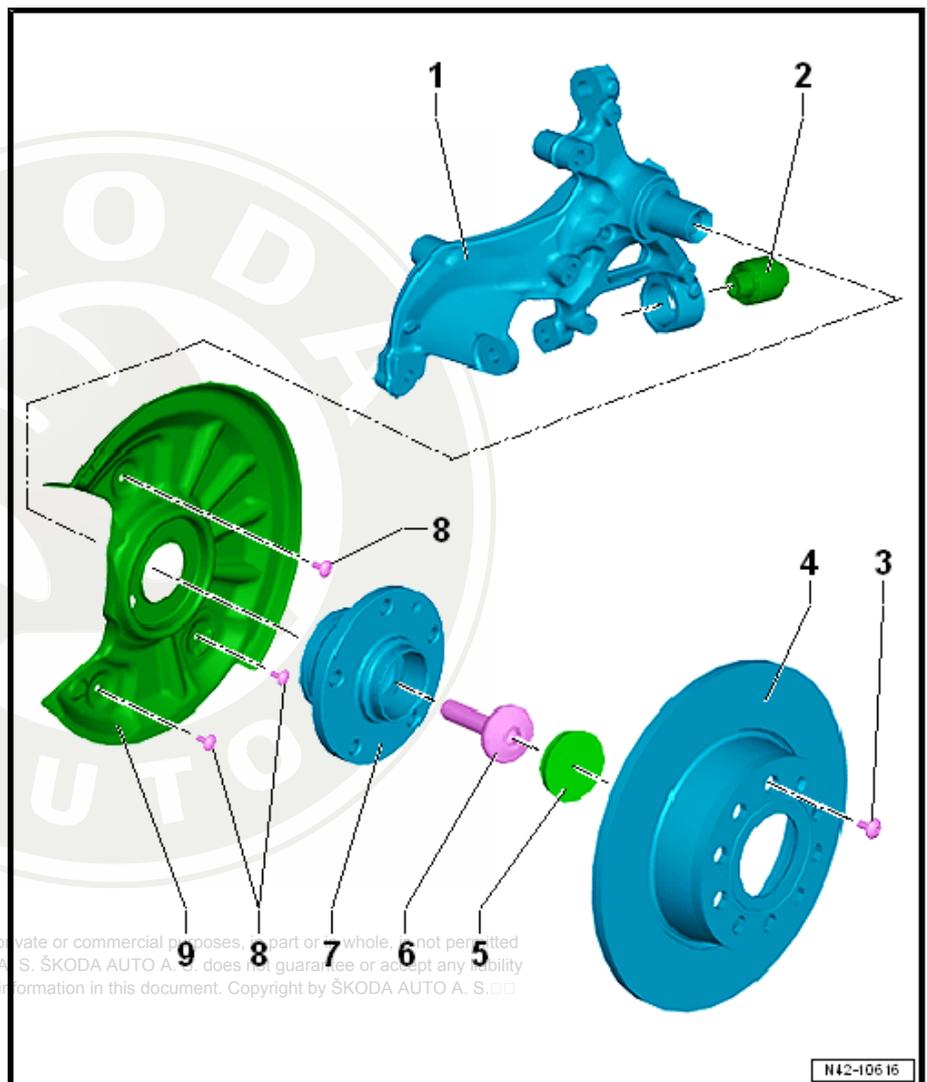
- replace after each removal
- removing and installing
=> [page 177](#)

6 - Screw, 200 Nm + 180°

- replace after each removal
- before installing the new screw, the thread of the wheel pin must be cleaned with a suitable thread tap

7 - Wheel hub

- removing and installing
=> [page 178](#)
- Sensor ring for ABS is built into the wheel hub



Wheel hub and wheel bearing form one unit. It is clearance free, adjusting and repairs are not possible.



8 - Screw

- Tightening torque ⇒ Brake systems; Rep. gr. 46

9 - Cover plate

- removing and installing ⇒ Brake systems; Rep. gr. 46

2.12.1 Removing and installing wheel bearing housing

Special tools and workshop equipment required

- ◆ Engine and gearbox jack e.g. -V.A.G 1383A-

Removing

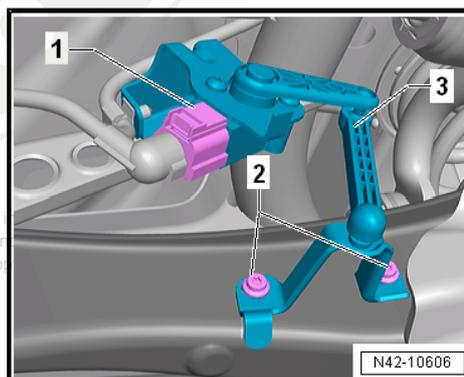
- Determine dimension "a" ⇒ [page 133](#) .
- Remove coil spring ⇒ [page 162](#) .
- Remove wheel hub ⇒ [page 178](#) .
- Remove cover plate ⇒ [Item 9 \(page 172\)](#) ⇒ Brake systems; Rep. gr. 46 .

Vehicles with rear left vehicle level sensor - G76-

- Unplug connector -1-.
- Release screws -2-.
- Detach the rear left vehicle level sensor - G76- -3- from the track control arm.

Continued for all vehicles

- Disconnect plug from ABS sensor.

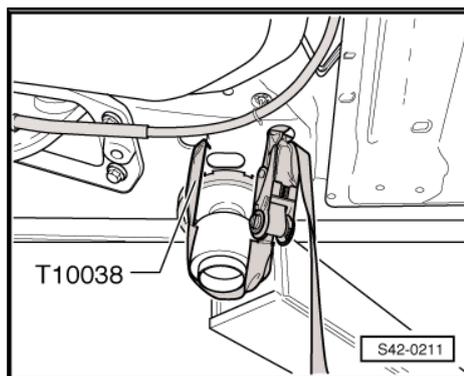


- Now lash the vehicle securely to the lift platform using tensioning straps - T10038- .

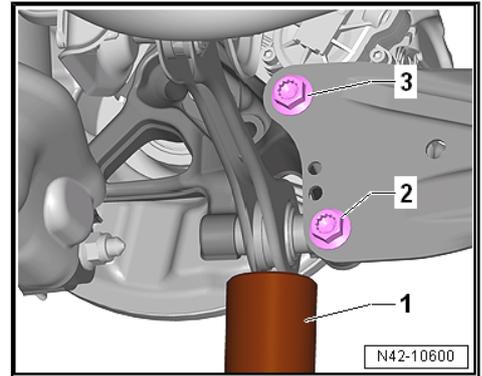


WARNING

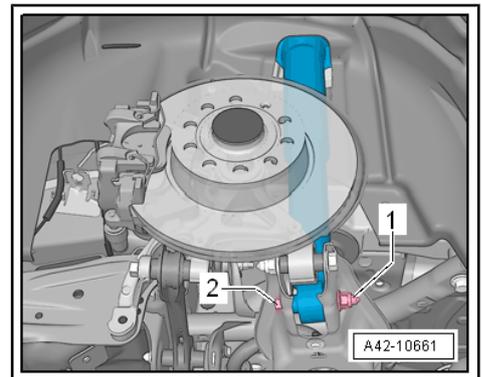
If the vehicle is not lashed, there is a risk of the vehicle toppling off the lift platform.



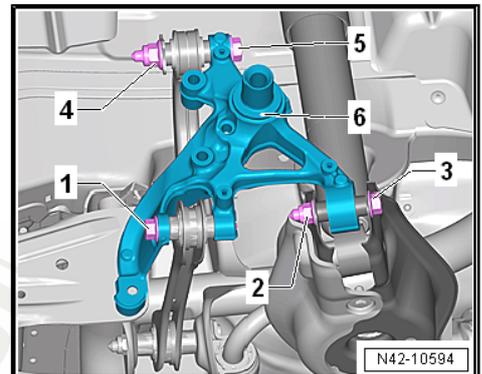
- Position the engine/gearbox jack - V.A.G 1383 A- -1- under the coupling rod and slightly raise the rod.
- Unscrew screws -2- and -3-.
- Remove engine/gearbox jack - V.A.G 1383 A- -1-.



- Unscrew bottom screw of shock absorber mounting -2-.



- Release screw -1-.
- Release screw -3- with nut -2-.
- Release screw -5- with nut -4-.
- Remove wheel bearing housing -6-.



Installing:

Installation is carried out in the reverse order. Pay attention to the following:

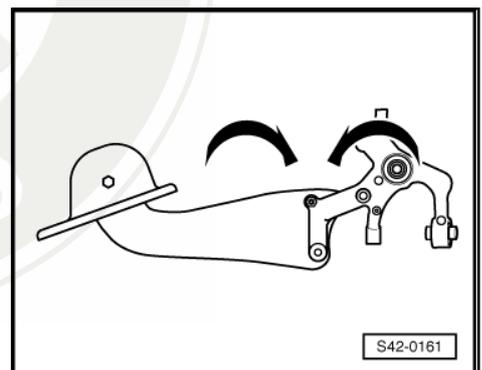
i Note

- ◆ *All the bolted connections of the coupling rods, the steering arms and the wheel hub must only be tightened if the measured dimension "a" between the wheel hub centre and the lower edge of the wheel house is respected (unladen weight position)! ⇒ [page 133](#)*
- ◆ *Pay attention to correct installation position of trailing arm and wheel-bearing housing.*

Installation position of trailing arm and wheel-bearing housing.

The screwed connection of the trailing arm/wheel-bearing housing must only be tightened if all other components (absolutely spring and shock absorber) of the respective wheel suspension are already fitted. For tightening, the wheel-bearing housing must be in the unladen weight position ⇒ [page 133](#) . Only move the trailing arm and the wheel-bearing housing into the necessary position for tightening the screwed connection -arrows- under these conditions.

- Carry out axle alignment ⇒ [page 234](#) .





Tightening torques:

Shock absorber to bottom suspension arm ◆ Use new screw/nut! ◆ Tighten in unladen weight position! ⇒ page 133	70 Nm + 180°
Speed sensor to wheel-bearing housing	8 Nm
Trailing arm to wheel-bearing housing ◆ Use new screws! ◆ Determine the fitting positions of the trailing arm and the wheel-bearing housing before tightening the screws ⇒ page 173	70 Nm + 90°
Top suspension arm to wheel-bearing housing ◆ Use new screws and nuts! ◆ Tighten in unladen weight position! ⇒ page 133	130 Nm + 180°
Bottom suspension arm to wheel-bearing housing ◆ Use new screws and nuts! ◆ Tighten in unladen weight position! ⇒ page 133	70 Nm + 180°
Track rod for rear axle to wheel-bearing housing ◆ Use new screw! ◆ Tighten in unladen weight position! ⇒ page 133	70 Nm + 180°
Vehicle level sensor to axle.	5 Nm
Wheel bolts	120 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. 00

2.12.2 Replacing the rubber-metal bearing for wheel-bearing housing

Special tools and workshop equipment required

- ◆ Assembly device - MP5-401 (3346)-
- ◆ Assembly device - MP5-402 (3301)-
- ◆ Assembly device - T30017 (3350)-
- ◆ Joint part - 3390-
- ◆ Assembly device - T10356-

Removing:

- Remove wheel.

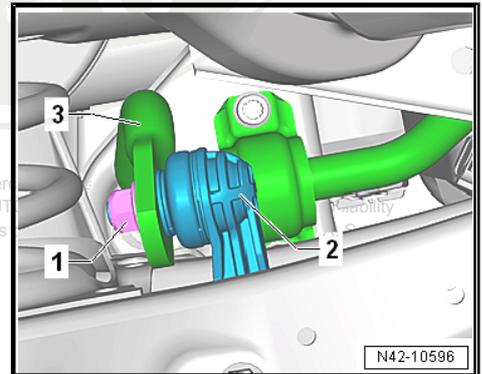
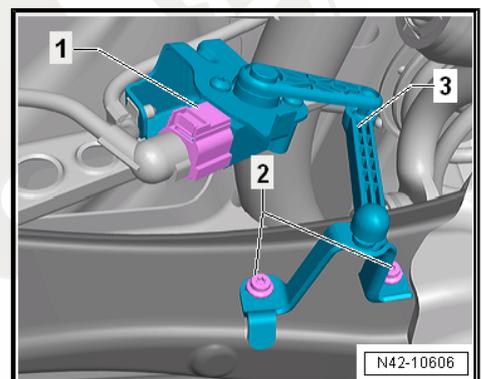
Vehicles with rear left vehicle level sensor - G76-

- Disconnect plug connection -1-.
- Remove screws -2-.
- Detach the rear left vehicle level sensor - G76- -3- from the track control arm.

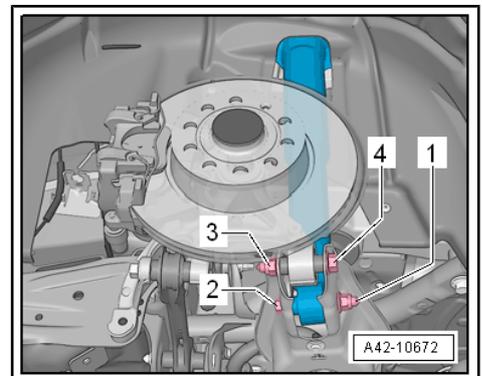
Continued for all vehicles

- Remove coil spring ⇒ [page 162](#) .

- Remove nut -1-.
- Pull out coupling rod -2- from the anti-roll bar -3-.



- Unscrew screws -2- and -4-.

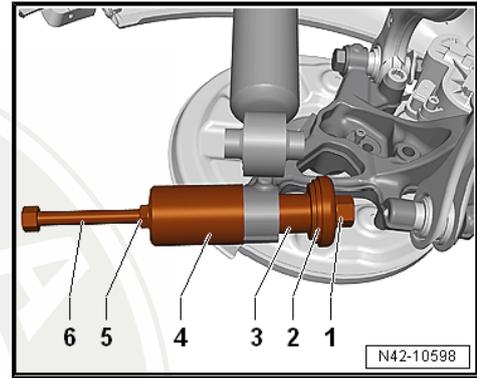


Protected by copyright. Copying for private or commercial use without the written permission of ŠKODA AUTO A. S. ŠKODA AUTO A. S. reserves the right to change the technical specifications of the vehicle without notice. The manufacturer is not responsible for the correctness of information in this document.



Remove rubber-metal bearing

- Position the special tools as shown in the figure.
- 1 - Nut - MP5-401/3-
- 2 - Assembly device - MP5-402-
- 3 - Joint part - 3390-
- 4 - Assembly device - T30017-
- 5 - Nut, commercially available
- 6 - Screw - MP5-401/2-
- Pull out rubber-metal bearing by turning the assembly device nut - MP5-401/3- .



Inserting the rubber-metal bearing



Note

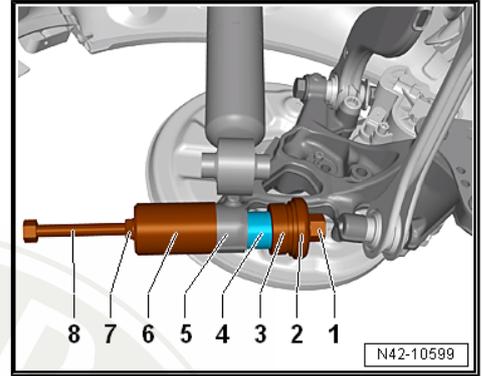
- ◆ *Do not use any lubricant!*
- ◆ *Carefully insert the rubber-metal bearing, so that it does not tilt.*

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



– Position the special tools as shown in the figure.

- 1 - Nut - MP5-401/3-
- 2 - Assembly device - MP5-402-
- 3 - Assembly device - T10356/5-
- 4 - Rubber-metal bearing
- 5 - Wheel-bearing housing
- 6 - Assembly device - T30017-
- 7 - Nut, commercially available
- 8 - Screw - MP5-401/2-



– Pull out rubber-metal bearing by turning the assembly device nut - MP5-401/3- .

Installing:

Installation is carried out in the reverse order. Pay attention to the following:



Note

All the bolted connections of the coupling rods, the steering arms and the wheel hub must only be tightened if the measured dimension "a" between the wheel hub centre and the lower edge of the wheel house is respected (unladen weight position)!

⇒ page 133

Tightening torques:

Shock absorber to bottom suspension arm ♦ Use new screw/nut! ♦ Tighten in unladen weight position! ⇒ page 133	70 Nm + 180°
Bottom suspension arm to wheel-bearing housing ♦ Use new screws and nuts! ♦ Tighten in unladen weight position! ⇒ page 133	70 Nm + 180°
Vehicle level sensor to axle.	5 Nm
Wheel bolts	120 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability for the content of this document. Copyright by ŠKODA AUTO A. S. 2013

2.12.3 Removing and installing the dust cap for the wheel hub

Special tools and workshop equipment required

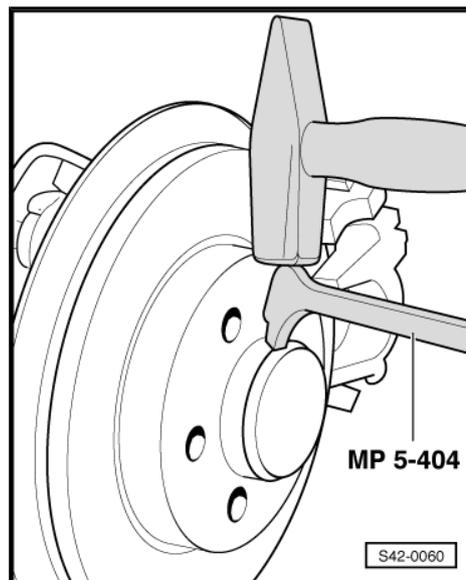
- ♦ Insertion sleeve - MP1-228 (3241)-
- ♦ Hub cap extractor - MP5-404 (VW 637/2)-

Removing:

– Remove wheel.

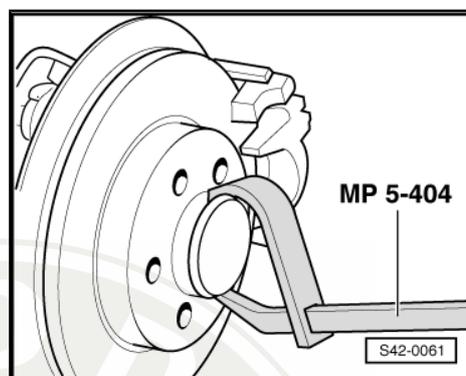


- Release dust cap from its position by gently tapping the claw of the hub cap extractor - MP5-404 (VW 637/2) - .



- Press off dust cap.

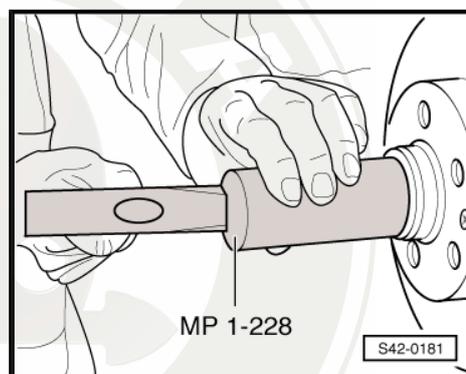
Installing:



- Drive in the dust cap with insertion sleeve - MP1-228 (3241) - .

i Note

- ◆ *Always replace dust caps.*
- ◆ *Damaged dust caps allow moisture to penetrate. Therefore, always use the tool shown in the illustration.*



2.12.4 Removing and installing the wheel hub

Special tools and workshop equipment required

- ◆ Socket insert XZN 18 - T10162-
- Remove brake disc => Brake systems; Rep. gr. 46 .
- Remove dust cap for wheel hub => [page 177](#) .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

- Remove screw -1- with socket insert XZN 18 - T10162- .



WARNING

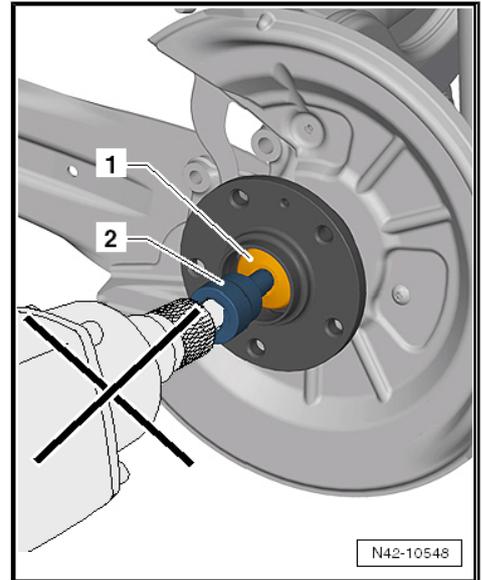
Do not use an impact screwdriver for loosening the screw!

- Remove wheel hub from axle stud.



Caution

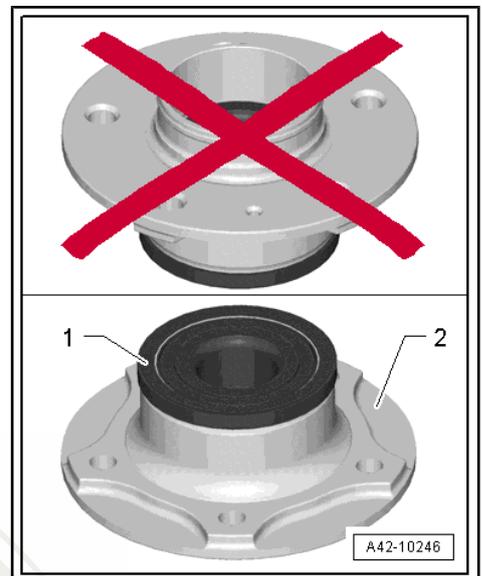
- *Avoid any contamination or damage to the gasket when handling and storing it.*



- When storing, the bearing -1- must always point upwards.

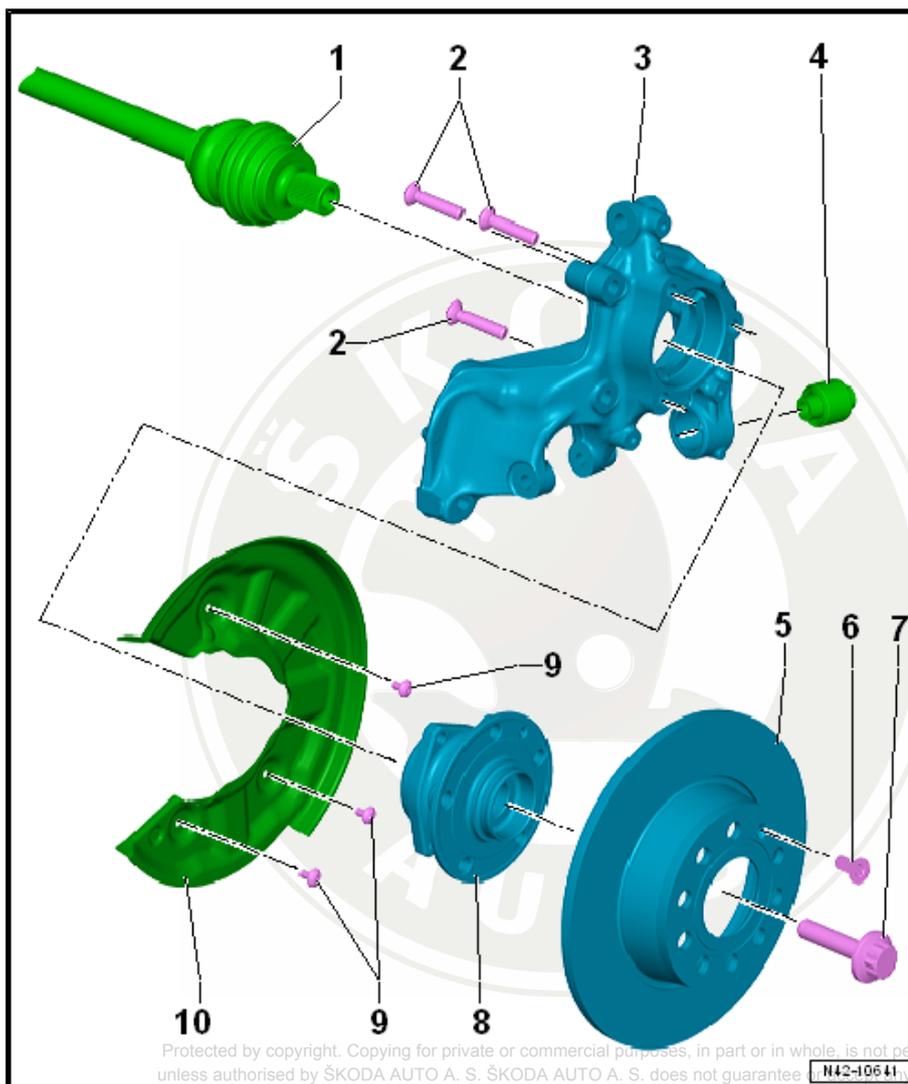
Installing:

Installation is carried out in the reverse order.



2.13 Wheel bearing - vehicles with four-wheel drive

- 1 - Drive shaft
 - 2 - Screw, 70 Nm + 90°
 - replace after each re-removal
 - 3 - Wheel-bearing housing
 - removing and installing
⇒ [page 180](#)
 - 4 - Rubber-metal bearing
 - removing and installing
⇒ [page 187](#)
 - 5 - Brake disc
 - 6 - Screw, 4.5 Nm
 - 7 - Screw, 200 Nm + 180°
 - Removing and installing fixing screw of drive shaft ⇒ [page 218](#)
 - 8 - Wheel hub with wheel bearing
 - Sensor ring for ABS is built into the wheel hub
 - removing and installing
⇒ [page 186](#)
- Wheel hub and wheel bearing form one unit. It is clearance free, adjusting and repairs are not possible.
- 9 - Screw, 12 Nm
 - 10 - Heat shield



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee the reliability of the information in this document. Copyright by ŠKODA AUTO A. S. 1142-10641

2.13.1 Removing and installing wheel bearing housing

Special tools and workshop equipment required

- ◆ Engine and gearbox jack e.g. -V.A.G 1383A-

Removing

- Measure dimension -a- ⇒ [page 133](#) .
- Undo the screw of driveshaft ⇒ [page 218](#) .



i Note

- ◆ *If the fixing screw of the drive shaft is loosened more than 90°, the wheel bearings must not be loaded through the weight of the vehicle, i.e the vehicle must not stand on its wheels.*
- ◆ *If the wheel bearings are loaded through the weight of the vehicle when the fixing screw for the drive shaft is removed, the inner wheel bearing will be damaged. This shortens the life of the wheel bearing.*
- ◆ *If the vehicle should be positioned on its wheels or moved, pay attention to the following points: Install an outer joint instead of the drive shaft. Tighten the fixing screw (use the one which was previously removed) of the outer joint to the tightening torque of 120 Nm.*

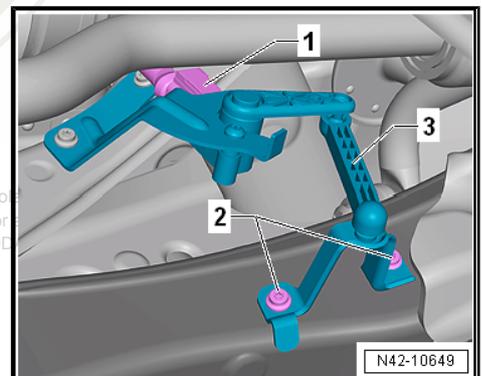
- Raise vehicle.
- Remove wheel.
- Remove the brake calliper with connected brake line and connected handbrake cable ⇒ Brake systems; Rep. gr. 46 .
- Suspend brake calliper from the body so that the weight of the brake calliper does not burden the brake line.
- Remove wheel hub ⇒ [page 186](#) .
- Remove cover plate ⇒ Brake systems; Rep. gr. 46 .
- Remove coil spring ⇒ [page 162](#) .

Vehicles with vehicle level sender -G76-

- Unplug connector -1-.
- Remove screws -2-.
- Remove vehicle level sender -G76- -3- from the suspension arm.

Continued for all vehicles

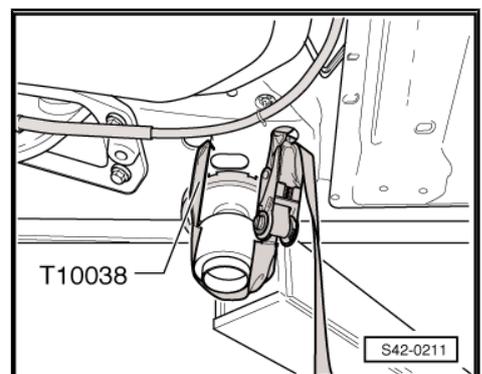
- Disconnect plug from ABS sensor.



- Lash the vehicle to the lift platform using the tensioning straps - T10038- .

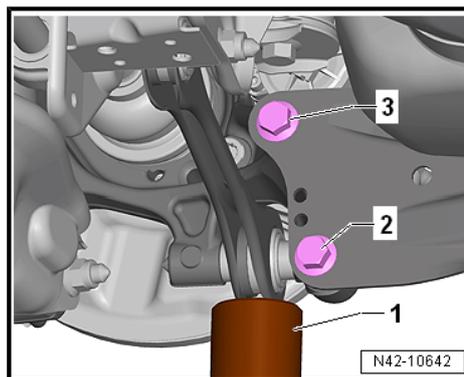
⚠ WARNING

If the vehicle is not lashed, there is a risk of the vehicle toppling off the lift platform.

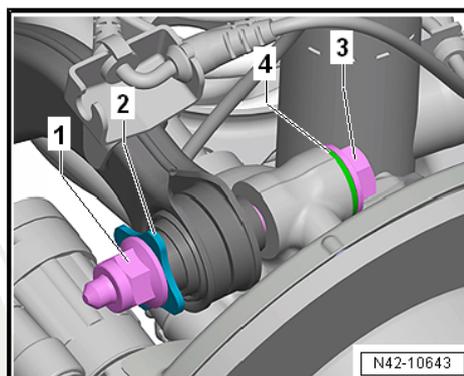




- Place the engine/gearbox jack e. g. -V.A.G 1383A- -1- underneath the coupling rod and raise easily.
- Unscrew screws -2- and -3-.
- Remove engine/gearbox jack , e. g. -V.A.G 1383A- .



- Remove nut -1-.
- Remove screw -3- with washers -2- and -4-.



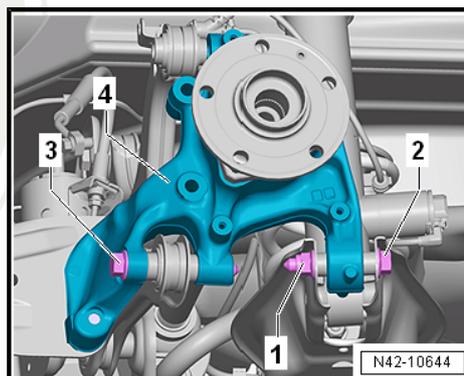
- Release nut -1- and screw -2-.
- Release screw -3-.
- Remove wheel bearing housing -4-.

Install

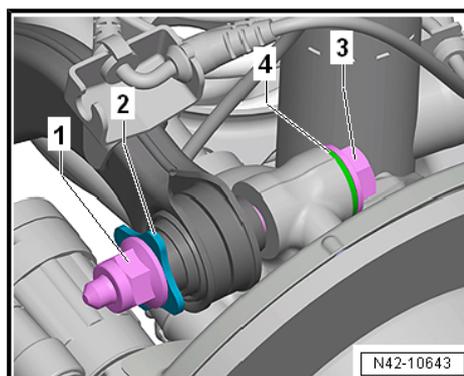
Installation is carried out in the reverse order. Pay attention to the following:

Note

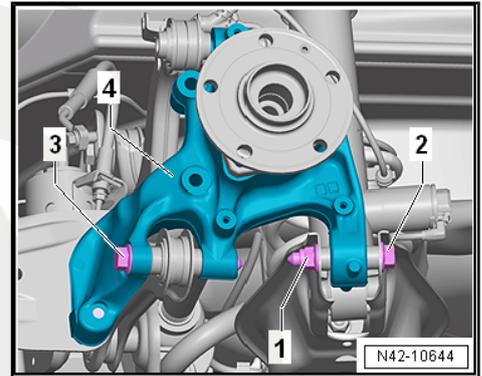
- ◆ *All the bolted connections of the coupling rods, the steering arms and the wheel hub must only be tightened if the measured dimension "a" between the wheel hub centre and the lower edge of the wheel house is respected (unladen weight position)! => [page 133](#)*
- ◆ *Pay attention to correct installation position of trailing arm and wheel-bearing housing.*



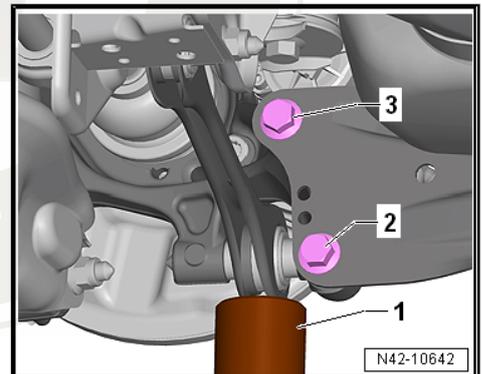
- Insert the wheel bearing housing.
- Insert screw -3- with washers -2- and -3-.
- Tighten the nut -1- until hand-tight.



- Tighten nut -1- on the screw -2- until hand-tight.
- Insert screws -3- and tighten by hand.



- Place the engine/gearbox jack e. g. -V.A.G 1383A- -1- underneath the coupling rod and raise easily.
- Install screws -2- and -3- by hand.
- Install cover plate ⇒ Brake systems; Rep. gr. 46 .
- Attach wheel hub ⇒ [page 186](#) .



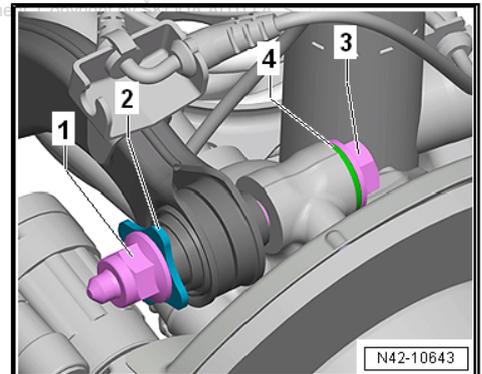


WARNING

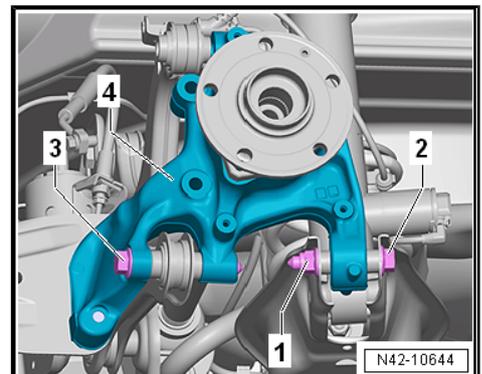
For tightening, the wheel-bearing housing must be in the unladen weight position ⇒ [page 133](#) .

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document.

- Tighten the nut -1- to the specified tightening torque.



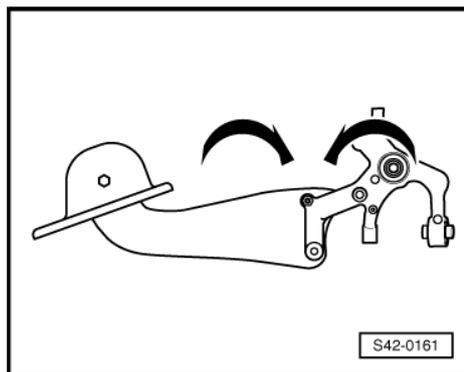
- Tighten the nut -1- and screw -3- to the specified tightening torque.





Installation position of trailing arm and wheel-bearing housing.

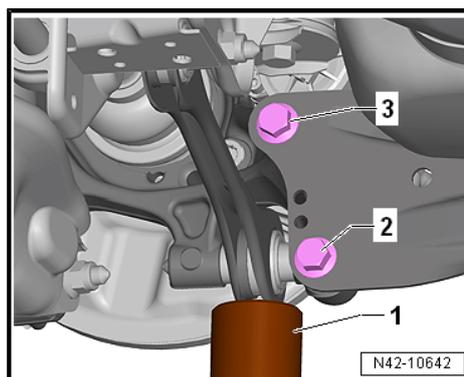
The screwed connection of the trailing arm/wheel-bearing housing must only be tightened if all other components (absolutely spring and shock absorber) of the respective wheel suspension are already fitted. For tightening, the wheel-bearing housing must be in the unladen weight position ⇒ [page 133](#) . Only move the trailing arm and the wheel-bearing housing into the necessary position for tightening the screwed connection -arrows- under these conditions.



- Tighten the screws -2- and -3- to the specified tightening torque.
- Carry out axle alignment ⇒ [page 234](#) .

Vehicles with vehicle level sender

- Carry out a basic setting of the headlamps ⇒ Electrical system; Rep. gr. 94 .





Tightening torques:

Shock absorber to bottom suspension arm ♦ Use new screw/nut! ♦ Tighten in unladen weight position! ⇒ page 133	70 Nm + 180°
Speed sensor to wheel-bearing housing	8 Nm
Trailing arm to wheel-bearing housing ♦ Use new screws! ♦ Determine the fitting positions of the trailing arm and the wheel-bearing housing before tightening the screws ⇒ page 184 ♦ Tighten in unladen weight position! ⇒ page 133	70 Nm + 90°
Top suspension arm to wheel-bearing housing ♦ Use new screws and nuts! ♦ Tighten in unladen weight position! ⇒ page 133	130 Nm + 180°
Bottom suspension arm to wheel-bearing housing ♦ Use new screws and nuts! ♦ Tighten in unladen weight position! ⇒ page 133	70 Nm + 180°
Track rod for rear axle to wheel-bearing housing ♦ Use new screw! ♦ Tighten in unladen weight position! ⇒ page 133	70 Nm + 180°
Screw for driveshaft ♦ Tighten ⇒ page 218	200 Nm + 180°
Vehicle level sensor to axle.	5 Nm
Wheel bolts	120 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

2.13.2 Removing and installing the wheel hub

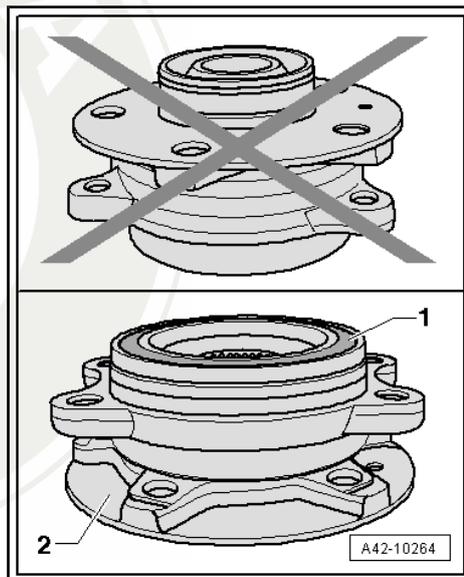
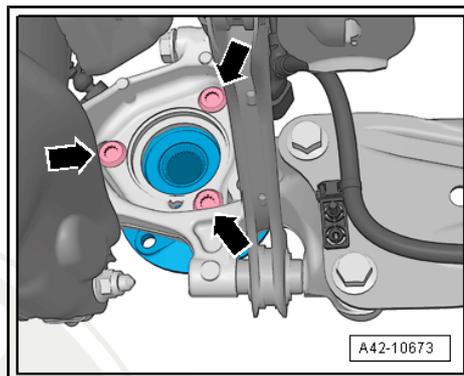
Removing

- Remove driveshaft ⇒ [page 220](#) .
- Remove the brake calliper with connected brake line and connected handbrake cable ⇒ Brake systems; Rep. gr. 46 .
- Suspend brake calliper from the body so that the weight of the brake calliper does not burden the brake line.
- Remove brake disc ⇒ Brake systems; Rep. gr. 46 .
- Release screws -arrows-.
- Remove wheel hub.



Caution

- *Avoid any contamination or damage to the gasket when handling and storing it.*



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

- When storing, the bearing -1- must always point upwards.
- Always position the wheel hub with wheel bearing onto the wheel hub -2-.
- When handling with bearing, never grip inside.
- Always grip the outer part of the bearing.

Install

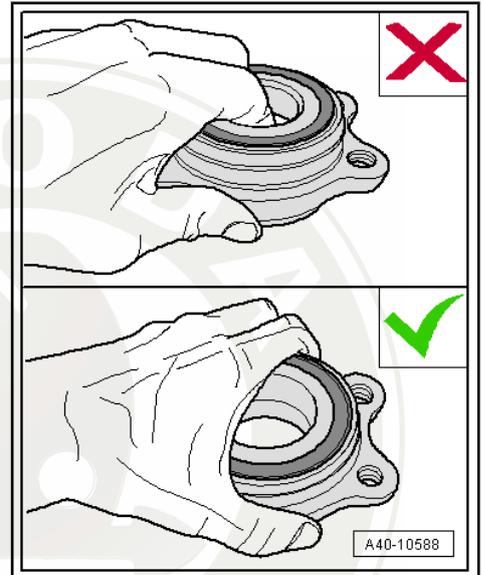
Installation is carried out in the reverse order. Pay attention to the following:



Note

All the bolted connections of the coupling rods, the steering arms and the wheel hub must only be tightened if the measured dimension "a" between the wheel hub centre and the lower edge of the wheel house is respected (unladen weight position)!

⇒ [page 133](#)



Tightening torques:

Wheel hub on wheel-bearing housing ♦ Use new screw/nut! ♦ Tighten in unladen weight position! ⇒ page 133	70 Nm + 90°
---	-------------

2.13.3 Replacing the rubber-metal bearing for wheel-bearing housing

Special tools and workshop equipment required

- ♦ Assembly device - MP5-401 (3346)-
- ♦ Assembly device - MP5-402 (3301)-
- ♦ Assembly device - T30017 (3350)-
- ♦ Joint part - 3390-
- ♦ Assembly device - T10356-
- ♦ Press-in tool - T30087 (3367)-

Removing:

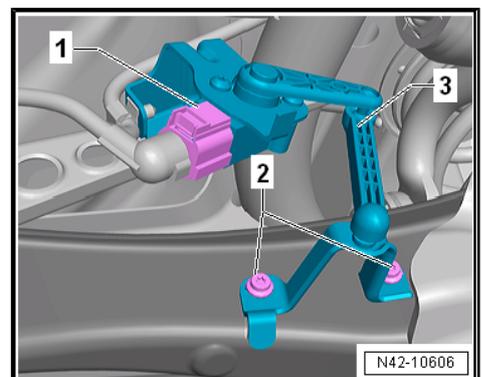
- Remove wheel.

Vehicles with rear left vehicle level sensor - G76-

- Disconnect plug connection -1-.
- Remove screws -2-.
- Detach the rear left vehicle level sensor - G76- -3- from the track control arm.

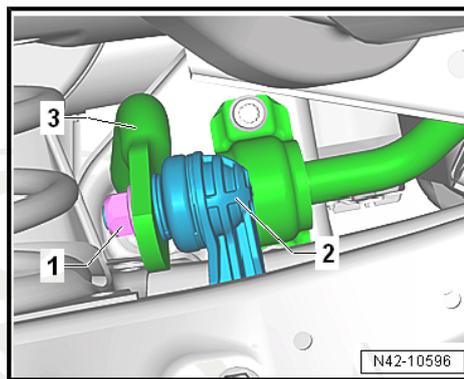
Continued for all vehicles

- Remove coil spring ⇒ [page 162](#) .

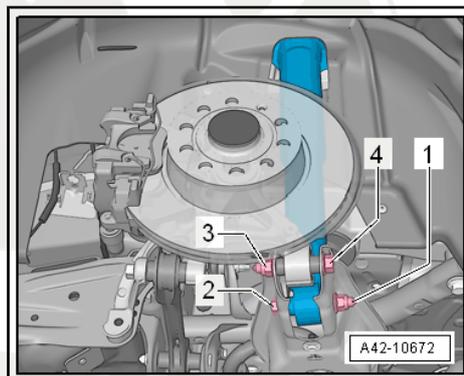




- Remove nut -1-.
- Pull out coupling rod -2- from the anti-roll bar -3-.



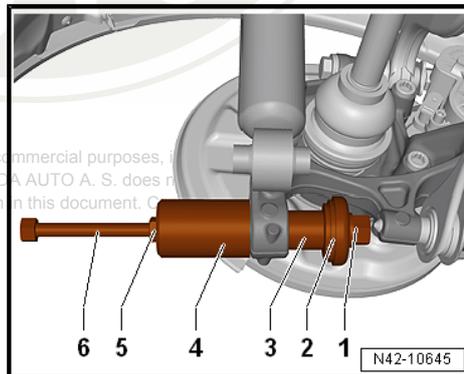
- Unscrew screws -2- and -4-.



Remove rubber-metal bearing

- Position the special tools as shown in the figure.
- 1 - Nut - MP5-401/3-
 - 2 - Assembly device - MP5-402-
 - 3 - Joint part - 3390-
 - 4 - Assembly device - T30017-
 - 5 - Nut, commercially available
 - 6 - Screw - MP5-401/2-
- Pull out rubber-metal bearing by turning the assembly device nut - MP5-401/3- .

Protected by copyright. Copying for private or commercial purposes, unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not accept any liability with respect to the correctness of information in this document. C



Inserting the rubber-metal bearing



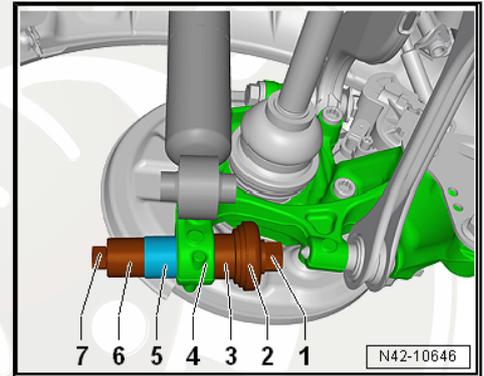
Note

- ◆ *Do not use any lubricant!*
- ◆ *Carefully insert the rubber-metal bearing, so that it does not tilt.*



– Position the special tools as shown in the figure.

- 1 - Nut - MP5-402-
- 2 - Assembly device - MP5-402-
- 3 - Pressure element - T30087/2-
- 4 - Wheel-bearing housing
- 5 - Rubber-metal bearing
- 6 - Joint part - 3390-
- 7 - Screw - MP5-402-



– Pull out rubber-metal bearing by turning the assembly device nut - MP5-401- .

Installing:

Installation is carried out in the reverse order. Pay attention to the following:

i Note

All the bolted connections of the coupling rods, the steering arms and the wheel hub must only be tightened if the measured dimension "a" between the wheel hub centre and the lower edge of the wheel house is respected (unladen weight position)!

[=> page 133](#)

SKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.

Tightening torques:

Shock absorber to bottom suspension arm ♦ Use new screw/nut! ♦ Tighten in unladen weight position! => page 133	70 Nm + 180°
Bottom suspension arm to wheel-bearing housing ♦ Use new screws and nuts! ♦ Tighten in unladen weight position! => page 133	70 Nm + 180°
Vehicle level sensor to axle.	5 Nm
Wheel bolts	120 Nm

2.14 Summary of components: Suspension arm- vehicles with front-wheel drive

1 - Nut

- replace after each removal
- Always tighten bolted connections in unladen weight position
⇒ [page 133](#)

2 - Washer

3 - Top suspension arm

- removing and installing
⇒ [page 191](#)

4 - Screw, 130 Nm + 180°

- Always tighten bolted connections in unladen weight position
⇒ [page 133](#)
- replace after each removal

5 - Wheel-bearing housing

- Assignment ⇒ Electronic Catalogue of Original Parts
- removing and installing
⇒ [page 172](#)

6 - Screw, 70 Nm + 180°

- replace after each removal
- Always tighten bolted connections in unladen weight position
⇒ [page 133](#)

7 - Nut

- replace after each removal

8 - Expanding rivet

- Assignment ⇒ Electronic Catalogue of Original Parts

9 - Protection against stones

- Assignment ⇒ Electronic Catalogue of Original Parts

10 - Screw, 8 Nm

- Assignment ⇒ Electronic Catalogue of Original Parts

11 - Bottom suspension arm

- removing and installing ⇒ [page 193](#)

12 - Eccentric bolt

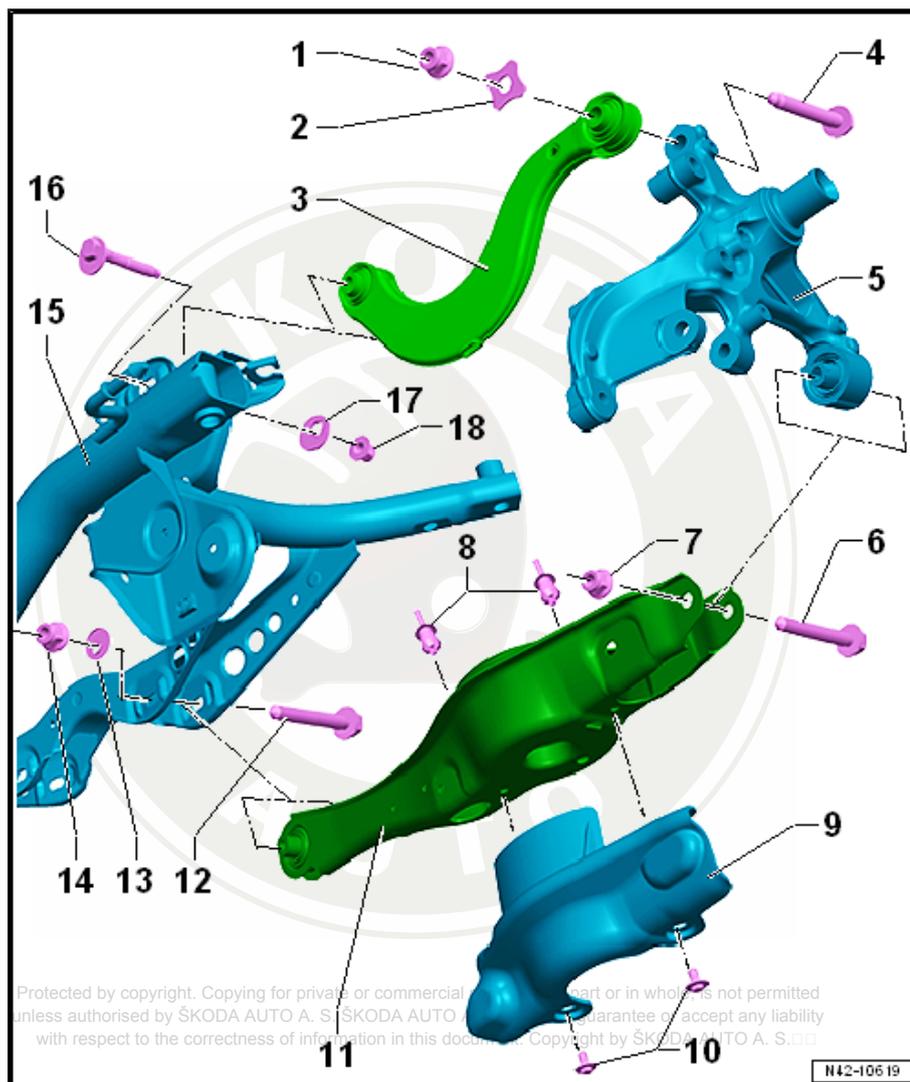
- after undoing, carry out an axle alignment ⇒ [page 234](#)
- do not turn more than 90° to the right or to the left (i.e smallest to largest adjustment possibility)

13 - Eccentric washer

- Inner hole with lug

14 - Nut, 95 Nm

- self-locking
- replace after each removal
- Always tighten bolted connections in unladen weight position ⇒ [page 133](#)



15 - Assembly carrier

16 - Eccentric bolt

- ❑ after undoing, carry out an axle alignment ⇒ [page 234](#)
- ❑ do not turn more than 90° to the right or to the left (i.e smallest to largest adjustment possibility)

17 - Eccentric washer

- ❑ Inner hole with lug

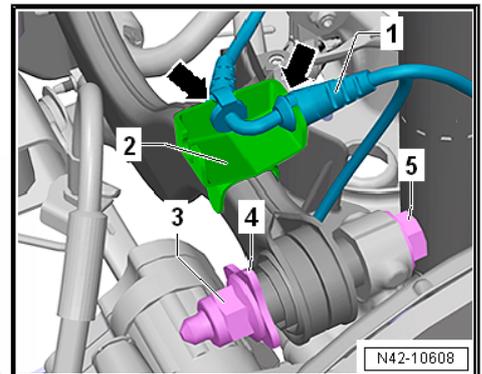
18 - Nut, 95 Nm

- ❑ self-locking
- ❑ replace after each removal
- ❑ Always tighten bolted connections in unladen weight position ⇒ [page 133](#)

2.14.1 Removing and installing top suspension arm

Removing:

- Measure dimension -a- ⇒ [page 133](#) .
- Remove wheel.
- Remove coil spring ⇒ [page 162](#) .
- Unhook speed sensor cable -1- from holder -2- at top suspension arm -arrows-.
- Remove screw -5- with nut -3- and washer -4-.

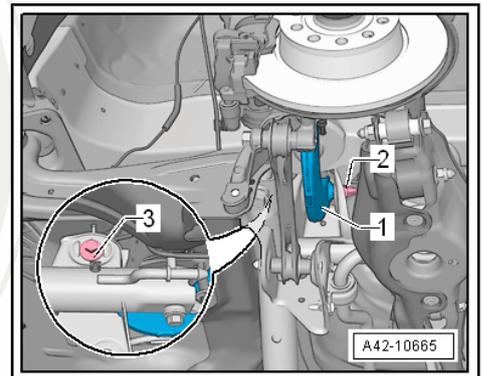


- Mark the position of the eccentric bolt -3- to the assembly carrier, e.g. using a felt-tip pen.
- Release screw -3-.
- Remove the top suspension arm -1-.

Installing:

Installation occurs in reverse order to removal. Pay attention to the following:

- Carry out axle alignment ⇒ [page 234](#) .





Tightening torques:

Top suspension arm to assembly carrier ◆ Use new screws and nuts!	95 Nm
Top suspension arm to wheel-bearing housing ◆ Use new screws and nuts!	130 Nm + 180°
Wheel bolts	120 Nm



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

2.14.2 Removing and installing bottom suspension arm

Removing:

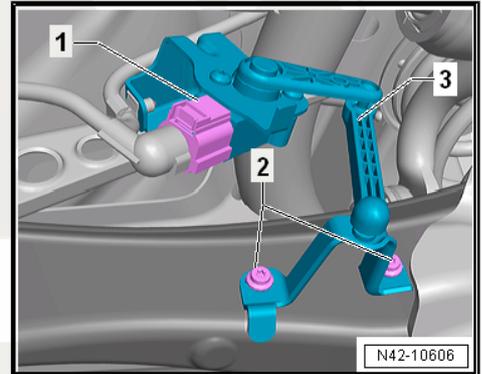
- Measure dimension -a- ⇒ [page 133](#) .
- Remove wheel.

Vehicles with rear left vehicle level sensor - G76-

- Remove screws -2-.
- Detach the rear left vehicle level sensor - G76- -3- from the track control arm.

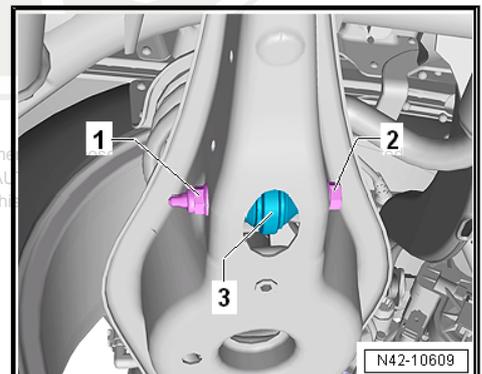
Continued for all vehicles

- Remove coil spring ⇒ [page 162](#) .

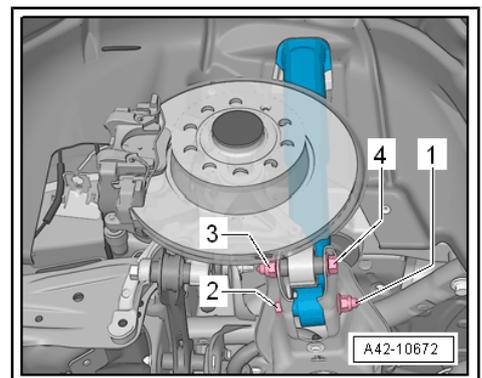


- Release screw -2-.

Protected by copyright. Copying for private or commercial use without the written permission of ŠKODA AUTO A. S. ŠKODA AUTO A. S. is not permitted with respect to the correctness of information in this document.



- Remove bolts -2- and -4-.
- Unhook and lower exhaust system at rear ⇒ Engine; Rep. gr. 26 .





- For example mark with a felt-tip pen the position of the eccentric bolt -arrow- to the assembly carrier.
- Release screw -arrow-.
- Remove bottom suspension arm.

Installing:

Installation is carried out in the reverse order. Pay attention to the following:



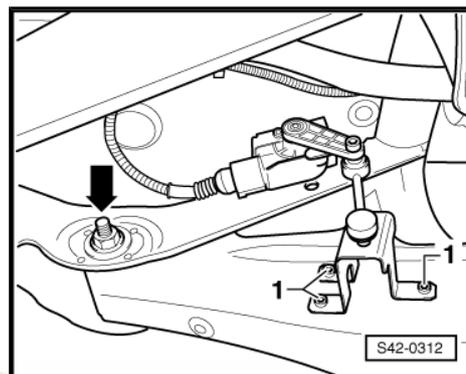
Note

The bolted connection of the bottom suspension arm must only be performed, if the measured dimension "a" between the wheel hub centre and the lower edge of the wheel house is respected (unladen weight position)! => [page 133](#) .

- Carry out axle alignment => [page 234](#) .

Vehicles with vehicle level sender

- Carry out a basic setting of the headlights => Electrical system; Rep. gr. 94 .





Tightening torques:

Bottom suspension arm to assembly carrier ◆ Use new screws and nuts!	95 Nm
Bottom suspension arm to wheel-bearing housing ◆ Use new screws and nuts!	70 Nm + 180°
Shock absorber to bottom suspension arm ◆ Use new screws and nuts!	70 Nm + 180°
Coupling rod at bottom suspension arm ◆ Use new screws and nuts!	20 Nm + 180°
Vehicle level sensor at bottom suspension arm.	5 Nm
Wheel bolts	120 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

2.15 Summary of components: Suspension arm- vehicles with four-wheel drive

1 - Washer

2 - Nut

- replace after each removal
- Always tighten bolted connections in unladen weight position
⇒ [page 133](#)

3 - Top suspension arm

- removing and installing
⇒ [page 197](#)

4 - Washer

5 - Screw, 130 Nm + 180°

- Always tighten bolted connections in unladen weight position
⇒ [page 133](#)
- replace after each removal

6 - Wheel-bearing housing

- Assignment ⇒ Electronic Catalogue of Original Parts
- removing and installing
⇒ [page 180](#)

7 - Nut

- replace after each removal

8 - Expanding rivet

- Assignment ⇒ Electronic Catalogue of Original Parts

9 - Screw, 70 Nm + 180°

- replace after each removal
- Always tighten bolted connections in unladen weight position ⇒ [page 133](#)

10 - Bottom suspension arm

- removing and installing ⇒ [page 199](#)

11 - Protection against stones

- Assignment ⇒ Electronic Catalogue of Original Parts

12 - Screw, 8 Nm

- Assignment ⇒ Electronic Catalogue of Original Parts

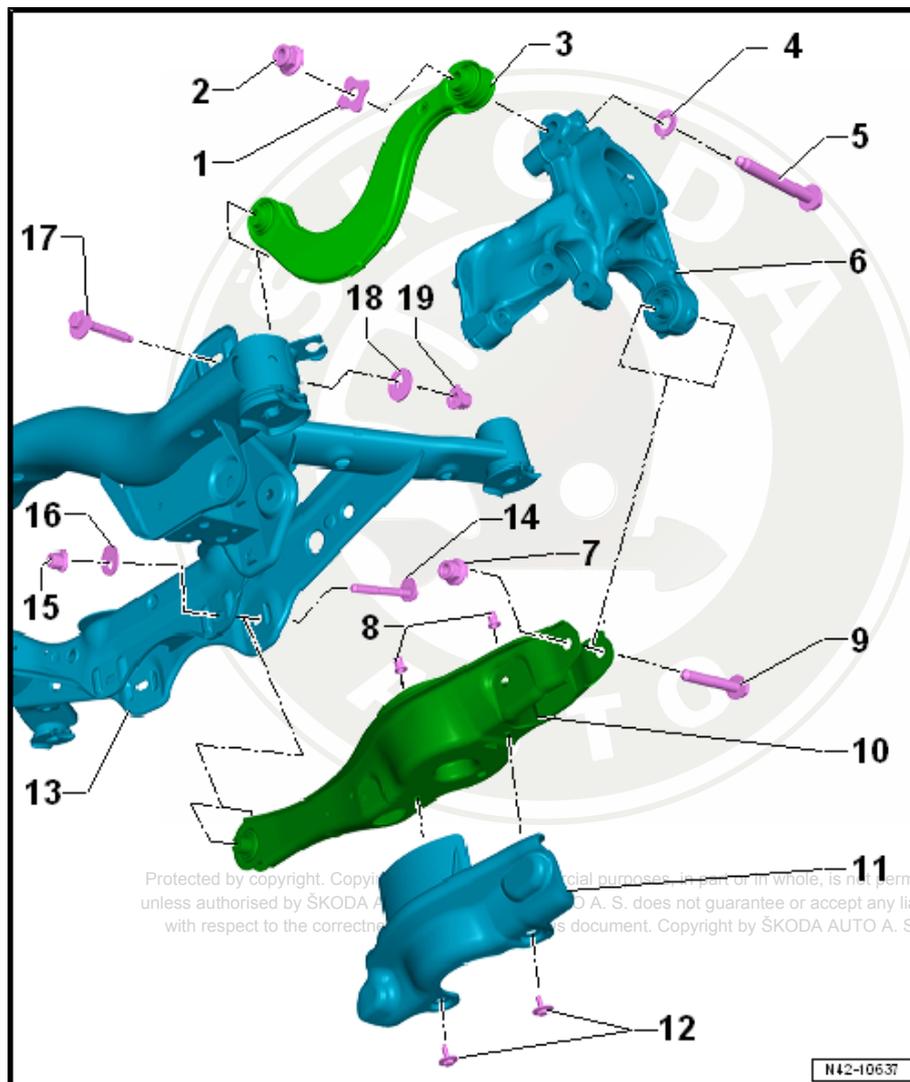
13 - Assembly carrier

14 - Eccentric bolt

- after undoing, carry out an axle alignment ⇒ [page 234](#)
- do not turn more than 90° to the right or to the left (i.e smallest to largest adjustment possibility)

15 - Nut, 95 Nm

- self-locking
- replace after each removal
- Always tighten bolted connections in unladen weight position ⇒ [page 133](#)



Protected by copyright. Copying for commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of this document. Copyright by ŠKODA AUTO A. S.

N42-10637

16 - Eccentric washer

- Inner hole with lug

17 - Eccentric bolt

- after undoing, carry out an axle alignment ⇒ [page 234](#)
- do not turn more than 90° to the right or to the left (i.e smallest to largest adjustment possibility)

18 - Eccentric washer

- Inner hole with lug

19 - Nut, 95 Nm

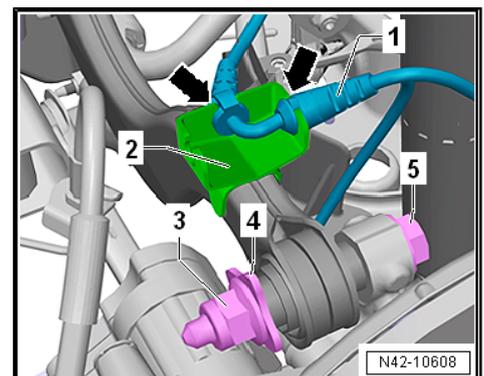
- self-locking
- replace after each removal
- Always tighten bolted connections in unladen weight position ⇒ [page 133](#)

2.15.1 Removing and installing top suspension arm

Removing:

- Measure dimension -a- ⇒ [page 133](#) .
- Remove wheel.
- Remove coil spring ⇒ [page 162](#) .
- Unhook speed sensor cable -1- from holder -2- at top suspension arm -arrows-.
- Remove screw -5- with nut -3- and washer -4-.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. 2013

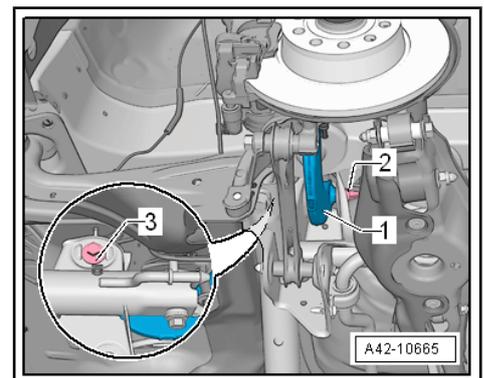


- Mark the position of the eccentric bolt -3- to the assembly carrier, e.g. using a felt-tip pen.
- Release screw -3-.
- Remove the top suspension arm -1-.

Installing:

Installation occurs in reverse order to removal. Pay attention to the following:

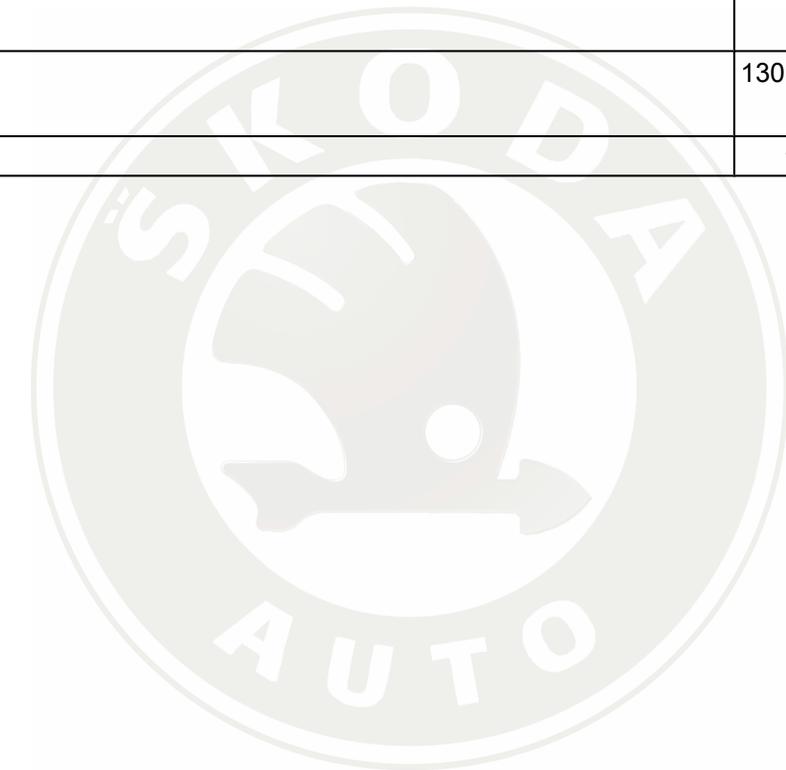
- Carry out axle alignment ⇒ [page 234](#) .





Tightening torques:

Top suspension arm to assembly carrier ◆ Use new screws and nuts!	95 Nm
Top suspension arm to wheel-bearing housing ◆ Use new screws and nuts!	130 Nm + 180°
Wheel bolts	120 Nm



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □ □

2.15.2 Removing and installing bottom suspension arm

Removing:

- Measure dimension -a- ⇒ [page 133](#) .
- Remove wheel.

Vehicles with rear left vehicle level sensor - G76-

- Remove screws -2-.
- Detach the rear left vehicle level sensor - G76- -3- from the track control arm.

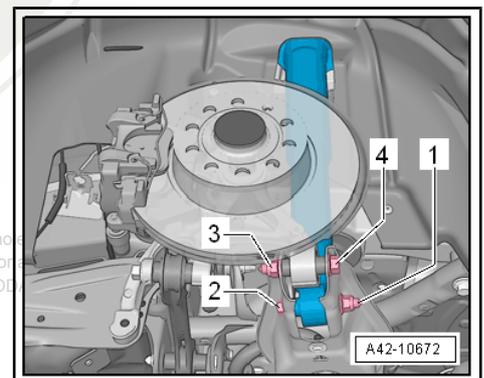
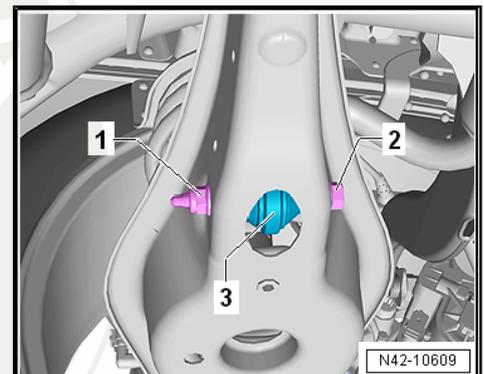
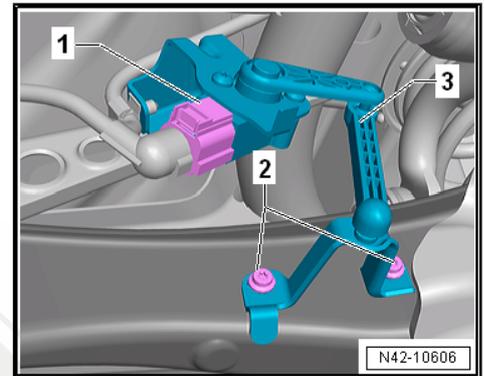
Continued for all vehicles

- Remove coil spring ⇒ [page 162](#) .

- Release screw -2-.

- Release screws - 2 - and - 4 - .

- Unhook and lower exhaust system at rear ⇒ Engine; Rep. gr. 26 .



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is prohibited without the written permission of ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability for the correctness of information in this document. Copyright by ŠKODA AUTO A. S.



- For example mark with a felt-tip pen the position of the eccentric bolt -arrow- to the assembly carrier.
- Release screw -arrow-.
- Remove bottom suspension arm.

Installing:

Installation is carried out in the reverse order. Pay attention to the following:



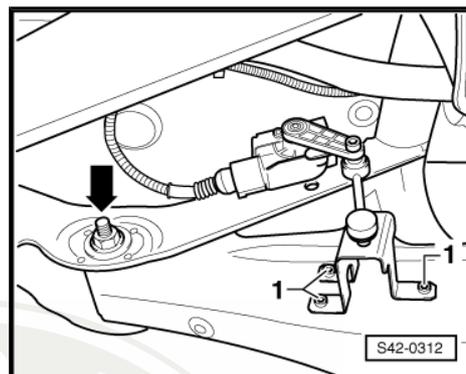
Note

The bolted connection of the bottom suspension arm must only be performed, if the measured dimension "a" between the wheel hub centre and the lower edge of the wheel house is respected (unladen weight position)! => [page 133](#) .

- Carry out axle alignment => [page 234](#) .

Vehicles with vehicle level sender

- Carry out a basic setting of the headlights => Electrical system; Rep. gr. 94 .





Tightening torques:

Bottom suspension arm to assembly carrier ◆ Use new screws and nuts!	95 Nm
Bottom suspension arm to wheel-bearing housing ◆ Use new screws and nuts!	70 Nm + 180°
Shock absorber to bottom suspension arm ◆ Use new screws and nuts!	70 Nm + 180°
Coupling rod at bottom suspension arm ◆ Use new screws and nuts!	20 Nm + 180°
Vehicle level sensor at bottom suspension arm.	5 Nm
Wheel bolts	120 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

2.16 Summary of components: Tie rod for rear axle - vehicles with front-wheel drive

1 - Assembly carrier

2 - Screw

- replace after each removal

3 - Wheel-bearing housing

4 - Track rod for rear axle

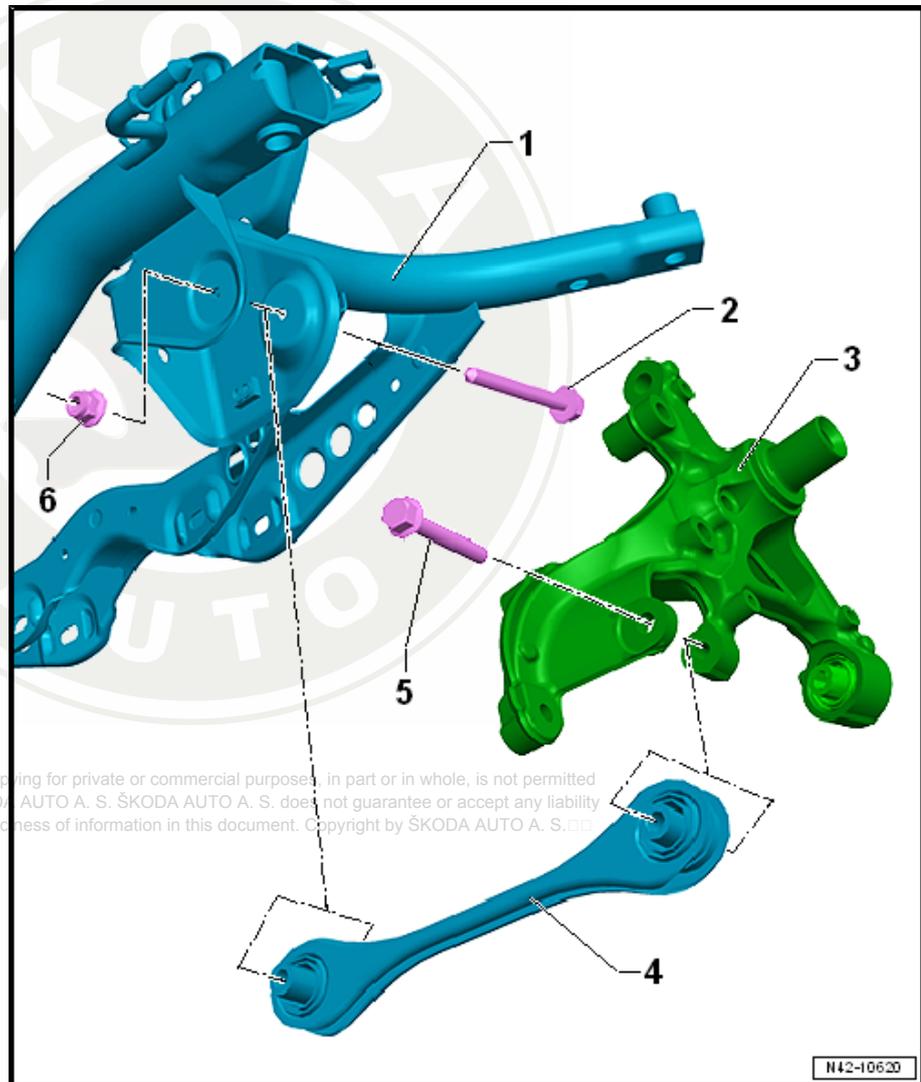
- removing and installing
 ⇒ [page 202](#)

5 - Screw, 70 Nm + 180°

- replace after each removal
- Always tighten bolted connections in unladen weight position
 ⇒ [page 133](#)

6 - Nut, 70 Nm + 180°

- replace after each removal
- Always tighten bolted connections in unladen weight position
 ⇒ [page 133](#)



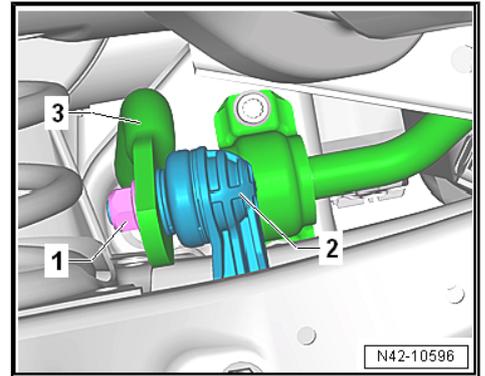
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. 07

2.16.1 Removing and installing track rod for rear axle

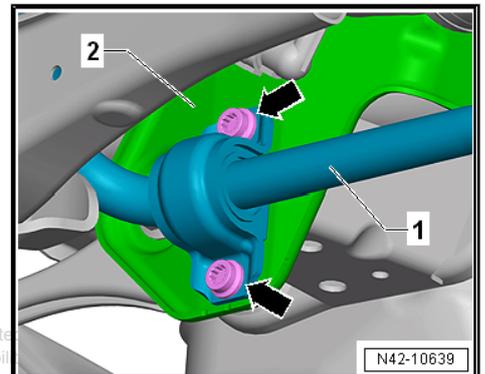
Removing:

- Measure dimension -a- ⇒ [page 133](#) .
- Remove wheel.

- Unscrew nut -1- and pull coupling rod -2- out of anti-roll bar -3-.



- Unscrew screws -arrows- for clamp of anti-roll bar -1-.
- Press the anti-roll bar to the side easily.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.

- Release nut -1- and screw -3-.
- Release screw -3-.
- Release screw -4-.
- Remove track rod for rear axle -2-.

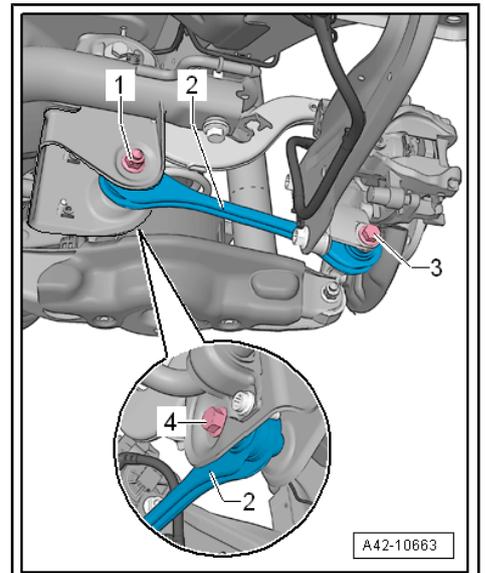
Installing:

Installation is carried out in the reverse order. Pay attention to the following:

i Note

The bolted connection of the tie rod for the rear axle must only be performed, if the measured dimension "a" between the wheel hub centre and the lower edge of the wheel house is respected (unladen weight position)! ⇒ [page 133](#) .

- Carry out axle alignment ⇒ [page 234](#) .





Tightening torques:

Track rod for rear axle to assembly carrier ◆ Use new screws and nuts!	70 Nm + 180°
Track rod for rear axle to wheel-bearing housing ◆ Use new screws!	70 Nm + 180°
Clamp of anti-roll bar to assembly carrier ◆ Use new screws!	20 Nm + 90°
Coupling rod to anti-roll bar	55 Nm
Wheel bolts	120 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

2.17 Summary of components: Tie rod for rear axle - vehicles with four-wheel drive

1 - Assembly carrier

2 - Screw

- ❑ replace after each removal

3 - Wheel-bearing housing

4 - Track rod for rear axle

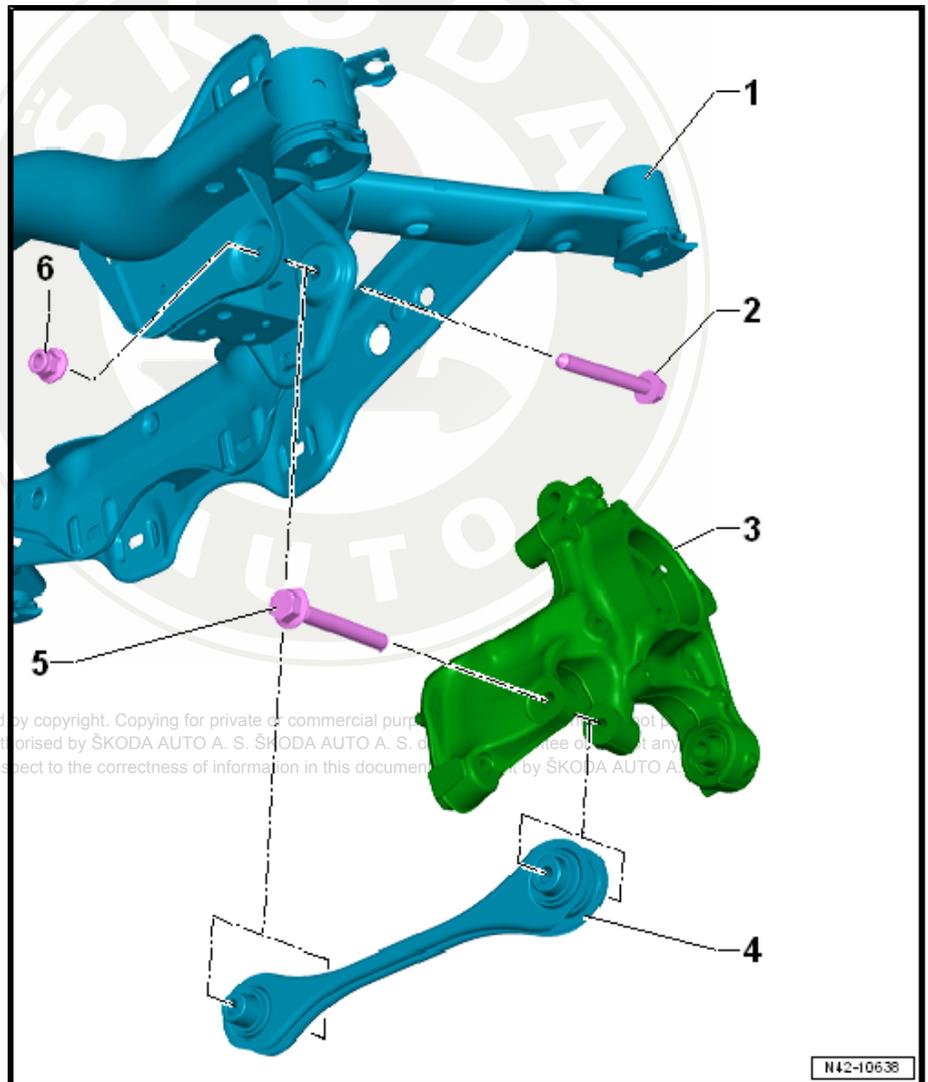
- ❑ removing and installing
⇒ [page 205](#)

5 - Screw, 70 Nm + 180°

- ❑ replace after each removal
- ❑ Always tighten bolted connections in unladen weight position
⇒ [page 133](#)

6 - Nut, 70 Nm + 180°

- ❑ replace after each removal
- ❑ Always tighten bolted connections in unladen weight position
⇒ [page 133](#)

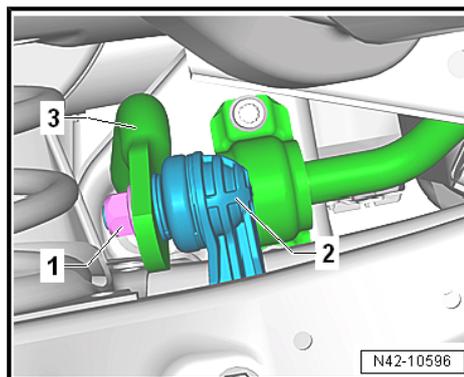


2.17.1 Removing and installing track rod for rear axle

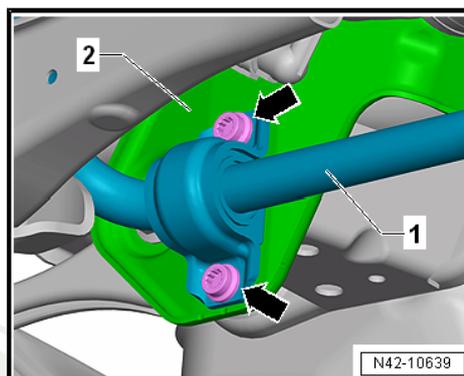
Removing:

- Measure dimension -a- ⇒ [page 133](#).
- Remove wheel.

- Unscrew nut -1- and pull coupling rod -2- out of anti-roll bar -3-.



- Unscrew screws -arrows- for clamp of anti-roll bar -1-.
- Press the anti-roll bar to the side easily.



- Release nut -1- and screw -3-.
- Release screw -3-.
- Release screw -4-.
- Remove track rod for rear axle -2-.

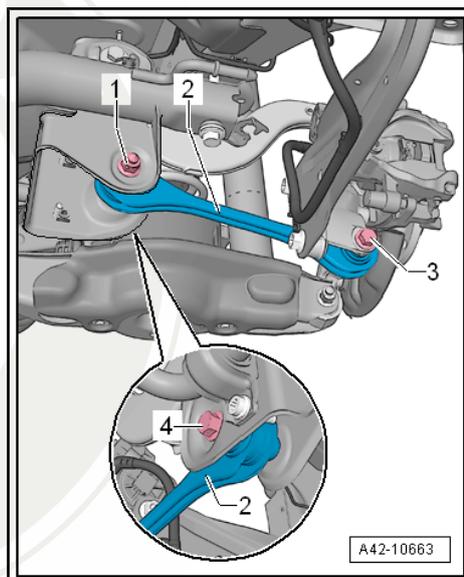
Installing:

Installation is carried out in the reverse order. Pay attention to the following:

Note

The bolted connection of the tie rod for the rear axle must only be performed, if the measured dimension "a" between the wheel hub centre and the lower edge of the wheel house is respected (unladen weight position)! ⇒ [page 133](#) .

- Carry out axle alignment ⇒ [page 234](#) .





Tightening torques:

Track rod for rear axle to assembly carrier ◆ Use new screws and nuts!	70 Nm + 180°
Track rod for rear axle to wheel-bearing housing ◆ Use new screws!	70 Nm + 180°
Clamp of anti-roll bar to assembly carrier ◆ Use new screws!	20 Nm + 90°
Coupling rod to anti-roll bar	55 Nm
Wheel bolts	120 Nm



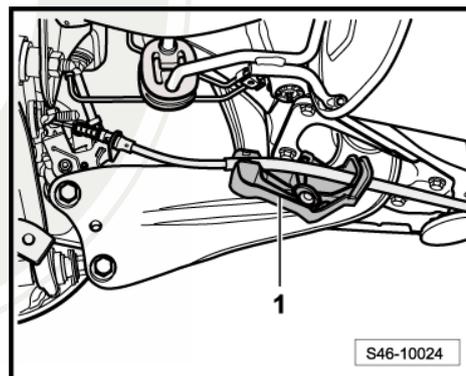
2.18 Removing and installing trailing arm with bracket

Special tools and workshop equipment required

- ◆ Engine and gearbox jack e.g. -V.A.G 1383/A-

Removing:

- Measure dimension -a- ⇒ [page 133](#) .
- Remove wheel.
- Remove coil spring ⇒ [page 162](#) .
- Remove expanding rivet for retaining clip -1-.

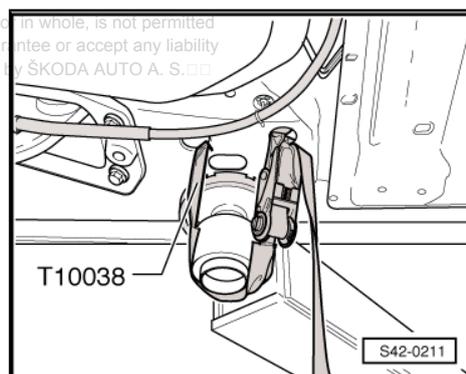


- Lash the vehicle to the lift platform using the tensioning straps - T10038- .

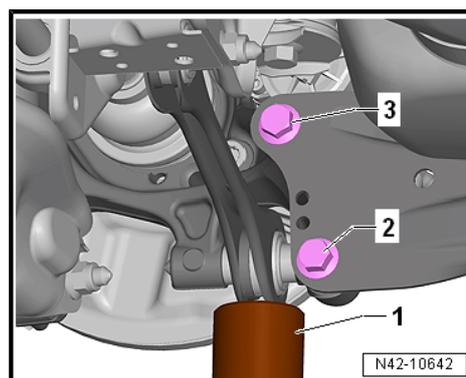


WARNING

If the vehicle is not lashed, there is a risk of the vehicle toppling off the lift platform.



- Place the engine/gearbox jack e. g. -V.A.G 1383A- -1- underneath the coupling rod and raise easily.
- Unscrew screws -2- and -3-.

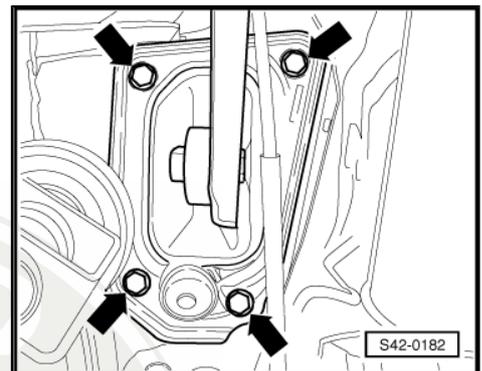
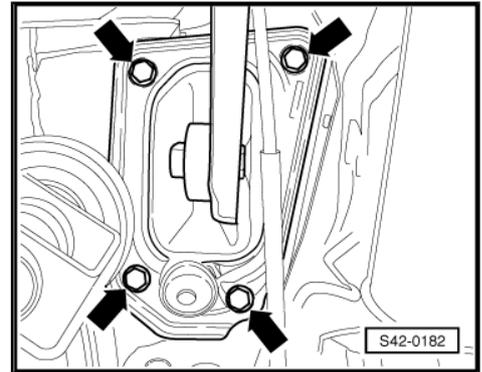


- Mark the installed position of the bracket on the body.
- Release the screws of the bracket -arrows-.
- Remove the trailing arm with the bracket.

Installing:

Installation is carried out in the reverse order. Pay attention to the following:

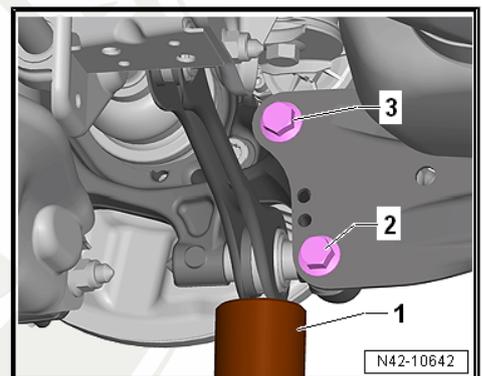
- Tighten screws -arrows- to the marked fitting location - to the "former positions".



- Place the engine/gearbox jack e. g. -V.A.G 1383A- -1- underneath the coupling rod and raise easily.
- Install screws -2- and -3- by hand.

i Note

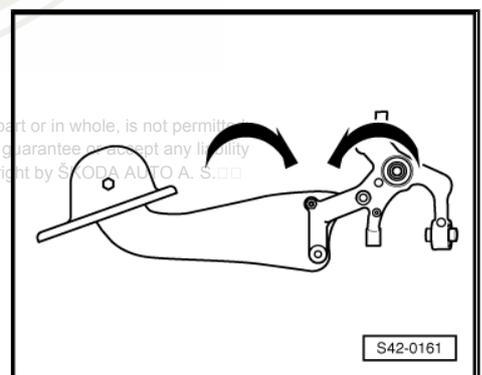
- ◆ All the bolted connections of the coupling rods, the steering arms and the wheel hub must only be tightened if the measured dimension "a" between the wheel hub centre and the lower edge of the wheel house is respected (unladen weight position)! ⇒ [page 133](#)
- ◆ Pay attention to correct installation position of trailing arm and wheel-bearing housing.



Installation position of trailing arm and wheel-bearing housing.

The screwed connection of the trailing arm/wheel-bearing housing must only be tightened if all other components (absolutely spring and shock absorber) of the respective wheel suspension are already fitted. For tightening, the wheel-bearing housing must be in the unladen weight position ⇒ [page 133](#) ! Only move the trailing arm and the wheel-bearing housing into the necessary position for tightening the screwed connection -arrows- under these conditions.

- Carry out axle alignment ⇒ [page 234](#) .





Tightening torques:

Holder for hand brake cable to trailing arm	4 Nm
Trailing arm to bracket ◆ Use new screw! ◆ Observe the fitting position of the trailing arm to the bracket before tightening the screw ⇒ page 212 .	90 Nm + 90°
Trailing arm to wheel-bearing housing ◆ Use new screws! ◆ Observe the fitting position of the trailing arm with the wheel-bearing housing before tightening the screws ⇒ page 209 .	70 Nm + 90°
Bracket to body ◆ Use new screws!	50 Nm + 45°
Coupling rod ◆ Use new nut!	55 Nm
Wheel bolts	120 Nm

2.19 Repairing trailing arm

Special tools and workshop equipment required

- ◆ Tube for wheel bearing - T30019 (3345)-
- ◆ Assembly device - MP5-401 (3346)-
- ◆ Pressure plate - MP3-407 (VW 402)-
- ◆ Pressure spindle - MP3-408 (VW 412)-
- ◆ Thrust piece - T10496-

Pressing out bonded rubber bush

- Removing the trailing arm ⇒ [page 208](#) .
- Clamp the longitudinal swing arm -1- in a vice with protective jaws.
- Release screw -2- and remove bearing bracket -3-.

Pressing out bonded rubber bush

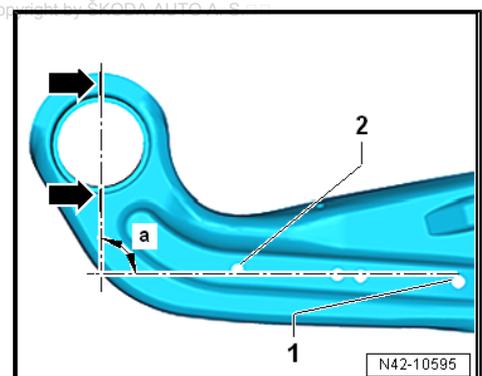
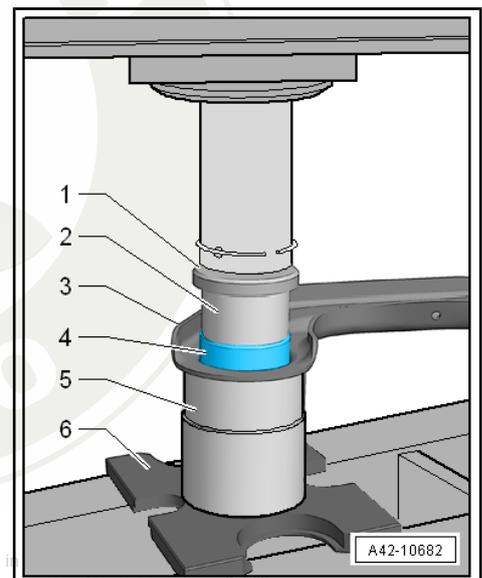
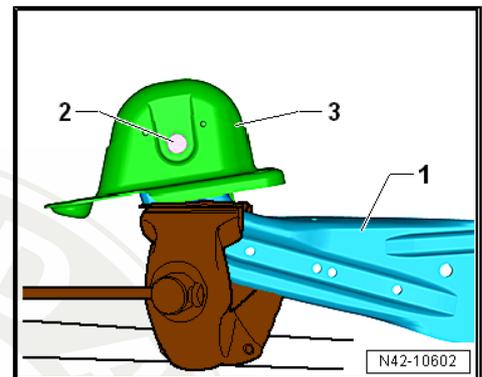
- Position the special tools as shown in the figure.

- 1 - Pressure spindle - MP3-408 (VW 412)-
 - 2 - Assembly device - MP5-401/1- (deep recess faces rubber-metal bearing)
 - 3 - Trailing arm
 - 4 - Rubber-metal bearing
 - 5 - Tube for wheel bearing - T30019 (3345)-
 - 6 - Pressure plate - MP3-407 (VW 402)-
- Pulling out the rubber-metal bearing.

Inserting the rubber-metal bearing

- Mark the installation position of the rubber-metal bearing to the longitudinal swing arm using a right-angled triangle.
- Fit one side of the triangle to the upper edge of the hole -1- and the lower edge of the hole -2-.
- Make one mark above and one mark below the sleeve of the rubber-metal bearing.

a - 90°



Protected by copyright. Copying for private or commercial purposes, in whole or in part, is prohibited without the written permission of ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not assume any liability with respect to the correctness of information in this document. Copyright © ŠKODA AUTO A. S.

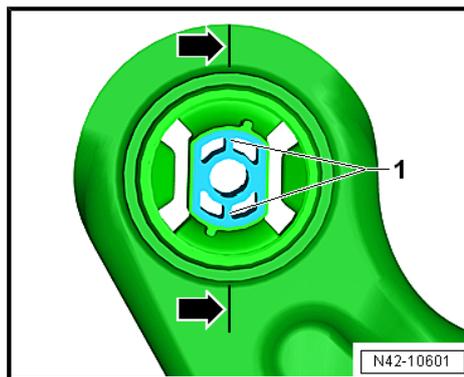


- Adjust the rubber-metal bearing so that the marks -arrows- along the peg -1-.



Note

It is imperative you observe the installation position of the rubber-metal bearing to the longitudinal swing arm.

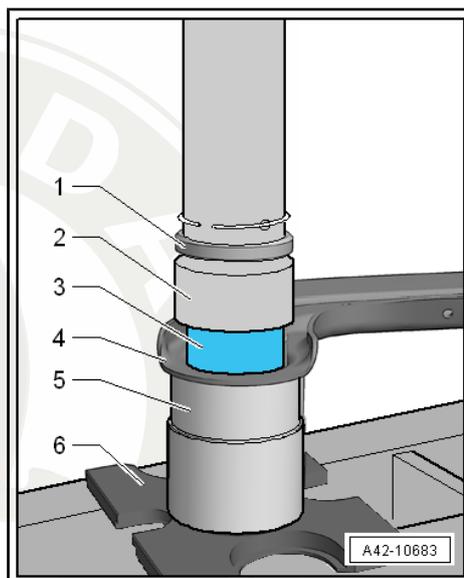


- Position the special tools as shown in the figure.

- 1 - Pressure spindle - MP3-408 (VW 412)-
- 2 - Thrust piece - T10496-
- 3 - Rubber-metal bearing
- 4 - Trailing arm
- 5 - Tube for wheel bearing - T30019 (3345)-
- 6 - Pressure plate - MP3-407 (VW 402)-

- Insert the rubber-metal bearing.

Determine the fitting position of the bracket to the trailing arm

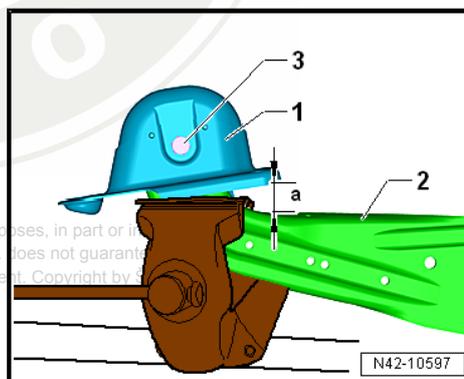


- Clamp the longitudinal swing arm -2- in a vice with protective jaws.
- Insert the bearing bracket -1- and tighten the screw -3- by hand.

The dimension -a-: 37 mm.

- 1 - Bearing bracket
- 2 - Trailing arm
- 3 - Screw

- If the dimension -a- is adjusted, tighten the screw -3-.



Tightening torque:

Trailing arm to bracket ◆ Use new screw! ◆ Observe the fitting position of the trailing arm to the bracket before tightening the screw ⇒ page 212 .	90 Nm + 90°
--	-------------

2.20 Summary of components, rear left vehicle level sender -G76- - front-wheel drive

Note

The vehicle level sensor is supplied complete with coupling rod and upper and lower retaining bracket as a spare part.

1 - Screw, 5 Nm

2 - Rear left vehicle level sensor -G76-

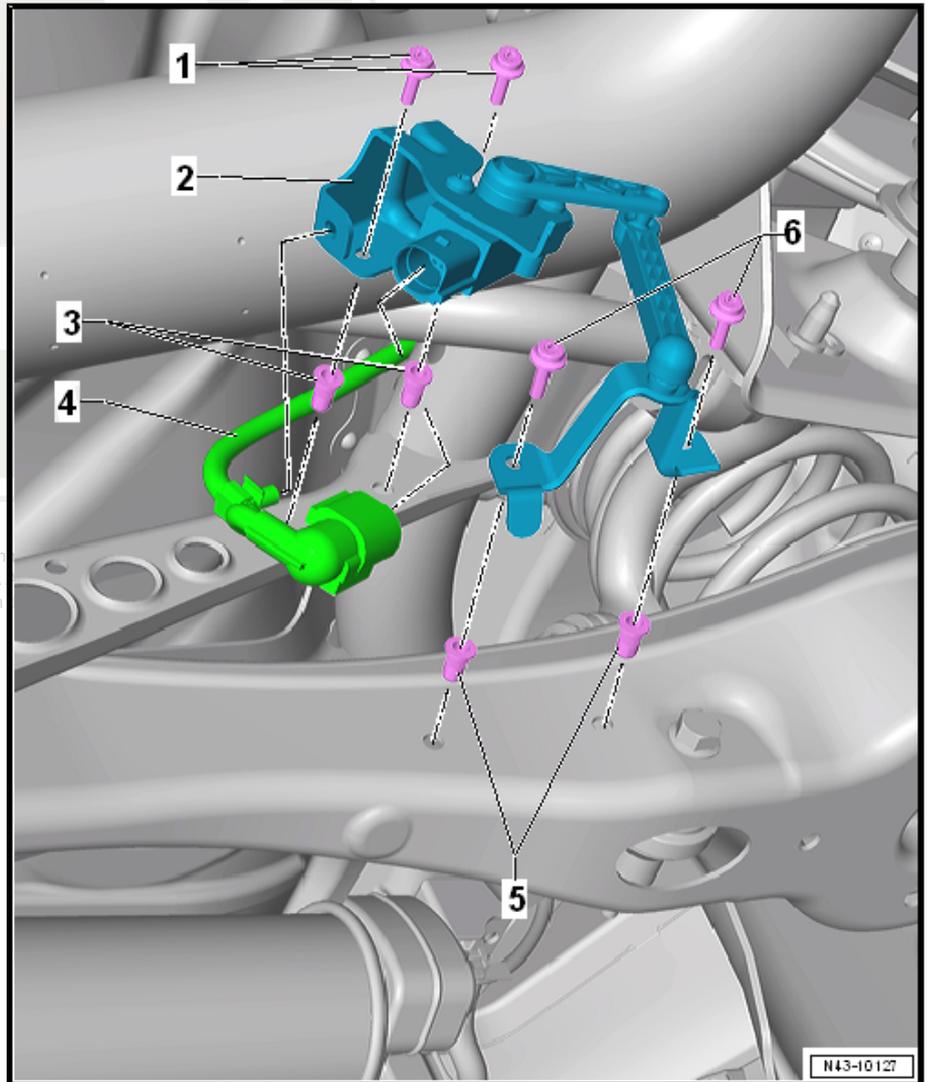
- complete with component parts
- The lever must point towards the outer side of the vehicle
- removing and installing ⇒ [page 214](#)
- Basic setting of the headlights ⇒ Electrical system; Rep. gr. 94

3 - Threaded rivet

4 - Plug connection

5 - Threaded rivet

6 - Screw, 5 Nm
Protected by copyright. Copying for private or commercial use without the permission of ŠKODA AUTO A. S. ŠKODA with respect to the correctness of information in





2.21 Removing and installing rear left vehicle level sensor -G76- - front-wheel drive

Removing

- Disconnect plug connection -1-.
- Unscrew screws -2- and -3-.
- Remove vehicle level sender -G76- .

Install

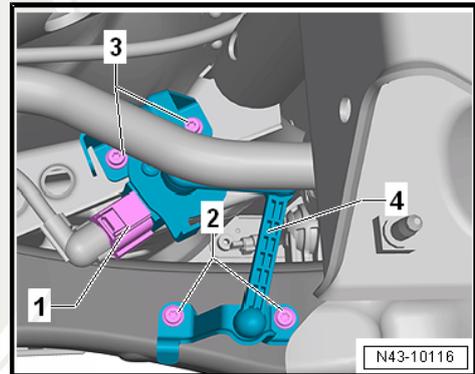
Installation is carried out in the reverse order.



Note

The lever of the vehicle level sender must point towards the outer side of the vehicle.

- Carry out a basic setting of the headlights ⇒ Electrical system;
Rep. gr. 94 .



2.22 Summary of components, rear left vehicle level sender -G76- - four-wheel drive

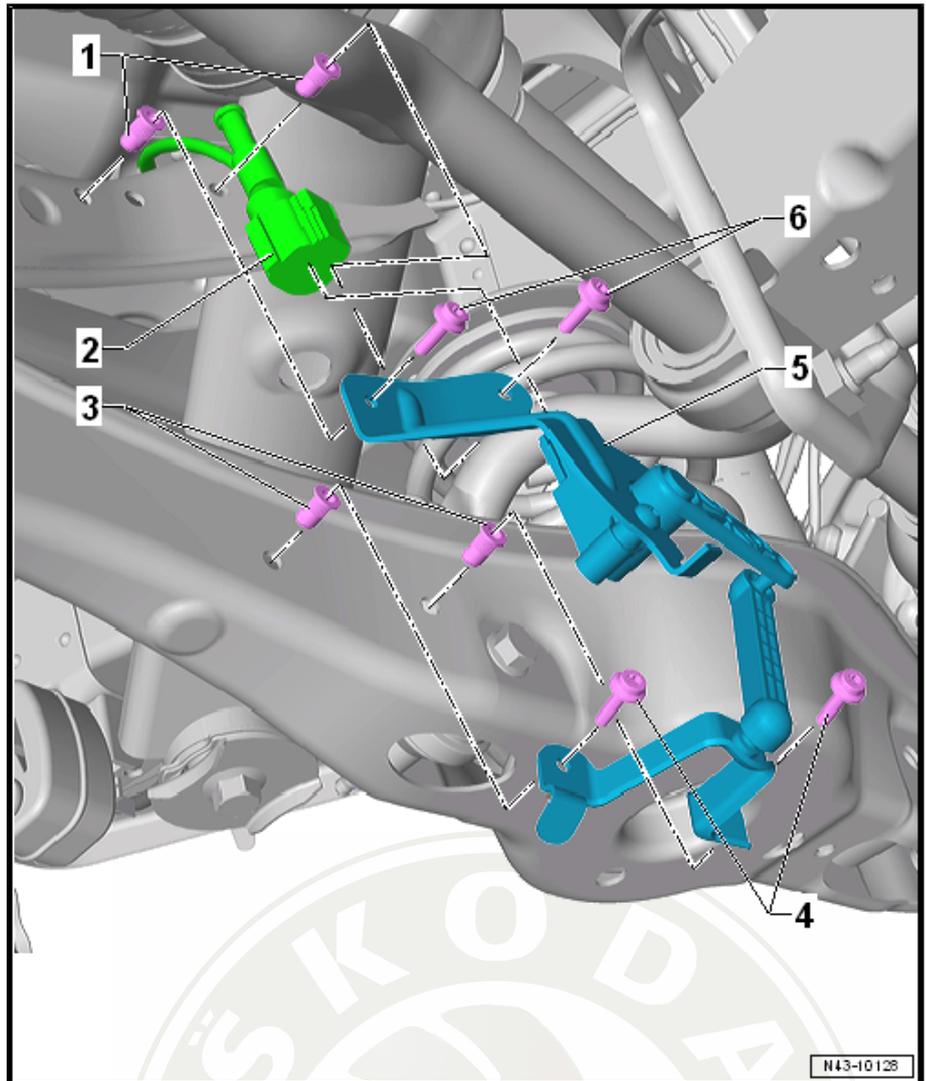
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless expressly permitted by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



Note

The vehicle level sensor is supplied complete with coupling rod and upper and lower retaining bracket as a spare part.

- 1 - Threaded rivet
- 2 - Connector
- 3 - Threaded rivet
- 4 - Screw, 5 Nm
- 5 - Rear left vehicle level sensor -G76-
 - complete with component parts
 - The lever must point towards the outer side of the vehicle
 - removing and installing ⇒ [page 215](#)
 - Basic setting of the headlights ⇒ Electrical system; Rep. gr. 94
- 6 - Screw, 5 Nm



2.23 Removing and installing rear left vehicle level sensor -G76- - four-wheel drive

Removing

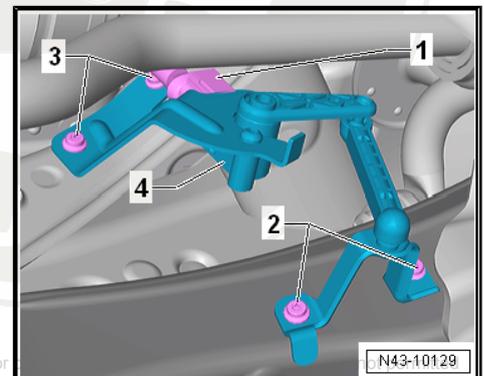
- Unplug connector -1-.
- Unscrew screws -2- and -3-.
- Remove vehicle level sender -G76- .

Install

Installation is carried out in the reverse order.

Note

The lever of the vehicle level sender must point towards the outer side of the vehicle.



- Carry out a basic setting of the headlights ⇒ Electrical system; Rep. gr. 94 .

3 Drive shaft

Summary of components ⇒ [page 216](#)

Removing and installing fixing screw of drive shaft ⇒ [page 218](#)

Removing and installing driveshaft ⇒ [page 220](#)

Disassembling and assembling the drive shaft ⇒ [page 222](#)

Checking the driveshaft ⇒ [page 228](#)

3.1 Summary of components

1 - Outer CV joint

- must be replaced completely
- removing ⇒ [page 222](#)
- Installing
 - Using a plastic hammer, drive in up to the stop.
- Spread the grease mass evenly in the joint
- check ⇒ [page 228](#)

2 - Screw, 200 Nm + 180°

- replace after each removal
- before inserting, clean the thread on the drive shaft
- removing and installing ⇒ [page 218](#)

3 - Drive shaft

- Assignment ⇒ Electronic Catalogue of Original Parts

4 - Open warm-type clamp

- replace after each removal
- tensioning ⇒ [page 222](#)

5 - Bellows

- Material: Hytrel (Polyelastomere)
- inspect for tears and chafing points

6 - Open warm-type clamp

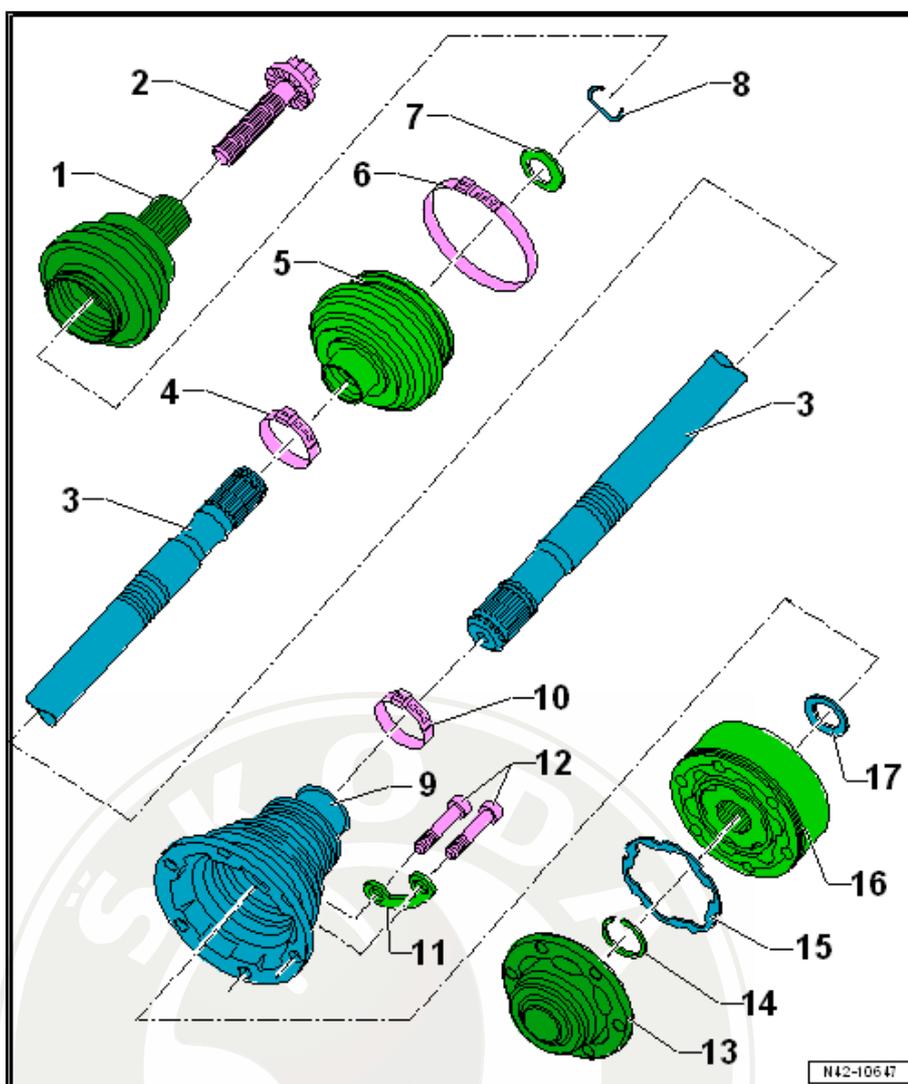
- replace after each removal
- tensioning ⇒ [page 222](#)

7 - Disc spring

- with internal serration
- Fitting position ⇒ [page 222](#)

8 - Circlip

- replace after each removal





9 - Joint boot for inner CV joint

- without ventilation hole
- inspect for tears and chafing points
- remove from CV joint with drift
- before the installation on the joint, cover the sealing surface with -D 454 300 A2-
- Assignment ⇒ Electronic Catalogue of Original Parts

10 - Open warm-type clamp

- replace after each removal
- tensioning ⇒ [page 222](#)

11 - Base

12 - Screw, 20 Nm + 180°

- first of all pre-tighten all screws crosswise to 10 Nm
- replace after each removal
- M8 x 48

13 - Cover

- replace after each removal
- remove ⇒ [page 222](#)

14 - Circlip

- replace after each removal

15 - Gasket

- The adherend must be free of grease and oil!
- replace after each removal
- Assignment ⇒ Electronic Catalogue of Original Parts

16 - Inner CV joint

- must be replaced completely
- Spread the grease mass evenly in the joint
- pressing out ⇒ [page 222](#)
- pressing on ⇒ [page 222](#)
- check ⇒ [page 228](#)

17 - Disc spring

- with internal serration
 - Fitting position ⇒ [page 222](#)
- Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted
ŠKODA AUTO A. S. does not guarantee or accept any liability
with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



3.2 Removing and installing fixing screw of drive shaft



Note

- ◆ *If the fixing screw of the drive shaft is loosened more than 90°, the wheel bearings must not be loaded through the weight of the vehicle, i.e. the vehicle must not stand on its wheels.*
- ◆ *If the wheel bearings are loaded through the weight of the vehicle when the fixing screw for the drive shaft is removed, the inner wheel bearing will be damaged. This shortens the life of the wheel bearing.*
- ◆ *If the vehicle should be positioned on its wheels or moved, pay attention to the following points: Install an outer joint instead of the drive shaft. Tighten the fixing screw (use the one which was previously removed) of the outer joint to the tightening torque of 120 Nm.*

Remove hexagon screw:

- Remove wheel trim cap, for light-alloy wheels remove the cap on the removed wheel (depending on version) ⇒ Wheels, Tyres; Rep. gr. 44 .
- Slacken the screw -arrow- by max. 90° on the vehicle while it is standing on its wheels, otherwise the wheel bearing may be damaged.
- If the wheel is removed, now slacken the wheel bolts.
- Raise the vehicle until the wheels are fully off the ground.
- Depress brake pedal (assistance of second mechanic required).
- Unscrew screw -arrow- and release brake pedal.

Install screw:

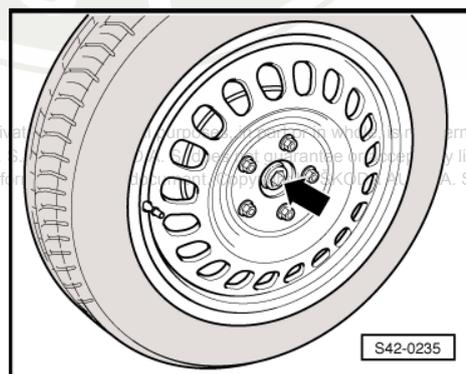
- Install a new screw.



Note

The wheels should not touch the ground when tightening the screw for the drive shaft, otherwise the wheel bearing will be initially damaged.

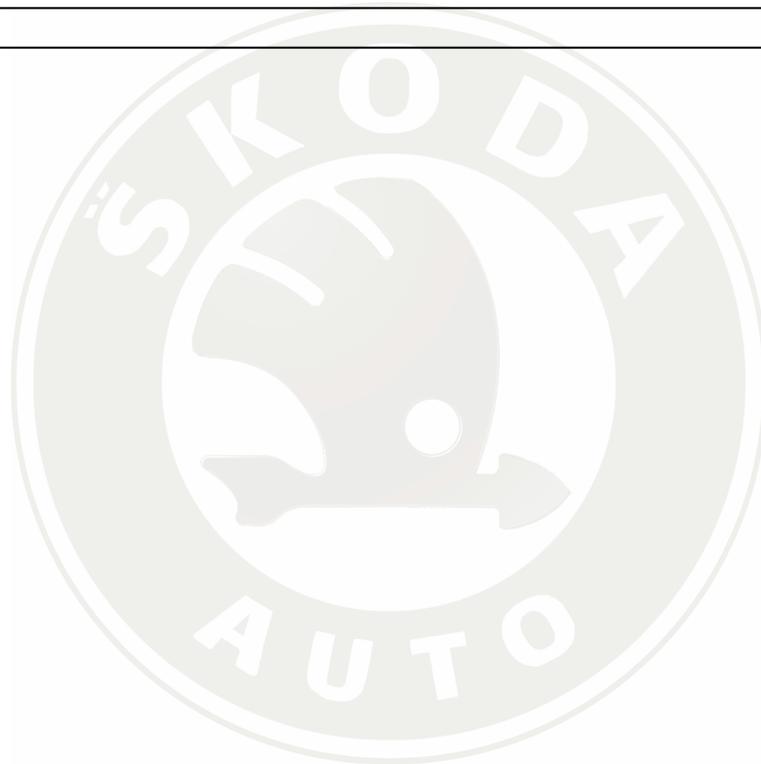
- Depress brake pedal (assistance of second mechanic required).
- Tighten the screw to 200 Nm and release the brake pedal.
- Place vehicle onto its wheels.
- Tighten screw by turning it 180°.





Tightening torques:

Screw of drive shaft screwed connectionn of rear axle ◆ Use new screw!	200 Nm + 180°
Wheel bolt	120 Nm



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

3.3 Removing and installing driveshaft

Removing:

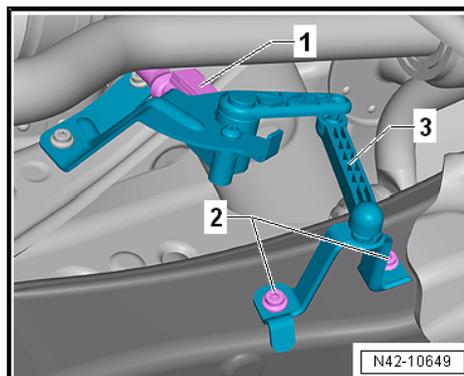
- Measure dimension -a- ⇒ [page 133](#) .
- Unscrew fixing screw of driveshaft at wheel hub ⇒ [page 218](#) .
- Remove coil spring ⇒ [page 162](#) .

Vehicles with vehicle level sender -G76-

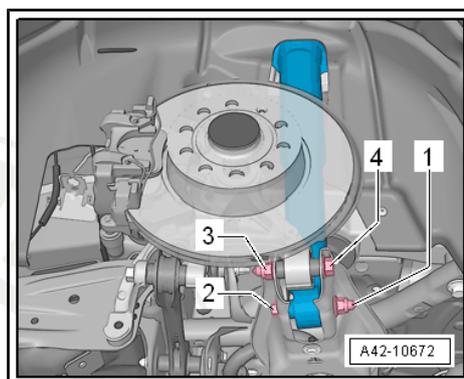
- Unplug connector -1-.
- Remove screws -2-.
- Remove vehicle level sender -G76- -3- from the suspension arm.

Continued for all vehicles

- Removing anti-roll bar ⇒ [page 169](#) .



- Unscrew bottom screw of shock absorber mounting 2.
- Remove bottom screw for wheel bearing housing -4-.





- Remove the screw -1- for coupling rod -2-.
- Unscrew driveshaft from the flange for the rear final drive.
- Tilt the wheel bearing housing to the rear slightly and remove the driveshaft from the flange for the final drive.
- Tilt the driveshaft downwards and remove from the wheel bearing.

Install

Installation is carried out in the reverse order. Pay attention to the following:

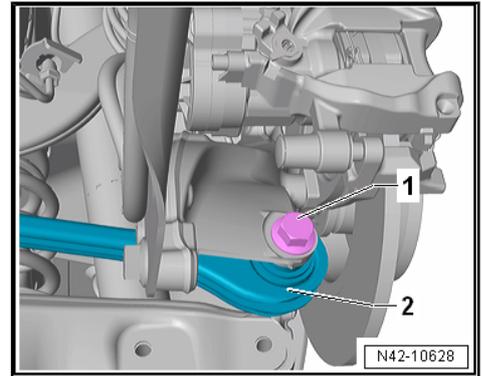


Note

- ◆ *All the bolted connections of the coupling rods, the steering arms and the wheel hub must only be tightened if the measured dimension "a" between the wheel hub centre and the lower edge of the wheel house is respected (unladen weight position)! ⇒ [page 133](#)*
- ◆ *Before installing the outer joint, lightly coat its serrations with assembly paste ⇒ [Electronic Catalogue of Original Parts](#) .*

Vehicles with vehicle level sender

- Carry out a basic setting of the headlights ⇒ Electrical system; Rep. gr. 94 .





Tightening torques:

Shock absorber to bottom suspension arm ◆ Use new screw/nut! ◆ Tighten in unladen weight position! ⇒ page 133	70 Nm + 180°
Speed sensor to wheel-bearing housing	8 Nm
Trailing arm to wheel-bearing housing ◆ Use new screws! ◆ Determine the fitting positions of the trailing arm and the wheel-bearing housing before tightening the screws ⇒ page 184 ◆ Tighten in unladen weight position! ⇒ page 133	70 Nm + 90°
Top suspension arm to wheel-bearing housing ◆ Use new screws and nuts! ◆ Tighten in unladen weight position! ⇒ page 133	130 Nm + 180°
Bottom suspension arm to wheel-bearing housing ◆ Use new screws and nuts! ◆ Tighten in unladen weight position! ⇒ page 133	70 Nm + 180°
Track rod for rear axle to wheel-bearing housing ◆ Use new screw! ◆ Tighten in unladen weight position! ⇒ page 133	70 Nm + 180°
Screw for driveshaft ◆ Tighten ⇒ page 218	200 Nm + 180°
Clamp of anti-roll bar to assembly carrier ◆ Use new screw!	20 Nm + 90°
Coupling rod to anti-roll bar	55 Nm
Vehicle level sensor to axle.	5 Nm
Wheel bolts	120 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. 00

3.4 Disassembling and assembling the drive shaft

Special tools and workshop equipment required

- ◆ Pressure plate - MP3-406 (VW 401)-
- ◆ Pressure plate - MP3-407 (VW 402)-
- ◆ Thrust piece - MP3-411 (VW 454)-
- ◆ Pressure spindle - MP3-448 (VW 408 A)-
- ◆ Pressure washer - MP3-455 (VW 447 H)-
- ◆ Thrust piece - MP6-405 (VW 411)-
- ◆ Assembly device - T10065-
- ◆ Circlip pliers , e.g. -VW 161A-
- ◆ Tensioning pliers , e.g. -V.A.G 1682 A-

3.4.1 Removing and installing the outer CV joint

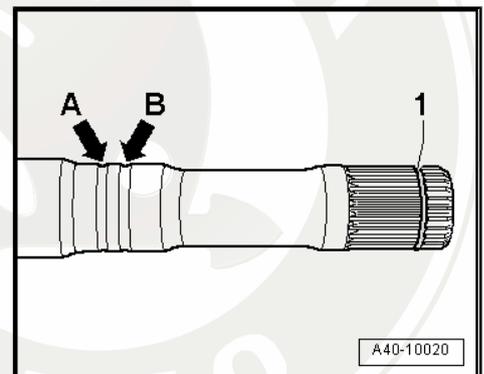
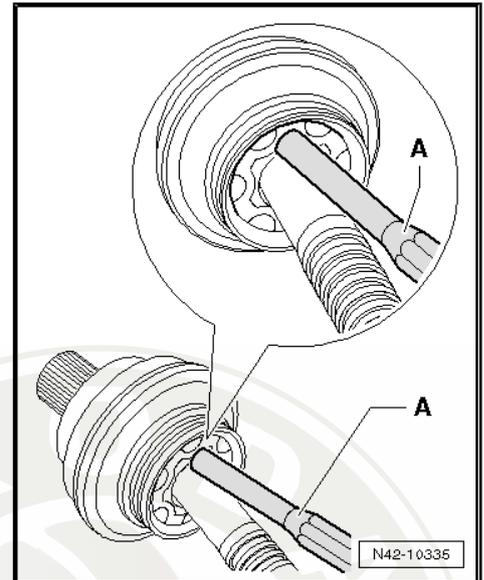
Removing

- Clamp the drive shaft in a vice with protective jaws.
- Open both warm-type clamps and remove the joint boot from the outer joint.
- Remove the CV joint from the drive shaft using a drift (copper or brass) -A-.

The drift must be positioned exactly at the tripod spider of the CV joint.

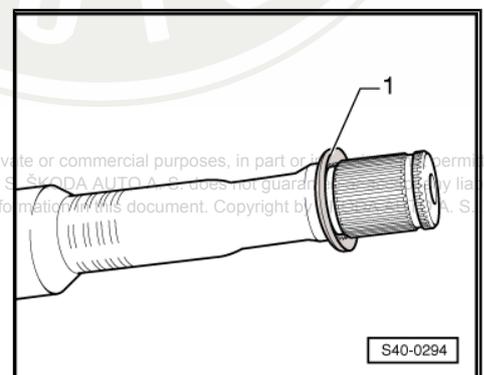
Install

- Replace circlip -1-.
- Push the joint boot and the open warm-type clamp on the drive shaft.
- Pay attention to the fitting position of the disc spring or the thrust ring on the outer joint.



Fitting position of the disc spring on the outer joint

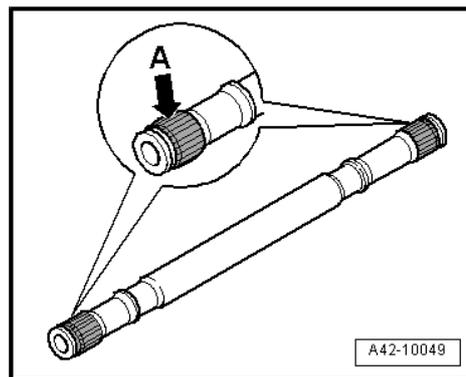
- 1 - Disc spring



Protected by copyright. Copying for private or commercial purposes, in part or in full, is prohibited unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.



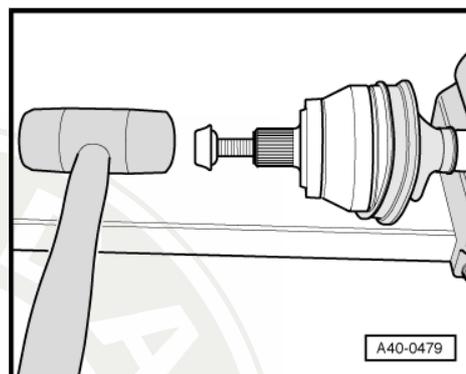
- Thinly coat the serration -A- with joint grease.



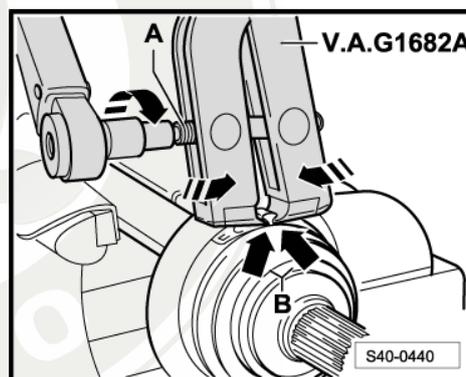
- Screw the old screw for the drive shaft, as shown, into the joint.
- Drive CV joint onto drive shaft using plastic hammer until circlip engages.
- Push the joint boot onto the joint.
- Bleed the joint boot.
- Pay attention to the correct position of the joint boot on the outer joint.

The joint boot must be positioned in the groove and must rest on the contour of the joint.

- Tighten the open warm-type clamp on the outer joint.



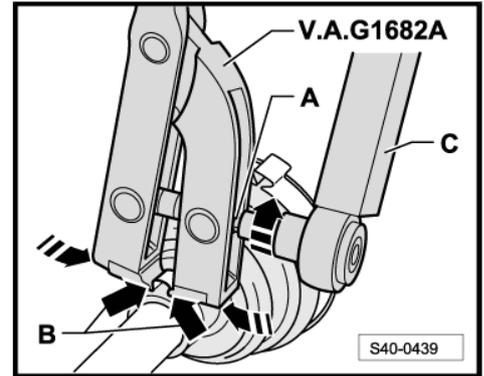
Tighten the open warm-type clamp at the larger diameter



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

Tighten the open warm-type clamp at the smaller diameter

- Position the tensioning pliers as shown in the figure. Make sure the cutting edges of the pliers are positioned in the corners -arrows B- of the open warm-type clamp.
- Tighten the open warm-type clamp by turning the spindle with a torque wrench (do not tilt the pliers during this process).



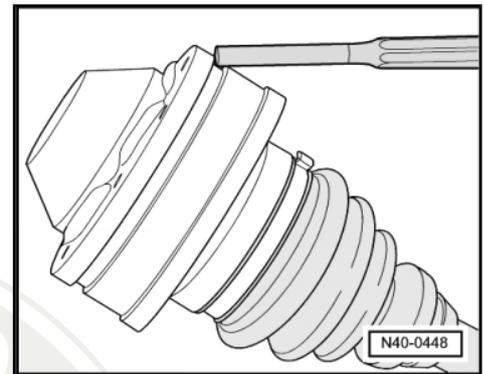
Note

- ◆ *In view of the hard material (as opposed to rubber) of the joint boot, which requires the use of a stainless steel-open warm-type clamp, the latter can only be tightened with tensioning pliers, e.g. -V.A.G 1682 A-.*
- ◆ *Tightening torque: 25 Nm.*
- ◆ *Use torque wrench -C-.*
- ◆ *Ensure that the thread of the spindle -A- of the pliers is smooth. Lubricate if necessary with grease.*
- ◆ *If it is not smooth, e.g. if the thread is dirty, the necessary clamping force of the open warm-type clamp is not reached at the given torque.*

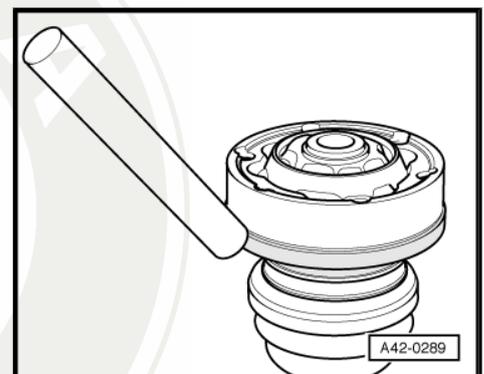
3.4.2 Removing and installing the inner CV joint

Removing

Remove cover for inner joint

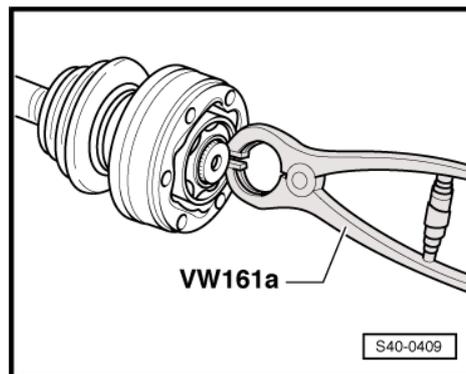


- Drive off cover and joint boot with a drift.
- Open warm-type clamp.
- Push the cover with the warm-type clamp in direction of outer joint.





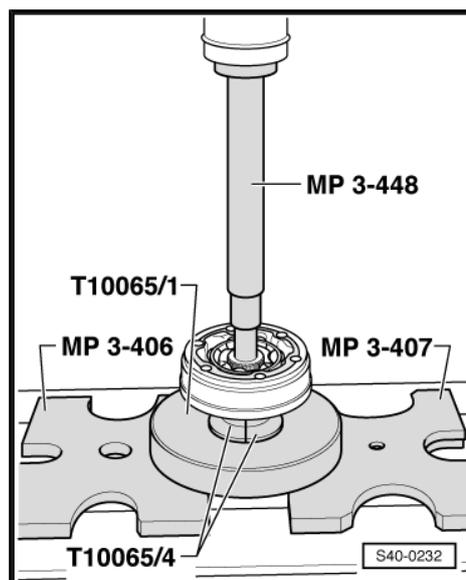
- Remove circlip with a pair of circlip pliers .
- Press the inner joint off the drive shaft.



Pressing out the inner CV joint

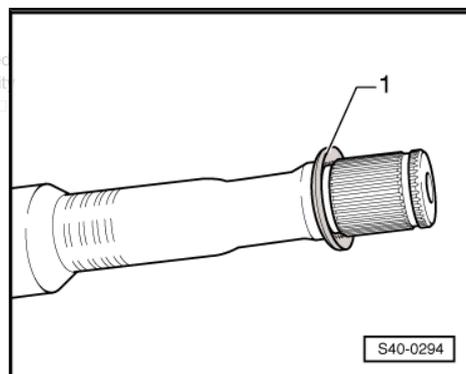
Install

- Push the open warm-type clamp on the drive shaft.
- Push the sheet metal cover with the joint boot onto the drive shaft.
- Pay attention to the fitting position of the disc spring at the inner joint.

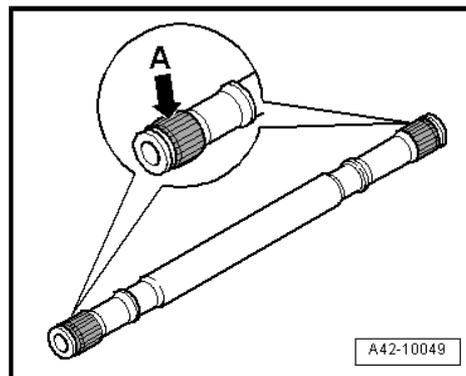


Fitting position of the disc spring at inner joint

- 1 - Disc spring
- Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorized by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.



- Thinly coat the serration -A- with joint grease.
- Press the joint up to the stop.

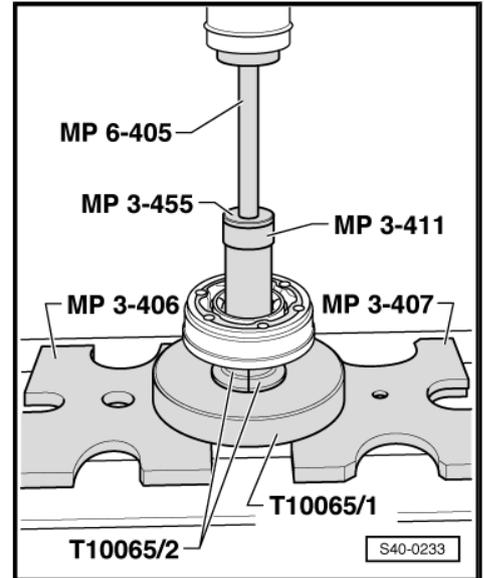


Pressing in the inner CV joint

Note

Chamfer on inner diameter of the ball hub (serration) must point towards the bearing collar of the drive shaft.

- Install circlip.
- Clean and degrease the end faces of the joint.
- Clean and degrease the end face of the sheet metal cover for the joint boot which rests against the joint.
- Push the sheet metal cover with the joint boot onto the joint.

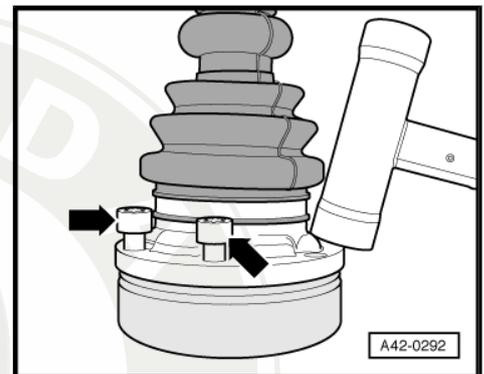


- Align the cover with the joint boot to the screw holes with screws -arrows-.

Note

The alignment must be performed very carefully as this is no longer possible after striking it.

- Use a plastic hammer to strike the sheet metal cover with the joint boot on the joint.
- Install warm-type clamp.



Tighten warm-type clamp

- Position the tensioning pliers as shown in the figure. Make sure the cutting edges of the pliers are positioned in the corners -arrows B- of the open warm-type clamp.
- Tighten the open warm-type clamp by turning the spindle with a torque wrench (do not tilt the pliers during this process).

Note

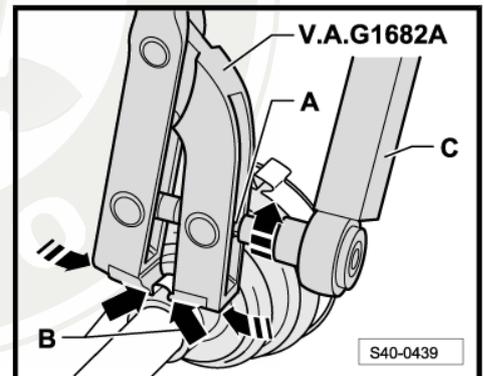
◆ *In view of the hard material (as opposed to rubber) of the joint boot, which requires the use of a stainless steel-open warm-type clamp, the latter can only be tightened with tensioning pliers, e. g. -V.A.G 1682 A-*

◆ *Tightening torque: 25 Nm.*

◆ *Use torque wrench -C-.*

◆ *Ensure that the thread of the spindle -A- of the pliers is smooth. Lubricate if necessary with grease.*

◆ *If it is not smooth, e.g. if the thread is dirty, the necessary clamping force of the open warm-type clamp is not reached at the given torque.*



Copyright by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability in respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. 2013

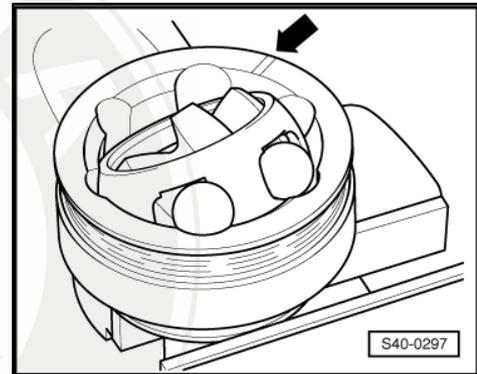
3.5 Checking the driveshaft

3.5.1 Inspecting outer CV joint

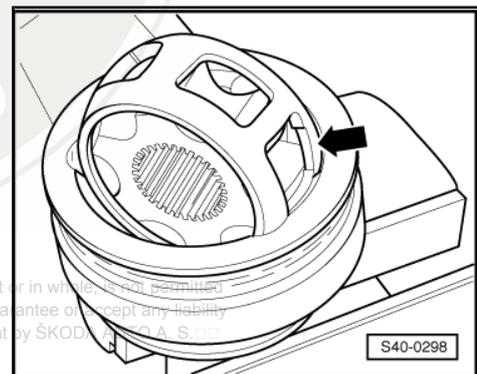
Removing:

Disassemble the joint to replace badly soiled grease or if the contact surfaces of the balls must be inspected for wear and damage.

- Mark the opposite position of the ball hub, the cage, the balls and the joint body before disassembling -arrow- (e.g. electric stylus, rubstone or felt-tip pen).
- Rotate the ball hub and ball cage.
- Remove the balls one after the other.



- Turn the cage until two rectangular cage windows -arrow- rest on the joint body.
- Remove cage with hub.

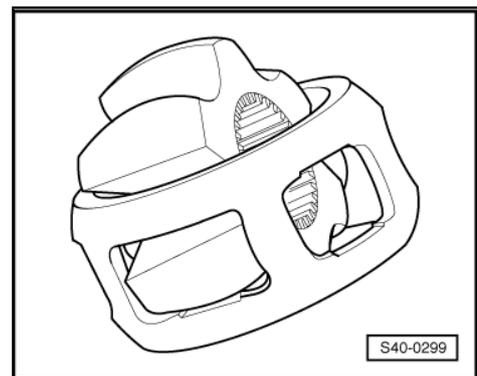


- Turn the hub segment in the window of the cage.
- Tilt hub out of the cage.

The 6 balls of each joint belong to a tolerance group. Inspect the axle studs, hub, cage and balls for small depressions (pitting = point erosion) and seizing marks. Load alteration shocks indicate too much torsional clearance in the joint. If this is the case, replace the joint. Smoothing and bearing marks do not justify a joint replacement.

Installing:

- Press half of the total grease quantity into the joint body.
- Insert the cage and hub in the joint body.
- Press in opposite balls one after the other, during this process observe the prior position of the ball hub relatively to the ball cage and to the joint body.
- Spread the remaining grease in the joint from the side of the boot.



3.5.2 Inspecting inner CV joint

Removing:

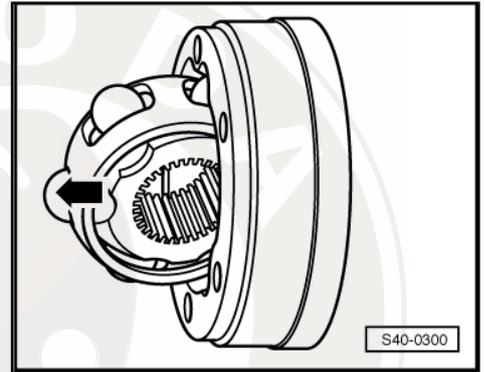
Disassemble the joint to replace badly soiled grease or if the contact surfaces of the balls must be inspected for wear and damage.



- Rotate the ball hub and ball cage.
- Press out joint part in -direction of arrow-.
- Successively press out the balls from the cage.

i Note

The ball hub and joint piece are paired. These are not interchangeable.



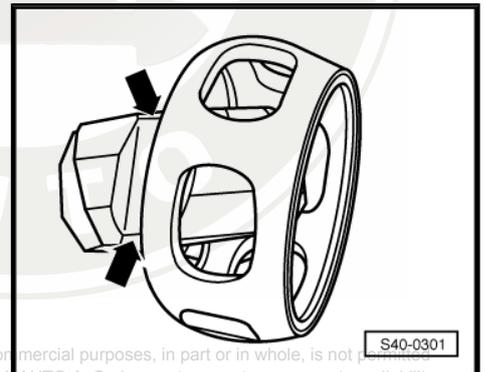
- Tilt the ball hub out of the ball cage over the ball bearing track -arrows-.
- Inspect the joint part, ball hub, ball cage and balls for small broken out depressions (pitting = point corrosion) and seizing marks.

Load alteration shocks indicate too much torsional clearance in the joint. If this is the case, replace the joint. Smoothing and traces of wear of the balls are no reason to change the joint.

Installing:

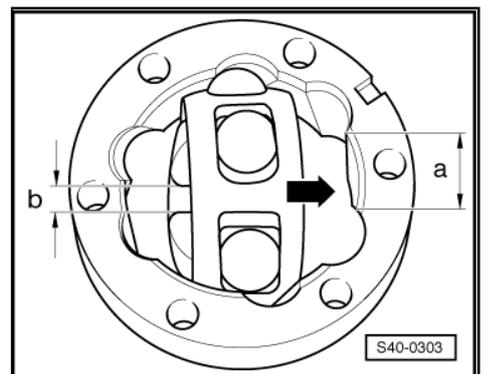
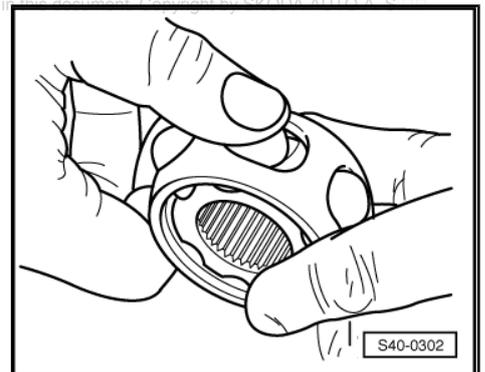
- Insert the ball hub in the ball cage over the two chamfers. The fitting location is random. Press the balls into the cage.

The ball hub has two different distances between the ball bearing tacks, a larger and a smaller.



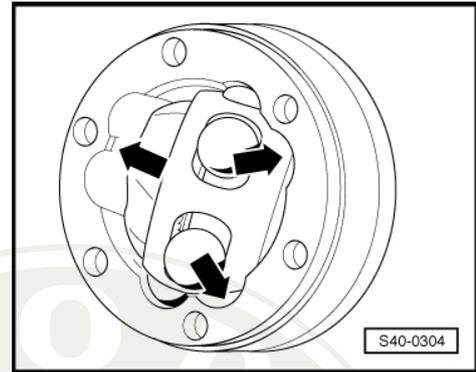
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not allowed without the written permission of ŠKODA AUTO A. S. ŠKODA AUTO A. S. is not responsible for the accuracy of the information in this document. Copyright by ŠKODA AUTO A. S.

- Insert the hub with cage upright into the joint part, while doing so a smaller distance -b- must point to the open side of the joint part.
- Pay attention to the chamfer on the inner diameter of the ball hub, this must be visible after the swivelling.





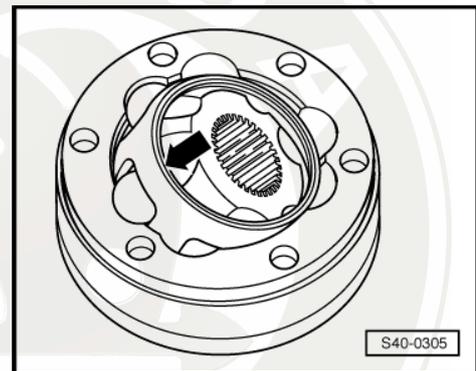
- Swivel in the ball hub, to do so swivel the hub out of the cage -arrows- until the balls are at bearing track distance.



- Lock the hub with the balls into position by exerting considerable pressure on the cage -arrow-.

Inspecting the operation of the CV joint

The CV joint is correctly assembled if the ball hub can be rolled by hand up and down the entire linear compensation.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



44 – Wheels, tyres, vehicle geometry

1 Chassis - Specified values of steering geometry

Front axle - Specified values of steering geometry ⇒ [page 231](#)

Torsion beam axle - Specified values of steering geometry
 ⇒ [page 232](#)

Multi-link rear suspension - Specified values of steering geometry
 ⇒ [page 233](#)

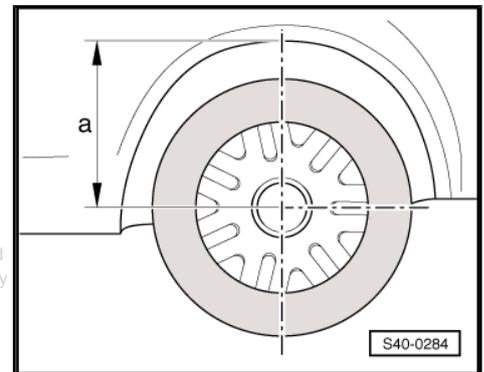
Vehicle data sticker and PR numbers ⇒ [page 233](#)

1.1 Front axle - Specified values of steering geometry

The stationary heights specified in the table apply for the dimension -a-.

Before the axle alignment and the adjustment of the steering geometry, lock the steering wheel in the middle position of the height adjustment of steering column.

- ◆ Technical data apply for the unladen weight of the vehicle ready for driving (full fuel tank and water reservoir for the wind-screen wiper washer system, spare wheel and jack (if the vehicle was fitted at the factory with them), tool kit and without driver). The spare wheel, tool kit and jack must be located in the position prescribed by the vehicle manufacturer.



Note

If the corresponding unladen weight cannot be achieved (e.g. a vehicle with a breakdown set or a vehicle with a fuel tank which is not completely full), the vehicle load must be set as follows:

- Load the vehicle with a corresponding weight.
- Determine the fuel volume in the fuel tank on the fuel gauge display.
- Place a weight above the fuel tank according to the following table:

Fuel gauge	Weight (kg)
Reserve	37
1/4	33
1/2	22
3/4	11
Fuel tank full	0

Note

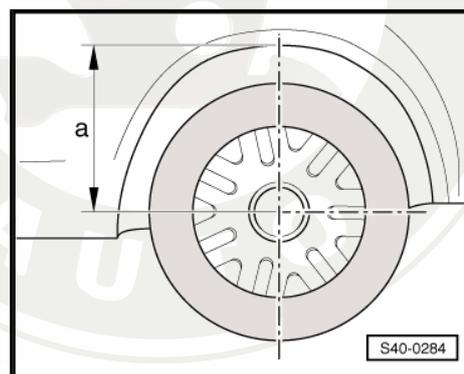
- ◆ *Use as weight e.g. plastic tanks filled with water or canisters. 1 liter of water = 1 kg.*
- ◆ *When fitting the weight onto the rear seat pay special attention so that the seat upholstery are not dirty or damaged.*



Front axle	Basic chassis	Sport chassis	Rough road chassis	Sport chassis RS
PR numbers ⇒ page 233	G01/G02 + 2UA	G01/G02 + 2UC	G01/G02 + 2UF	G03 + 2UC
Overall track (not depressed)	10' ± 10'	10' ± 10'	10' ± 10'	10' ± 10'
Toe difference angle on turns of 20° of inside wheel -not adjustable-	1° 19' ± 20'	1° 30' ± 20'	1° 09' ± 20'	1° 30' ± 20'
Max. wheel lock angle -not adjustable-	40° 38'	40° 13'	41° 05'	40° 13'
Camber (in straight-ahead position)	-30' ± 30'	-41' ± 30'	-16' ± 30'	-41' ± 30'
Maximum permissible difference between the two sides	max. 30	max. 30	max. 30	max. 30
Castor	7° 23' ± 30'	7° 38' ± 30'	7° 09' ± 30'	7° 38' ± 30'
Maximum permissible difference between the two sides	max. 30	max. 30	max. 30	max. 30
Stationary height -a- in mm	390 ± 10	375 ± 10	405 ± 10	375 ± 10

1.2 Torsion beam axle - Specified values of steering geometry

The stationary heights specified in the table apply for the dimension -a-.



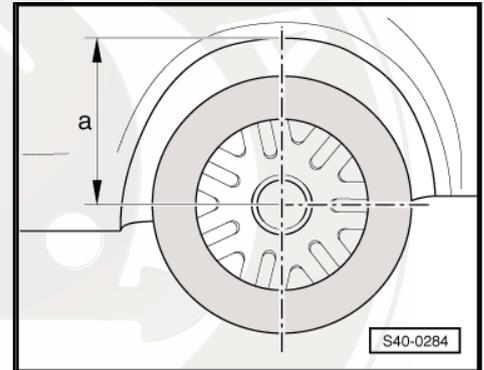
- ◆ Technical data apply for the unladen weight of the vehicle ready for driving (full fuel tank and water reservoir for the windscreen wiper washer system, spare wheel, tool kit, jack and without driver).

Torsion beam axle	Basic chassis	Sport chassis	Rough road chassis
PR numbers ⇒ page 233	G01/G02 + 2UA	G01/G02 + 2UC	G01/G02 + 2UF
	The allocation of the adjusting values to the relevant running gear occurs via the PR No. of the front axle damping		
Overall track (for specified camber)	+20' ± 12'	+24' ± 12'	+16' ± 12'
Maximum permissible deviation from the running direction	max. 20	max. 20	max. 20
Camber	-1° ± 20'	-1° ± 20'	-1° ± 20'
Maximum permissible difference between the two sides	max. 30	max. 30	max. 30
Stationary height -a- in mm:	389 ± 10	374 ± 10	404 ± 10



1.3 Multi-link rear suspension - Specified values of steering geometry

The stationary heights specified in the table apply for the dimension -a-.



- ◆ Technical data apply for the unladen weight of the vehicle ready for driving (full fuel tank and water reservoir for the windscreen wiper washer system, spare wheel, tool kit, jack and without driver).

Multi-link rear suspension	Basic chassis	Sport chassis	Rough road chassis	Sport chassis RS
PR numbers ⇒ page 233	G01/G02 + 2UA	G01/G02 + 2UC	G01/G02 + 2UF	G03 + 2UC
Overall track (for specified camber)	The allocation of the adjusting values to the relevant running gear occurs via with respect to the PR No. of the front axle damping			
Maximum permissible deviation from the running direction	+10' ± 10'	+10' ± 10'	+10' ± 10'	+16' ± 10'
Camber	-1° ± 30'	-1° 15' ± 30'	-1° ± 30'	-1° 45' ± 30'
Maximum permissible difference between the two sides	max. 30	max. 30	max. 30	max. 30
Stationary height -a- in mm:	389 ± 10	374 ± 10	404 ± 10	374 ± 10

1.4 Vehicle data sticker and PR numbers

Chassis and damping are identified by PR numbers.

The type of chassis is identified by a chassis PR number on the vehicle data sticker -2-.

The damping of the vehicle is identified by a PR number on the vehicle data sticker -1-.

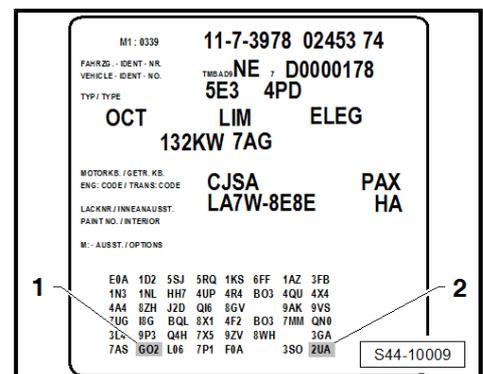
Example of a vehicle data sticker

1 - G02 - Damping

2 - 2UA - Chassis

The PR numbers are required to determine the nominal values for the vehicle.

The vehicle data sticker is located on the luggage compartment floor and in the Service Schedule.





2 Axle alignment

General points ⇒ [page 234](#)

Measurement preliminaries ⇒ [page 235](#)

Axle alignment ⇒ [page 237](#)

Overview of the work sequence for the axle alignment
⇒ [page 239](#)

Check transversal inclination of the vehicle "straight-ahead position" ⇒ [page 239](#)

Adjust the camber on the front axle ⇒ [page 240](#)

Adjust the camber on the rear axle ⇒ [page 240](#) .

Adjust the track on the rear axle ⇒ [page 242](#)

Adjust the track on the front axle ⇒ [page 246](#)

Check position of steering wheel, align if necessary
⇒ [page 248](#)

2.1 General points

The vehicle must only be aligned using an alignment gauge released by the manufacturer.

Before the axle alignment and the adjustment of the steering geometry, lock the steering wheel in the middle position of the height adjustment of steering column.

You should align both the front and rear axles during each axle alignment procedure.

Otherwise correct vehicle driving behaviour cannot be guaranteed!



Note

- ◆ *Only perform the appropriate axle alignment after 1 000 to 2 000 km to allow the rubber-metal bearings, the coil springs and other axle components to fully settle.*
- ◆ *One cause of vibration in the vehicle can be a residual unbalance which is too high and/or off-centre runout of the wheels.*
- ◆ *During adjustment work try to approximate the nominal values.*

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorized by ŠKODA AUTO A.S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □ □

If the fitting position of the rear axle and hence the running direction of the vehicle are not considered this could result in a skewed steering wheel.



Caution

On vehicles with the ESP system, the steering wheel must not be offset, except when a new steering column is installed.

The steering wheel position is defined by stamped lines on the steering wheel as well as on the steering column → Body Work; Rep. gr. 69 .

This position must not be changed! Otherwise the central position of the gear rack cannot be guaranteed!

Mark the opposite position of the steering wheel and shaft with a line, as long as this position is not factory-marked.

Steering columns supplied as spare parts do not have dotting marks. These steering columns must be marked after the axle alignment and a subsequent test drive.

A skewed steering wheel must be corrected in the straight-ahead position by adjusting the lengths of the track rods.

After performing all adjusting work on the chassis, e.g. after the toe adjustment or when the steering wheel is offset, always carry out the null balance of the steering angle sender - G85- → Vehicle diagnostic tester.

2.2 Measurement preliminaries

- Determine the chassis version according to the vehicle data sticker ⇒ [page 233](#) .
- Check the wheel suspension, wheel bearing of the vehicle, steering and steering linkage for impermissible play and damage, if necessary repair.
- Before the axle alignment and the adjustment of the steering geometry, lock the steering wheel in the middle position of the height adjustment of steering column.
- Check rim runout compensation (compensation). Otherwise the measuring result is inaccurate and a correct toe-in adjustment is not possible!
- Tyres pumped up to nominal value ⇒ Maintenance ; Booklet Octavia III or label on the fuel-tank cap.
- The tread depth on an axle must have a difference of maximum 2 mm.
- The vehicle has an unladen weight.
- Fuel tank must be full ⇒ [page 236](#) .
- Spare wheel and tool kit at corresponding fitting location of the vehicle.
- The windscreen washer reservoir must be full.
- Vehicle must be aligned perfectly, with the springs having been repeatedly deflected and having returned to their original position.
- During the alignment, the moving parts of the alignment gauge must not reach the end position or the end stop.

Unladen weight:

Technical data apply for the unladen weight of the vehicle ready for driving (full fuel tank and water reservoir for the windscreen wiper washer system, spare wheel and jack (if the vehicle was fitted at the factory with them), tool kit and without driver). The



spare wheel, tool kit and jack must be located in the position prescribed by the vehicle manufacturer.



Note

If the corresponding unladen weight cannot be achieved (e.g. a vehicle with a breakdown set or a vehicle with a fuel tank which is not completely full), the vehicle load must be set as follows:

- Load the vehicle with a corresponding weight.
- Determine the fuel volume in the fuel tank on the fuel gauge display.
- Place a weight above the fuel tank according to the following table:

Fuel gauge	Weight (kg)
Reserve	37
1/4	33
1/2	22
3/4	11
Fuel tank full	0



Note

- ◆ *Use as weight e.g. plastic tanks filled with water or canisters. 1 liter of water = 1 kg.*
- ◆ *When fitting the weight onto the rear seat pay special attention so that the seat upholsteries are not dirty or damaged.*



WARNING

- ***The measuring device must be positioned and adjusted in compliance with the specifications; observe the manufacturer's operating instructions!***

If necessary obtain information on your alignment gauge from the manufacturer.

In the course of time the alignment platform and alignment gauge/alignment computer may deviate from their original adjustment/setting.

Alignment platform and alignment gauge/alignment computer should be inspected at least once a year within the scope of servicing and if necessary adjusted!

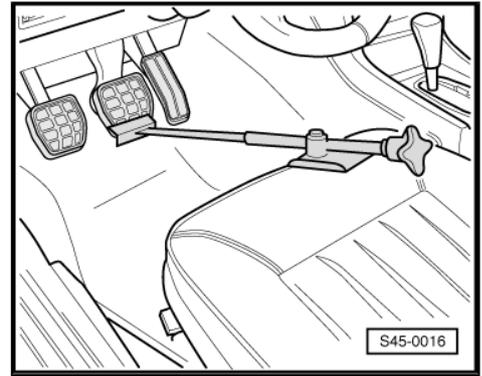
Treat these precision instruments with great care!

To this end comply with the instructions of the alignment gauge manufacturer.

- Perform a rim runout compensation.



- Insert brake pedal load , e.g. -V.A.G 1869/2 -
- Secure the brake pedal with the brake pedal load.



2.3 Axle alignment

2.3.1 Axle alignment - torsion beam axle

It is necessary to perform an axle alignment in the event of:

- ◆ Incorrect driving behaviour.
- ◆ damage caused by accident and if parts have been replaced
 => [page 237](#)
- ◆ Components were removed => [page 237](#)
- ◆ there is unilateral tyre wear.

Components replaced

Front axle: Component replaced	Alignment necessary		Rear axle: Component replaced	Alignment necessary	
	Yes	No		Yes	No
Track control arm		X	Shock absorber		X
Rubber-metal bearing for track control arm		X	Coil spring		X
Wheel-bearing housing	X		Complete rear axle	X	
Track rod/track-rod end	X		Bearing for rear axle	X	
Steering gear	X				
Assembly carrier		X ¹⁾			
Suspension strut		X			
Anti-roll bar		X ¹⁾			

¹⁾ Precondition: Assembly carrier was fixed in place before removal.

Removing and installing part of the axle

Front axle: Component removed and installed	Alignment necessary		Rear axle: Part of the axle removed and installed	Alignment necessary	
	Yes	No		Yes	No
Track control arm		X	Shock absorber		X
Wheel-bearing housing		X	Coil spring		X
Track rod/track-rod end	X		Complete rear axle	X	
Steering gear	X				
Assembly carrier		X ¹⁾			
Suspension strut		X			



Front axle: Component removed and installed	Alignment necessary		Rear axle: Part of the axle removed and installed	Alignment necessary	
	Yes	No		Yes	No
Anti-roll bar		X ¹⁾			

¹⁾ Precondition: Assembly carrier was fixed in place before removal.

2.3.2 Axle alignment - multi-link rear suspension

It is necessary to perform an axle alignment in the event of:

- ◆ Incorrect driving behaviour.
- ◆ damage caused by accident and if parts have been replaced
⇒ [page 238](#)
- ◆ Components were removed ⇒ [page 238](#)
- ◆ there is unilateral tyre wear.

Components replaced

Front axle: Component replaced	Alignment necessary		Rear axle: Component replaced	Alignment necessary	
	Yes	No		Yes	No
Track control arm		X	Bottom suspension arm	X	
Rubber-metal bearing for track control arm		X	Top suspension arm	X	
Wheel-bearing housing	X		Track rod for rear axle	X	
Track rod/track-rod end	X		Wheel-bearing housing	X	
Steering gear	X		Assembly carrier	X	
Assembly carrier		X ¹⁾	Coil spring		X
Suspension strut		X	Shock absorber		X
Anti-roll bar		X ¹⁾	Anti-roll bar		X
			Trailing arm	X	

¹⁾ Precondition: Assembly carrier was fixed in place before removal.

Removing and installing part of the axle

Front axle: Part of the axle removed and installed	Alignment necessary		Rear axle: Part of the axle removed and installed	Alignment necessary	
	Yes	No		Yes	No
Track control arm		X	Bottom suspension arm	X	
Wheel-bearing housing		X	Top suspension arm	X	
Track rod/track-rod end	X		Track rod for rear axle	X	
Steering gear	X		Wheel-bearing housing	X	
Assembly carrier		X ¹⁾	Assembly carrier	X	
Suspension strut		X	Coil spring		X
Anti-roll bar		X ¹⁾	Shock absorber		X
			Anti-roll bar		X
			Trailing arm	X	



1) Precondition: Assembly carrier was fixed in place before removal.

2.4 Overview of the work sequence for the axle alignment

The following sequence of work steps must always be respected!

- 1 - Determine what chassis has been mounted in the vehicle. This information can be found on the vehicle data sticker ⇒ [page 233](#) .
- 2 - Perform a rim runout compensation.
- 3 - Deflect the vehicle.
- 4 - Position brake pedal load , e.g. -V.A.G 1869/2- .
- 5 - Measure vehicle height ⇒ [page 239](#) .
- 6 - Before the axle alignment and the adjustment of the steering geometry, lock the steering wheel in the middle position of the height adjustment of steering column.
- 7 - Check camber on front axle, if necessary adjust ⇒ [page 240](#) .
- 8 - Check camber on rear axle, if necessary adjust ⇒ [page 240](#) .
- 9 - Check track on rear axle, if necessary adjust ⇒ [page 242](#) .
- 10 - Check the castor on the front axle.
- 11 - Check track on front axle, if necessary adjust ⇒ [page 246](#) .



Note

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted. SKODA AUTO A. S. SKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by SKODA AUTO A. S. 2013

The following always applies! Always check the transversal inclination of the vehicle before adjustment if one of the measuring values is outside the tolerance.

2.5 Check transversal inclination of the vehicle “straight-ahead position”

It is possible the vehicle is skew if the measured values lie outside the tolerance.

RHD vehicles or e. g. vehicles with an automatic gearbox may be slightly skew.

This is normal and is due to the fitting location of the assemblies and the related weight transfer.

- Check absolutely the left and right dimension -a- on the front and rear axle.

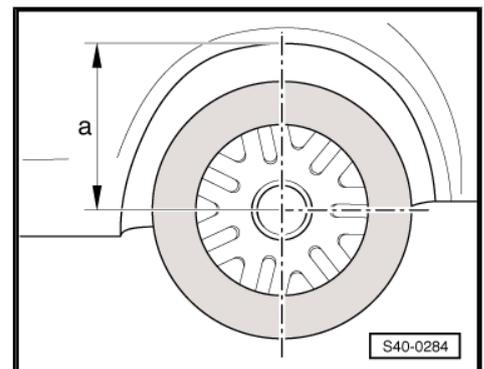
Dimension -a-: ⇒ [page 231](#) .

- Correct possible deviations of nominal value.

Balance the difference on the front axle by placing weights on the relevant suspension strut dome in the engine compartment.

Balance the difference on the rear axle by placing weights in the luggage compartment on the relevant side.

Suitable weights are e.g. sand bags approx. 10 kg



2.6 Adjusting the camber on the front axle

Move assembly carrier (looking in direction of travel) only to the left or right, never to the front or to the rear!

- Remove the noise insulation.
- Successively slacken the screws -1- to -4- for the assembly carrier attachment on the body.
- Push the assembly carrier -5- until the specified value for the camber is achieved.



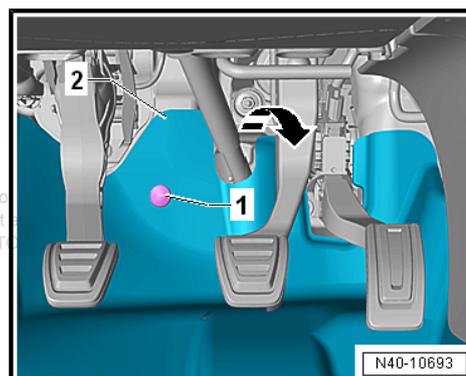
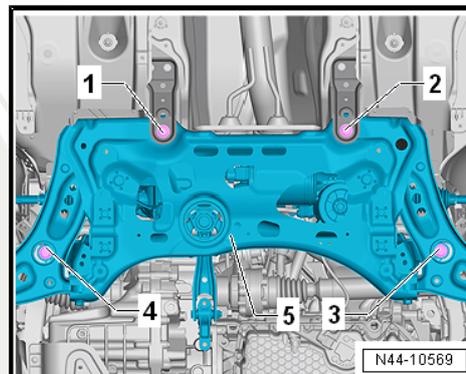
Note

Assembly carrier should only be moved to the left or right, on no account in the direction of travel or opposite the direction of travel.

- Screw the assembly carrier with new screws to the body, tighten the screws to the specified tightening torque plus extra turn angle.

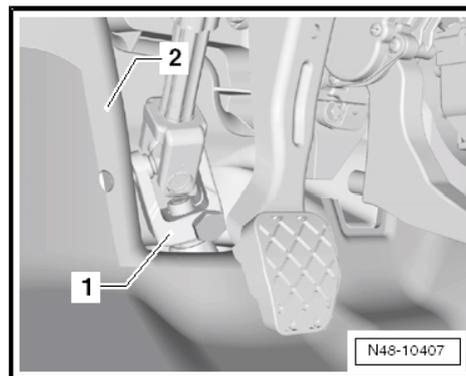
After moving the assembly carrier and also the steering gear, the clearance between the universal joint of the steering column and the cutout of the bulkhead plenum chamber must be checked.

- Unscrew the fixing nut -1- and pull off the foot mat in -direction of arrow-.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not allowed without the written permission of ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.

Now there must be at least a circular clearance of 5 mm between the universal joint -1- and the cutout of the bulkhead plenum chamber.



2.7 Adjust the camber on the rear axle

2.7.1 Adjusting the camber on the rear axle - Torsion beam axle

The camber cannot be adjusted.

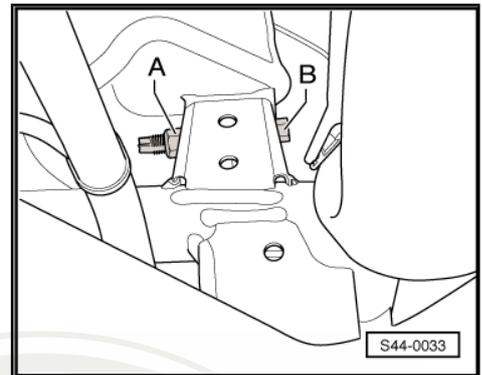
If a value lies outside the tolerances, the vehicle's transverse inclination must be checked and, if necessary, compensated for ⇒ [page 239](#) .

If the measured values still lie outside the tolerance, check the axle body for damage and if necessary replace.

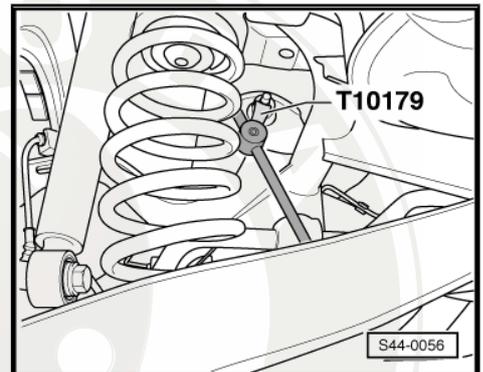
2.7.2 Adjusting the camber on the rear axle - Multi-link suspension

Special tools and workshop equipment required

- ◆ Shock absorber set , e.g. -T10001-
- ◆ Insertion tool - T10179-
- Fitting position of the adjusting screw.
- Slacken the nut -A- of the screw connection for top suspension arm to assembly carrier.



- To do this use insertion tool - T10179- .
- Adjust the camber by turning the eccentric bolt -B-.



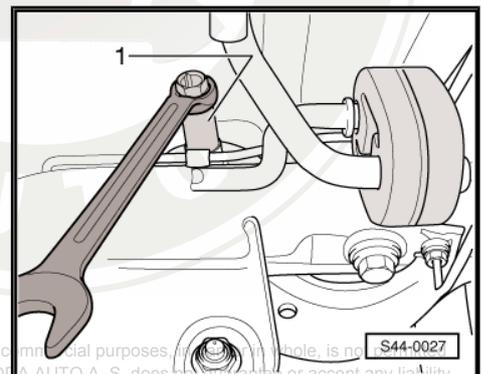
- Turn the eccentric bolt -B- using socket insert , e.g. - T10001/3- .

1 - Socket insert e.g. -T10001/3-



Note

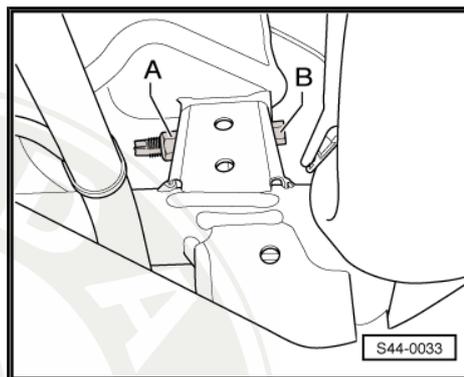
The maximum adjustment range is 90 ° from the centre position to the left or to the right.



Protected by copyright. Copying for private or commercial purposes, in whole or in part, is not permitted without the written permission of ŠKODA AUTO A. S. ŠKODA AUTO A. S. reserves the right to make changes to the technical specifications and drawings without notice. Copyright by ŠKODA AUTO A. S. 2013.



- Tighten the nut -A- while counterholding at the eccentric bolt -B-.



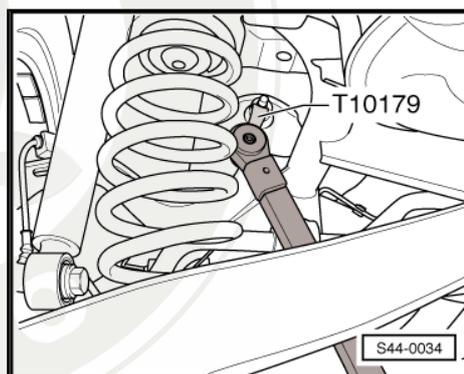
- To do this use insertion tool - T10179- .

When using the insertion tool - T10179- tighten the nut to 80 Nm.

- After the nut -A- has been tightened, inspect once again the camber value.

Tightening torques:

Track control arm to assembly carrier (without using the insertion tool - T10179-) ◆ Tighten in unladen weight position!	95 Nm
Track control arm to assembly carrier (using the insertion tool - T10179-) ◆ Tighten in unladen weight position!	80 Nm



2.8 Adjusting the track on the rear axle

Commercial purposes, in part or in whole, is not permitted unless authorised by SKODA AUTO A. S. SKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. 07

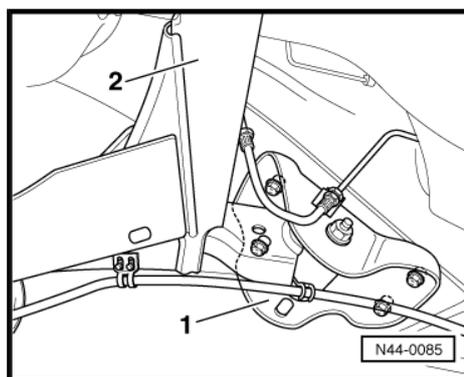
2.8.1 Adjusting the track on the rear axle - Torsion beam axle

The track cannot be adjusted.

However the misalignment of the rear axle can be compensated for by moving the bearing brackets for the rear axle.

- Loosen all screws of the bearing bracket -1- for the axle body -2-.
- Move the bearing bracket (if necessary both bearing brackets) of the rear axle -1- in the required direction.

If the misalignment of the rear axle still lies outside the permissible tolerance, check the axle body for damage and if necessary replace.





Tightening torque:

Bearing bracket for rear axle on body
◆ Use new screws!

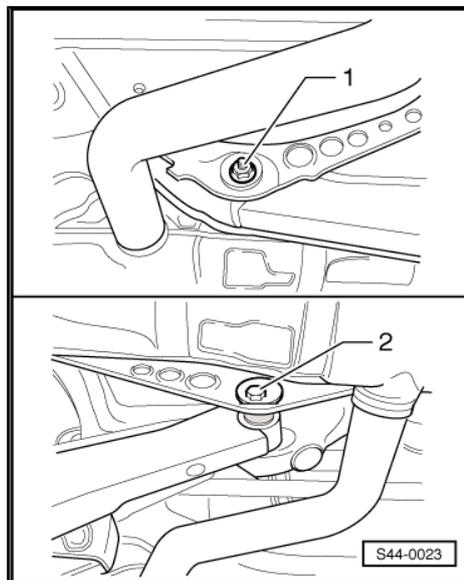
50 Nm + 45°

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □ □



2.8.2 Adjusting the track on the rear axle - Multi-link suspension

- Release the nut -1-.
- Turn the eccentric bolt -2- until the specified value is achieved and the nut -1- is tightened.





Tightening torque:

Bottom track control arm to assembly carrier ◆ Tighten in unladen weight position!	95 Nm
---	-------





2.9 Adjusting the track on the front axle

- Release nut -3- while counterholding the track rod end -2-.
- Pull off the spring strap clip -1- from the bellows.
- Adjust track by turning the left and/or right track rod.

Position an open-jawed spanner on the hexagon bolt of the track rod.



Note

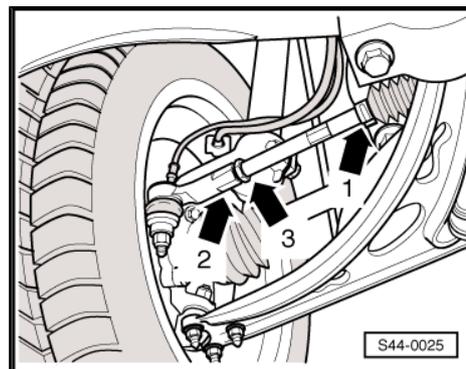
- ◆ *Check that the bellows have not become twisted after turning the track rods!*
- ◆ *Twisted bellows wear fast.*

- Tighten conternut with socket insert while doing so counterhold on the track rod end -2-.
- Check the track value once again.

After tightening the conternut it is possible that the set value may vary slightly.

If the measured track value lies within tolerance then the setting is OK.

- Mount spring strap clip -1- onto the bellows.





Tightening torque:

Counternut to track-rod end	70 Nm
-----------------------------	-------



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



2.10 Check position of steering wheel, align if necessary

Check position of steering wheel

Special tools and workshop equipment required

- ◆ Steering wheel scale , e.g. -VAS 6458-
- Lock the steering wheel in the middle position of the height adjustment of the steering column.
- Put the wheels in straight-ahead position.
- Place the steering wheel scale , e.g. -VAS 6458- , on the steering wheel.

The supports -1- of the steering wheel scale must rest against the steering wheel spokes.

- Check the alignment of the steering wheel through the wind-screen -arrow-.

Align position of steering wheel

If the steering wheel is not in the horizontal position and a noticeable maximum toe difference angle is obtained during the preceding axle alignment.

- Align the steering wheel by turning it horizontally.
- Correct the track by turning the left and right track rod.

Example

The steering wheel was positioned to the left.

- Align the steering wheel by turning it horizontally.
- Release the conenutts of the track rods.
- Turn the track rod on the left (slightly unscrew from track-rod end).
- Turn the track rod on the right to the same extent in opposite direction (screw into track-rod end).
- Check overall track.

After this adjustment procedure the overall track must correspond to the specified nominal value!

- Tighten conenutts.

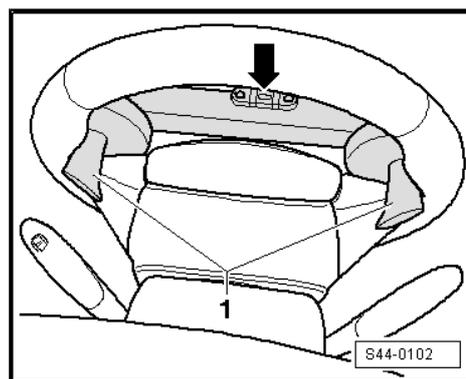
After tightening the conenutts the set value may change slightly.

Make sure this value remains within the tolerance of the nominal value. If this is not the case repeat the overall track adjustment operation.

Check that the bellows have not become twisted after turning the track rods!

If the steering wheel is not in the horizontal position and a noticeable maximum toe difference angle is not obtained during the preceding axle alignment.

- Reposition the steering wheel into the specified position ⇒ is not permitted Body Work; Rep. gr. 69. S. SKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□
- Check overall track.





Tightening torque:

Counternut to track-rod end	70 Nm
Steering wheel nut to steering column	⇒ Body Work; Rep. gr. 69



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



3 Front camera for driver assistance systems

3.1 Calibration of the front camera for driver assistance systems



Note

If the camera is no longer operating because of continuous poor visibility in the area surrounding the road, this could be caused by:

- ◆ Dirt or ice accretion occurs in the field of vision of the camera.
- ◆ The field of vision of the camera is dirty.

If the inside of the field of vision of the camera is badly soiled, the field of vision of the camera must be cleaned. To do so, the control unit with lens cap must be removed and the front screen must be cleaned with cleaning solution.

- Remove control unit with lens cap ⇒ Electrical System; Rep. gr. 96 .

Correct calibration is a prerequisite for the proper operation of the front camera for the driver assistance systems -R242- .

The front camera for the driver assistance systems -R242- must be calibrated, if:

- ◆ “No or incorrect basic setting/adaption” is entered in the fault memory.
- ◆ The front camera for the driver assistance systems -R242- was replaced.
- ◆ The front screen was replaced or removed.
- ◆ The track of the rear axle was set.
- ◆ The adjustment of the chassis, which altered the vehicle ride height, was carried out.



Note

- ◆ *Before carrying out the calibration of the front camera for the driver assistance systems -R242- , read the fault memory and if necessary eliminate the fault.*
- ◆ *Before carrying out the calibration of the front camera for the driver assistance systems -R242- , the geometrical vehicle axis must be determined. It provides a reference position for the adjustment plate -VAS 6430- .*
- ◆ *The calibration of the front camera for the driver assistance systems must only be carried out with an alignment gauge approved by Škoda!*
- ◆ *Only use the adjustment device - VAS 6430- for carrying out the calibration of the front camera for the driver assistance systems -R242- !*

Special tools and workshop equipment required

- ◆ Adjustment device, basic set - VAS 6430/1-

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.



- ◆ Calibration plate for lane-change assistance system - VAS 6430/4-
- ◆ Alignment/measuring gauge
- ◆ Diagnostic unit VAS

i Note

- ◆ *The front camera for the driver assistance systems -R242- must be correctly installed.*
- ◆ *The field of vision of the camera must be clean and should not be covered.*
- ◆ *Before driving the vehicle onto the lifting platform, check if there is adequate clearance between the wheel hub centre of the front wheels and the adjustment plate - VAS 6430- .*
- ◆ *The clearance between the calibration plate for lane-change assistance system - VAS 6430/4- and the wheel hub centre of the front wheels must be 1500 mm \pm 25 mm.*
- ◆ *If the space in front of the vehicle is not sufficient, drive the vehicle back slightly.*
- ◆ *The calibration plate must be located in the centre of the adjustment plate - VAS 6430/1-*
- ◆ *The fault memory must be interrogated and erased.*
- Observe the work sequence for the axle alignment
=> [page 239](#) .
- Connect the diagnostic unit via the window => Vehicle diagnostic tester.

i Note

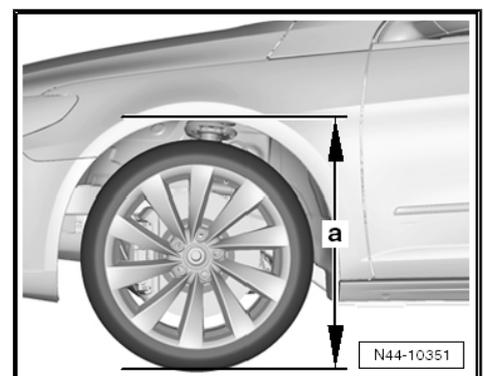
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. 000

During the calibration, all vehicle doors must be closed and all lights must be switched off.

- Put the wheels in straight-ahead position.
- Set the program for the calibration of the front camera for driver assistance systems -R242- at the alignment computer.
- Install test probe and carry out runout compensation.
- Deflect the vehicle.
- Measure the body height (standstill) on all wheels and note.

i Note

- ◆ *The calibration plate for lane-change assistance system - VAS 6430/4- must not move on the stand.*
- ◆ *The measuring device indicator must be in the lowest position.*
- Align the adjustment device - VAS 6430/1- so that it is at right angles to the longitudinal axis of the vehicle.





- Unscrew the adjustment device - VAS 6430/1- until the adjustment bar is located parallel to the centre of the transducer at the front wheels, thereby the correct measurement with the distance measurement unit -1- can be carried out.

1 - Distance measurement unit with measuring tape and threaded bolt.

- Set the adjustment device - VAS 6430- at a clearance of $-a= 1500 \text{ mm} \pm 25 \text{ mm}$ between the centre of the wheel hub on the front wheels and the adjustment bar of the adjustment device - VAS 6430/1- .

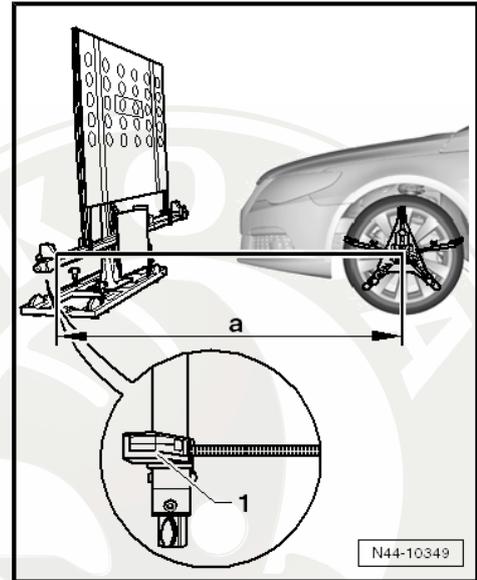


Caution

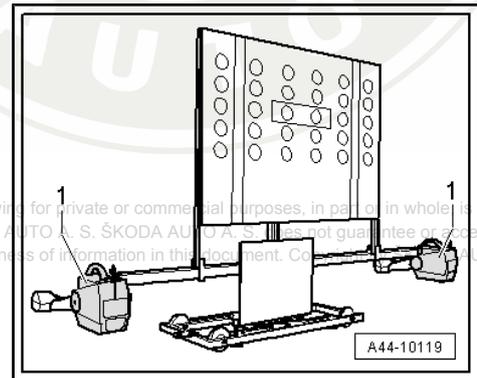
Measure the clearance $-a-$ = 1500 mm \pm 25 mm on both vehicle sides and subsequently balance the adjustment device - VAS 6430- .

Clearance $-a-$ must be the same on both vehicle sides.

In order to ensure the correct calibration, the adjustment plate for the lane-change assistance system - VAS 6430/4- must be positioned at right angles to the longitudinal vehicle axis.

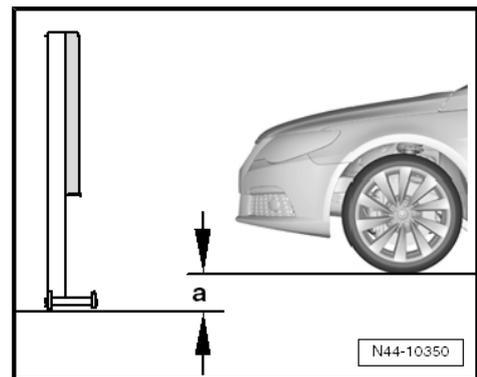


- Position the transducer of the front wheels -1- at the adjustment bar of the adjustment device - VAS 6430/1- .

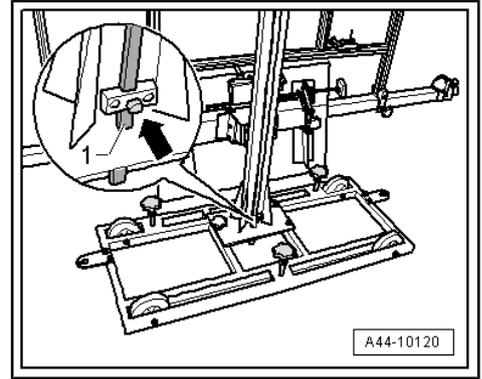


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright © ŠKODA AUTO A. S. 2013

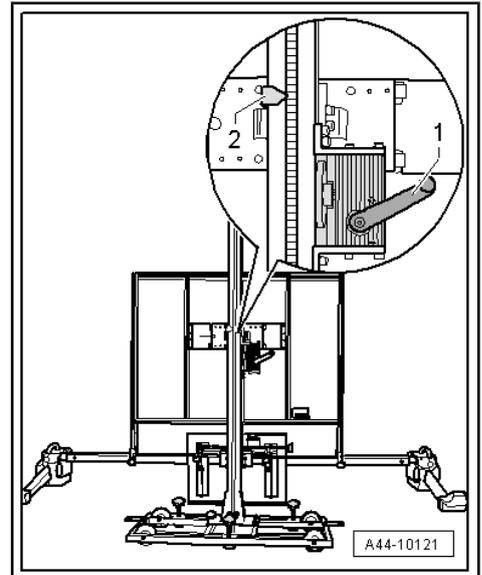
- Measure the height deviation $-a-$ between the contact surface of the adjustment plate - VAS 6430/1- and the upper level of the lifting platform.
- Enter the information in the alignment computer.



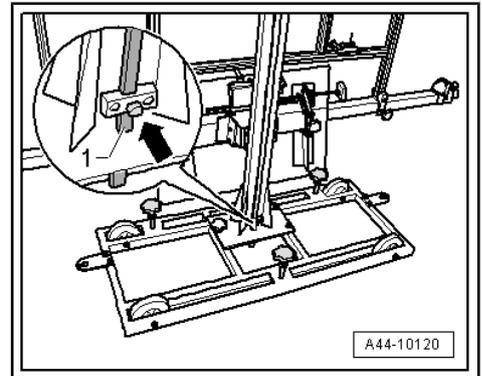
- Slacken the fixing screw -arrow- and place the dipstick -1- on the ground.



- Adjust the calibration plate -VAS 6430/4- with the crank -1- to the required height -2- according to the axle measurement computer (1200 mm + height deviation -a-).



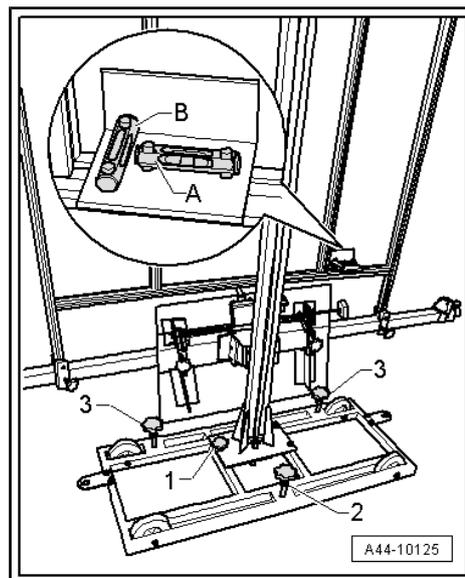
Once the desired height is reached, move the dipstick -1- upwards and fix it with the fixing screw -arrow-.



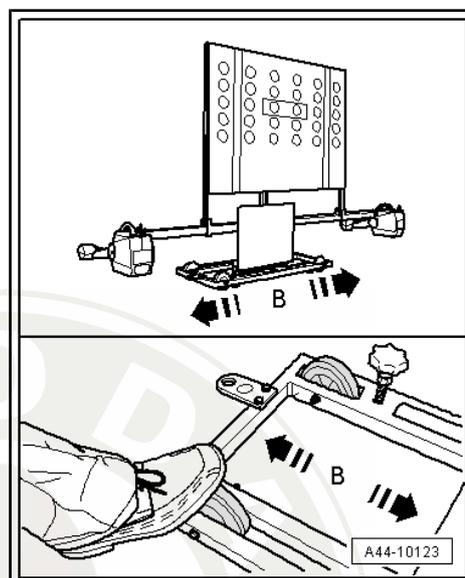
Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



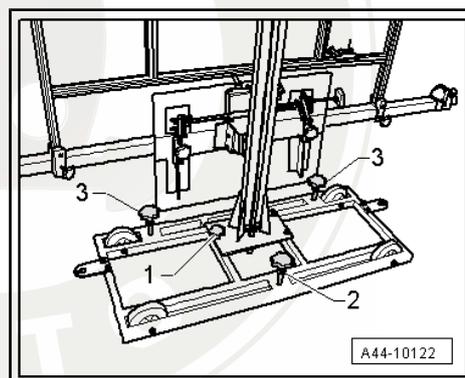
- Align the spirit level -A- horizontally with the adjusting screw -1-.



- Move the adjustment device - VAS 6430- towards the sides -arrows B- so that the value given on the alignment computer lies within the tolerance range.

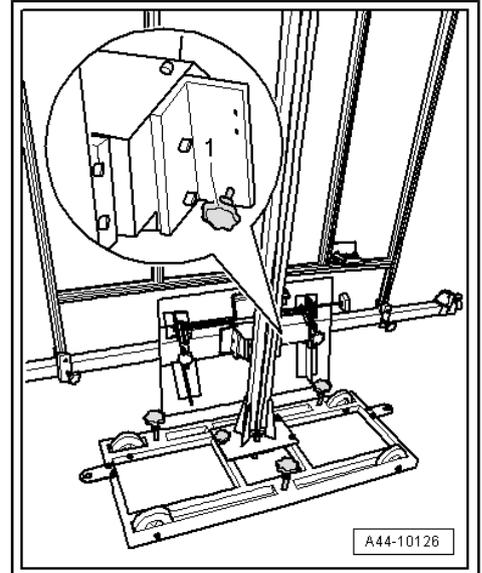


- Secure the adjustment device - VAS 6430- against moving with screws -2- and -3-.

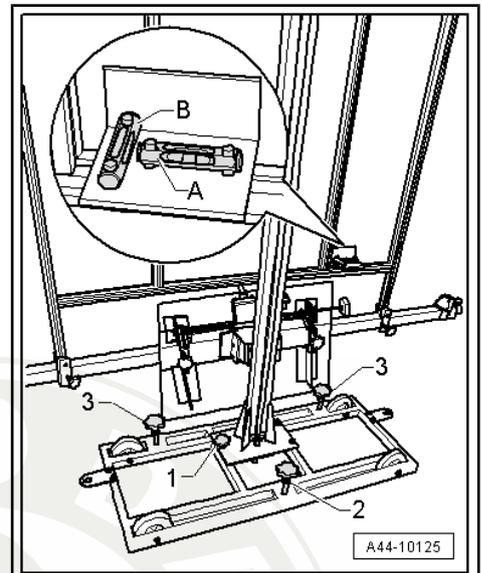


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □

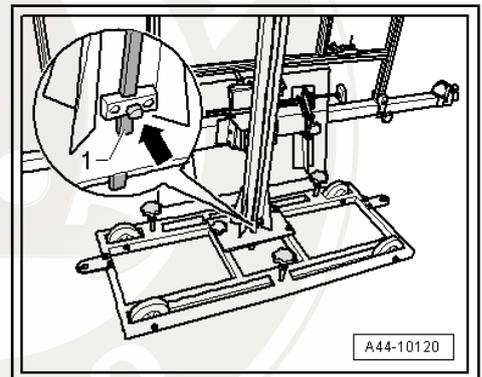
- Turn it with the fine adjustment screw -1-, until the value given on the alignment computer lies within the tolerance range.



- Align the spirit level -A- horizontally with the adjusting screw -1-.
- Align the spirit level -B- horizontally with the adjusting screws -2- and -3-.



- Slacken the fixing screw -arrow- and place the dipstick -1- on the ground.





- Check the desired height -2- and correct if necessary.

Once the desired height is reached, move the dipstick -1- upwards and fix it with the fixing screw -arrow-.

The following work can be carried out with the system \Rightarrow Vehicle diagnostic tester.

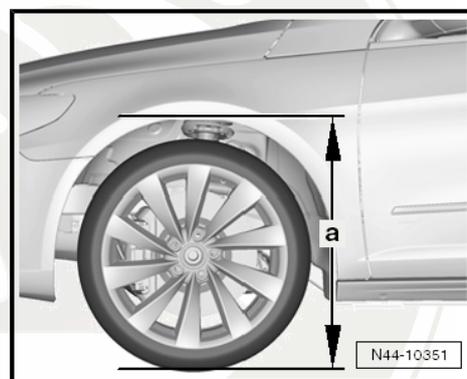
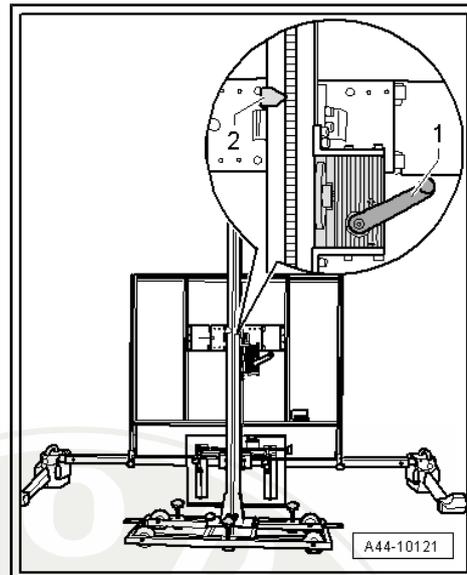
- Switch on ignition.
- Select vehicle in the targeted fault finding \Rightarrow Vehicle diagnostic tester.
- Observe the instructions on the screen.



Note

The following working step in the targeted fault finding determines the body height.

- Enter body height (standstill) -a-, as noted beforehand.





4 Adaptive Cruise Control

4.1 Calibrate Adaptive Cruise Control (ACC)

Before beginning the adjustment of Adaptive Cruise Control (ACC), check the sensors, their brackets and fixing elements for damage, outside tampering, and a tight fit. Replace or repair any damaged components.

Before you begin adjustment, read out the event memory and resolve any errors you find.

The "misalignment angle measurement value" of the ACC control unit can be used to see if the sensor is altered.

Adjustment of Adaptive Cruise Control (ACC) must only be made using an alignment unit authorised by Škoda, with adjusting devices!

Correct adjustment is a precondition for the fault-free operation of Adaptive Cruise Control (ACC).



Note

Copyright by SKODA AUTO A. S. SKODA AUTO A. S. does not guarantee or accept any liability for the content of this document. Copyright by SKODA AUTO A. S. 2013

- ◆ *A readjustment is necessary if:*
- ◆ *The track of the rear axle was adjusted.*
- ◆ *The clearance control control unit -J428- was removed, installed or replaced.*
- ◆ *The front bumper carrier was removed and installed.*
- ◆ *The front bumper carrier was loosened or adjusted.*
- ◆ *The misalignment angle is greater than -0.8° to $+0.8^\circ$.*

Special tools and workshop equipment required

- ◆ Adjustment device, basic set - VAS 6430/1-
- ◆ ACC reflector mirror - VAS 6430/3-
- ◆ Adjustment tool - VAS 6190/2-
- ◆ Released axle measurement computer



Note

- ◆ *Before driving the vehicle to the platform for axle measurement, check that there is a sufficiently large parking space between the adjustment device - VAS 6430- and the vehicle. The clearance between the ACC reflector mirror - VAS 6430/3- and the sensor must be $120\text{ cm} \pm 2.5\text{ cm}$.*
- ◆ *If sufficient space to park the vehicle is available, reverse it.*
- ◆ *If, during adjustment, the ACC reflector mirror - VAS 6430/3- is repositioned on the adjustment bar, the setting of the adjustment device - VAS 6430- always needs to be checked (e.g. spirit levels, single track values on the adjustment bars, etc.).*
- Before you begin adjustment, read out the event memory and resolve any errors you find.



The adjustment procedure is described here with the adjustment device - VAS 6430- .

The following order of work steps must be observed!

- 1 - Create a clearance of 120 cm \pm 2.5 cm between the ACC reflector mirror - VAS 6430/3- and the sensor.
- 2 - Attach the ACC reflector mirror - VAS 6430/3- on the adjustment bar of the adjustment device - VAS 6430/1- in the middle.
- 3 - Adjust the clearance control control unit -J428-

Given a prior axle adjustment, the work steps under "Adjustment procedure without prior axle measurement" are not required.

Adjustment procedure without prior axle measurement

- Observe the inspection conditions for an axle alignment [⇒ page 235](#) .
- Drive the vehicle forwards onto the axle measurement platform.
- Connect battery charger ⇒ Electrical system; Rep. gr. 27 .
- Connect vehicle diagnosis tester ⇒ Vehicle diagnostic tester (guide diagnostic line through opened window).
- Select the button for the ACC adjustment in the axle measurement computer.



Note

During the adjustment, make sure all vehicle doors remain closed, and the outer lighting of the vehicle incl. daylight driving light is switched off.

- Put the front wheels in straight ahead position.
- Attach the transducer to the rear wheels.
- Attach the wheel run-out compensation to the rear wheels.

Adjustment procedure with or without prior axle measurement

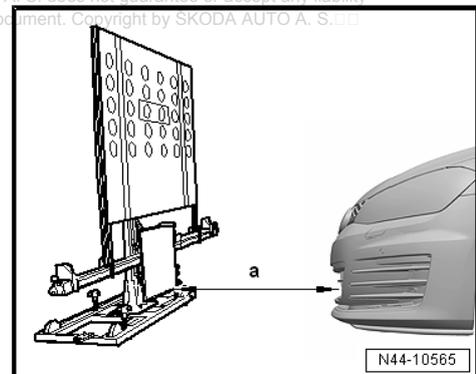
- Remove air guide grid on the clearance control control unit - J428- ⇒ Body Work; Rep. gr. 63 .
- Where necessary, remove any dirt on the clearance control control unit -J428- .
- Position the ACC reflector mirror -VAS 6430/3- in the middle and parallel at a clearance -a- to the clearance control control unit -J428- .



Note

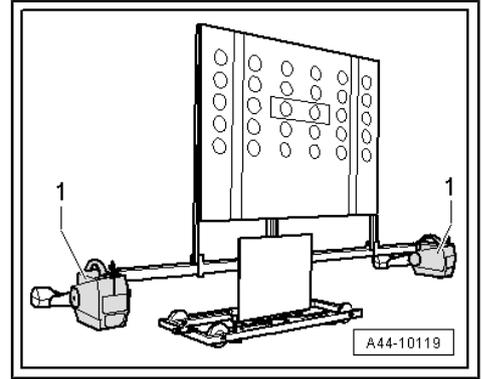
The ACC reflector mirror - VAS 6430/3- must not be moved any further at the adjustment bar of the adjustment device - VAS 6430/1- .

Work procedure

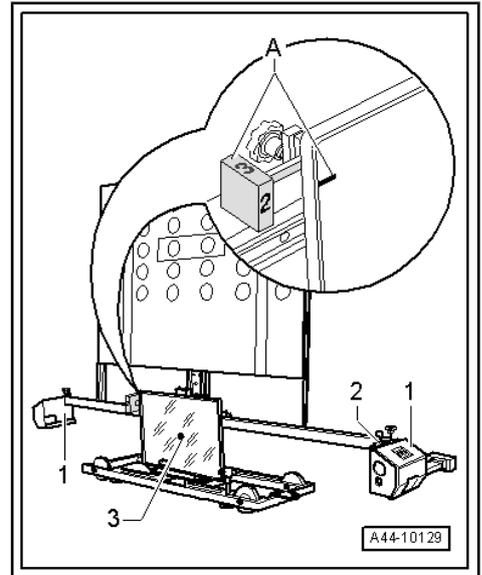




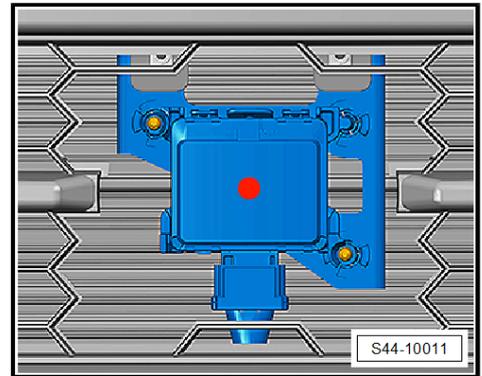
- Position the transducer of the front wheels -1- at the adjustment bar of the adjustment device - VAS 6430/1- .



- In the region -A- bring position 2 to the cover with the marking on the ACC reflector mirror - VAS 6430/3- (number 2 on the rotary knob must face the vehicle).

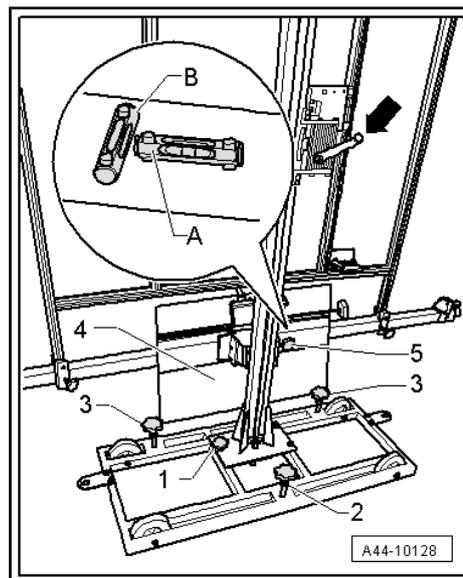


- Adjust the adjustment device - VAS 6430/1- so that the laser beam strikes the sensor lens in the middle.





- Use the adjustment bolts -1-, -2- and -3- to bring the spirit levels -A- and -B- into balance.
- Adjust the mirror -4- using the crank -arrow- so that the sensor lens strikes in the middle.
- Turn the fine-adjustment screw -5- until the display in the axle measurement computer is within the tolerance range.



- Bring the spirit levels of the transducer attached to the front wheels-1- into balance.
- Check whether the laser beam strikes the sensor lens -J428- in the middle and whether the spirit levels of the adjustment device - VAS 6430/1- and the transducer are in balance.

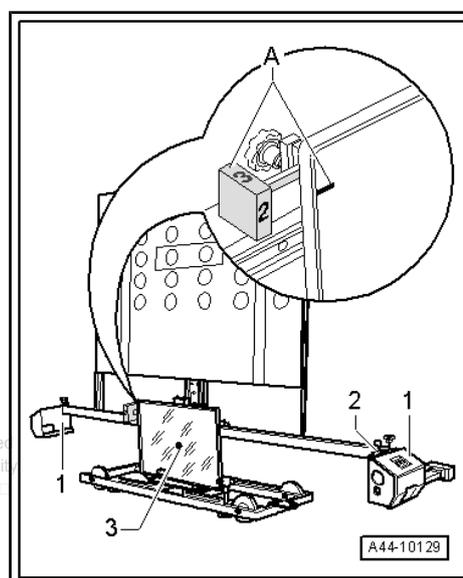


Note

If the laser beam of the ACC reflector mirror - VAS 6430/3- does not strike the sensor lens -J428- in the middle, repeat the alignment of the ACC reflector mirror - VAS 6430/3- once again.

The following work can be carried out with the system => Vehicle diagnostic tester.

- Switch on ignition.
- Select the appropriate vehicle in the targeted fault finding => Vehicle diagnostic tester.
- Select the work procedure for the adjustment of the Clearance control control unit -J428- => Vehicle diagnostic tester.
- Follow the instructions on screen.

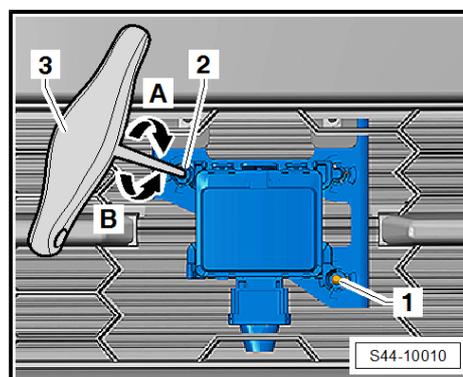


Turn the adjustment bolts -1- and -2- on the insertion tool - VAS 6190/2- in -direction of arrow- to perform the adjustment.



WARNING

The ACC adjustment is not performed until the following message is displayed in the vehicle diagnosis tester: "Final control diagnosis ended".



48 – Steering

1 Steering column

Summary of components of steering column ⇒ [page 261](#)

Check the steering column for damage ⇒ [page 262](#)

Observe handling and transportation of the steering column
 ⇒ [page 262](#)

Removing and installing steering column ⇒ [page 263](#)

1.1 Summary of components of steering column



Note

- ◆ *Observe handling and transportation of the steering column ⇒ [page 262](#).*
- ◆ *Self-locking nuts must always be replaced.*
- ◆ *Always replace corroded screws/nuts.*

1 - Central pipe

2 - Pull-off screws

- Tighten pull-off screws until the screw head shears off.

3 - Holder for right knee airbag

4 - ELV control unit - J764-

- for vehicles with keyless unlocking, locking and starting "Kessy"
- removing and installing

5 - Screw, 20 Nm

- observe the order of tightening up
- replace after each removal

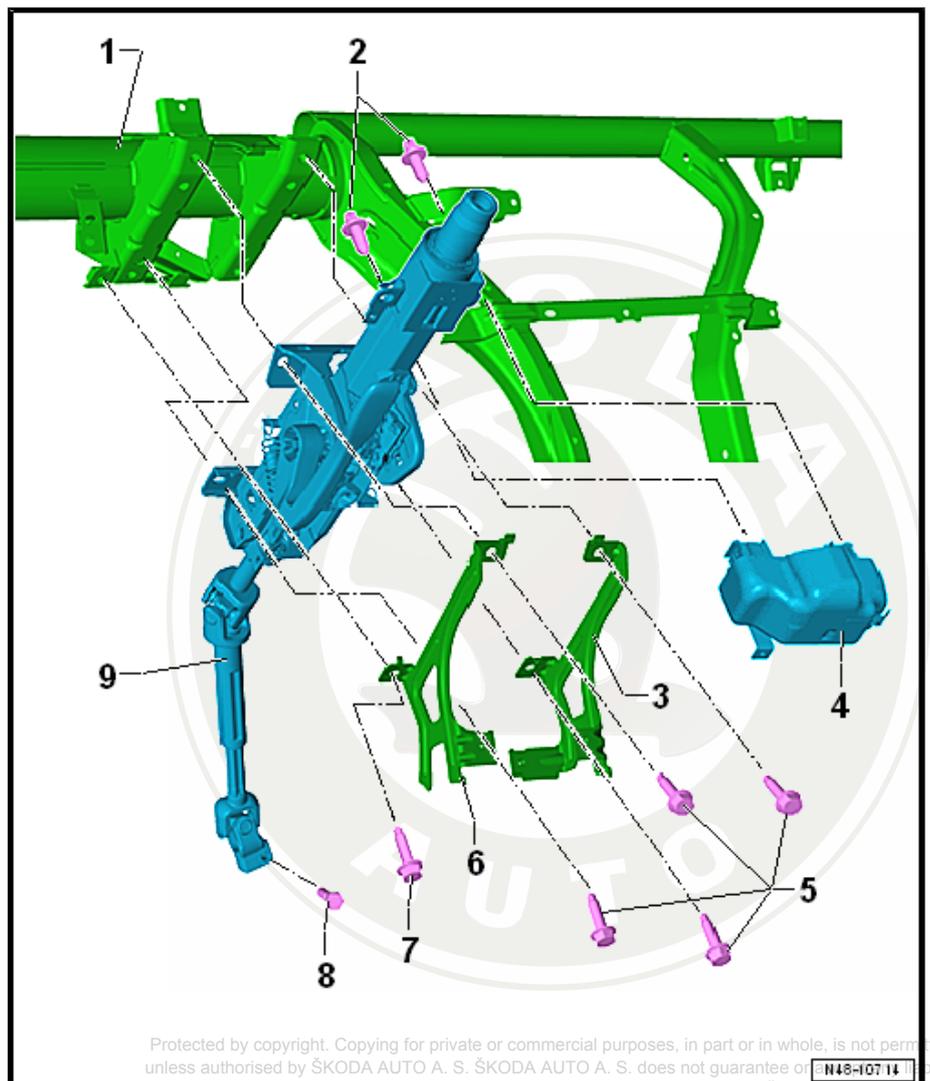
6 - Holder for left knee airbag

7 - Screw, 20 Nm

- replace after each removal

8 - Screw, 20 Nm + 90°

- replace after each removal



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or liability

N48-107 14



9 - Steering column

- Removing and installing

1.2 Check the steering column for damage

Visual inspection

- Inspecting parts of the steering column for damage.

Functional test

- Check whether the steering column turns freely without jerking.
- Check if the steering column is adjustable in longitudinal direction as well as in height and is easy to operate without hooking.

1.3 Observe handling and transportation of the steering column

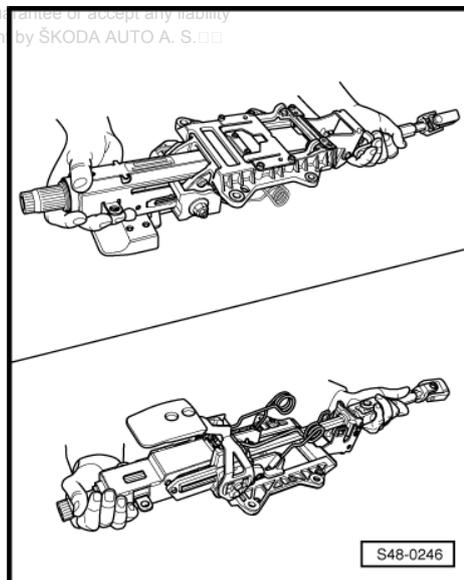


WARNING

- ◆ *The correct handling of the steering column must absolutely be respected.*
- ◆ *The incorrect handling of the steering column can lead to damages of the steering column and therefore to a risk of safety.*

Observe correct handling and transportation of the steering column

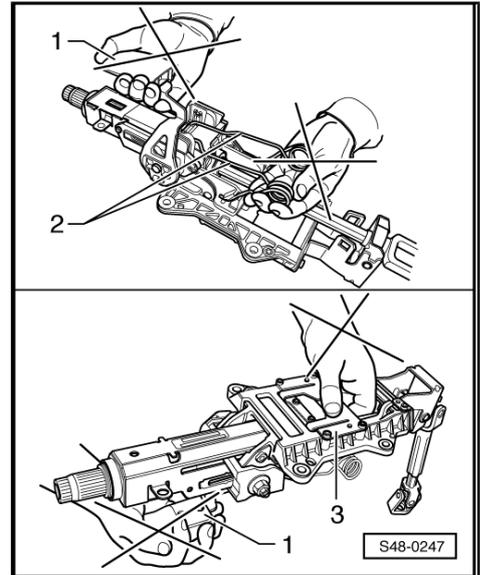
- ◆ Always transport the steering column with both hands.
- ◆ Always take hold of the steering column at the casing and in the area of the top universal joint.



Incorrect handling of the steering column

The transportation of the following parts leads to pre-damage of the steering column:

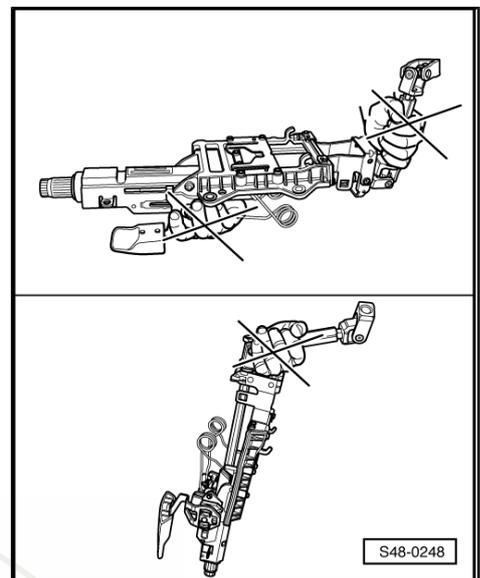
- 1 - Clamping lever
- 2 - Counterweight springs
- 3 - Deformation element



Incorrect handling of the steering column with safety risk

The following handlings lead to damage of the universal joint bushing of the lower steering column bearing:

- ◆ Transporting the steering column with one hand at the drive shaft.
- ◆ Bending of the drive shaft over 90°.



1.4 Removing and installing steering column

1.4.1 Removing and installing steering column - left-hand drive

Removing

The steering column is supplied as a spare part in the form of a complete assembly. Repairs are not allowed!

The ignition lock housing can be modified ⇒ Electrical System; Rep. gr. 94 .

When replacing the steering column, refit the steering column switches ⇒ Electrical System; Rep. gr. 94 .



WARNING

Before working on the electrical system and the removal of the steering wheel the following conditions must be fulfilled:

- ◆ **Disconnect battery earth strap ⇒ Electrical System; Rep. gr. 27 .**
- ◆ **The wheels must be in the straight-ahead position.**

If you do not observe this note, it can lead to a failure of the airbag system.

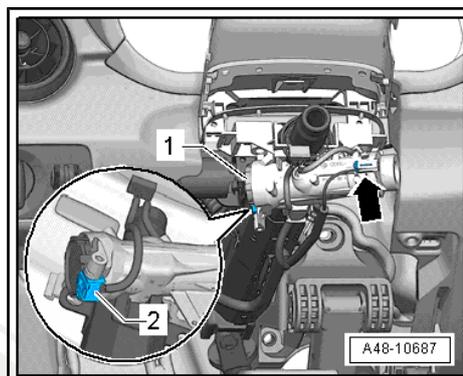
- Put the wheels in straight-ahead position.
- Press the adjusting lever for steering column downwards.
- Press the steering column downwards, pull it towards you and lock with the adjusting lever (the lever upwards).
- Remove airbag and steering wheel ⇒ Body Work; Rep. gr. 69 .
- Removing top and bottom steering column trim ⇒ Body Work; Rep. gr. 70 .
- Removing switch unit ⇒ Electrical system; Rep. gr. 94 .

Vehicles with knee airbag:

- Remove knee airbag ⇒ Body Work; Rep. gr. 69 .

Vehicles with ignition lock housing:

- Disconnect plug -arrow- from the immobiliser reader coil -D2- .
- Disconnect the plug -2- from the ignition lock housing -1-.

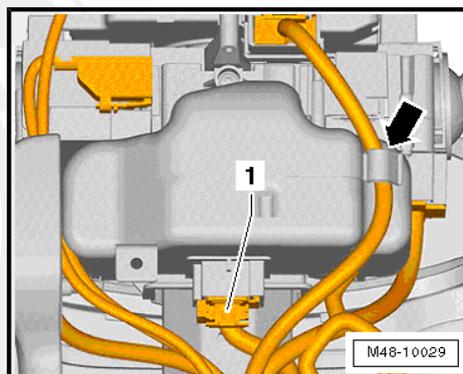


For vehicles with keyless unlocking, locking and starting "Kessy"

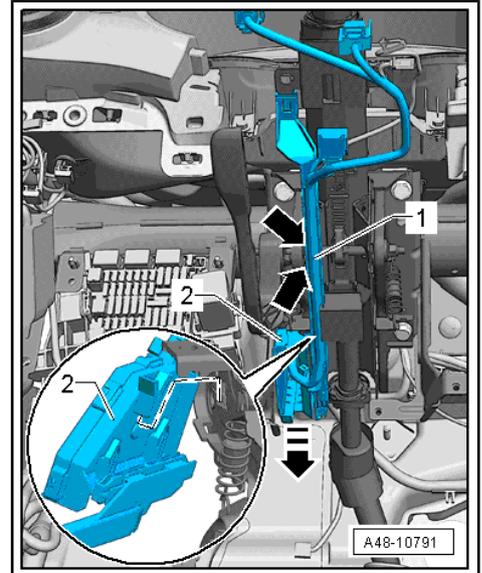
- Unplug connector -1-.
- Unclip the wiring loom from the clip -arrow- at the control unit for ELV - J764- .

Continued for all vehicles

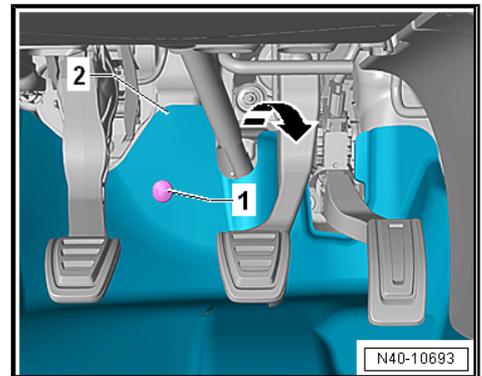
- Removing the left footwell vent ⇒ Heating, Air Conditioning; Rep. gr. 87 .



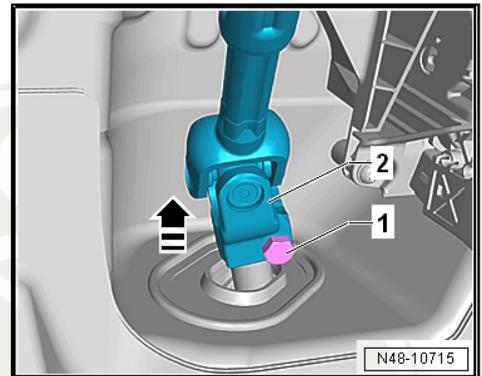
- Detach the wiring loom -1- from the steering column and place it to the side.
- Detach the grommet -2- in -direction of arrow-.



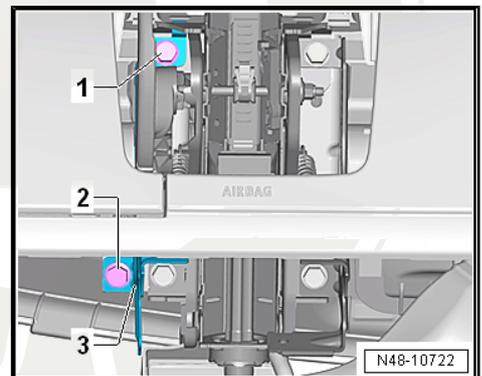
- Unscrew the fixing nut -1- and pull off the foot mat in -direction of arrow-.



- Unscrew the fixing screw -1- and remove the universal joint -2- from the steering gear.

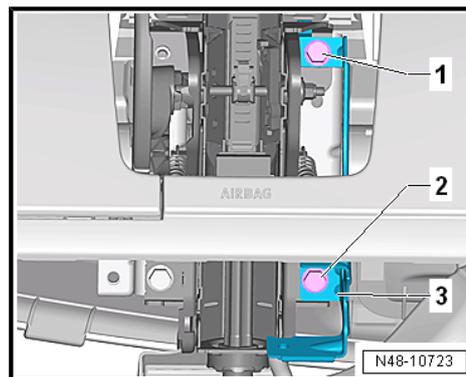


- Unscrew screws -1- and -2-.
- Remove holder for left knee airbag -3- (if present).

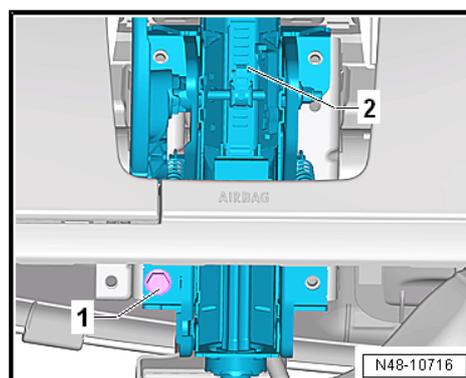




- Screw out screws -1- and -2-.
- Remove holder for right knee airbag -3- (if present).



- Unscrew screw -1-, hold steering column -2-.



- Unhook the steering column -1- from the catch pegs -2- and -3- at the central pipe.

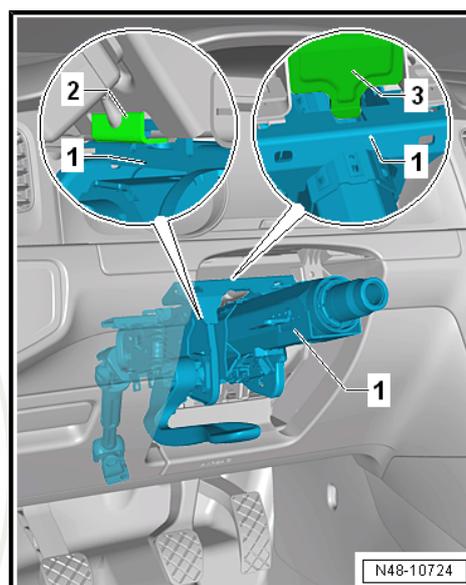


Note

Observe the correct handling of the steering column
⇒ [page 262](#).

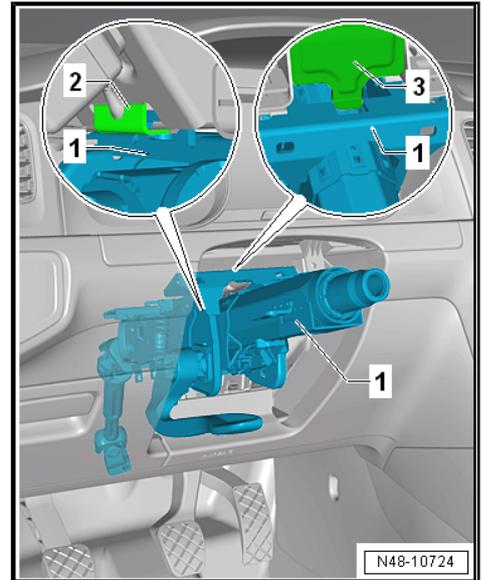
Install

- Installation is performed in the reverse order, pay attention to the following points:

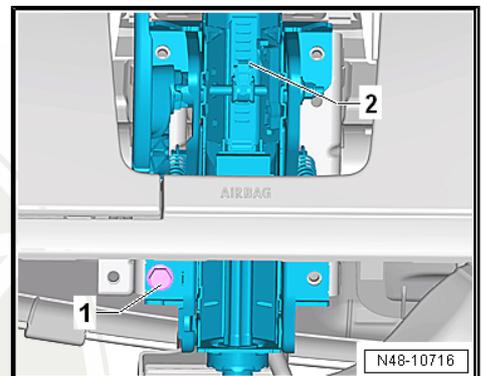




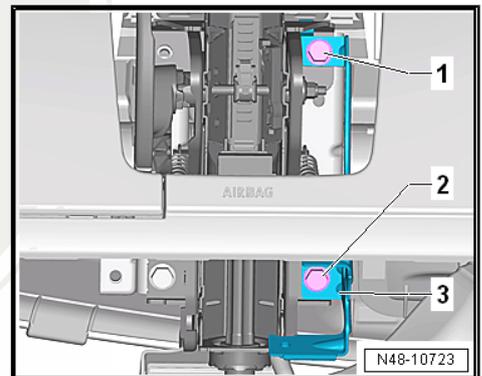
- Hook the steering column -1- into the catch pegs -2- and -3- at the central pipe.



- Screw in the screw -1-.

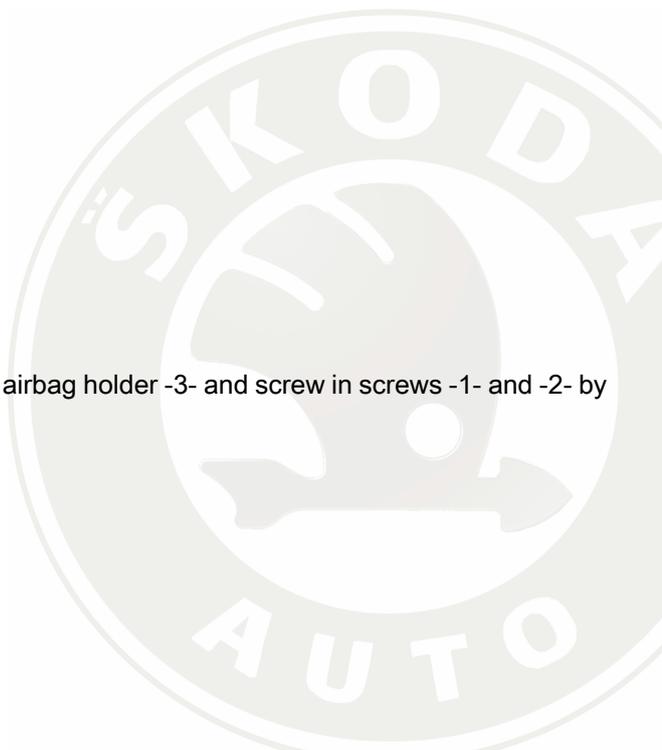
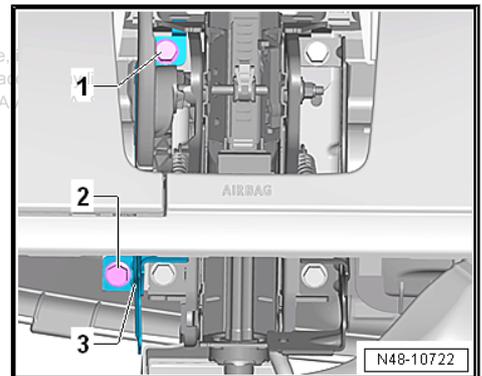


- Insert the airbag holder -3- and screw in screws -1- and -2- by hand.



- Insert the airbag holder -3- and screw in screws -1- and -2- by hand.

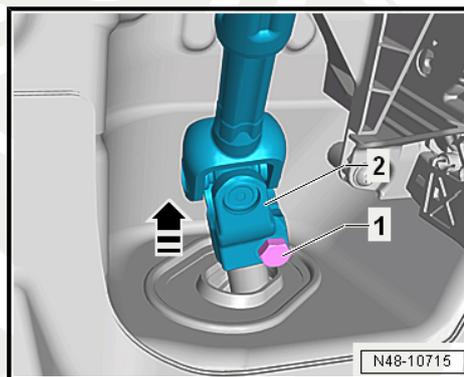
- Tighten the screws -1-, -2-, -3- and -4- consecutively to the specified tightening torque.



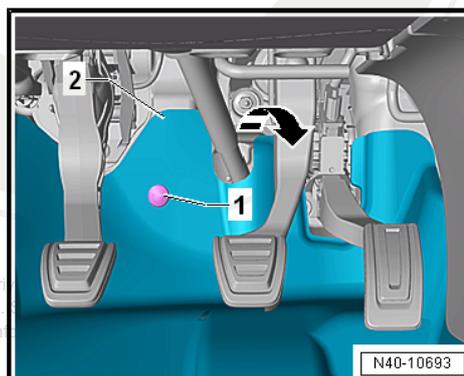
Protected by copyright. Copying for private or commercial purposes, in part or in whole, unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any responsibility for the correctness of information in this document. Copyright by ŠKODA AUTO A. S.



- Fit the universal joint -2- against the -direction of arrow- on the steering pinion.
- Tighten new screw -1-.



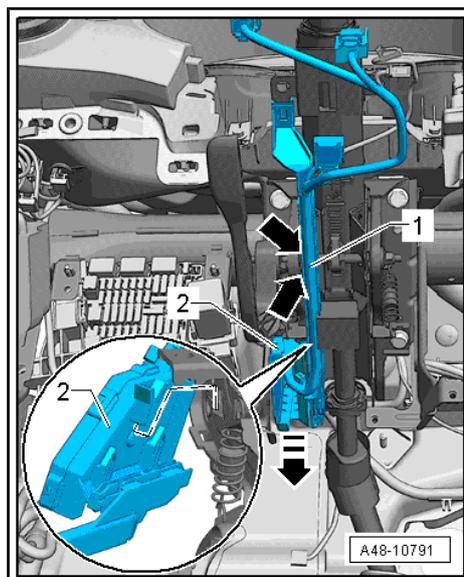
- Attach the floor covering with the nut -1-.



Protected by copyright. Copying for private use is permitted without the need for prior permission, unless authorised by ŠKODA AUTO A.S. with respect to the correctness of information.

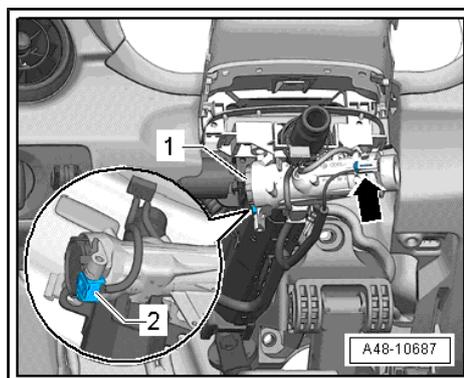
itted
bility
00

- Secure the wiring loom -1- to the steering column.
- Position the grommet -2- against the -direction of arrow-.
- Install the left footwell vent ⇒ Heating, Air Conditioning; Rep. gr. 87 .



Vehicles with ignition lock housing:

- Fit on the plug -arrow- of the immobiliser reader coil -D2- .
- Fit the plug -2- on the ignition lock housing -1-.





For vehicles with keyless unlocking, locking and starting "Kessy"

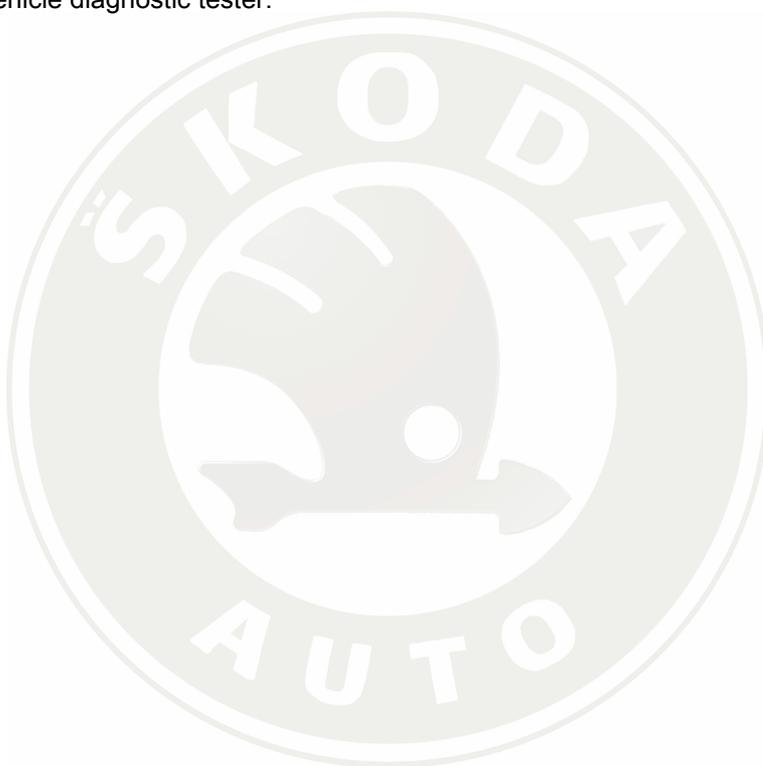
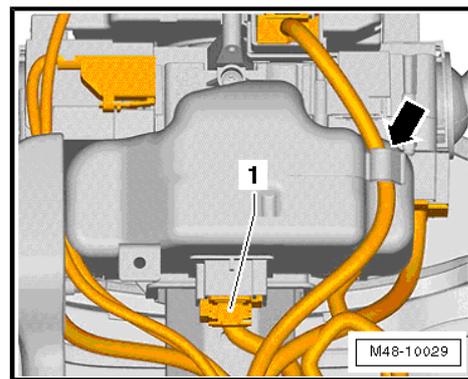
- Reconnect connector -1-.
- Clip the wiring loom into the clip -arrow- at the control unit for ELV - J764- .

Vehicles with knee airbag:

- Install knee airbag ⇒ Body Work; Rep. gr. 69 .

Continued for all vehicles

- Installing switch unit ⇒ Electrical system; Rep. gr. 94 .
- Installing top and bottom steering column trim ⇒ Body Work; Rep. gr. 70 .
- Install airbag and steering wheel ⇒ Body Work; Rep. gr. 69 .
- Perform basic setting of the steering angle sender - G85- ⇒ Vehicle diagnostic tester.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



Tightening torques:

Steering column to central pipe	20 Nm
Universal joint to steering gear ◆ Use new screw!	20 Nm + 90°

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

1.4.2 Removing and installing steering column - right-hand drive

Removing

The steering column is supplied as a spare part in the form of a complete assembly. Repairs are not allowed!

The ignition lock housing can be modified ⇒ Electrical System; Rep. gr. 94 .

When replacing the steering column, refit the steering column switches ⇒ Electrical System; Rep. gr. 94 .



WARNING

Before working on the electrical system and the removal of the steering wheel the following conditions must be fulfilled:

- ◆ ***Disconnect battery earth strap ⇒ Electrical System; Rep. gr. 27 .***
- ◆ ***The wheels must be in the straight-ahead position.***

If you do not observe this note, it can lead to a failure of the airbag system.

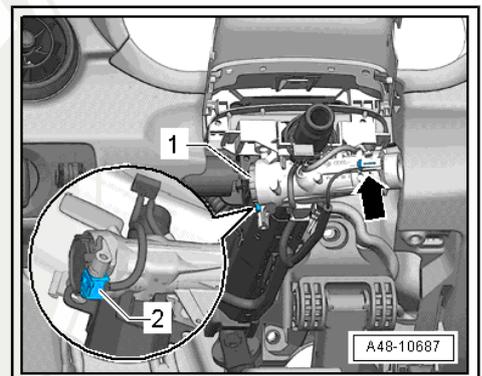
- Put the wheels in straight-ahead position.
- Press the adjusting lever for steering column downwards.
- Press the steering column downwards, pull it towards you and lock with the adjusting lever (the lever upwards).
- Remove airbag and steering wheel ⇒ Body Work; Rep. gr. 69 .
- Removing top and bottom steering column trim ⇒ Body Work; Rep. gr. 70 .
- Removing switch unit ⇒ Electrical system; Rep. gr. 94 .

Vehicles with knee airbag:

- Remove the knee airbag ⇒ Body Work; Rep. gr. 69 .

Vehicles with ignition lock housing:

- Disconnect plug -arrow- from the immobiliser reader coil -D2- .
- Disconnect the plug -2- from the ignition lock housing -1-.





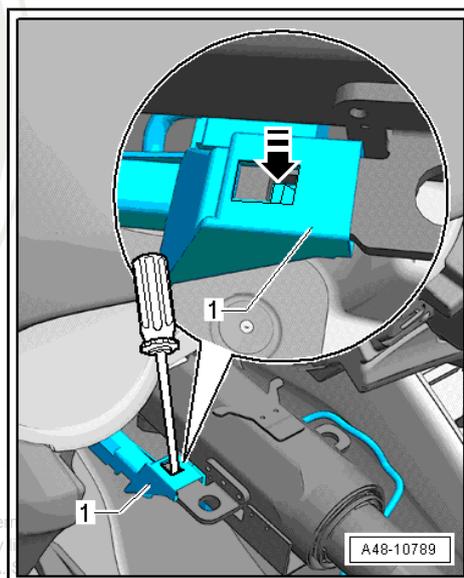
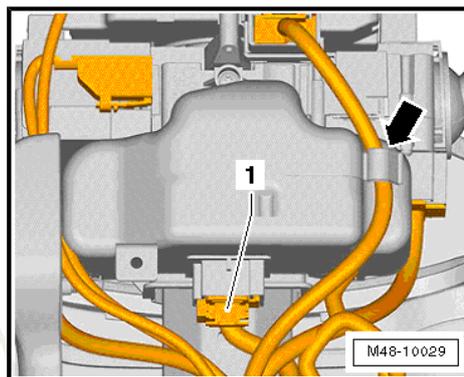
For vehicles with keyless unlocking, locking and starting "Kessy"

- Unplug connector -1-.
- Unclip the wiring loom from the clip -arrow- at the control unit for ELV - J764- .

Continued for all vehicles

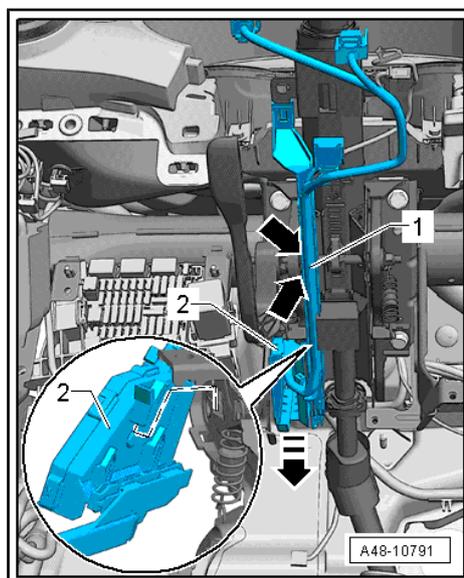
- Remove right footwell vent ⇒ Heating, Air Conditioning; Rep. gr. 87 .

- Unlock the locking lug -arrow- of the wiring harness guide -1-.

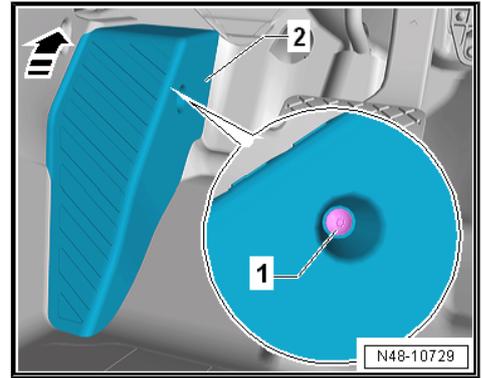


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any responsibility with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.

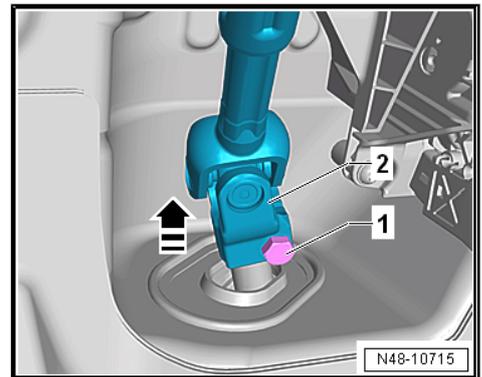
- Detach the wiring loom -1- from the steering column and place it to the side.
- Detach the grommet -2- in -direction of arrow-.



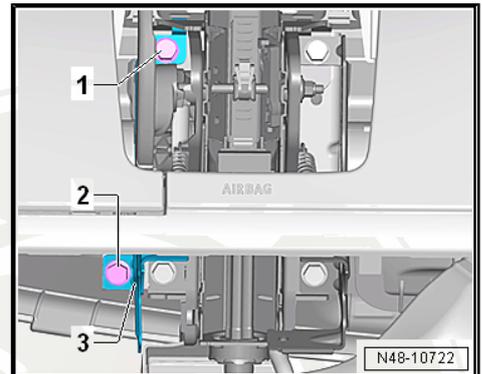
- Release screw -1-.
- Unscrew bearing bolt -in direction of the arrow -.



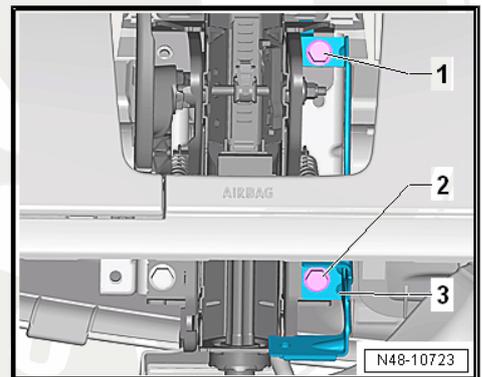
- Unscrew the fixing screw -1- and remove the universal joint -2- from the steering gear.



- Release screws -1- and -2-.
- Remove holder for left knee airbag -3- (if present).

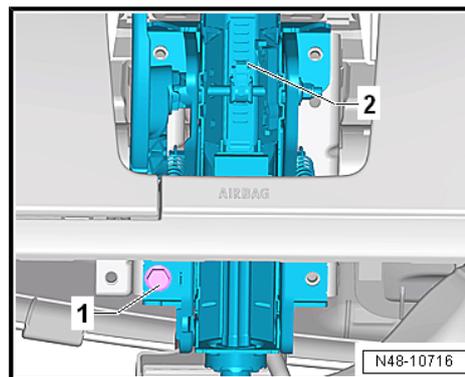


- Release screws -1- and -2-.
- Remove holder for right knee airbag -3- (if present).





- Unscrew screw -1-, hold steering column -2-.



- Unhook the steering column -1- from the catch pegs -2- and -3- at the central pipe.

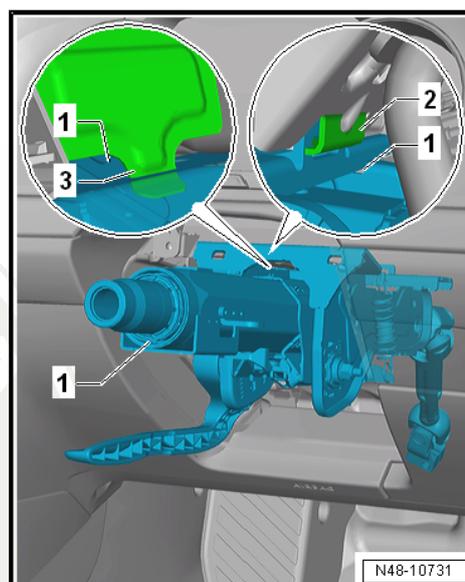


Note

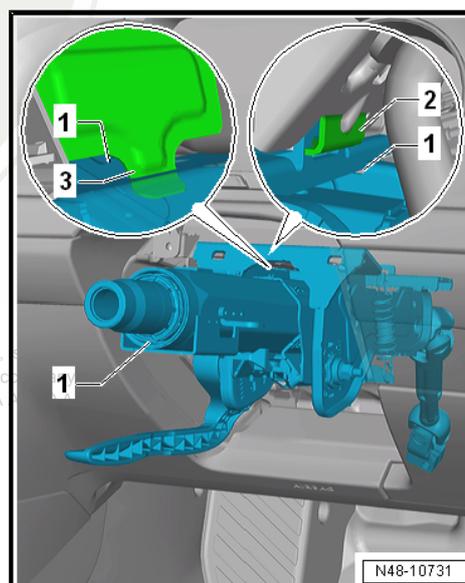
Observe the correct handling of the steering column
=> [page 262](#).

Install

- Installation is performed in the reverse order, pay attention to the following points:

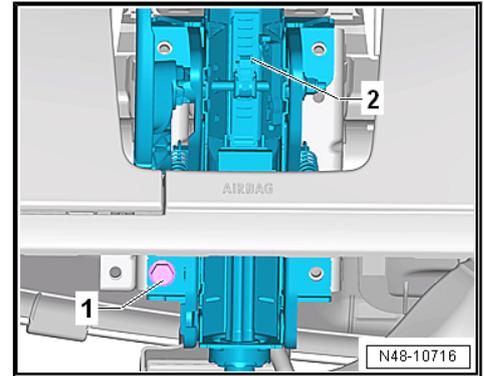


- Hook the steering column -1- into the catch pegs -2- and -3- at the central pipe.

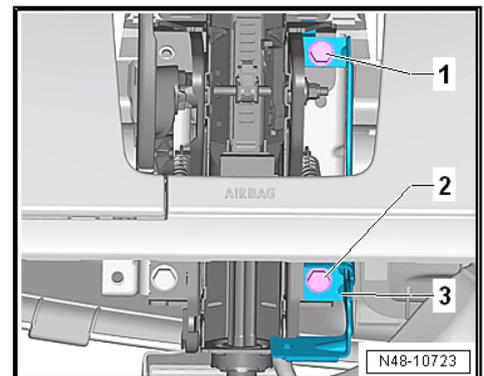


Protected by copyright. Copying for private or commercial purposes, in part or in whole, unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S.

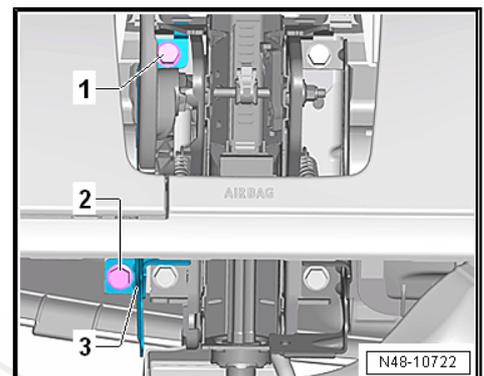
- Align the steering column vis-a-vis the central tube and screw in the screw -1-.



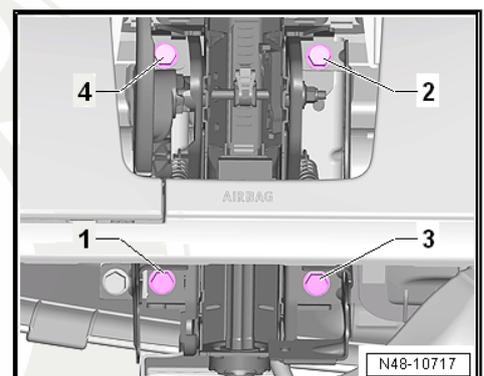
- Insert the knee airbag -3- and screw in screws -1- and -2- until hand-tight.



- Insert the knee airbag -3- and screw in screws -1- and -2- until hand-tight.

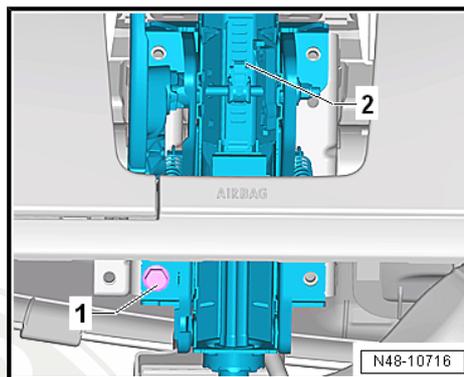


- Tighten the screws -1-, -2-, -3- and -4- consecutively to the specified tightening torque.

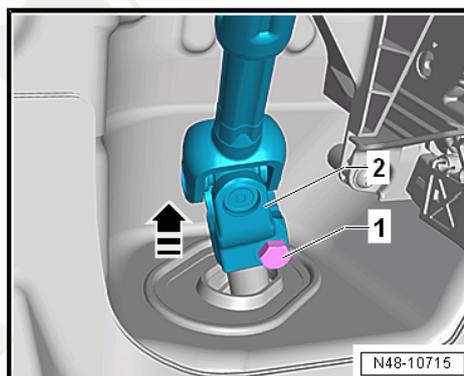




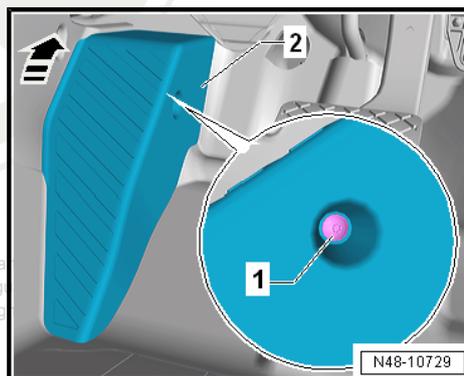
- Tighten the screw -1- to the specified tightening torque.



- Fit the universal joint -2- against the -direction of arrow- on the steering pinion.
- Tighten new screw -1-.

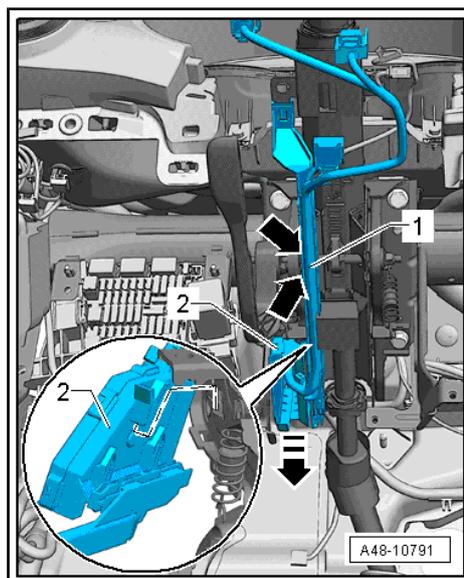


- Insert the bearing bolt -against the direction of the arrow-.
- Tighten bolt -1-.



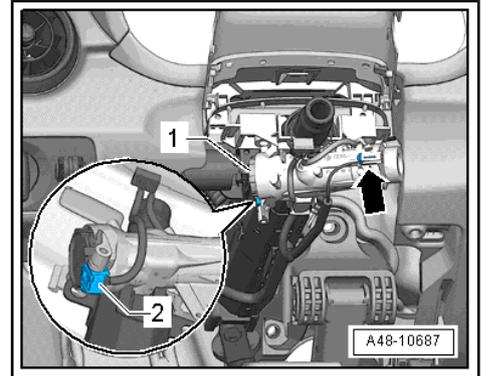
Protected by copyright. Copying for private or commercial purposes, in part or in full, is prohibited unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee the correctness of information in this document. Copyright © ŠKODA AUTO A. S. 2013

- Secure the wiring loom -1- to the steering column.
- Position the grommet -2- against the -direction of arrow-.
- Install the left footwell vent ⇒ Heating, Air Conditioning; Rep. gr. 87 .



Vehicles with ignition lock housing:

- Fit on the plug -arrow- of the immobiliser reader coil -D2- .
- Fit the plug -2- on the ignition lock housing -1-.



For vehicles with keyless unlocking, locking and starting "Kessy"

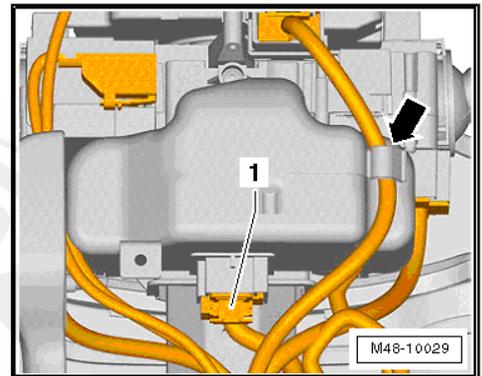
- Reconnect connector -1-.
- Clip the wiring loom into the clip -arrow- at the control unit for ELV - J764- .

Vehicles with knee airbag:

- Install knee airbag ⇒ Body Work; Rep. gr. 69 .

Continued for all vehicles

- Installing switch unit ⇒ Electrical system; Rep. gr. 94 .
- Installing top and bottom steering column trim ⇒ Body Work; Rep. gr. 70 .
- Install airbag and steering wheel ⇒ Body Work; Rep. gr. 69 .
- Perform basic setting of the steering angle sender - G85- ⇒ Vehicle diagnostic tester.





Tightening torques:

Steering column to central pipe	20 Nm
Universal joint to steering gear ◆ Use new screw!	20 Nm + 90°



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



2 Steering lock

Steering lock for vehicles with keyless unlocking, locking and starting "Kessy" ⇒ [page 279](#)

Steering lock with ignition lock housing ⇒ [page 279](#)

2.1 Steering lock for vehicles with keyless unlocking, locking and starting "Kessy"

Removing and installing ⇒ Electrical System; Rep. gr. 94

2.2 Steering lock with ignition lock housing

Removing and installing ⇒ Electrical System; Rep. gr. 94

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

3 Steering gear

Summary of components - steering gear- left-hand drive
⇒ [page 280](#)

Summary of components - steering gear- right-hand drive
⇒ [page 281](#)

Removing and installing steering gear - left-hand drive
⇒ [page 281](#)

Removing and installing steering gear - right-hand drive
⇒ [page 288](#)

3.1 Summary of components - steering gear- left-hand drive

1 - Expanding rivet

2 - Steering column

3 - Screw, 20 Nm + 90°

- replace after each removal

4 - Steering gear

- removing and installing ⇒ [page 281](#)

- with power-assisted steering control unit - J500-

- The steering angle sender - G85- is integrated in the steering gear and cannot be replaced separately

- check in the targeted fault finding ⇒ Vehicle diagnostic tester

- after installing a new power-steering gear, adapt the steering angle sender - G85- ⇒ Vehicle diagnostic tester

- adapt the power-assisted steering control unit - J500- after installing a new power-steering gear ⇒ Vehicle diagnostic tester

5 - Nut, 20 Nm + 90°

- replace after each removal

6 - Wheel-bearing housing

7 - Screw, 70 Nm + 90°

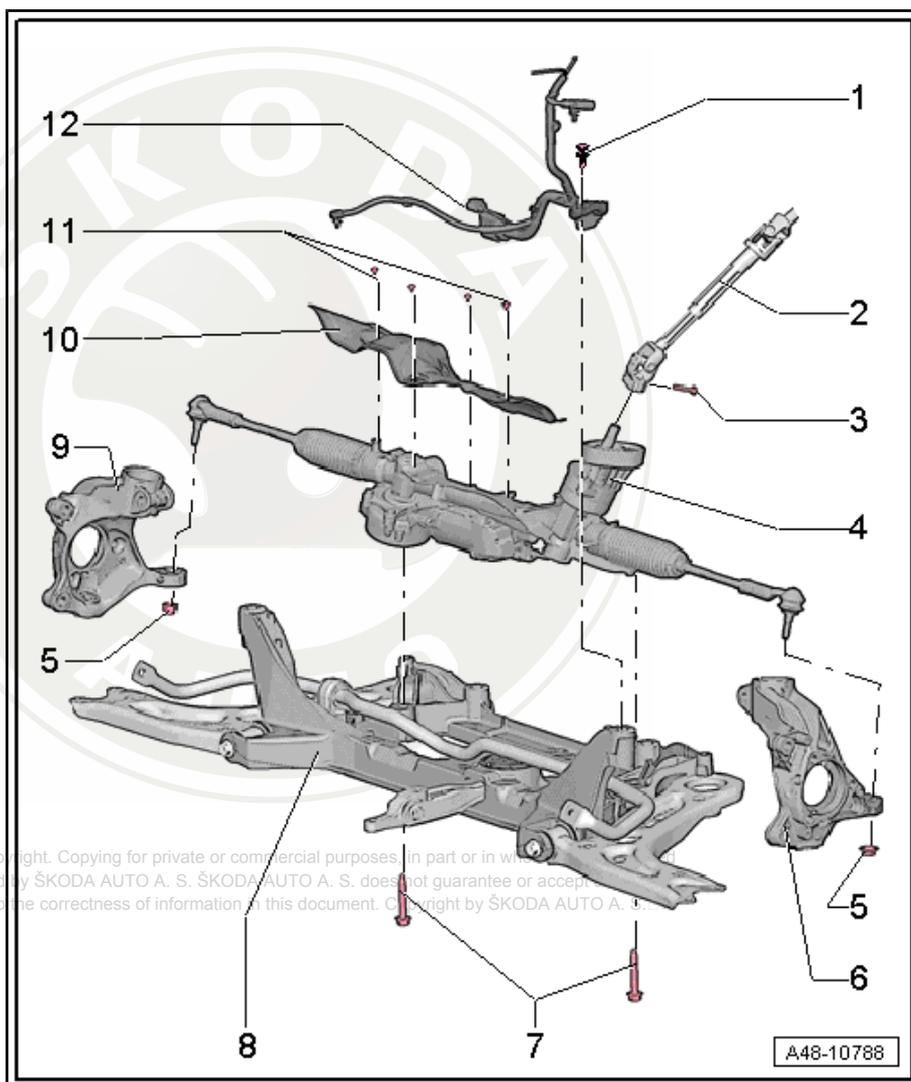
- replace after each removal

8 - Assembly carrier

9 - Wheel-bearing housing

10 - Heat shield

- Assignment ⇒ Electronic Catalogue of Original Parts



11 - Screw, 8 Nm

- Assignment ⇒ Electronic Catalogue of Original Parts

12 - Wiring loom

3.2 Summary of components - steering gear- right-hand drive

1 - Wiring loom

2 - Expanding rivet

3 - Steering gear

- removing and installing ⇒ [page 288](#)
- with power-assisted steering control unit - J500-
- The steering angle sender - G85- is integrated in the steering gear and cannot be replaced separately
- check in the targeted fault finding ⇒ Vehicle diagnostic tester
- after installing a new power-steering gear, adapt the steering angle sender - G85- ⇒ Vehicle diagnostic tester
- adapt the power-assisted steering control unit - J500- after installing a new power-steering gear ⇒ Vehicle diagnostic tester

4 - Wheel-bearing housing

5 - Nut, 20 Nm + 90°

- replace after each removal

6 - Assembly carrier

7 - Screw, 70 Nm + 90°

- replace after each removal

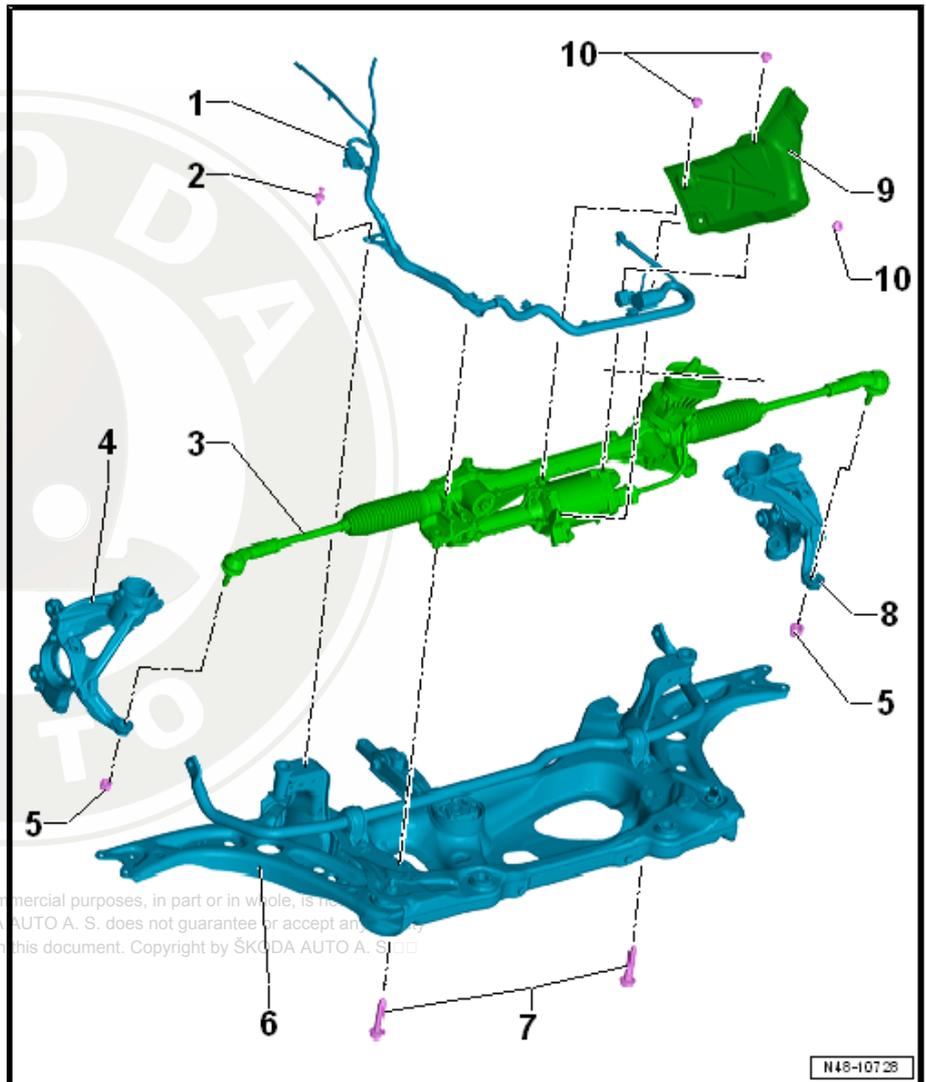
8 - Wheel-bearing housing

9 - Heat shield

- Assignment ⇒ Electronic Catalogue of Original Parts

10 - Screw, 8 Nm

- Assignment ⇒ Electronic Catalogue of Original Parts



3.3 Removing and installing steering gear - left-hand drive

Removing

Special tools and workshop equipment required

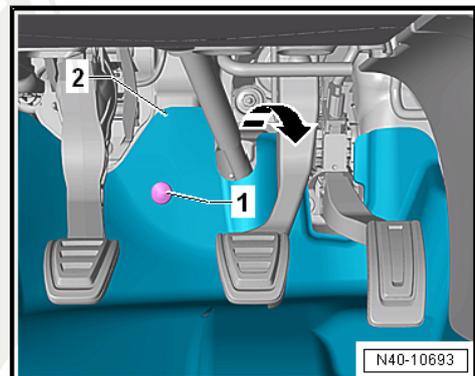


- ◆ Engine/gearbox jack , e.g. -V.A.G 1383A-
- ◆ Ball joint extractor - 3287 A-

Secure the steering wheel with the wheels in straight ahead position with adhesive tape -arrow- against unintended turning.

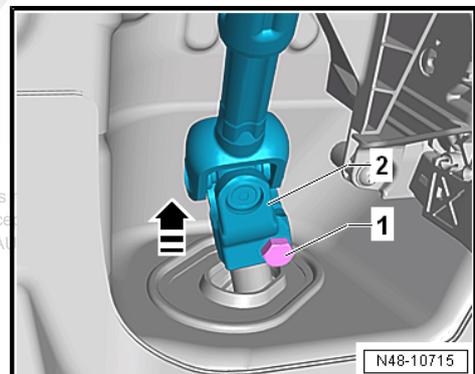


Unscrew the fixing nut -1- and pull off the foot mat in -direction of arrow-.

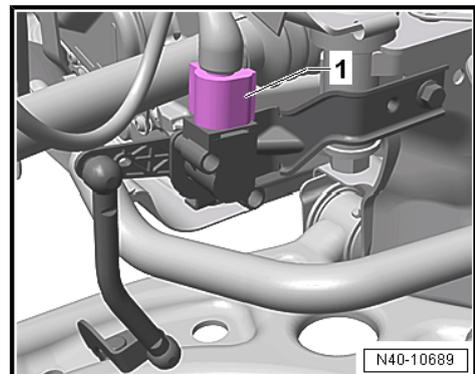


Unscrew the fixing screw -1- and remove the universal joint -2- from the steering gear.

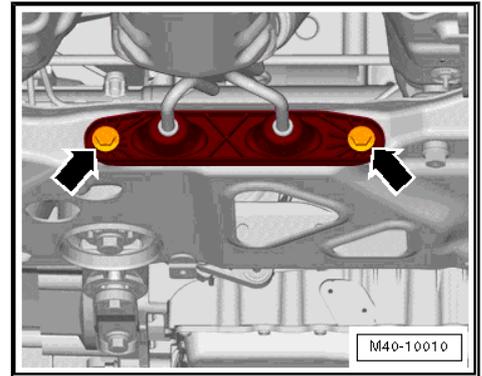
- Disconnect battery ⇒ Electrical System; Rep. gr. 27 .
- Remove front wheels.
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50



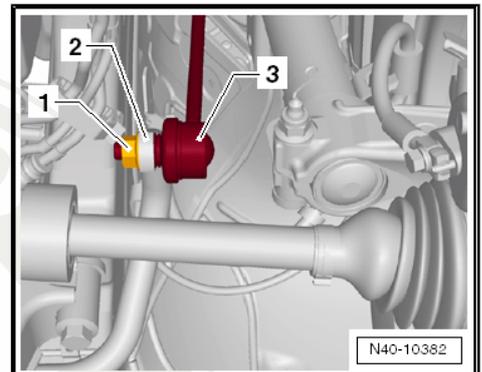
- For vehicles fitted with automatic headlight range control, disconnect the plug from the front left vehicle level sensor - G78- .



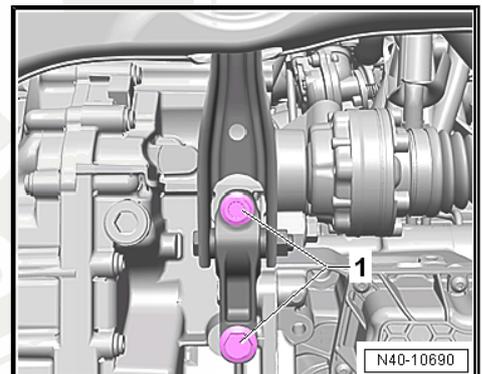
- Unbolt bracket for exhaust system -arrows- from assembly carrier.



- Remove the coupling rods -3- from the anti-roll bar -2- on both vehicle sides.

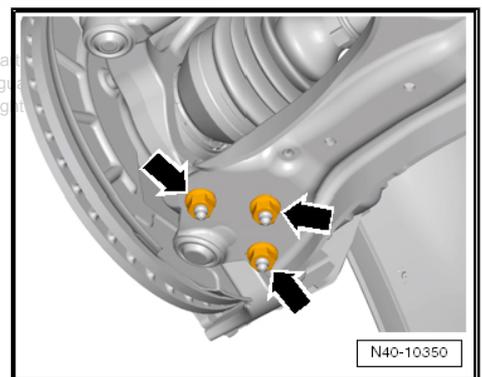


- Remove pendulum support from gearbox, to do so release bolts -1-.



- Unscrew the nuts for the track control arm -arrows-.

- Loosen nut of track rod end on both sides, but do not unscrew yet.

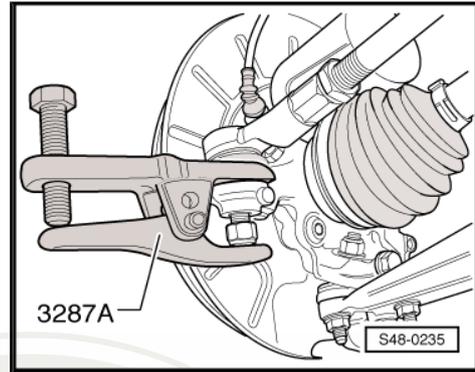


 **Note**

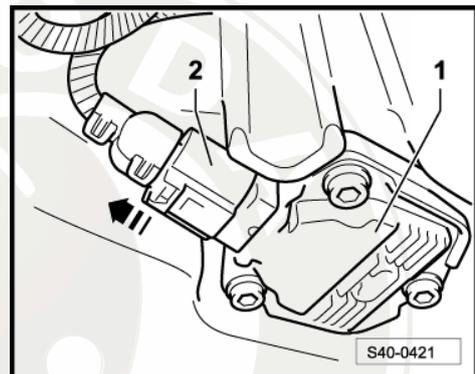
To protect the thread, screw the nut a couple of thread turns onto the stud of the track rod end.



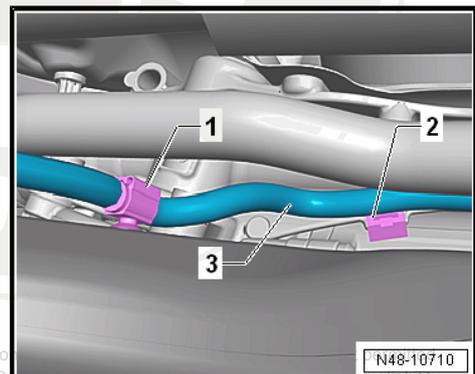
- Remove the steering joint/track rod from the wheel-bearing housing with the ball joint extractor - 3287A- .
- Unscrew nut for steering joint/track rod.



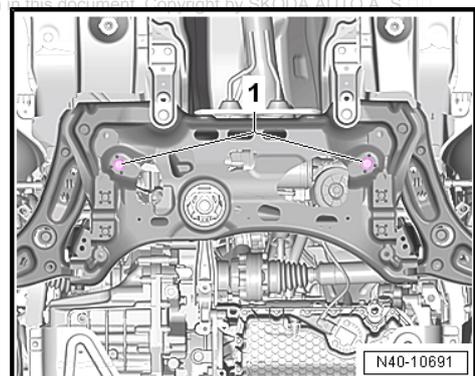
- Disconnect plug -2- for oil level and oil temperature sender - G266- -1-, if present.



- Unclip the wiring loom -3- -1- and detach the clamp -2- from the steering gear.

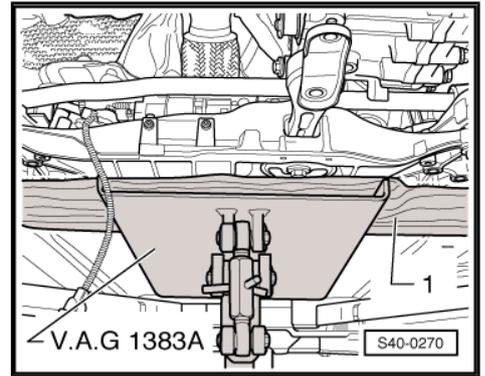


- Release screws -1- for steering gear.



Protected by copyright. Copying for private or company use without the written permission of ŠKODA AUTO A. S. ŠKODA AUTO A. S. is not responsible for the correctness of information in this document. Copyright by ŠKODA AUTO A. S. 2013

- Position the engine/gearbox jack , e.g. -V.A.G 1383A- , under the assembly carrier.
- For example place a piece of wood -1- between the engine/ gearbox jack e.g. -V.A.G 1383A- and the assembly carrier.
- Fix the assembly carrier => [page 5](#) and lower it by max. 10 cm.

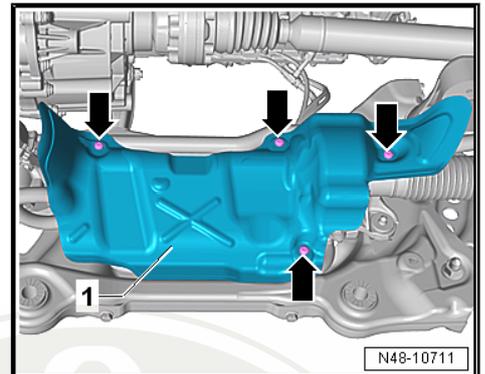


- Release screws -arrows- and remove heat shield -1-.

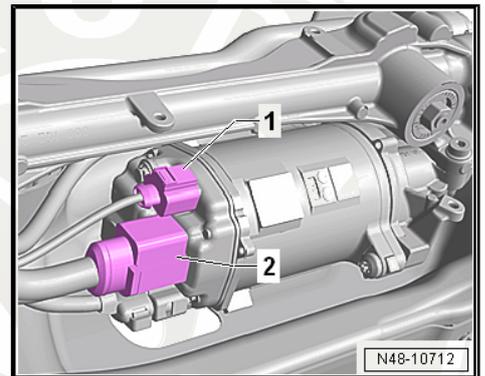


Note

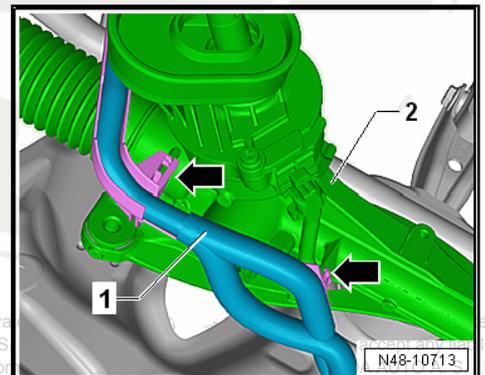
*The version of the heat shield depends on the vehicle equipment.
 Assignment: => Electronic Catalogue of Original Parts .*



- Disconnect plug -1- and aerial cable -2-.



- Loosen bracket -arrows- for wiring loom from steering gear.
- Detach the wiring loom -1- from the steering gear -2-.



Protected by copyright. Copying for private use is permitted without the prior written permission of SKODA AUTO A. S. with respect to the correctness of information.



- Pull out the expanding rivet -arrow-.
- Lower assembly carrier.
- Carefully lever off the steering gear from the assembly carrier.
- Remove steering gear towards the rear.

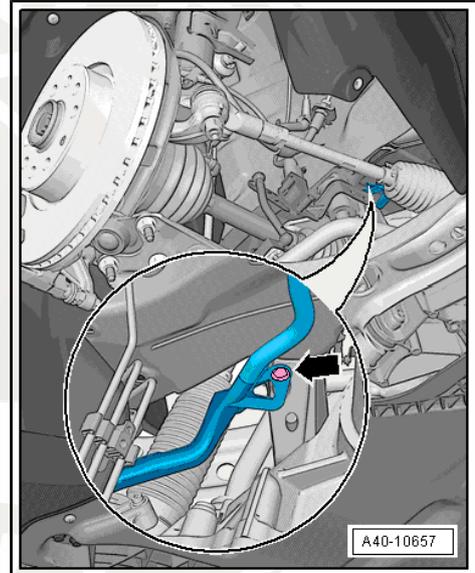
Install

Installation is carried out in the reverse order.



Note

- ◆ Coat the sealing sleeve on the steering gear with lubricant, e.g. lubricating soap, before installing the steering gear.
- ◆ When installing, make sure the steering gear boot is neither damaged nor twisted.
- ◆ It is necessary to perform an axle alignment in the event of:
[=> page 237 .](#)



- Perform a test drive.
- Check the steering wheel position during the test drive.



Note

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

If after the test drive and with the wheels pointing straight ahead the steering wheel is off straight, perform an axle alignment
[=> page 234 .](#)



Tightening torques:

Assembly carrier to body ◆ Use new bolts	70 Nm + 180°
Steering gear to assembly carrier ◆ Use new bolts	70 Nm + 90°
Track rod end to wheel-bearing housing ◆ Counterhold the internal serration of the pivot pin	20 Nm + 90°
Universal joint to steering gear ◆ Use new screw!	20 Nm + 90°
Anti-roll bar to assembly carrier ◆ Use new bolts	20 Nm + 180°
Heat shield to steering gear	8 Nm
Coupling rod ◆ Counterhold the internal serration of the pivot pin	65 Nm
Coupling rod for front left vehicle level sensor - G78- to track control arm	8 Nm
Steering joint to track control arm	100 Nm
Wheel bolts	120 Nm
Pendulum support to gearbox ⇒ Engine; Rep. gr. 10	
Bracket for exhaust system to assembly carrier ⇒ Engine; Rep. gr. 26	

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

3.4 Removing and installing steering gear - right-hand drive

Removing

Special tools and workshop equipment required

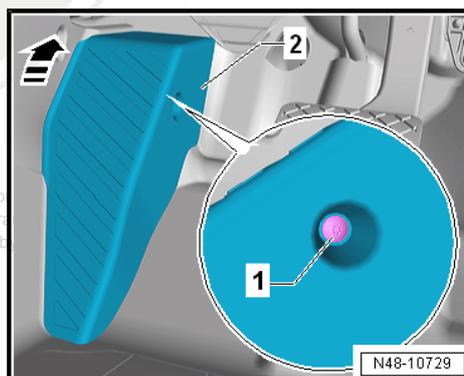
- ◆ Engine/gearbox jack , e.g. -V.A.G 1383A-
- ◆ Ball joint extractor - 3287 A-

Secure the steering wheel with the wheels in straight ahead position with adhesive tape -arrow- against unintended turning.

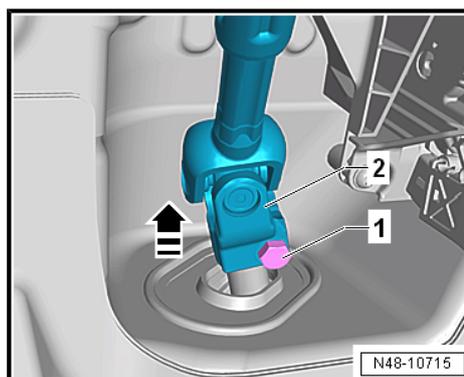


- Release screw -1-.
- Unscrew bearing bolt -in direction of the arrow -.

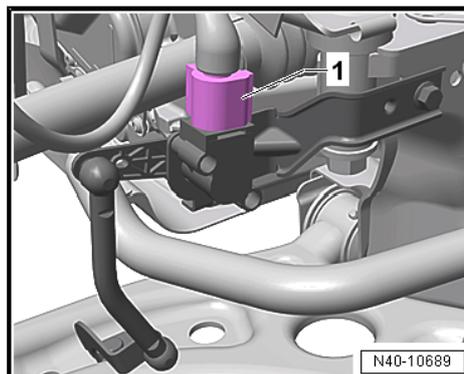
Protected by copyright. Copying for private or commercial purposes, in part or in full, without the written permission of ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee the correctness of information in this document. Copyright © 2013 ŠKODA AUTO A. S.



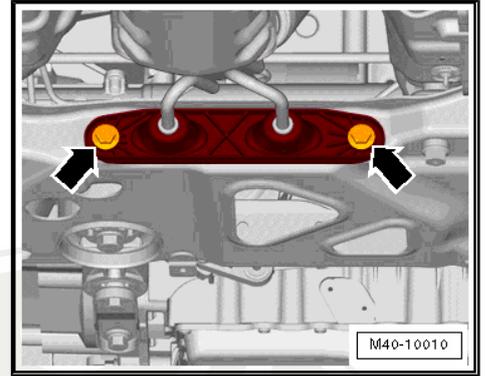
- Unscrew the fixing screw -1- and remove the universal joint -2- from the steering gear.
- Disconnect battery ⇒ Electrical System; Rep. gr. 27 .
- Remove front wheels.
- Remove the sound dampening system ⇒ Body Work; Rep. gr. 50 .



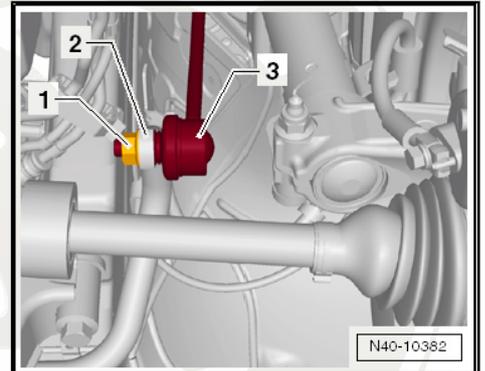
- For vehicles fitted with automatic headlight range control, disconnect the plug from the front left vehicle level sensor - G78- .



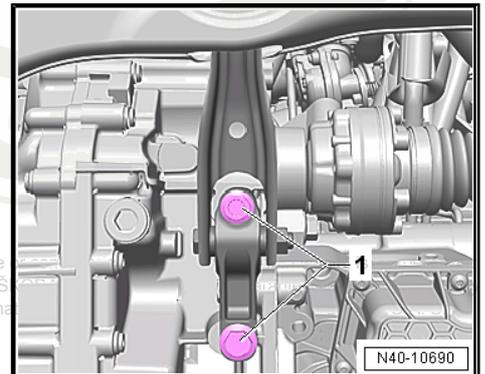
- Unbolt bracket for exhaust system -arrows- from assembly carrier.



- Remove the coupling rods -3- from the anti-roll bar -2- on both vehicle sides.



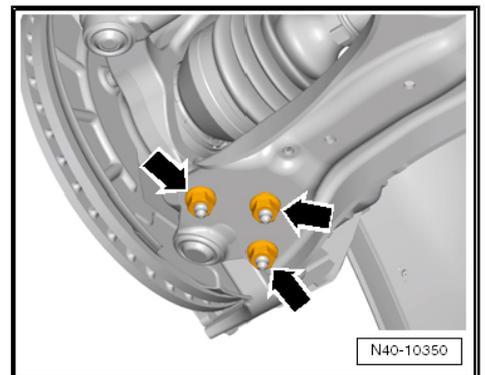
- Remove pendulum support from gearbox, to do so release bolts -1-.



- Unscrew the nuts for the track control arm -arrows-.
- Loosen nut of track rod end on both sides, but do not unscrew yet.

Note

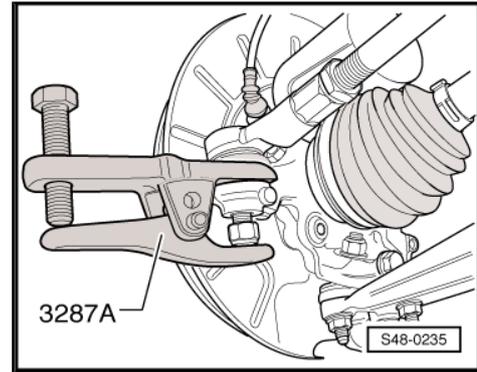
To protect the thread, screw the nut a couple of thread turns onto the stud of the track rod end.



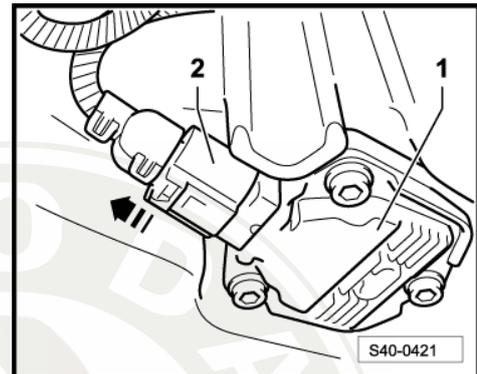
Protected by copyright. Copying for private use
unless authorised by ŠKODA AUTO A. S. S
with respect to the correctness of informa



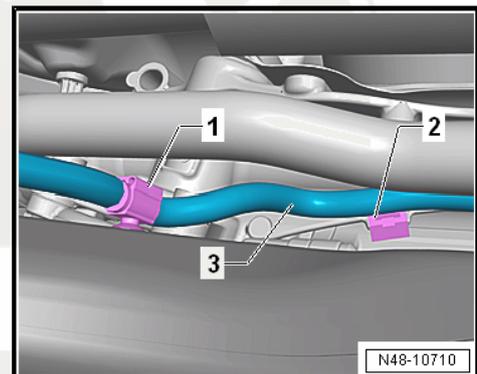
- Remove the steering joint/track rod from the wheel-bearing housing with the ball joint extractor - 3287A- .
- Unscrew nut for steering joint/track rod.



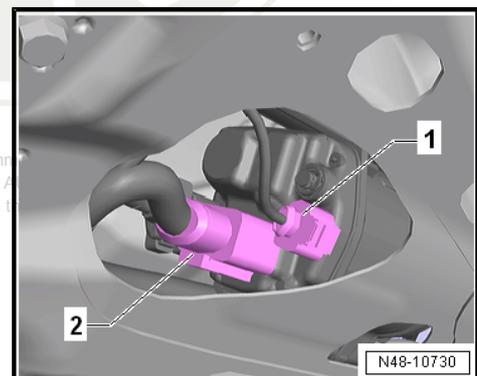
- Disconnect plug -2- for oil level and oil temperature sender - G266- -1-, if present.
- Remove connector for heating backup pump - V488- if present.



- Unclip the wiring loom -3- -1- and detach the clamp -2- from the steering gear.

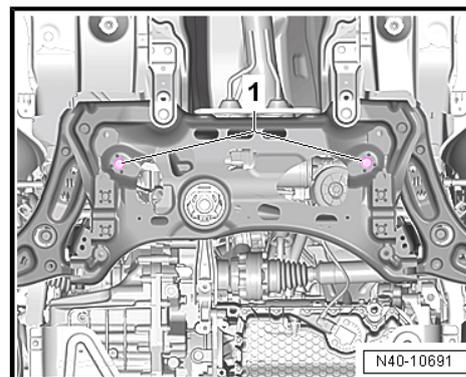


- Disconnect the plug connections -1- and -2- to the steering gear.

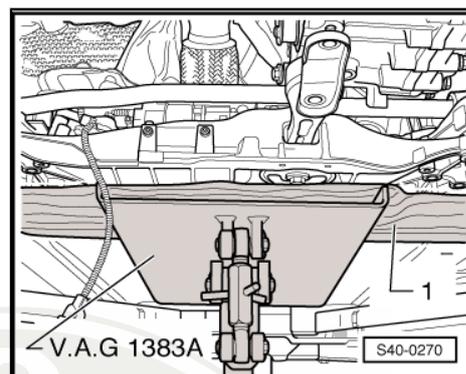


Protected by copyright. Copying for private or commercial use is prohibited unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. reserves the right with respect to the correctness of information in this document.

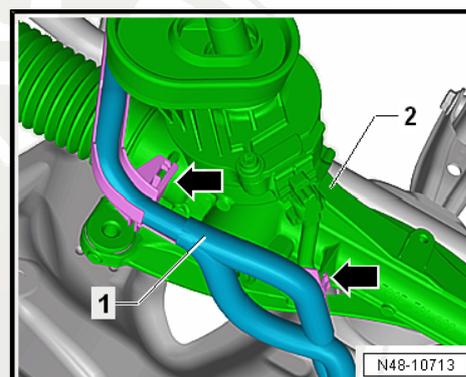
- Release screws -1- for steering gear.



- Position the engine/gearbox jack , e.g. -V.A.G 1383A- , under the assembly carrier.
- For example place a piece of wood -1- between the engine/ gearbox jack e.g. -V.A.G 1383A- and the assembly carrier.
- Fix the assembly carrier => [page 5](#) .
- Lower subframe no more than 10 cm.



- Loosen bracket -arrows- for wiring loom from steering gear.
- Detach the wiring loom -1- from the steering gear -2-.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



- Pull out the expanding rivet -arrow-.
- Lower assembly carrier.
- Carefully lever off the steering gear from the assembly carrier.
- Remove steering gear towards the rear.

Install

Installation is carried out in the reverse order.



Note

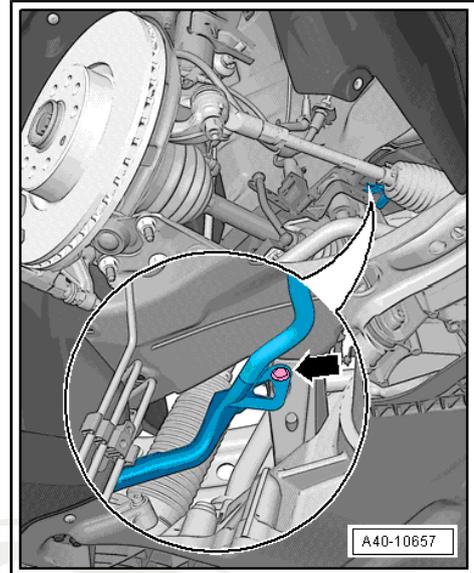
- ◆ Coat the sealing sleeve on the steering gear with lubricant, e.g. lubricating soap, before installing the steering gear.
- ◆ When installing, make sure the steering gear boot is neither damaged nor twisted.
- ◆ It is necessary to perform an axle alignment in the event of:
[⇒ page 237](#) .

- Perform a test drive.
- Check the steering wheel position during the test drive.



Note

If after the test drive and with the wheels pointing straight ahead the steering wheel is off straight, perform an axle alignment
[⇒ page 234](#) .





Tightening torques:

Assembly carrier to body ◆ Use new bolts	70 Nm + 180°
Steering gear to assembly carrier ◆ Use new bolts	70 Nm + 90°
Track rod end to wheel-bearing housing ◆ Counterhold the internal serration of the pivot pin	20 Nm + 90°
Universal joint to steering gear ◆ Use new screw!	20 Nm + 90°
Anti-roll bar to assembly carrier ◆ Use new bolts	20 Nm + 180°
Heat shield to steering gear	8 Nm
Coupling rod ◆ Counterhold the internal serration of the pivot pin	65 Nm
Coupling rod for front left vehicle level sensor - G78- to track control arm	8 Nm
Steering joint to track control arm	100 Nm
Wheel bolts	120 Nm
Pendulum support to gearbox ⇒ Engine; Rep. gr. 10	
Bracket for exhaust system to assembly carrier ⇒ Engine; Rep. gr. 26	

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □

4 Repairing electro-mechanical steering gear

Removing and installing bellows ⇒ [page 295](#)

Removing and installing track rod ⇒ [page 299](#)

Removing and installing track rod end ⇒ [page 303](#)

1 - Right track rod end

- Inspect dust caps for damage and check that they are sitting correctly.

if a track rod end was replaced or removed and installed, the vehicle must be aligned ⇒ [page 234](#)

- Assignment ⇒ Electronic Catalogue of Original Parts

2 - Nut, 70 Nm

- When tightening the nut, the track rod end must be counterheld with a wrench.

3 - Spring clip

4 - Bellows

- check for damage
- must not be twisted after setting the wheel toe

5 - Open warm-type clamp

- replace after each removal
- Clamp new open warm-type clamp with clamp pliers for steering gear e. g. -VAS 6199-

6 - Track rod, 100 Nm

- removing and installing ⇒ [page 299](#)

7 - Steering gear

- with power-assisted steering control unit - J500-
- can be checked with ⇒ Vehicle diagnostic tester
- removing and installing ⇒ [page 281](#)
- the steering angle sender -G85- is integrated in the steering gear and cannot be replaced separately

8 - Left track rod end

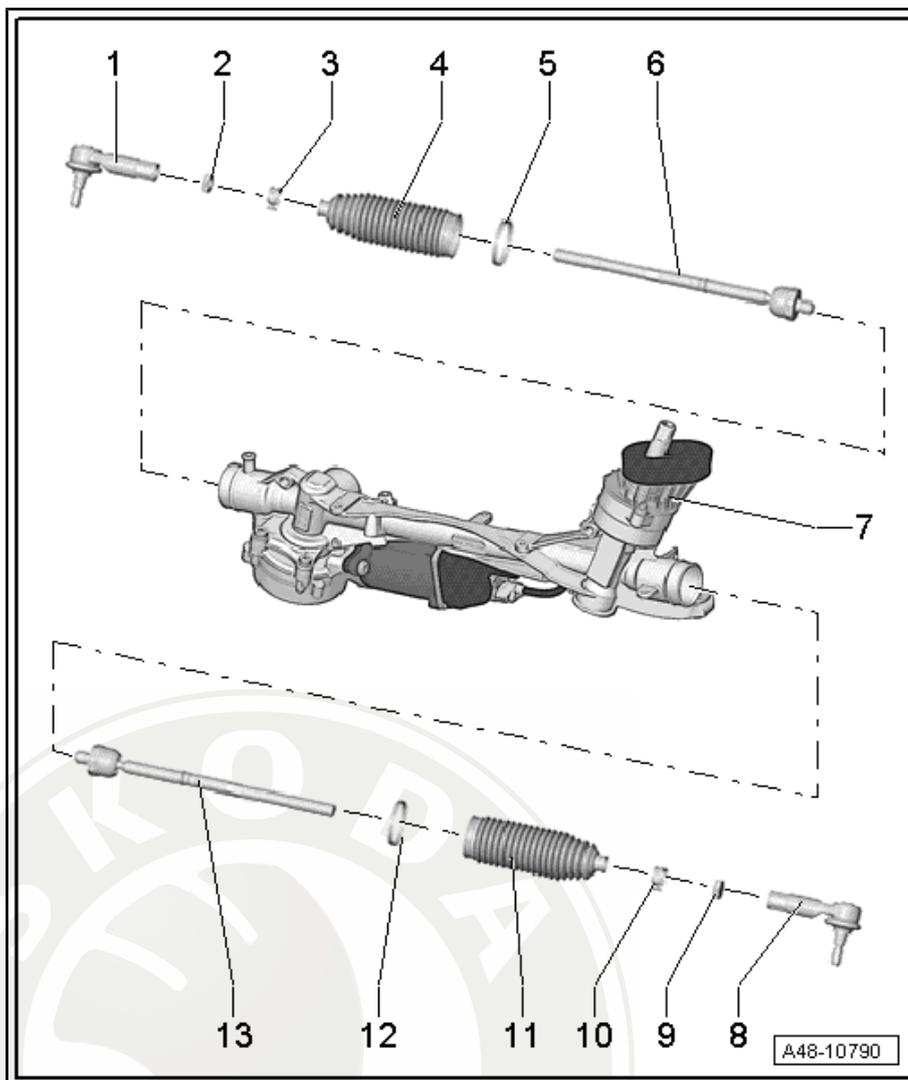
- Inspect dust caps for damage and check that they are sitting correctly.

if a track rod end was replaced or removed and installed, the vehicle must be aligned ⇒ [page 234](#)

- Assignment ⇒ Electronic Catalogue of Original Parts

9 - Nut, 70 Nm

- When tightening the nut, the track rod end must be counterheld with a wrench.





10 - Spring clip

11 - Bellows

- check for damage
- must not be twisted after setting the wheel toe

12 - Open warm-type clamp

- replace after each removal
- Clamp new open warm-type clamp with clamp pliers for steering gear e. g. -VAS 6199-

13 - Track rod, 100 Nm

- removing and installing ⇒ [page 299](#)

4.1 Removing and installing bellows

Special tools and workshop equipment required

- ◆ Clamp pliers for steering gear , e.g. -VAS 6199-
- ◆ Hose strap pliers , e.g. -V.A.G 1275-

Removing bellows:



Note

If bellows are defective humidity and dirt penetrates into the steering gear. In the area of the serration on the gear rack, a tangible grease film must be present. If the grease film is not present, the steering gear must be replaced. Also if there is corrosion, damage or wear to the gear rack, the steering gear must be replaced.

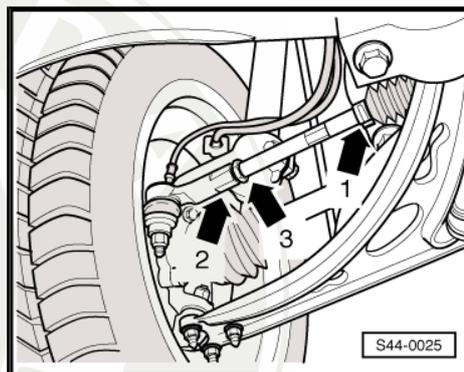
- Turn steering wheel to the straight ahead position.
- Remove wheel.
- Clean outside of steering gear in the area of the bellows.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



While doing so, no dirt must get into the steering gear through the defective bellows.

- Mark the position of the nut -3- on the track rod.
- Release nut -3- while counterholding the track rod end -2-.
- Release the spring clip -1- with the hose binding claw - V.A.G 1275- from the bellows and slide the spring clip onto the track rod.
- Remove warm-type clamp and pull off bellows from steering gear housing.
- Rotate the track rod out of the track rod end.
- Detach the spring clip and the bellow from the track rod.



Note

- ◆ If corrosion, damage, wear or traces of dirt are visible on the gear rack, the steering gear must be replaced completely.
- ◆ If no grease film is visible on the gear rack, the steering gear must also be replaced completely.

Install bellows:

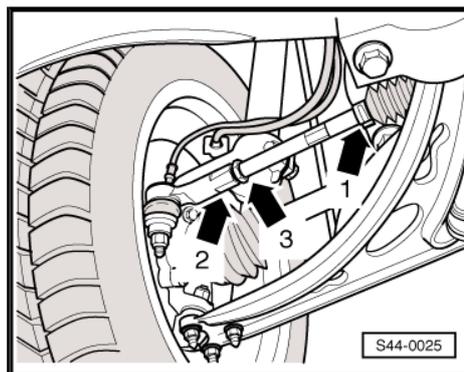


Caution

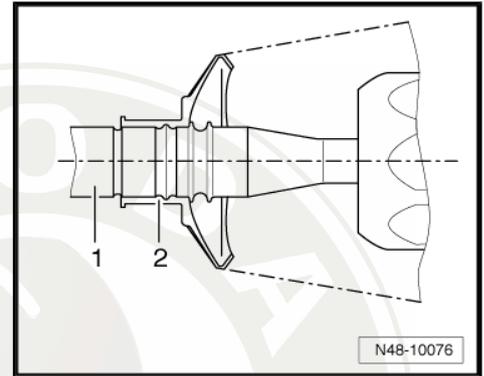
The gear rack must not be greased.

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorized by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability for the correctness of information in this document. Copyright by ŠKODA AUTO A. S. 0000

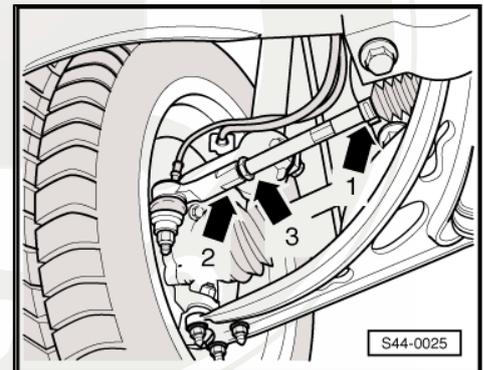
- Turn steering wheel to the straight ahead position.
- Push warm-type clamp, bellows and spring clip onto the track rod.
- Screw the track rod into the track rod end up to the marking made before the removal.
- Tighten nut -3- with a torque wrench while counterholding at the track rod end -2-.
- Lightly coat the sealing point of the bellows/track rod with grease -G 052 168 A1- .



- Slide bellows -2-, as shown in the illustration, onto the track rod -1-.



- Secure spring clip -1- onto the bellows with the hose binding claw e.g. -V.A.G 1275- .
- Lightly coat the sealing point of the bellows/steering gear housing with grease -G 052 168 A1- .
- Slide bellows onto the steering gear up to the stop.

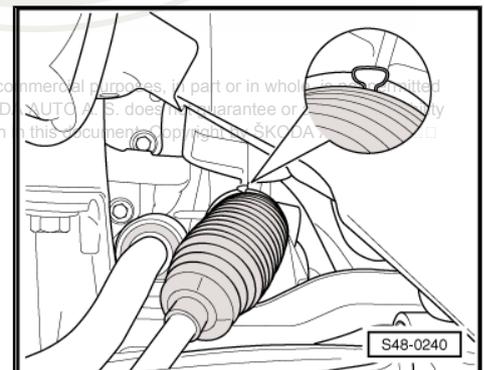


- Clamp new warm-type clamp with clamp pliers for steering gear e.g. -VAS 6199- at the steering gear as far as shown in the figure.

Further installation occurs in reverse order.

After installing, perform the axle alignment ⇒ [page 234](#) .

- Perform basic setting of the steering angle sender - G85- using ⇒ Vehicle diagnostic tester.
- Perform basic setting of the steering ⇒ Vehicle diagnostic tester.





Tightening torques:

Track rod end to track rod	70 Nm
Track rod to gear rack	100 Nm



4.2 Removing and installing track rod

Special tools and workshop equipment required

- ◆ Open-jawed wrench insert , e.g. -V.A.G 1332/8-
- ◆ Hose strap pliers , e.g. -V.A.G 1275-
- ◆ Clamp pliers , e.g. -VAS 6199-
- ◆ Ball joint extractor - 3287A-

Removing track rod:

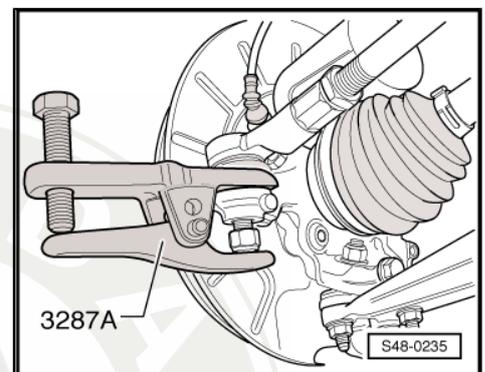
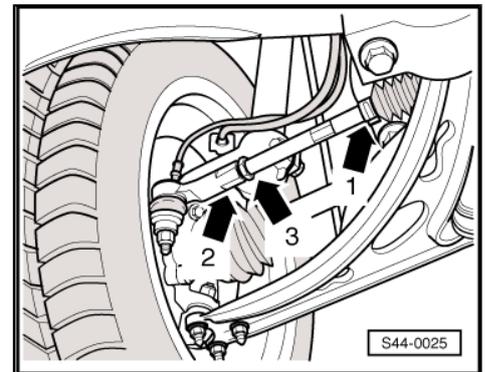
- Turn steering wheel to the straight ahead position.
- Remove wheel.
- Clean outside of steering gear in the area of the bellows.
- Release nut -3- while counterholding the track rod end -2-.
- Loosen nut of track rod end, but do not unscrew yet.



Note

To protect the thread, screw the nut a couple of thread turns onto the stud of the track rod end.

- Press the track rod end off the wheel-bearing housing with the ball joint extractor - 3287A- .
- Unscrew nut for track rod end.
- Release the spring clip -1- with the hose binding claw - V.A.G 1275- from the bellows and slide the spring clip onto the track rod.
- Remove warm-type clamp and pull off bellows from steering gear housing.
- Push the bellows with the spring clip slightly away from the steering gear.





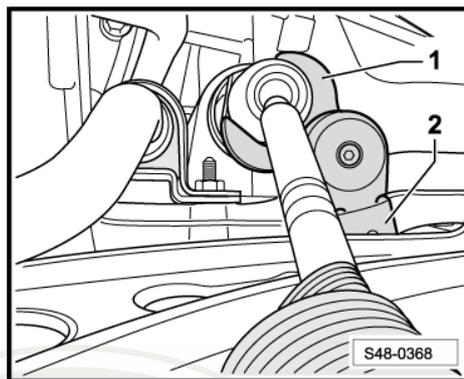
- Remove track rod from gear rack with an open-jawed wrench insert -1-.

- 1 - Open-jawed wrench insert e.g. -V.A.G 1923-
- 2 - Torque wrench



Note

- ◆ If corrosion, damage, wear or traces of dirt are visible on the gear rack, the steering gear must be replaced completely.
- ◆ If no grease film is visible on the gear rack, the steering gear must also be replaced completely.
- ◆ Inspect bellows for wear »cuts, splits«; replace if necessary.



Installing track rod:

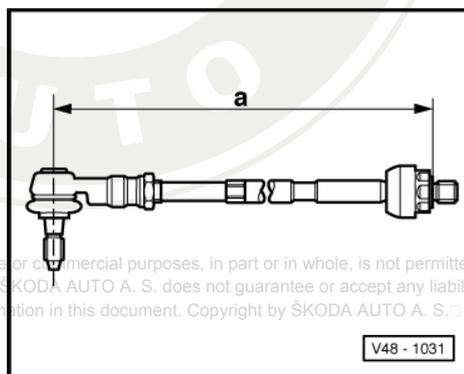


Caution

The gear rack must not be greased.

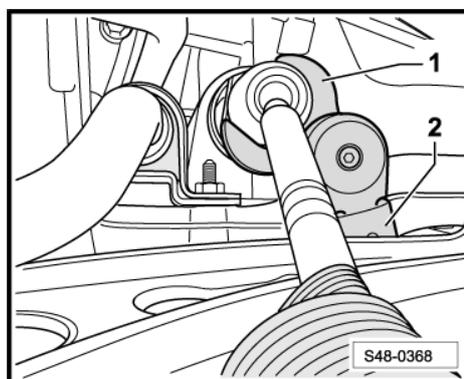
Observe different versions of the track rod end → Electronic Catalogue of Original Parts .

- Turn steering wheel to the straight ahead position.
 - Push warm-type clamp, bellows and spring clip onto the track rod.
 - Screw the track rod into the track rod end, until the dimension -a- is reached.
- a - 373 ± 1 mm

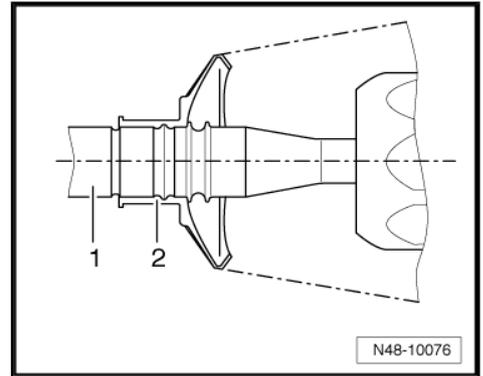


Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. ©

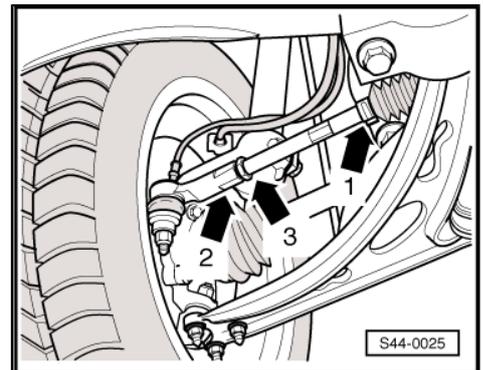
- Screw track rod into the gear rack and tighten with an open-jawed wrench insert -1-.
- 1 - Open-jawed wrench insert e.g. -V.A.G 1923-
 - 2 - Torque wrench
- Lightly coat the sealing point of the bellows/track rod with grease -G 052 168 A1- .



- Slide the bellows -2- onto the track rod -1-.



- Secure spring clip -1- onto the bellows with the hose binding claw e.g. -V.A.G 1275- .
- Lightly coat the sealing point of the bellows/steering gear housing with grease -G 052 168 A1- .
- Slide bellows onto the steering gear housing up to the stop.



- Clamp new warm-type clamp with clamp pliers for steering gear e.g. -VAS 6199- at the steering gear as far as shown in the figure.

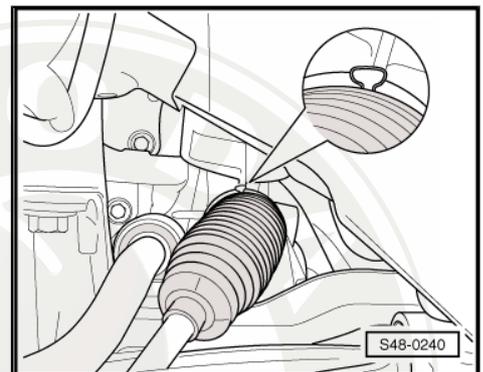
i Note

Only use original warm-type clamps for steering gear.

Further installation occurs in reverse order.

After installing, perform the axle alignment ⇒ [page 234](#) .

- Perform basic setting of the steering angle sender - G85- using ⇒ Vehicle diagnostic tester.





Tightening torques:

Track rod end to track rod	70 Nm
Track rod to gear rack	100 Nm
Track rod end to wheel-bearing housing ◆ Use new nuts! ◆ Counterhold the internal serration of the pivot pin	20 Nm + 90°

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□

4.3 Removing and installing track rod ends

Special tools and workshop equipment required

- ◆ Ball joint extractor - 3287A-

Removing:

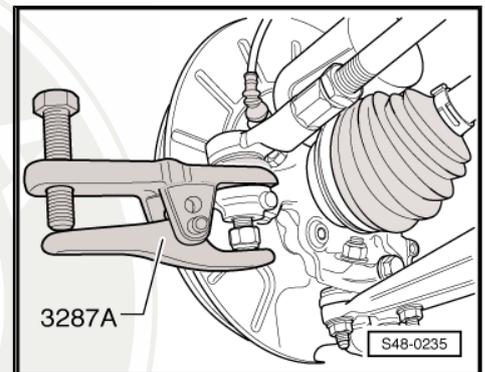
The track rod ends can be replaced with the track rods and the power steering gear installed.

- Raise vehicle.
- Remove front wheel.
- Loosen nut of track rod end, but do not unscrew yet.

Note

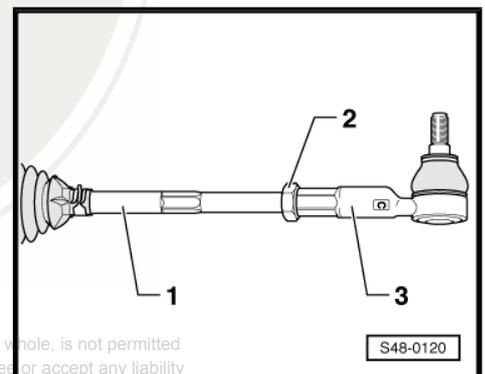
To protect the thread, screw the nut a couple of thread turns onto the stud of the track rod end.

- Remove the steering joint/track rod from the wheel-bearing housing with the ball joint extractor - 3287A- .
- Unscrew nut for steering joint/track rod.
- Pull track rod end out of steering arm.



- Release hexagon nut (lock nut) -2-.
- Unscrew track rod end -3- from track rod -1-.

The surrounding components are not shown to simplify the illustrations.



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. [D]



Installing:



Caution

Observe different versions of the track rod end => Electronic Catalogue of Original Parts .



Note

When installing pay attention to marking on the shank of the track rod end -arrow-.

I - Right track rod end - marking "A"

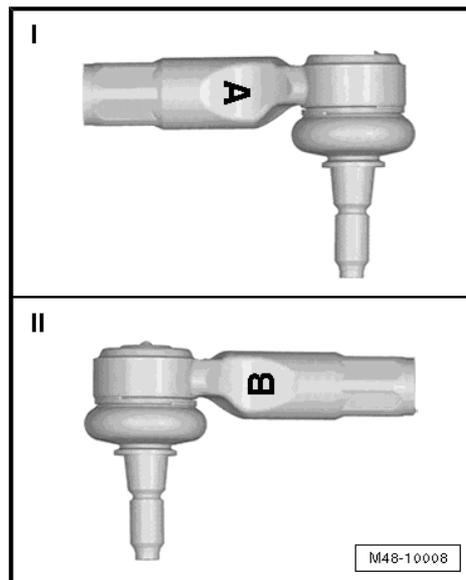
II - Left track rod end - marking "B"

- Remove grease on tapered shank of track rod end.
- Screw track rod end fully onto the track rod.
- Tighten hexagon nut (lock nut).
- Align track rod in such a way that the stud of the track rod end is in the installation position.
- Insert track rod end/track rod into steering arm and tighten hexagon nut. If the joint stub rotates when tightening, counterhold it with hexagon socket wrench
- Install front wheel.
- Lower the vehicle.
- Carry out axle alignment => [page 234](#) .
- Perform a test drive.



Caution

If after the test drive and with the front wheels pointing straight ahead the steering wheel is off straight, perform an axle alignment => [page 234](#) .





Tightening torques:

Lock nut of track rod/track-rod end	70 Nm
Hexagon nut of track rod end/track rod to steering arm ◆ Use new nuts!	20 Nm + 90°
Wheel bolts	120 Nm

Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. □□



Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by ŠKODA AUTO A. S. ŠKODA AUTO A. S. does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by ŠKODA AUTO A. S. ☐☐