

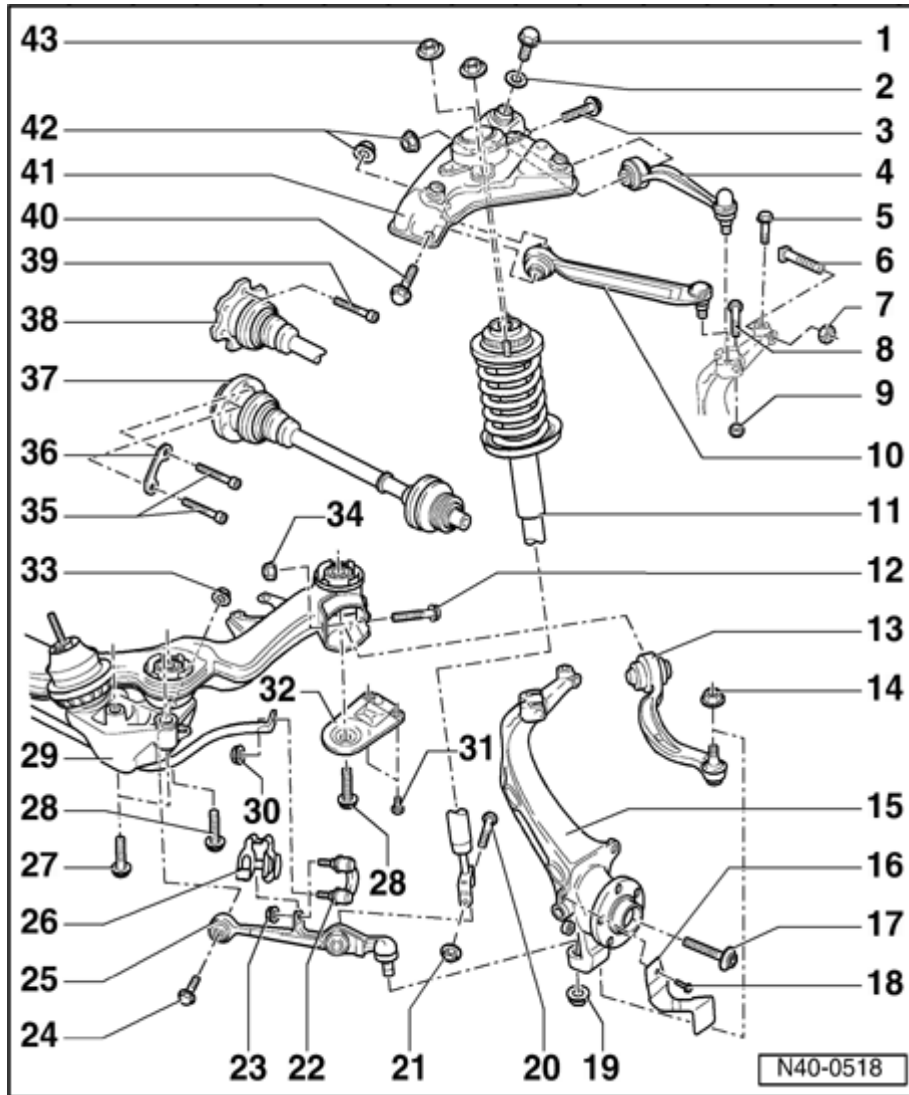
Front suspension, servicing

Notes:

- ◆ *If a vehicle has to be moved after removing the drive shaft, first install outer joint and tighten to 50 Nm otherwise the wheel bearing will be damaged.*
- ◆ *It is not permitted to carry out welding and straightening operations on load bearing suspension components or those components which locate the wheels.*
- ◆ *Always replace self-locking nuts.*
- ◆ *Always replace corroded nuts/bolts.*

1 - Hex bolt, 75 Nm

2 - Washer



3 - Hex bolt

Take note!

- ◆ Vehicles with steel mounting bracket; Bolt length M10 x 60
- ◆ Vehicles with aluminium mounting bracket; Bolt length M10 x 62
- ◆ Replace each time after removing

4 - Upper rear link

- ◆ Removing and installing ⇒ [Page 40-95](#)

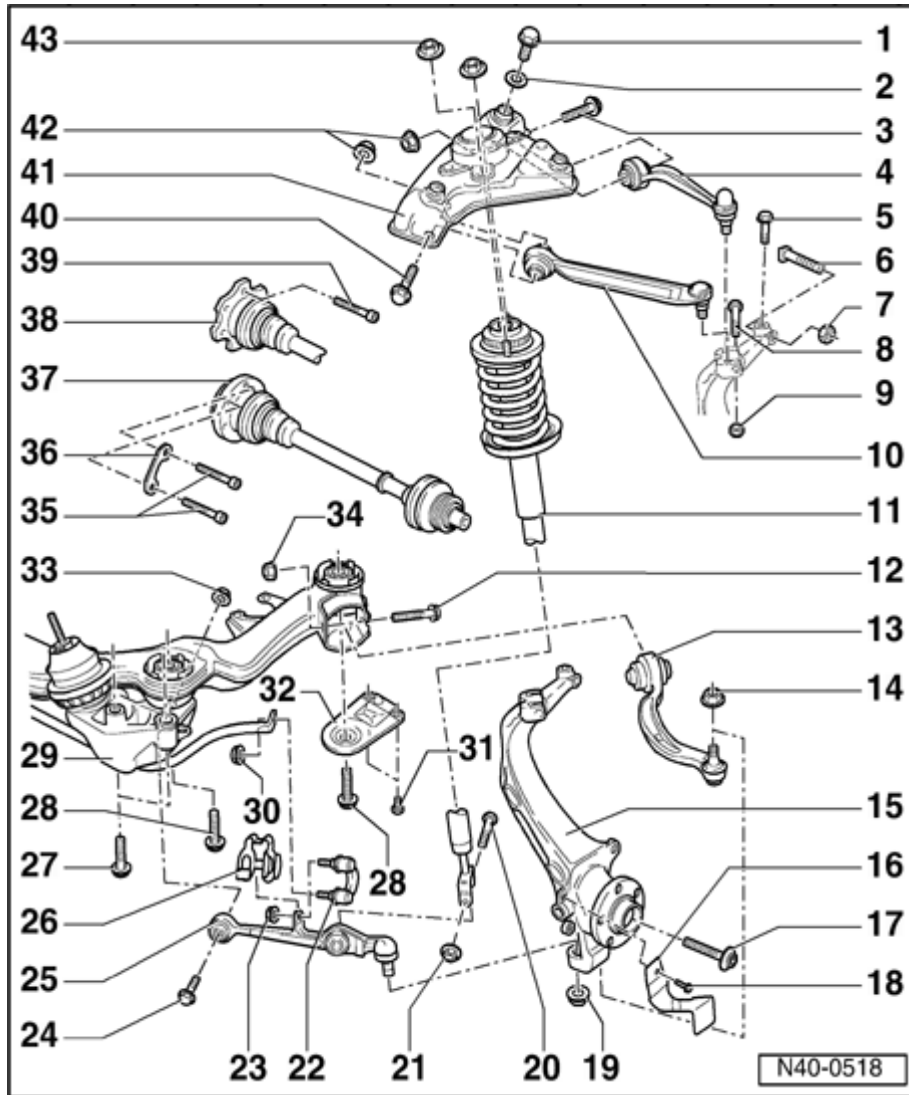
5 - Hex bolt, 7 Nm

- ◆ Replace each time after removing

6 - Bolt

7 - Self-locking nut, 50 Nm

- ◆ Replace each time after removing



8 - Hex bolt M 10 x 100

- ◆ Press out of wheel bearing housing ⇒ [Page 40-29](#)

9 - Self-locking nut, 40 Nm

- ◆ Replace each time after removing

10 - Upper front link

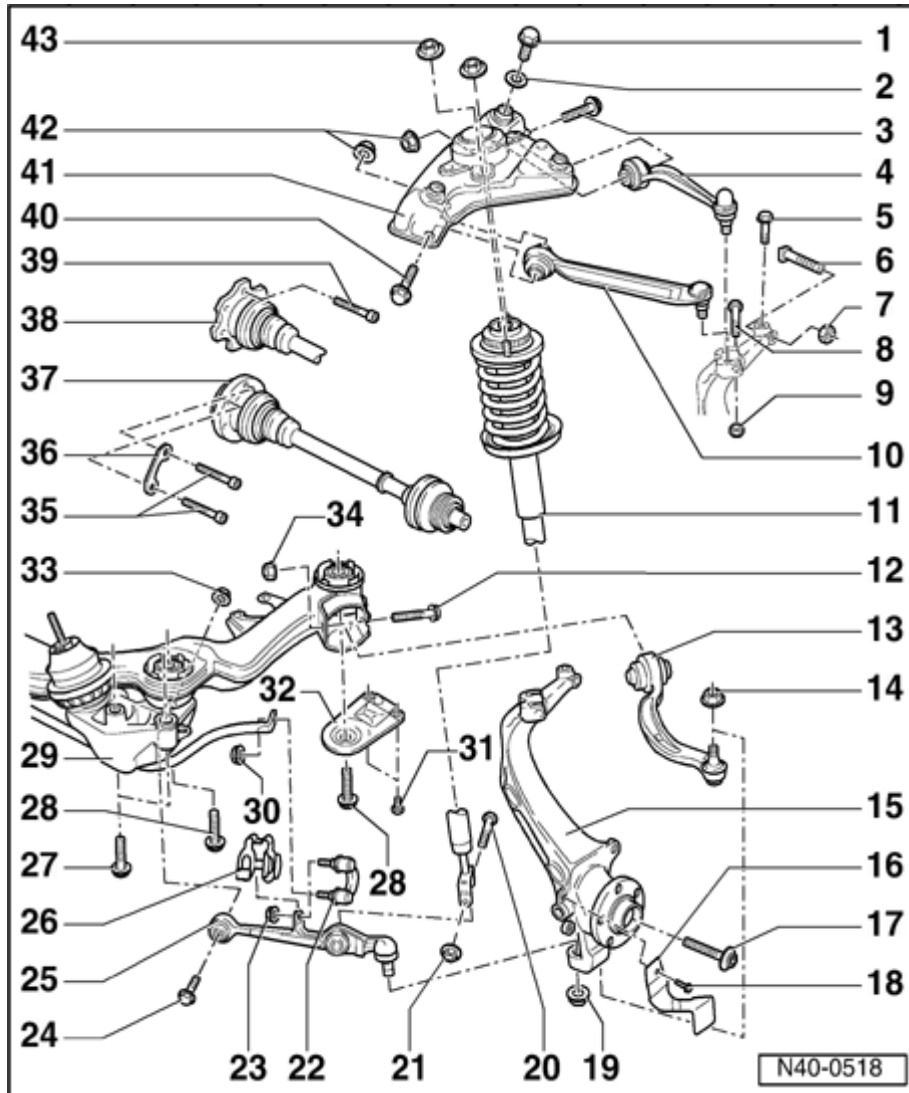
- ◆ Can only be removed together with mounting bracket
- ◆ Removing and installing ⇒ [Page 40-89](#)
- ◆ Replacing bearing ⇒ [Page 40-95](#)

11 - Suspension strut

- Allocation of coil springs to vehicle ⇒ [Page 40-40](#)

12 - Hex bolt M 12 x 1.5 x 120

- ◆ Replace each time after removing



13 - Guide link

- ◆ Removing and installing ⇒ [Page 40-81](#)

Hydro-bushing must be replaced if leaking ⇒ [Page 40-85](#)

14 - Self-locking nut, 100 Nm

- ◆ Replace each time after removing

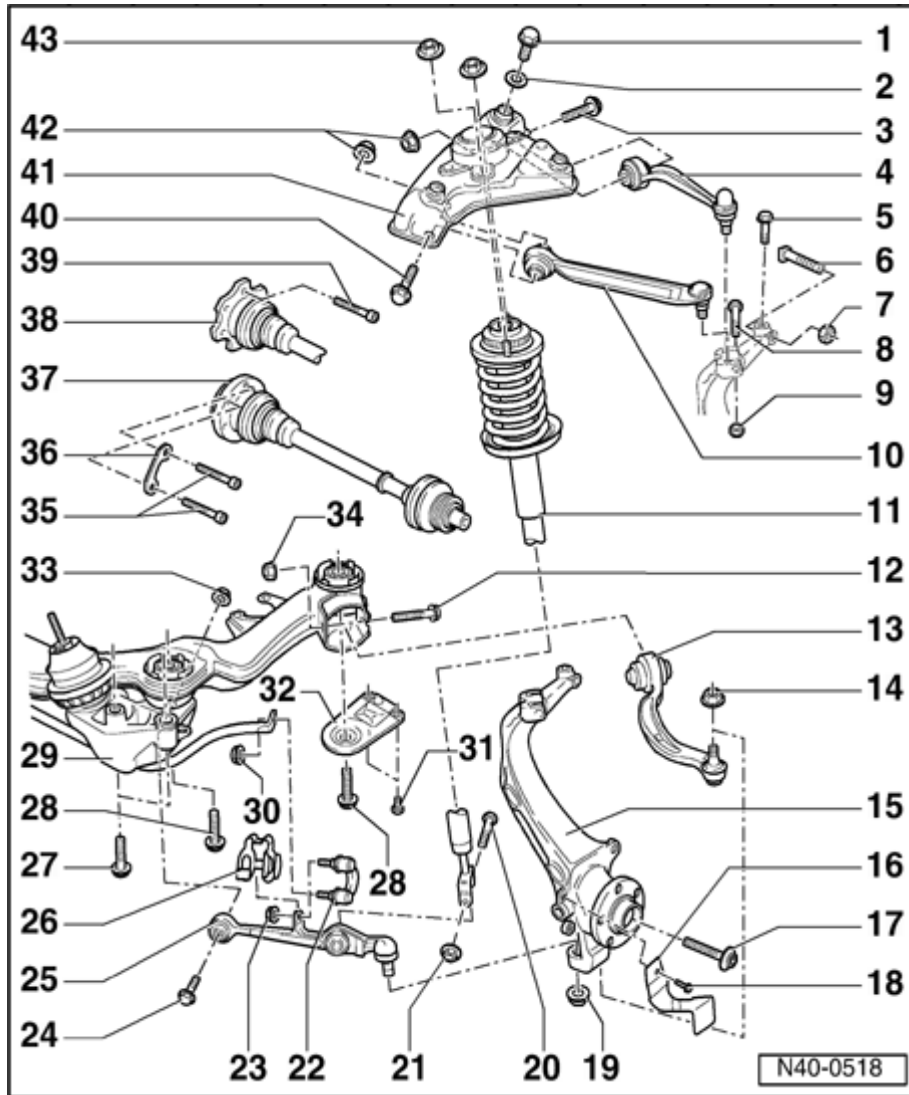
15 - Wheel bearing housing

- ◆ Removing and installing ⇒ [Page 40-47](#)
- ◆ Modification ⇒ [Page 40-23](#)

16 - Splash plate

17 - Hex head bolt

- ◆ Changed to hex key head bolt
- ◆ Replace each time after removing
- ◆ Tightening ⇒ [Page 40-116](#)



18 - Socket head bolt, 10 Nm

19 - Self-locking nut, 100 Nm

◆ Replace each time after removing

20 - Hex bolt M 12 x 1.5 x 85

21 - Self-locking nut, 90 Nm

◆ Replace each time after removing

22 - Connecting link

Arrow on connecting link points forward

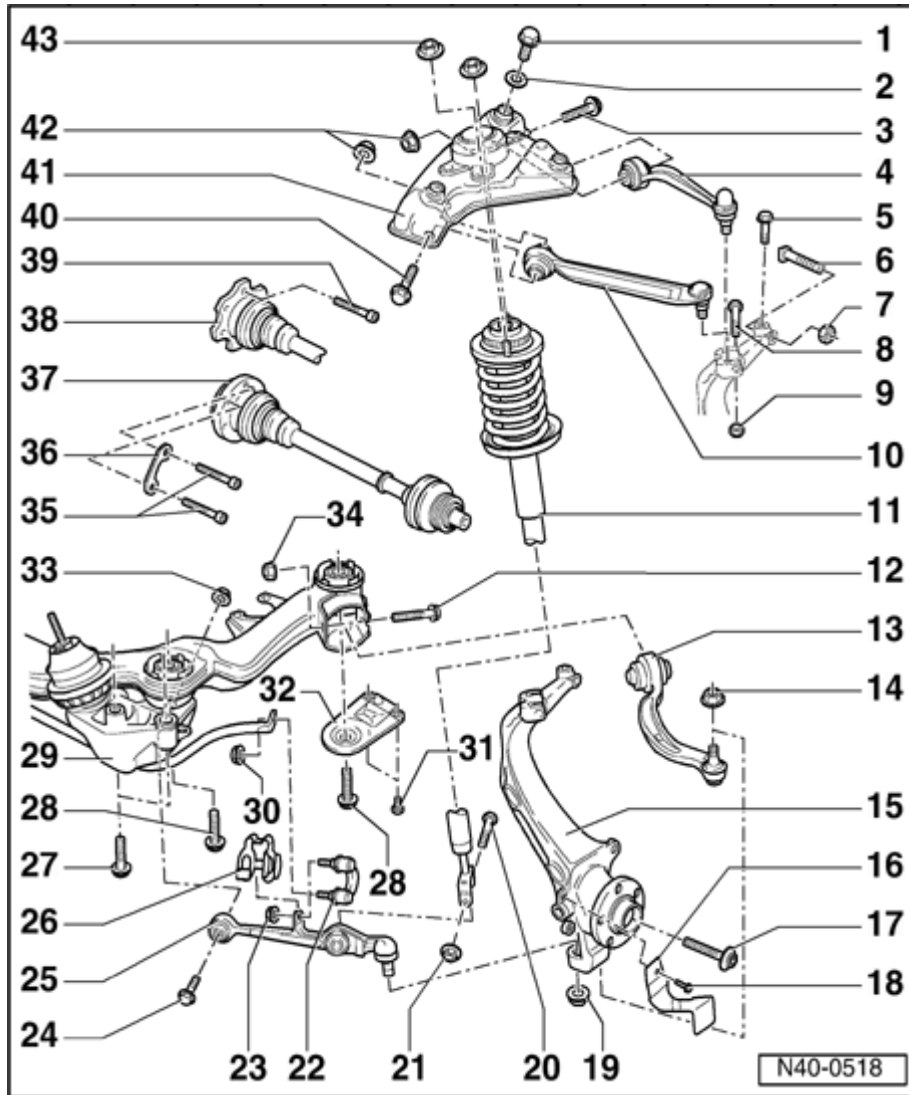
◆ Modification ⇒ [Page 40-24](#)

23 - Self-locking nut

◆ 40 Nm and turn 90° further

◆ Replace each time after removing

◆ Use self-locking nut or nut with grooves on underside depending on type



24 - Hex bolt M 12 x 1.5 x 100

- ◆ Replace each time after removing

25 - Track control link

- ◆ Removing and installing ⇒ [Page 40-72](#)
- ◆ Replacing bearing ⇒ [Page 40-77](#)

26 - Clamp

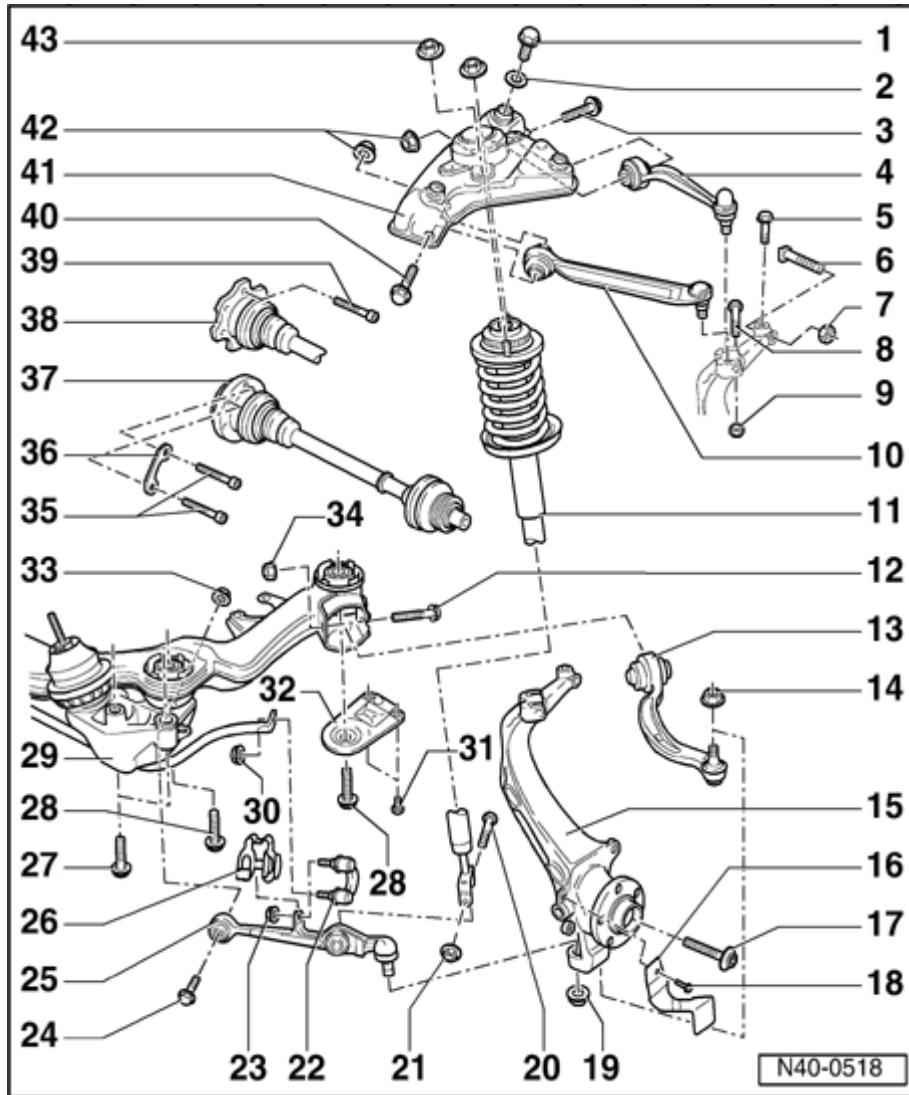
- ◆ Replace each time after removing

27 - Hex bolt, 75 Nm

- ◆ M10 x 70
- ◆ Replace each time after removing

If the welded nut threads in the cross member are damaged, the thread can be serviced with Heli-coil[®] thread insert.

Servicing threads in longitudinal member ⇒ [Page 40-27](#)



28 - Hex bolt M 12 x 1.5 x 110

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

If the welded nut threads in the cross member are damaged, the thread can be serviced with Heli-coil thread insert.

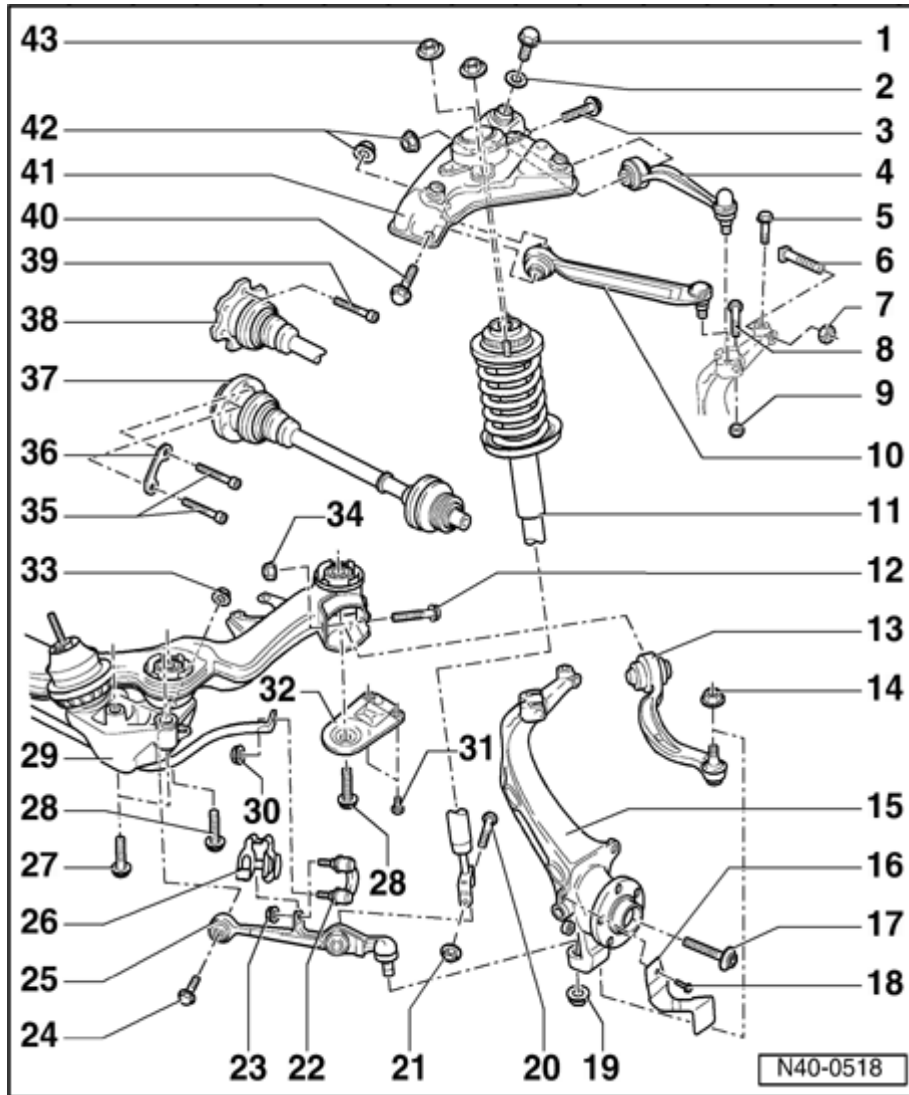
Servicing threads in longitudinal member ⇒ [Page 40-27](#)

29 - Subframe

- ◆ Removing and installing ⇒ [Page 40-98](#)

30 - Self-locking nut

- ◆ 40 Nm and turn 90° further
- ◆ Replace each time after removing
- ◆ Modification ⇒ [Page 40-24](#)



31 - Hex bolt

- ◆ M8 x 25

has been changed ⇒ [Page 40-22](#) , fig. ⇒ [1](#)

If the welded nut threads in the cross member are damaged, the thread can be serviced with Heli-coil thread insert.

Servicing threads in longitudinal member ⇒ [Page 40-27](#)

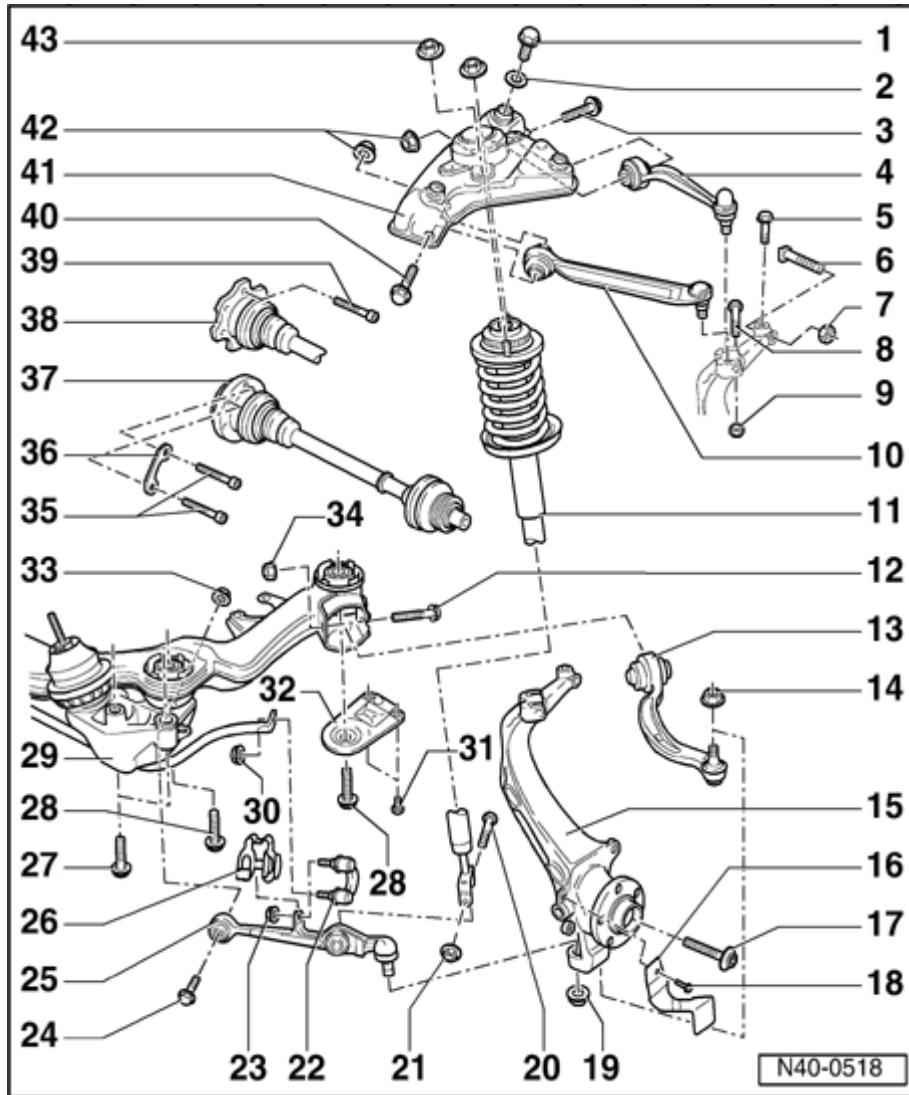
32 - Sub-frame support

33 - Self-locking nut

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

34 - Self-locking nut

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



35 - Multi-point socket head bolt

◆ ⇒ [Page 40-123](#) , item 15

36 - Backing plate

37 - Drive shaft

38 - Drive shaft with tripod roller joint

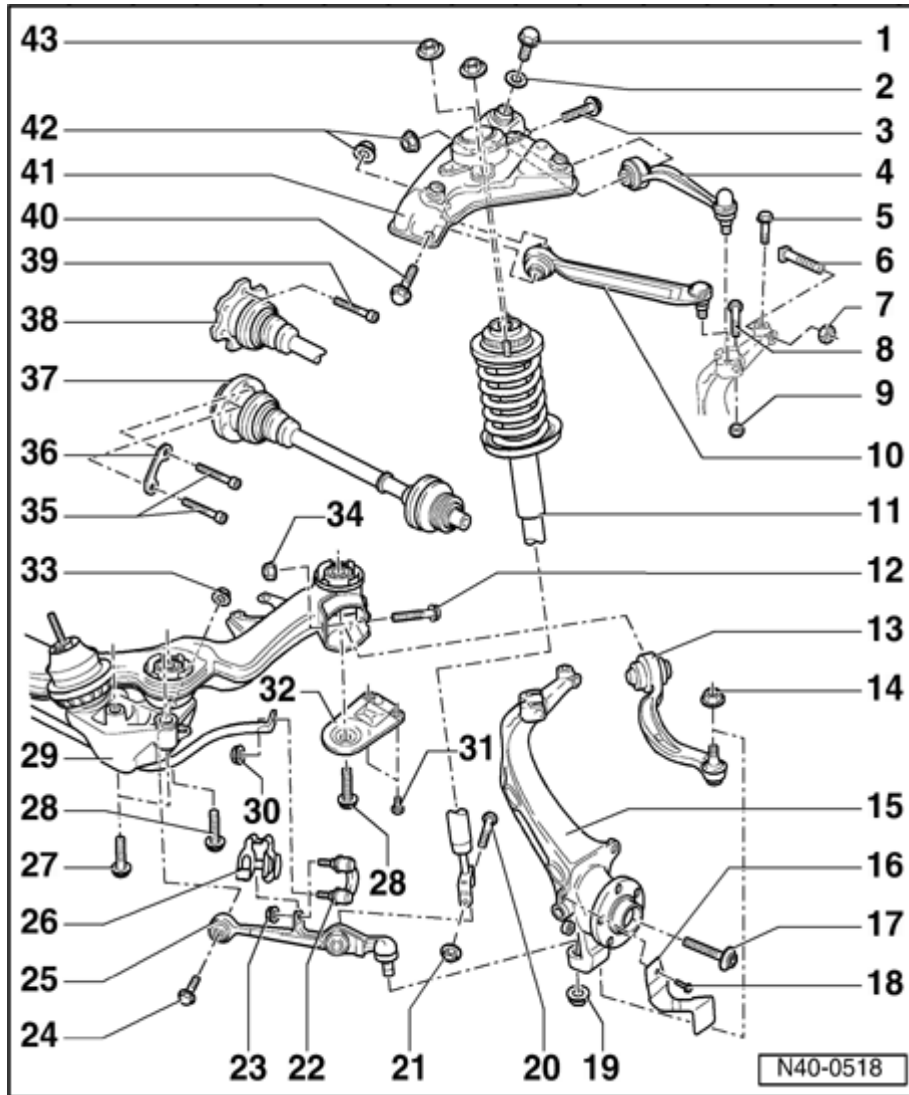
39 - Multi-point socket head bolt

◆ ⇒ [Page 40-133](#) , item 22

40 - Hex bolt

Take note!

- ◆ Vehicles with steel mounting bracket; Bolt length M10 x 60
- ◆ Vehicles with aluminium mounting bracket; Bolt length M10 x 62
- ◆ Replace each time after removing



41 - Mounting bracket

Material changed from steel to aluminium.

Installation of different types of mounting brackets is not permitted.

◆ Removing and installing ⇒ [Page 40-89](#)

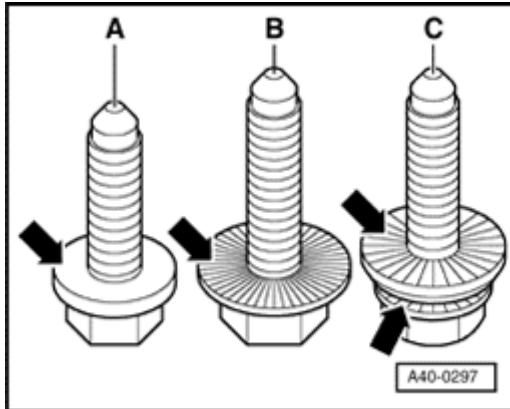
42 - Self-locking nut

◆ 50 Nm and turn 90° further

◆ Replace each time after removing

43 - Self-locking nut, 22 Nm

◆ Replace each time after removing



A

Fig. 1 Modified bolts for subframe support

The bolts for the subframe support have been changed three times since start of production.

- ◆ Bolt -A- was used at start of production.

The bolt -A- has no ribs on the underside of the washer, it is smooth.

- ◆ Then the bolt was changed to bolt -B-.

The ribbed bolt -B- has ribs on the underside -arrow-.

- ◆ From 04.99 the bolt -C- was introduced. It can be used in all vehicles.

Bolt -C- has ribs on the underside of the bolt head and the washer.

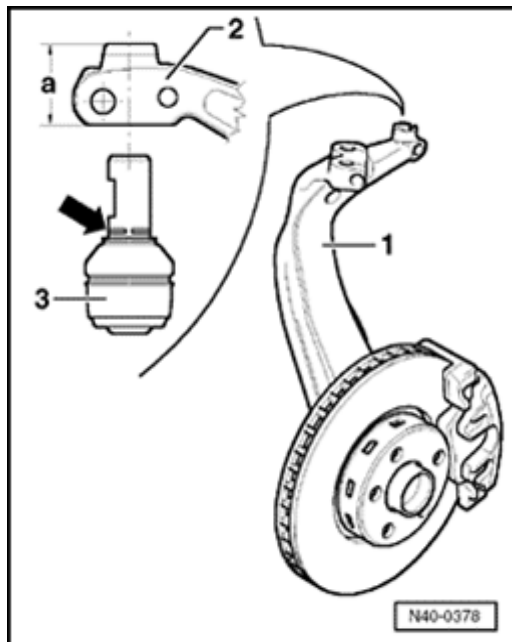
The bolts have different tightening torques.

Tightening torques:

Hex bolt -A-	25 Nm
Ribbed bolt -B-	75 Nm
Ribbed bolt -C-	30 Nm



Wheel bearing housing/track rod ends, modified



- A The wheel bearing housing -1- has been modified in the area of the mounting for the track rod ends -2-.

Dimension a; previously: 32 mm

Dimension a; new: 30 mm

Only wheel bearing housings with the modified mounting (30 mm) for the track rod ends will be supplied as a replacement part.

3 - Track rod end

with wire ring -arrow-

Only these track rod ends will be supplied as a replacement part.

The track rod ends with a wire ring can also be used with wheel bearing housing (dimension a; 32 mm).

The toe adjustment range is reduced by approx. 2 mm with this combination.

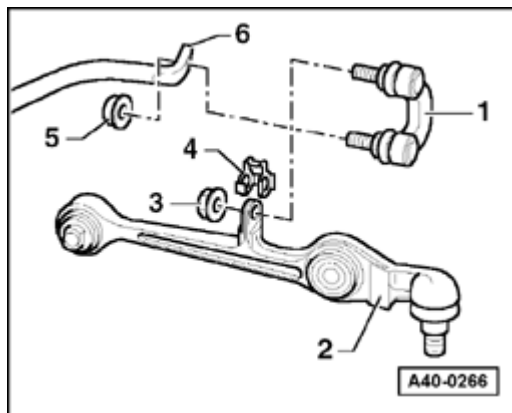
If the toe adjustment range for the track curve is not sufficient, the wire -arrow- ring can be removed.



Coupling rod for anti-roll bar, modified

The ball joint in the coupling has been changed to a rubber mounting.

The track-control link was also slightly modified.



A

Coupling rod with ball joint

1 - Coupling with ball joint

No longer installed on vehicles beginning with vehicle identity no. 3-B-X P-213 727.

2 - Track-control link

was modified.

Only the modified track-control link is still supplied as a spare part.

This track-control link can also be installed in vehicles produced prior to vehicle identity No. 3-B-X P-213 727.

In this case, the clamp -4- must also be used.

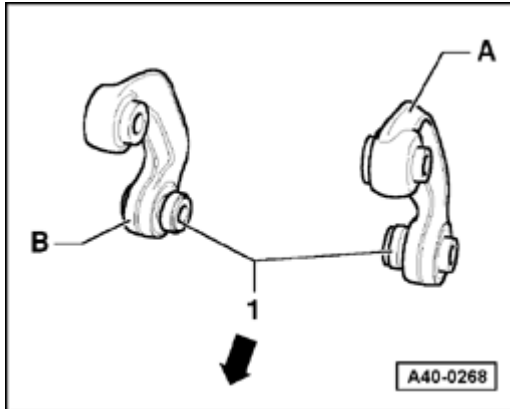
3 - Self-locking hex nut ⇒ [Page 40-16](#) , item 23

4 - Clamp

Is not installed in vehicles beginning with vehicle identity No. 3-B-X P-213 727.

5 - Self-locking hex nut; 100 Nm

6 - Anti-roll bar



A Coupling rod with bonded rubber mounting

Can be installed in vehicles up to but not including vehicle identity number 3-B-X P-213 727. In this case, the clip -4- from diagram A 40- 0266 is no longer installed.

- ◆ Coupling -A- for left side of vehicle

The arrow on the coupling points in direction of travel.

The permanently mounted shim -1- on the coupling must be bolted to the anti-roll bar.

- ◆ Coupling -B- for the right side of vehicle

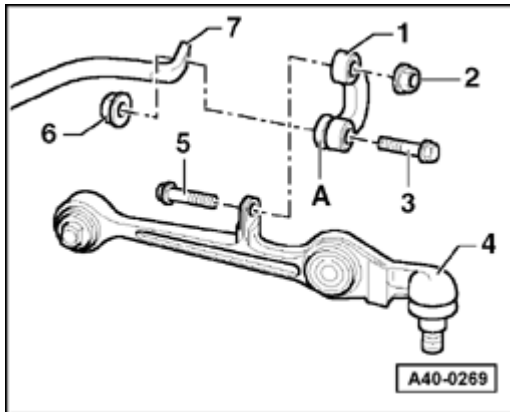
The arrow on the coupling points in direction of travel.

The arrow in the figure symbolizes the direction of travel.



CAUTION!

Bonded rubber mountings can only be twisted to a limited degree. Therefore, you should only tighten the bolted connections of the suspension links when the vehicle is standing on its wheels.



A

1 - Coupling with rubber mounting

Rubber mounting with attached shim -A- must be bolted to anti-roll bar.

2 - Self-locking hex nut

40 Nm and turn 90° further

3 - Hex bolt

4 - Track-control link

5 - Hex bolt

6 - Self-locking hex nut

40 Nm and turn 90° further

7 - Anti-roll bar



Threads in longitudinal member, servicing

It is possible to service the threads in the nuts welded in the longitudinal member depending on certain conditions.

- ◆ Servicing work may only be carried out once per thread.
- ◆ If servicing is necessary after this, the nuts must be replaced.
- ◆ Observe the operating instructions of the VAS repair kit.

WARNING!

When drilling, it is essential that eye protection be worn!

- ◆ Have your work checked by the foreman responsible or person next in charge.
- ◆ Correct any damage to the underbody sealant layer.

⇒ *Repair Manual, Body Collision Repair, Repair
Group 00; Measures for corrosion protection*



- ◆ Only use the VAS repair kit listed in the table for servicing work

VAS thread repair kit

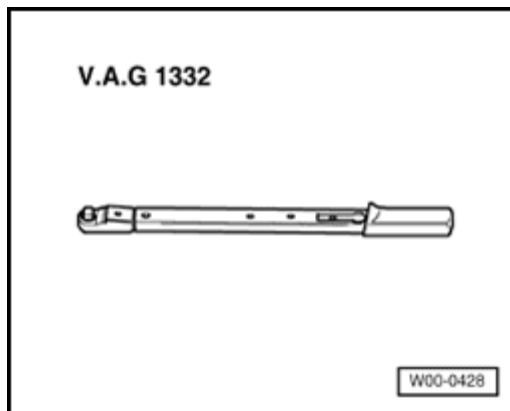
Thread	VAS number
M10	6024
M12 x 1.5	6026
M14 x 1.5	6027



Separating connections between upper links and wheel bearing housing

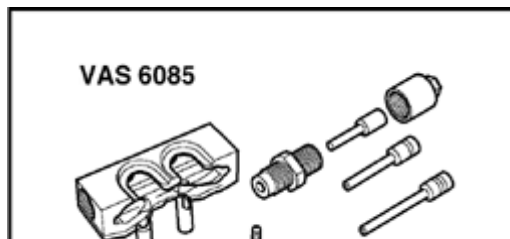
This procedure is only necessary if the hex bolt for the connections between the upper links and the wheel bearing housing cannot be removed.

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



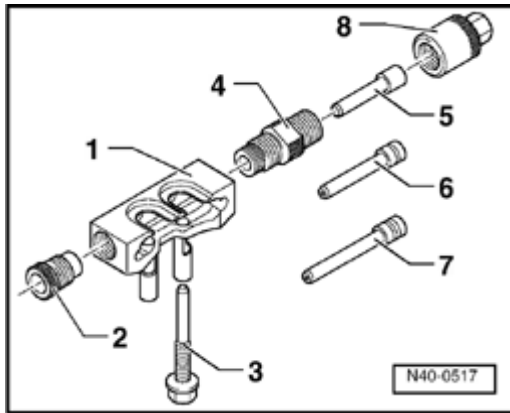
A

- ◆ VAG 1332 Torque wrench



A

- ◆ VAS 6085 Removal tool



Removing

A Overview of part of removal tool VAS 6085

- 1 - Main body
- 2 - Adapter
- 3 - Thrust bolt M10 x 1,25 x 95
- 4 - Threaded sleeve
- 5 - Thrust rod (length 78 mm)
- 6 - Thrust rod (length 98 mm)
- 7 - Thrust rod (length 118 mm)
- 8 - Nut

Note:

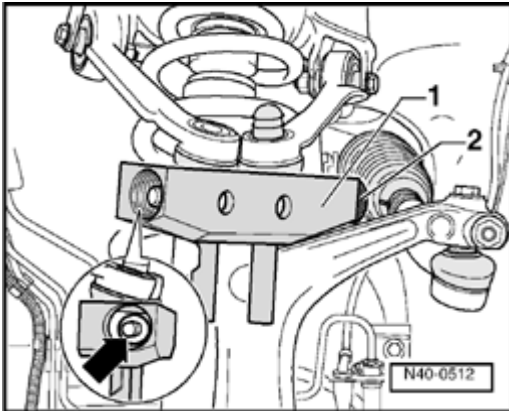
Before working, the thrust bolt, the thrust rod and the nut must be lubricated with polyurea grease part no. G 052 142 A2.

- Remove wheel.
- Disconnect ABS speed sensor wiring out from retainer on brake caliper.



- ### A
- Remove nut -1-.

Do not loosen bolts -3- and -4-.



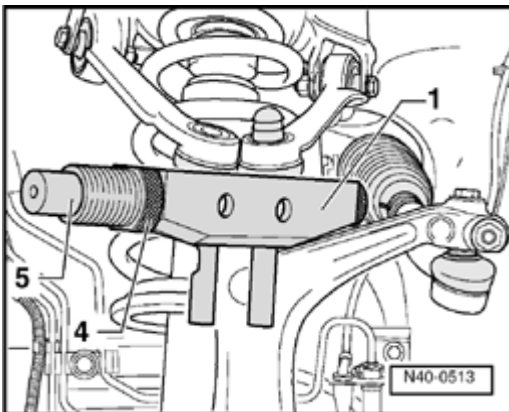
A

- Set main body -1- on the wheel bearing housing. Recesses must engage under the joints of the links.

Note:

When positioning the main body, make sure that the sealing boots of the links are not damaged.

- Main body -1- must be positioned so that bolt end is centred in drilling of main body.
- Screw adapter -2- into main body -1- to stop so that the main body is locked in position.

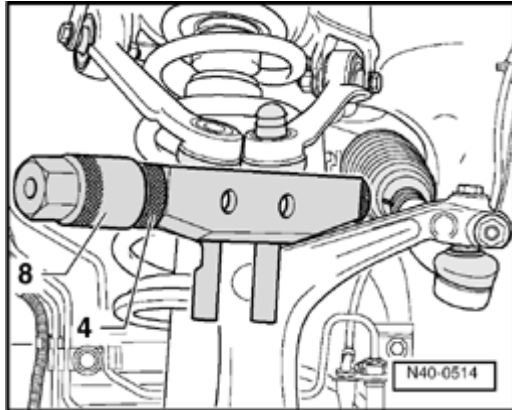


A

- Screw threaded sleeve -4- into main body -1- to stop.
- Insert thrust rod -5- in threaded sleeve -4-.



Some of the callouts on this page refer to illustration N40-0517 on ⇒ [Page 40-30](#)



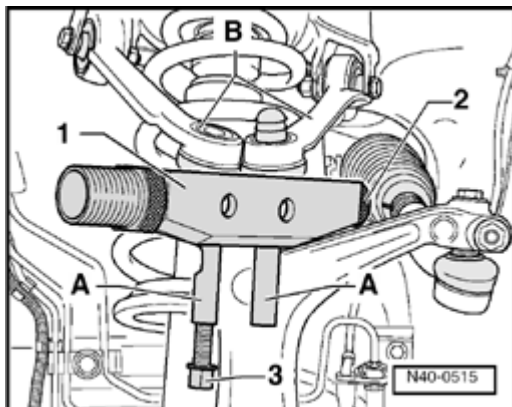
A

- Screw nut -8- onto threaded sleeve -4- and turn to stop so that bolt is pressed out.

Note:

The nut -8- may be turned with a wrench or impact driver.

- Unscrew nut -8- from threaded sleeve -4-, remove thrust rod -5- and insert thrust rod -6- in threaded sleeve -4-.
- Repeat pressing procedure.
- If bolt still cannot be removed by hand, repeat pressing procedure with thrust rod -7-.
- Unscrew nut -8- from threaded sleeve -4-, remove thrust rod and bolt.



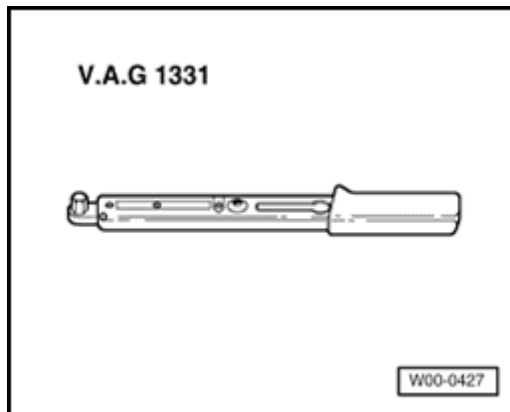
A

- Screw thrust bolt -3- into one guide after the other -A- and press links -B- out of wheel bearing housing.
- Unscrew thrust bolt -3- out of guide -A- and loosen adapter -2-.
- Remove main body -1- from wheel bearing housing.



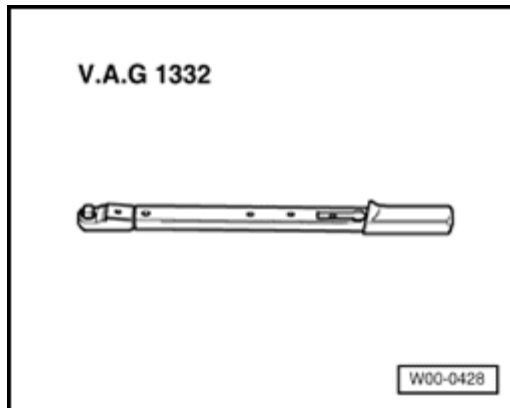
Suspension strut, removing and installing

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



A

- ◆ VAG 1331 Torque wrench



A

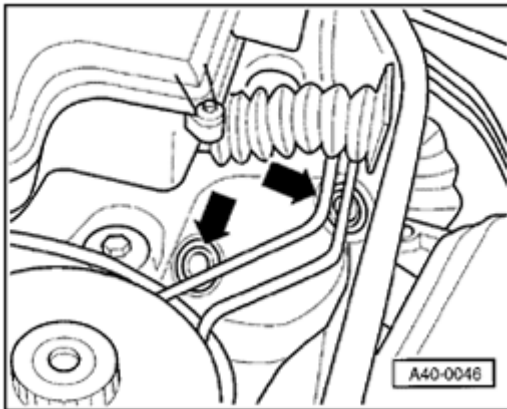
- ◆ VAG 1332 Torque wrench



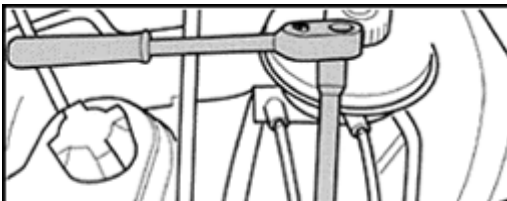
Removing

- Remove wheel.
- Remove plenum chamber cover.

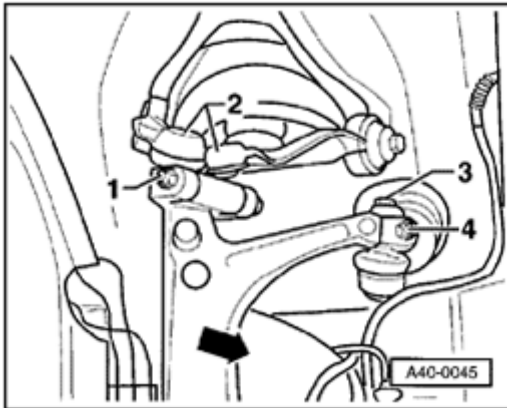
⇒ [Repair Manual, Electrical Equipment, Repair Group 27; Battery; Removing and installing battery](#)

**A**

- Take out rubber grommets in plenum chamber -arrows-.

**A**

- Unbolt suspension strut at body.
- 1 - Nuts
- Disconnect ABS speed sensor wiring out from retainer on brake caliper.



A

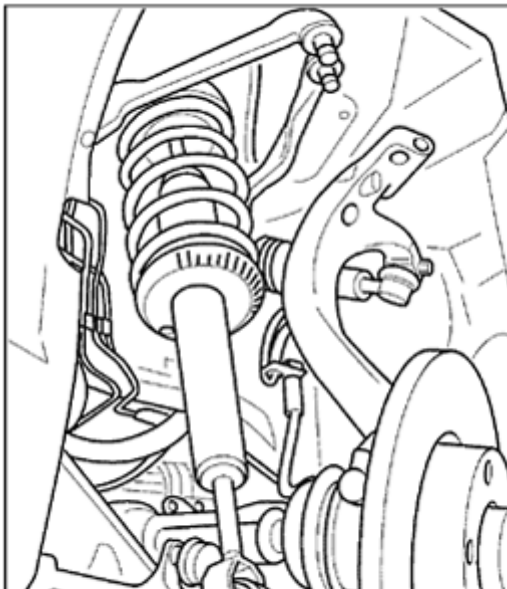
- Remove nut -1-.
- Take out hex bolt and remove links -2- out upward.

The slits in the wheel bearing housing must not be widened using a chisel or similar tool!

Do not loosen bolts -3- and -4-.

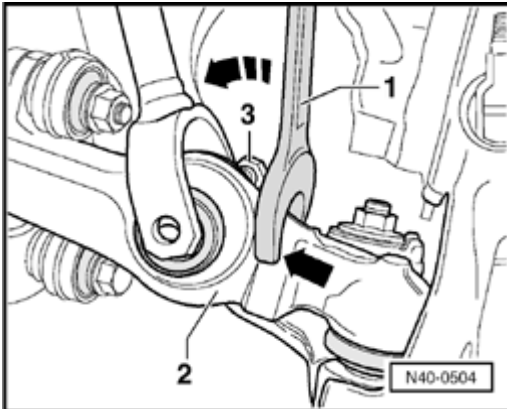
If the hex bolt cannot be removed from the wheel bearing housing, then the hex bolt and the links -2- must be pressed out of the wheel bearing housing ⇒ [Page 40-29](#) .

- Swing wheel bearing housing in direction of arrow away to side.

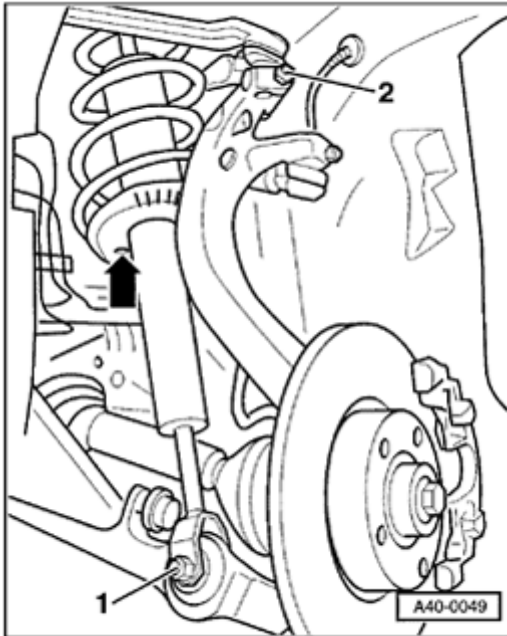


A

- Remove nut -1-.

**A**

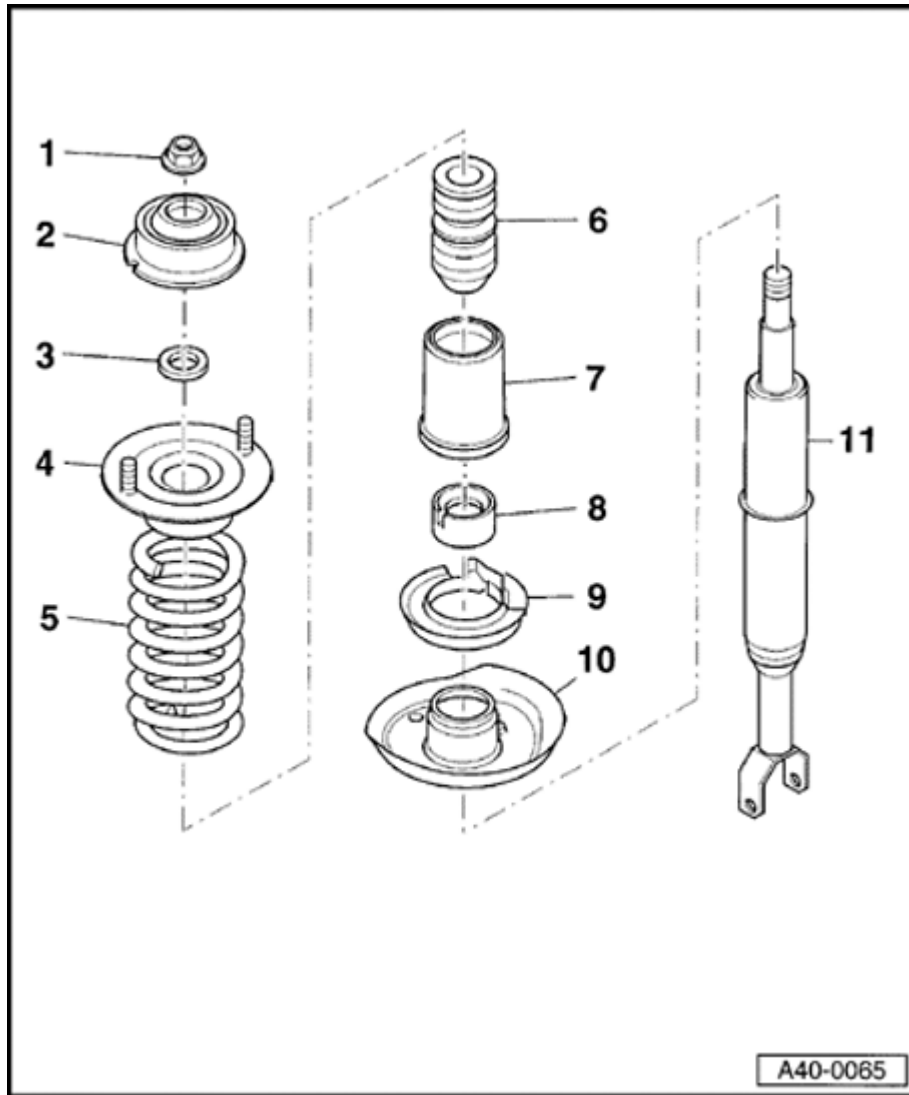
- To facilitate removal of suspension strut, apply an open-jaw wrench -1- to wrench surfaces -arrow- of track-control link -2-.
- Turn wrench in direction of arrow (direction of travel) and remove bolt -3-.
- Take out suspension strut.



Installing

A

- Insert suspension strut, so that the hole -arrow- in spring plate points to center of vehicle.
 - Bolt suspension strut to track-control link.
 - Tighten new nut -1- ⇒ [Page 40-16](#) , item 21 .
 - Insert upper links into wheel bearing housing, insert new bolt and tighten new nut -2- ⇒ [Page 40-14](#) , item 9 .
 - When tightening press upper links downward as far as possible!
 - Insert ABS wiring in retainer on brake caliper.
 - Install new nuts for suspension strut and tighten ⇒ [Page 40-21](#) , item 43 .
- Make sure that the surface of the brake pipes are not damaged!
- Insert rubber grommets in plenum chamber.
 - Install wheel and tighten ⇒ [Page 44-1](#) .



Suspension strut, servicing

- 1 - Hex nut, 50 Nm
- 2 - Suspension strut mounting
- 3 - Washer
- 4 - Upper spring plate
- 5 - Coil spring

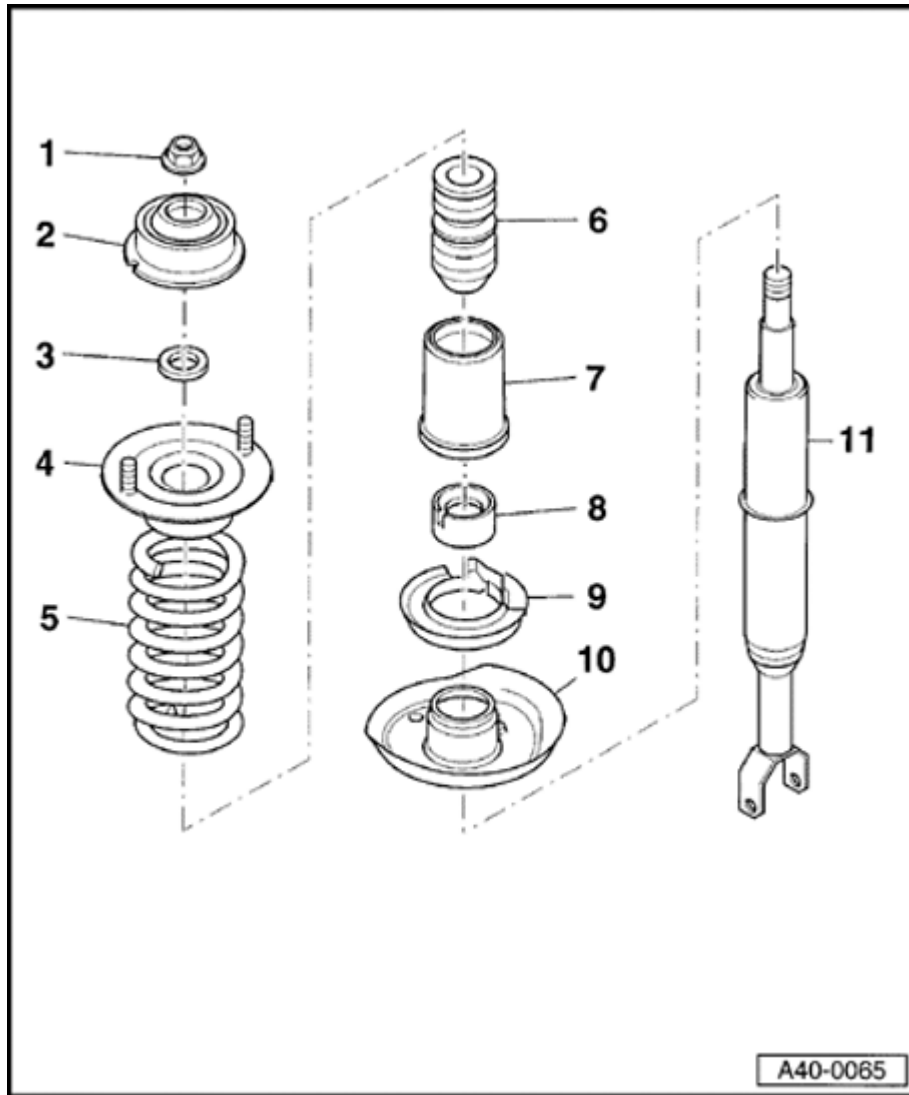
- ◆ Outer surface of spring must not be damaged
- ◆ Observe color coding

Spring allocation

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

These numbers are indicated on the vehicle data plate/sticker.

⇒ [Page 40-40](#) for an example.



6 - Buffer stop

7 - Protective sleeve

8 - Protective cap

9 - Lower support

◆ Located by cut-out in ribbing on spring plate

10 - Lower spring plate

11 - Shock absorber

◆ Allocation

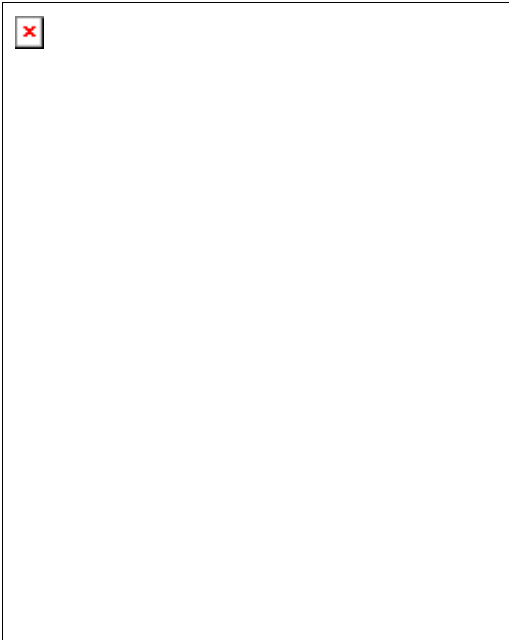
⇒ *Replacement parts catalog*

◆ Checking shock absorber for leaks and noises

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



Vehicle data sticker



Example of a vehicle data sticker

The vehicle data sticker is located in the spare wheel recess and in service booklet.

The figures 1 . . . 3 give information on the coil springs and shock absorbers installed in the respective vehicle.

The Part No. of the relevant component is also coded in the PR number.

The PR number of the appropriate coil spring is allocated in the Parts catalog.

The following table explains the PR numbers. This is relevant for the coil springs/shock absorber allocation for the vehicle.

	PR No.	Component	Part No.
1	0JD	Coil spring, front	8D0 411 105 AM
2	0YD	Coil spring, rear	3B0 511 115 P
3	1BA	Standard shock absorber front and rear	



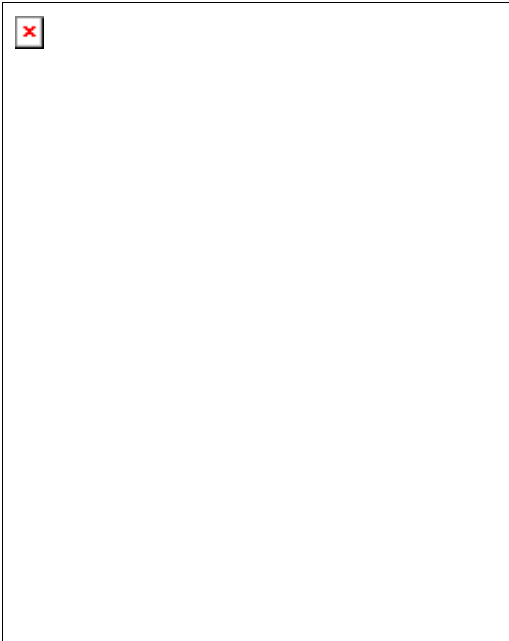
Spring, removing and installing

Special tools, workshop equipment, test and measuring appliances and aux. items required

- ◆ T10001 Special tools for struts/shock absorbers
- ◆ VAG 1332 Torque wrench
- ◆ VAG 1752/1 Suspension strut clamp
- ◆ VAG 1752/2 Strut mounting
- ◆ VAG 1752/7 Spring retainer
- ◆ VAG 1752/8 Suspension strut alignment gauge



Removing



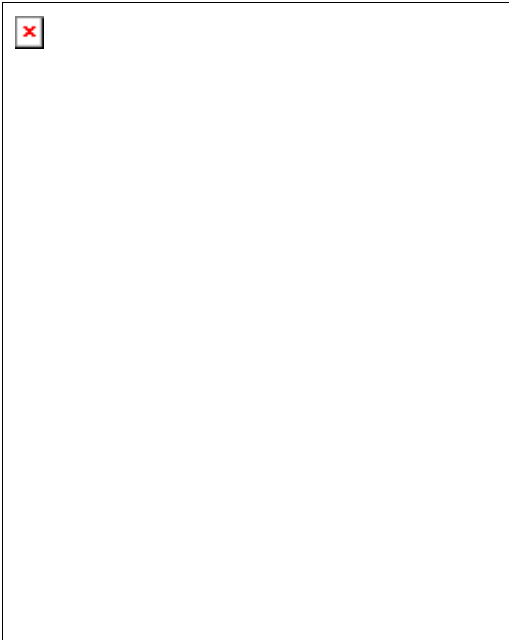
A

- Clamp suspension strut mounting VAG 1752/2 in a vice.
- Clamp suspension strut forked head in suspension strut mounting.
- Tension coil spring with -VAG 1752/1- tensioning device until the upper spring plate is free.



A

- Make sure that the coil spring is seated correctly in adapter VAG 1752/7 -arrow-.

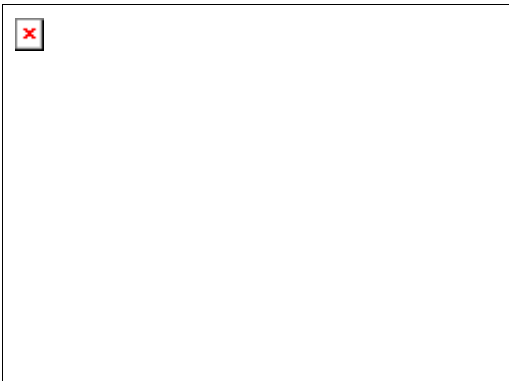


A

- Unscrew hex nut from piston rod.
 - Take off individual parts of suspension strut and coil spring with tensioning device -VAG 1752/1-.
- 1 - Commercially available ratchet handle
 - 2 - T 10001/8
 - 3 - T 10001/11
 - 4 - T 10001/5
 - 5 - VAG 1752/1
 - 6 - VAG 1752/7
 - 6 - VAG 1752/2

Replacing shock absorber

If the shock absorber requires replacing then additional work is necessary.

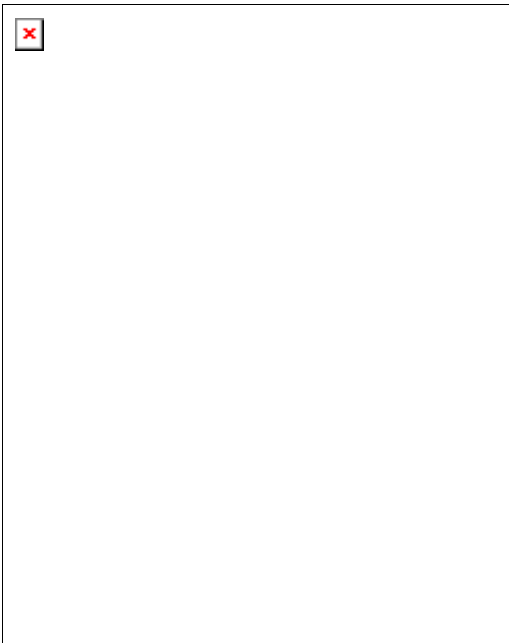


A

- Take off protective cap -1- and lower spring support -2-.
- Loosen spring plate -3- with a synthetic head hammer and remove.



Installing



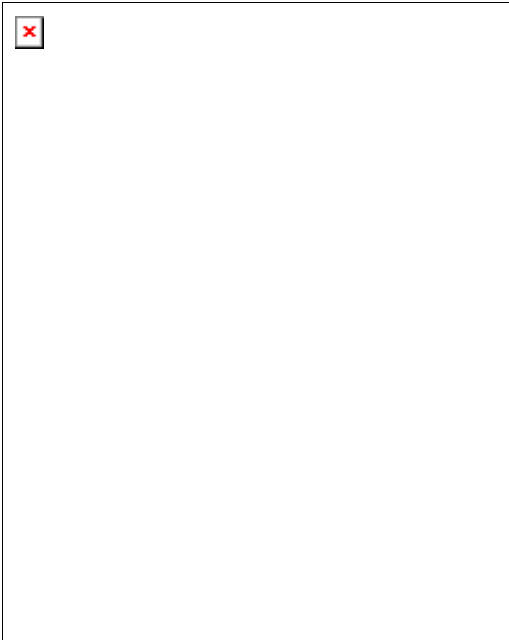
- A** Before inserting coil spring make sure that the lower spring plate is in the correct installation position.

The hole -arrow- in spring plate -1- should be offset 90° to shock absorber -2- bolt axis -A-.

Permissible deviation of spring plate to shock absorber bolt axis; $\square 2^\circ$.



- A**
- Install lower spring support, protective cap and stop buffer.
 - Install coil spring with tensioning device -VAG 1752/1- onto lower spring support.
- The end of the coil spring must lie against stop -arrow-.



A Installing upper spring plate

1 - Commercially available ratchet handle

2 - T 10001/8

3 - T 10001/11

4 - T 10001/5

5 - VAG 1752/1

6 - VAG 1752/8

7 - VAG 1752/7

8 - VAG 1752/2

- Set angle scale -arrow- of tensioning device -1752/2- to 0° .
- Install upper spring plate, washer and suspension strut mounting.
- Position upper spring plate with alignment gauge 1752/8- to 11° .

The 11° position on the alignment gauge 1752/8 is recognized with

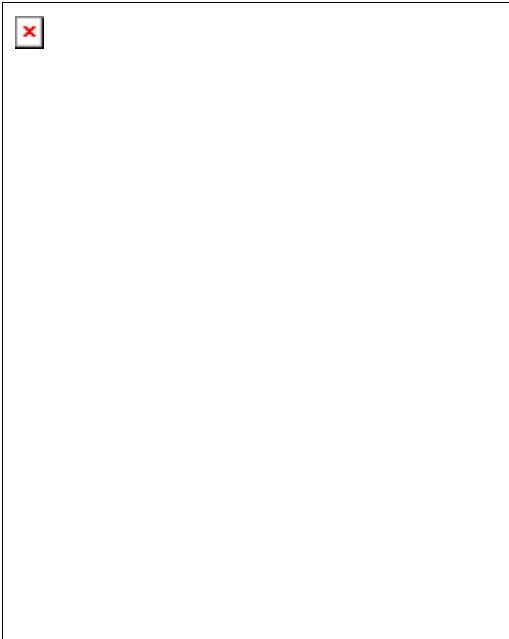
"vorn links (front left)"

or

"vorn rechts (front right)".

Note that the 11° position of the spring plates is a mirror image on both the left and right-hand side

Upper spring plate installation position ⇒ [Page 40-46](#) .



A Upper spring plate installation position

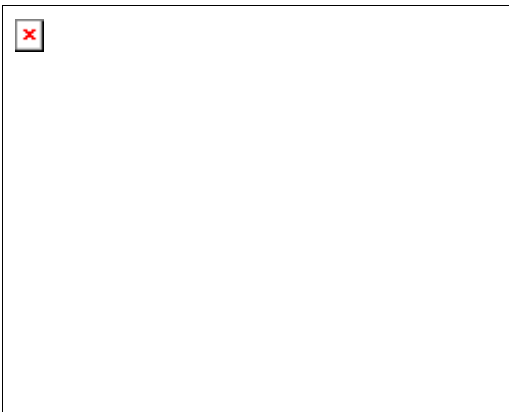
- Studs in upper spring plate are offset 11° to shock absorber forked head bolt axis -1-.

F = Forward

R = Spring plate, right-hand side

L = Spring plate, left-hand side

A = 11° + 2°



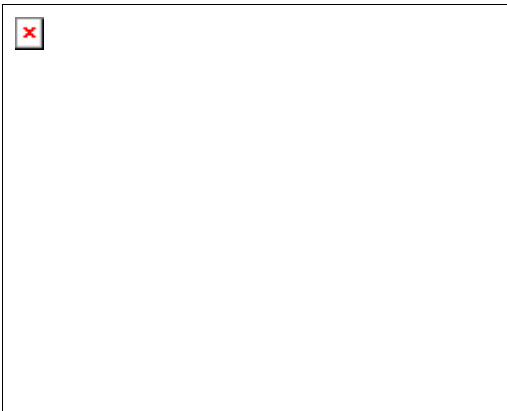
A Rubber ring installation position

- The end of the spring must lie against the upper spring support stop -arrow-.
- Relieve tension on coil spring.
- Tighten hex nut with special tool T100001 ⇒ [Page 40-38](#) , item 1
- Remove alignment gauge -1752/8-.



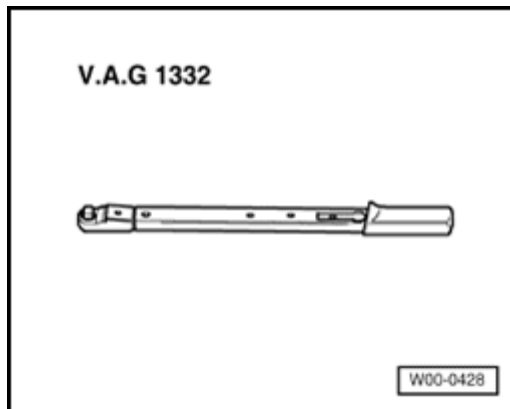
Wheel bearing housing, removing and installing

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



A

- ◆ 3287A Ball joint puller



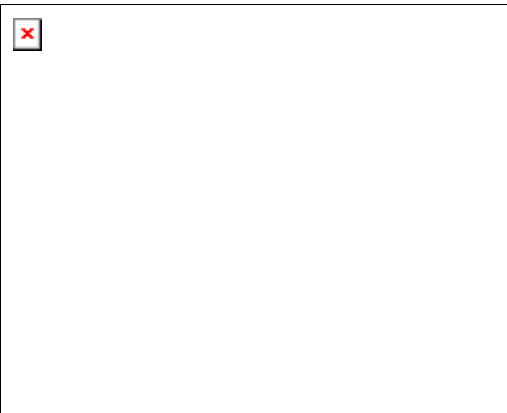
A

- ◆ VAG 1332 Torque wrench



Removing

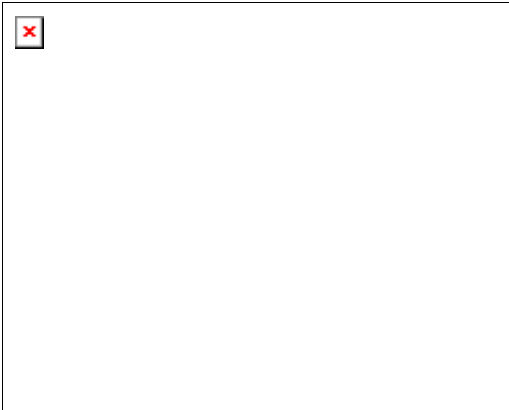
- Unbolt hex bolt for drive shaft. (Loosen only when vehicle is standing on wheels -danger of accident-).
- Remove wheel.
- Disconnect ABS speed sensor wiring out of retainer on brake caliper.

**A**

- Remove bolts -1- for brake caliper and take off brake caliper.
- Remove disc brake.
- Secure brake caliper to body with wire.

**A**

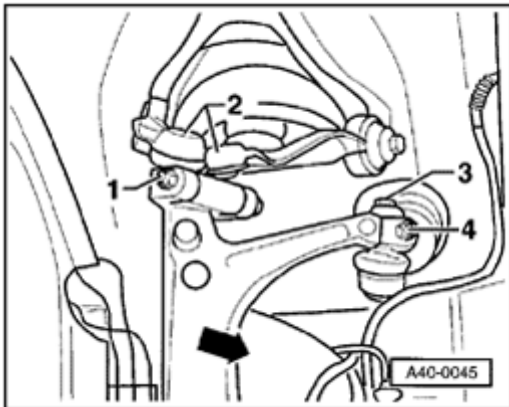
- Remove bolts -1- for cover plate.
- Disconnect ABS speed sensor from wheel bearing housing.
- Remove nuts -2- and -3-.



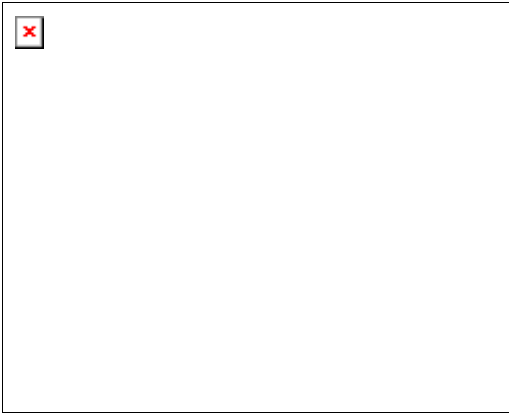
- A**
- Remove rubber grommet -1- and separate connector -2-.
 - Disconnect ABS speed sensor wiring from retainers -arrows-.
 - Guide wiring through opening in wheel bearing housing and take out.

Note:

Do not damage the rubber grommet!



- A**
- Remove hex bolt -3- and nut -4-.
 - Remove track rod ball joint.



- Remove nut from joint pin.

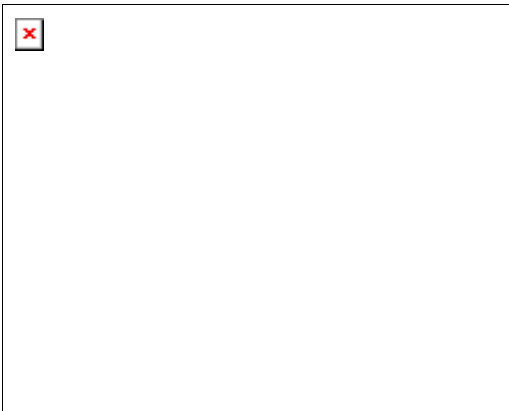
A

- Press guide link joint pin out of tapered seat.

Note:

Do not damage joint protective boot when doing this!

- Loosen joint pin nut, do not remove completely.

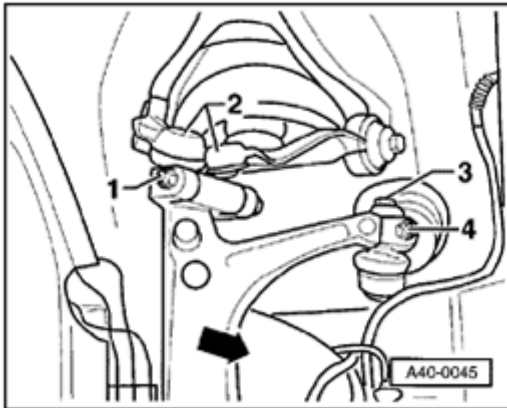


A

- Press track-control link joint pin out from tapered seat.

Note:

Do not damage joint protective boot when doing this!



A

- Remove nut -1-, take out hex bolt and remove both links -2- out upward.

The slits in the wheel bearing housing must not be widened using a chisel or similar tool!

If the hex bolt cannot be removed from the wheel bearing housing, then the hex bolt and the links -2- must be pressed out of the wheel bearing housing ⇒ from page ⇒ [Page 40-29](#) .

- Swing wheel bearing housing in direction of arrow away to side, when doing this remove drive shaft pin from wheel hub.
- Remove nut from track-control link joint pin.
- Take off wheel bearing housing.



Installing

- Install wheel bearing housing.
- Install joint pins of track-control and guide links into wheel bearing housing.
- Screw on new self-locking nut and tighten ⇒ [Page 40-15](#) , item 14 and page ⇒ [Page 40-16](#) , item 19 .

Counter hold joint pin with 4 mm AF hex key if necessary.

- Slide drive shaft outer joint pin into wheel hub and tighten new hex bolt hand tight.
- Insert upper links into wheel bearing housing, insert new bolt and tighten new nut -2- ⇒ [Page 40-14](#) , item 9 .

When tightening press upper links downward as far as possible!

- Install track rod.

- Tighten hex bolt ⇒ [Page 48-36](#) , item 6 .
- Screw on new self-locking nut and tighten ⇒ [Page 48-36](#) , item 8 .



- Connect ABS vehicle speed sensor.
- Screw on cover plate and tighten ⇒ [Page 40-16](#) , item 18
- Install disc brake, screw on brake caliper.

⇒ [Repair Manual, Brake System, Repair Group 46; Servicing front brakes](#)

- Install wheel and tighten ⇒ [Page 44-1](#) .
- Tighten drive shaft hex bolt ⇒ [Page 40-116](#) .

Check and if necessary adjust the front axle, alignment must take place on a VW/Audi recommended alignment stand.



Front wheel bearing, pressing out and pressing in

Special tools, workshop equipment, test and measuring appliances and aux. items required

- ◆ VW 401 Thrust plate
- ◆ VW 402 Thrust plate
- ◆ VW 407 Press tool
- ◆ VW 412 Press tool
- ◆ VW 416 B Tube
- ◆ VW 432 Press piece

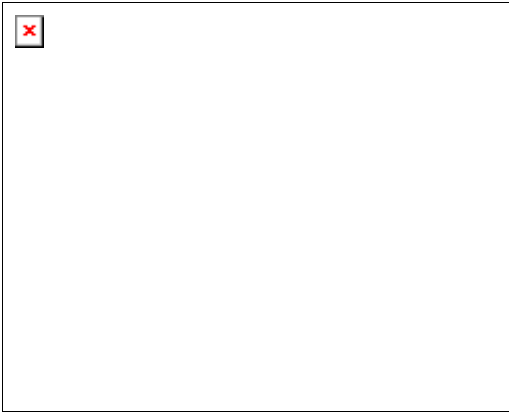


Special tools, workshop equipment, test and measuring appliances and aux. items required

- ◆ VW 447 i Thrust plate
- ◆ VW 519 Tube
- ◆ 30-100 Drift sleeve
- ◆ 3005 Press disk
- ◆ 3124 Press piece
- ◆ 3291 Assembly tool

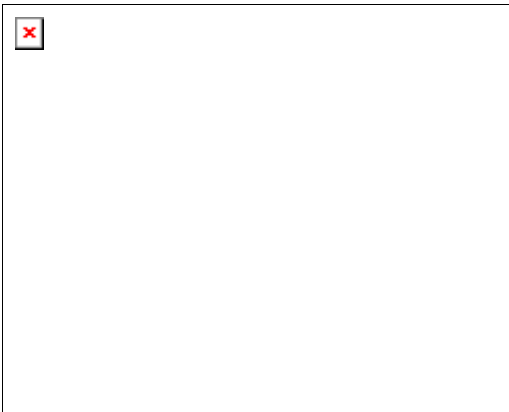


**Special tools, workshop equipment, testers,
measuring instruments and auxiliary items
required**



A

◆ 3345 Wheel bearing tube



A

◆ 3 - Kukko 17/2 Separating device



1 - Wheel bearing housing

- ◆ Allocation

⇒ *Replacement parts catalog*

2 - Wheel bearing

- ◆ Removing and installing when the wheel bearing housing is installed ⇒ [Page 40-64](#)
- ◆ Installation position:
 - Larger internal diameter of wheel bearing faces wheel hub
- ◆ Pressing out diameter 75 mm ⇒ Fig. ⇒ [3](#)
- ◆ Pressing out diameter 82 mm ⇒ Fig. ⇒ [4](#)
- ◆ Pressing bearing inner race off ⇒ Fig. ⇒ [5](#) and ⇒ [6](#)
- ◆ Pressing in diameter 75 mm ⇒ Fig. ⇒ [7](#)
- ◆ Pressing in diameter 82 mm ⇒ Fig. ⇒ [8](#)



3 - Hub

- ◆ Removing and installing when the wheel bearing housing is installed ⇒ [Page 40-64](#)
- ◆ Pressing out diameter 75 mm ⇒ Fig. ⇒ [1](#)
- ◆ Pressing out diameter 82 mm ⇒ Fig. ⇒ [2](#)
- ◆ Pressing in diameter 75 mm ⇒ Fig. ⇒ [9](#)
- ◆ Pressing in diameter 82 mm ⇒ Fig. ⇒ [10](#)

4 - Bolt

- ◆ ⇒ [Page 40-16](#) , item 18

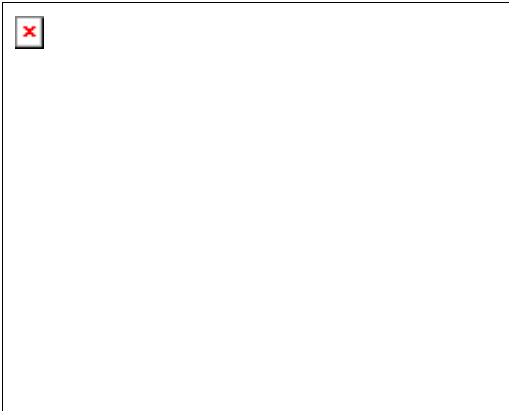
5 - Splash plate

6 - Speed sensor

- ◆ Disconnect out to remove
- ◆ Before inserting sensor, clean inner surface of installation hole and coat with grease G 000 650

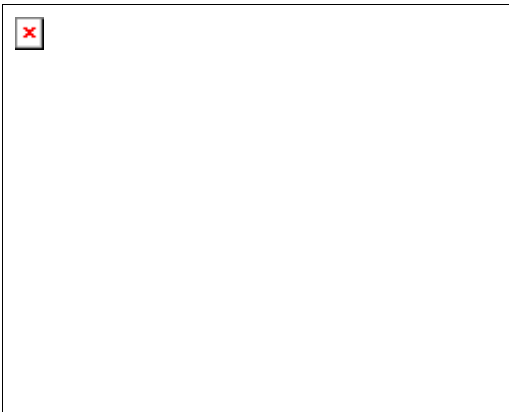
7 - Clamping sleeve

- ◆ Before inserting into wheel bearing housing, coat circumference with grease G 000 650
- ◆ Press into wheel bearing housing onto stop



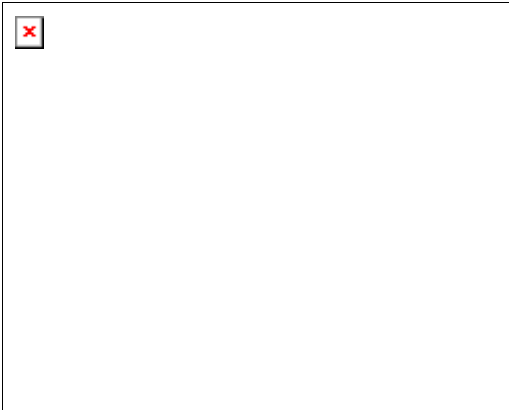
A

Fig. 1 Pressing wheel hub out of 75 mm diameter wheel bearing housing



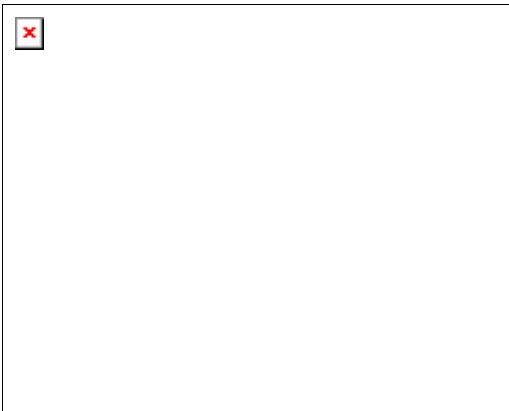
A

Fig. 2 Pressing wheel hub out of 82 mm diameter wheel bearing housing



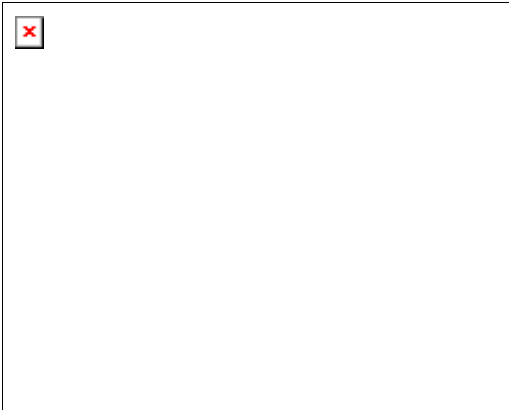
A

Fig. 3 Pressing wheel bearing out of 75 mm diameter wheel bearing housing



A

Fig. 4 Pressing wheel bearing out of 82 mm diameter wheel bearing housing



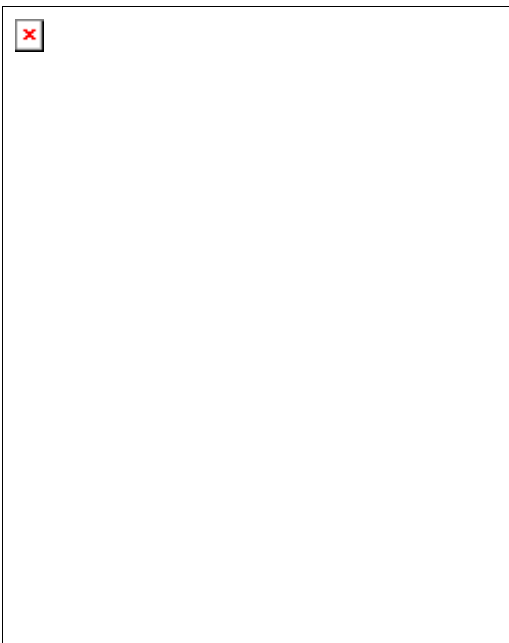
A

Fig. 5 Installing separating device

- Install separating device into bearing inner race annular groove -arrow- and tension spindle.

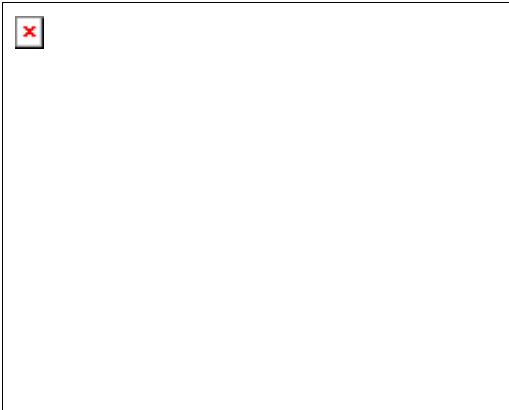
Note:

Use commercially available separating device e.g. Kukko 17/2.



A

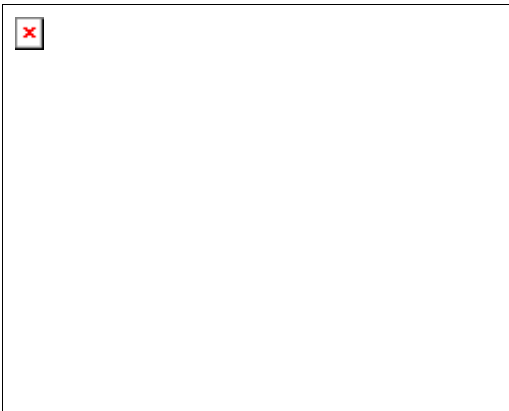
Fig. 6 Pressing bearing inner race off wheel hub



A **Fig. 7 Pressing wheel bearing -A- into 75 mm diameter wheel bearing housing**

Note:

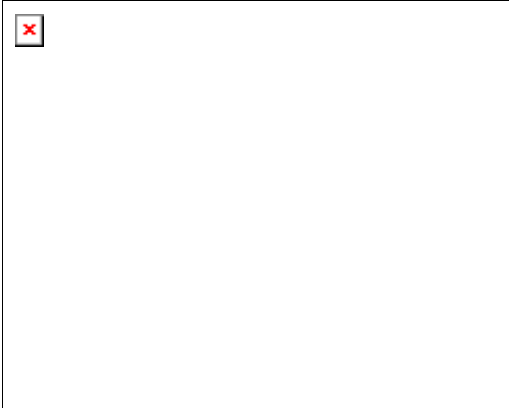
Larger internal diameter of wheel bearing faces wheel hub.



A **Fig. 8 Pressing wheel bearing -A- into 82 mm diameter wheel bearing housing**

Note:

Larger internal diameter of wheel bearing faces wheel hub.



A

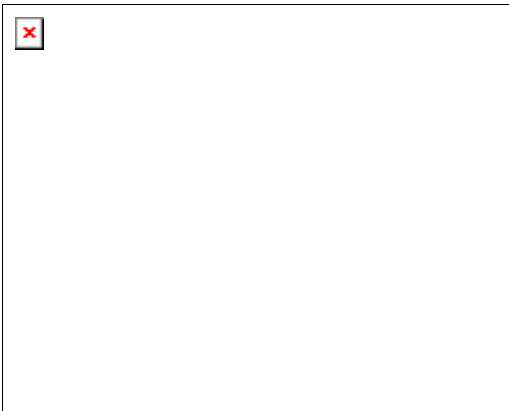
Fig. 9 Pressing wheel hub into 75 mm diameter wheel bearing

- When pressing in, the thrust piece VW519 must bear only against inner race.

Notes:

The wheel bearing housing must remain as horizontal as possible when pressing in.

Otherwise the wheel hub will bend in the wheel bearing which will lead to premature wheel bearing damage.



A

Fig. 10 Pressing wheel hub into 82 mm diameter wheel bearing

- When pressing in, the thrust piece VW447i must only bear against inner race.

Notes:

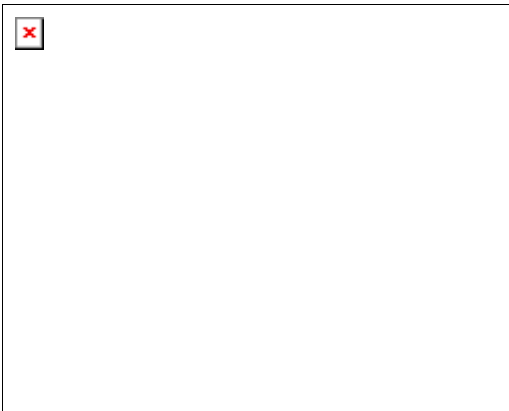
The wheel bearing housing must remain as horizontal as possible when pressing in.

Otherwise the wheel hub will bend in the wheel bearing which will lead to premature wheel bearing damage.

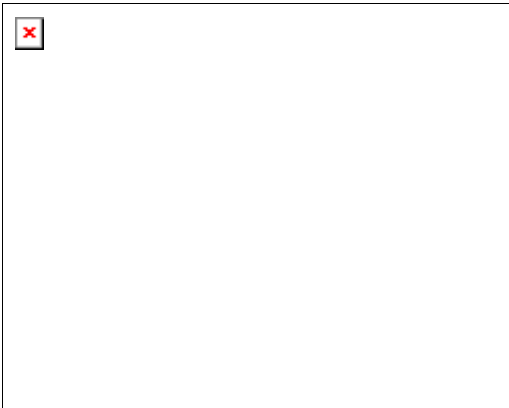


Front wheel bearing, pressing out and in with wheel bearing housing installed

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

**A**

- ◆ VAG 1383 A Engine/transmission jack with universal transmission mounting
VAG 1359/2

**A**

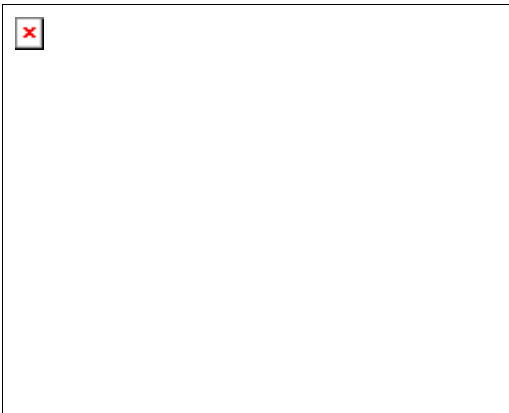
- ◆ VAG 1389 A/1 Foot pump with high pressure hose

If there is a hand pump VAG 1389/1 available in the dealership it can be converted
to a foot pump.

To do this use the conversion set VAG 1389/3.

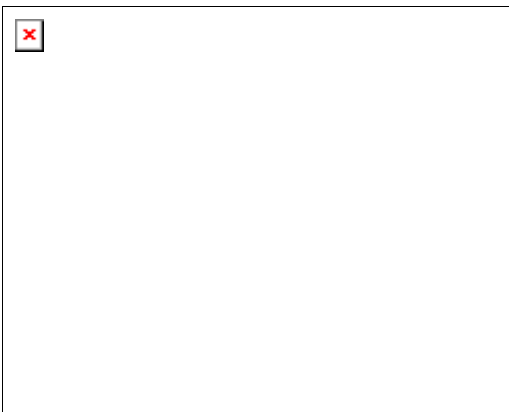


**Special tools, workshop equipment, testers,
measuring instruments and auxiliary items
required**



A

- ◆ VAG 1459 B Hydraulic removal and installing tool for wheel bearing
 - ◆ Hollow-piston cylinder HKZ-15 with hydraulic press piece E-0-204-T
 - ◆ Remove rods E-0-217+218
 - ◆ Special nut E-8-214
 - ◆ Press piece E-5
 - ◆ Press piece E-14-1

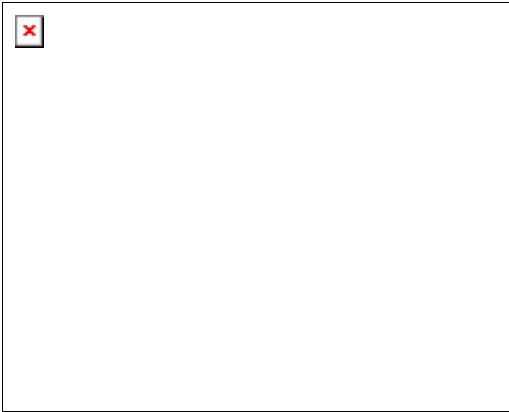


A

- ◆ VAG 1459 B/2 Supplementary set
 - ◆ Separating device Kukko 17/2
 - ◆ Bell E-40
 - ◆ Press piece E-43
 - ◆ Press sleeve E-44-1
 - ◆ Press piece E-45



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

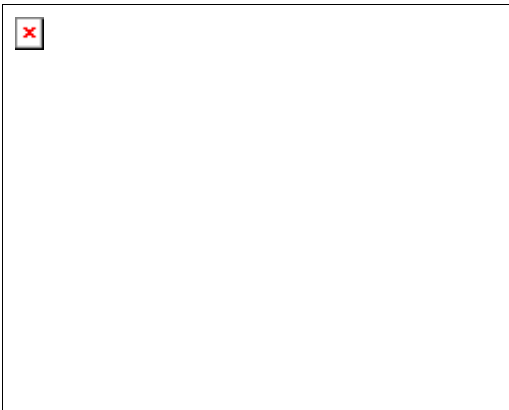


A

- ◆ 3 - Kukko 17/2 Separating device

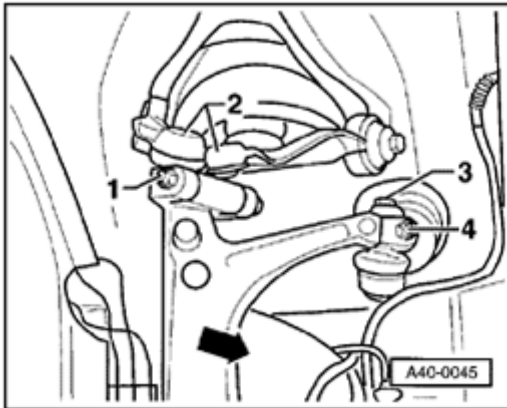
Removing

- Loosen hex bolt for drive shaft when vehicle is standing on its wheels (otherwise danger of accident).
- Remove wheel and raise vehicle.



A

- Unbolt drive shaft at flange shaft.
- 1 - Hex key head bolt or multi-point key head bolt
- Disconnect ABS vehicle speed sensor wiring out of retainer on brake caliper - arrow-.
- Disconnect ABS vehicle speed sensor from wheel bearing housing.
- Remove brake carrier and brake caliper and tie to body with wire.
- Remove brake disc and cover plate.



A

- Remove nut -1-, take out hex bolt and remove both links -2- out upward.

The slits in the wheel bearing housing must not be widened using a chisel or similar tool!

If the hex bolt cannot be removed from the wheel bearing housing, then the hex bolt and the links -2- must be pressed out of the wheel bearing housing ⇒ [Page 40-29](#) .

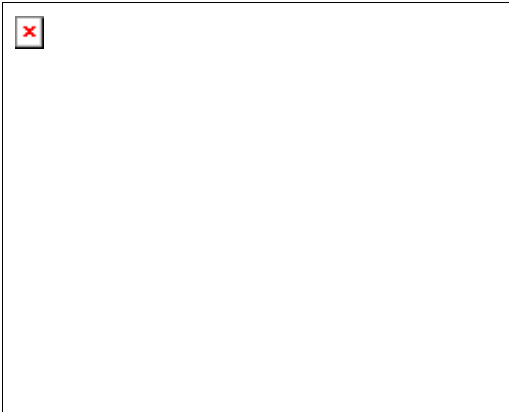
- Remove hex bolt for drive shaft.
- Swing wheel bearing housing out of the way.
- Remove drive shaft from wheel bearing housing and tie up.

Note:

Place transmission jack VAG 1383/A underneath (danger of accident from falling parts when removing the wheel hub and the wheel bearing).



Removing hub



A

- Install separating device -1- between wheel bearing housing and hub and pretension.

Installation position: Flat sides of plates face to wheel hub.

- Install support -2-, hollow piston cylinder -3- with pull rod and special nut -4-.
- Hold appliance firmly and remove wheel hub.

1 - Separating device Kukko 17/2

2 - Bell E-40

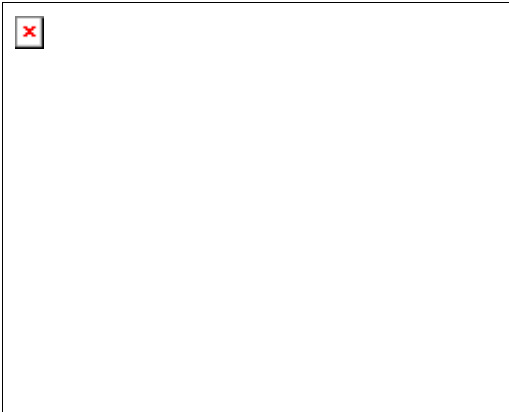
3 - Hollow piston cylinder HKZ-15

4 - Special nut E-8-214 and pull rod

5 - High pressure hose with quick release coupling



Removing wheel bearing

**A**

- Install press piece -1- with shoulder to bearing, press sleeve -2- with four stepped internal diameters to wheel bearing housing, hollow piston cylinder -3- with pull rod and special nut -4-.

- Operate pump and remove the wheel bearing.

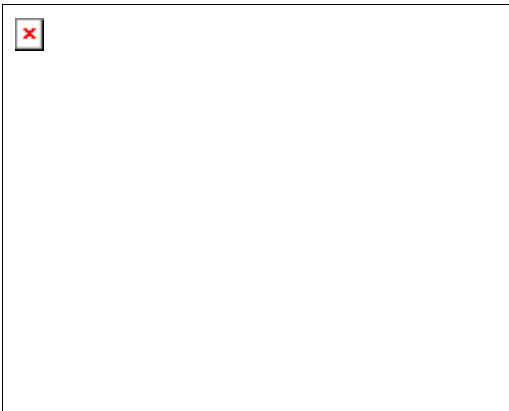
1 - Press piece E-5

2 - Press sleeve E-44-1

3 - Hollow-piston cylinder HKZ-15

4 - Special nut E-8-214 and pull rod

Removing bearing inner race off hub

**A**

- Install separating device -1- behind bearing inner race -2-.

Installing position: Chamfer on plates faces to bearing inner race.

- Install support -3- and hollow piston cylinder -4- with pull rod, screw on special nut -5- and remove bearing inner race.

1 - Separating device Kukko 17/2

2 - Bearing inner race

3 - Support E-40

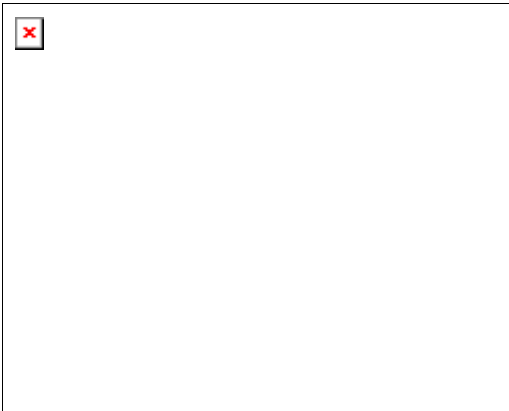
4 - Hollow piston cylinder HKZ-15

5 - Special nut E-8-214 and pull rod



Pressing in wheel bearing

Installation position: The larger internal diameter of the wheel bearing faces outward.

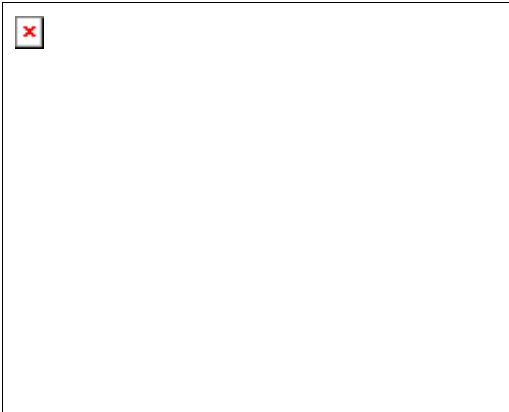


A

- Install wheel bearing -1-, press piece -2- (install with collar in bearing) and hollow-piston cylinder -3- with pull rod on wheel bearing housing.
 - Install press piece -4- with chamfers to wheel bearing housing and special nut -5- on inside.
 - Press wheel bearing in by operating the pump.
- 1 - Wheel bearing (observe different version): diameter 75 mm and diameter 82 mm)
 - 2 - Press piece E-45 for wheel bearing with diameter 75 mm or press piece E-14-1 for wheel bearing with diameter 82 mm
 - 3 - Hollow-piston cylinder HKZ-15
 - 4 - Press piece E-43
 - 5 - Special nut E-8-214 and pull rod



Pressing in wheel hub



A

- Install hub -1- and hollow-piston cylinder -2- with pull rod on wheel bearing.
- Install press piece -3- with shoulder to special nut -4- on inside.
- Press in hub by operating the pump.

1 - Hub

2 - Hollow-piston cylinder HKZ-15

3 - Press piece E-5

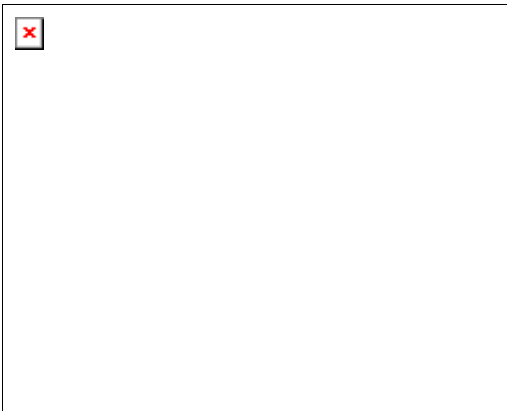
4 - Special nut E-8-214 and pull rod

Further assembly work is carried out in the reverse order.



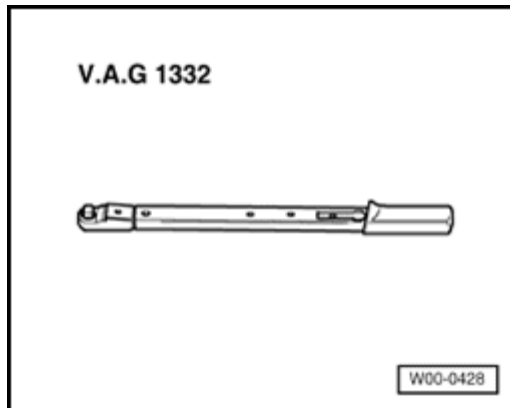
Track-control link, removing and installing

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



A

- ◆ 3287A Ball joint puller



A

- ◆ VAG 1332 Torque wrench



Removing

- Remove wheel.

A

- Remove nut from track-control link joint pin and press joint pin out of tapered seat.

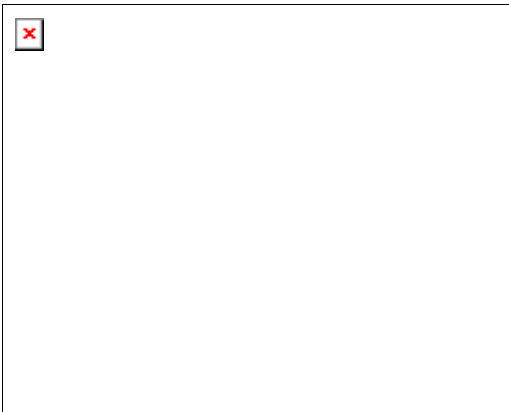
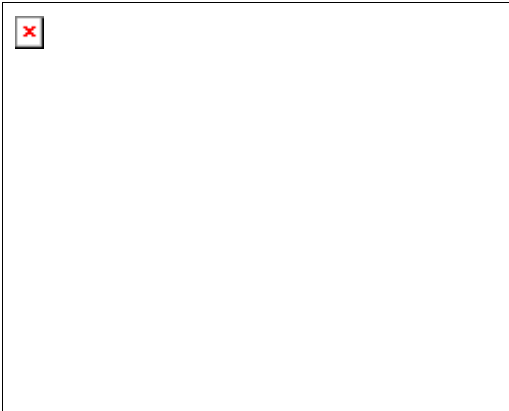
Note:

Do not damage joint protective boot when doing this!

Vehicles with automatic headlight range control

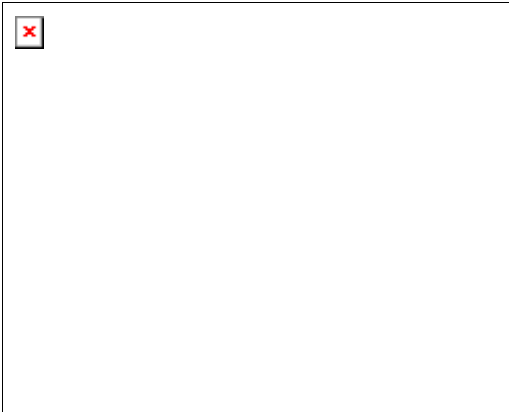
A

- Unclip clamp for coupling rod -1- for vehicle attitude sensor -G78- from track-control link -2-.





Continued for all vehicles



A

- Remove hex bolt -1-.
- Remove ribbed nuts -2- and -3- and take out connecting rod.

Note:

To prevent the upper link joints from being damaged, support with e.g. VAG 1383-A to prevent spring extending too much.

- Unscrew hex bolt -4-.
- Take out track-control link.



Installing

- Insert track-control link.

A

- Tighten nut on joint pin ⇒ [Page 40-16](#) , item 19 .

- Tighten hex nut -1- ⇒ [Page 40-16](#) , item 21 .

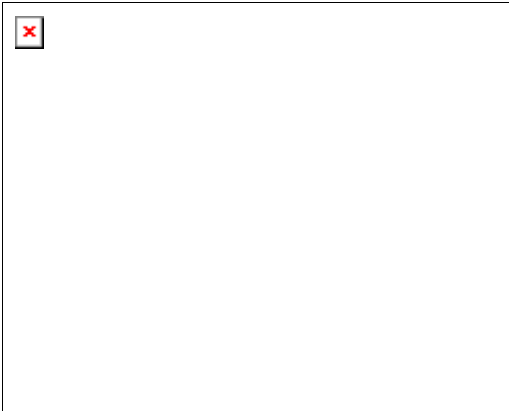
- Tighten nut -2- ⇒ [Page 40-16](#) , item 23 .

- Tighten nut -3 ⇒ [Page 40-18](#) , item 30 .

- Install new hex bolt -4- and new hex nut and tighten ⇒ [Page 40-16](#) , item 33 .

Notes:

- ◆ *Only use inner holes -arrow-.*
- ◆ *Push track-control link inward while tightening.*
- ◆ *Arrow on connecting link points forward.*





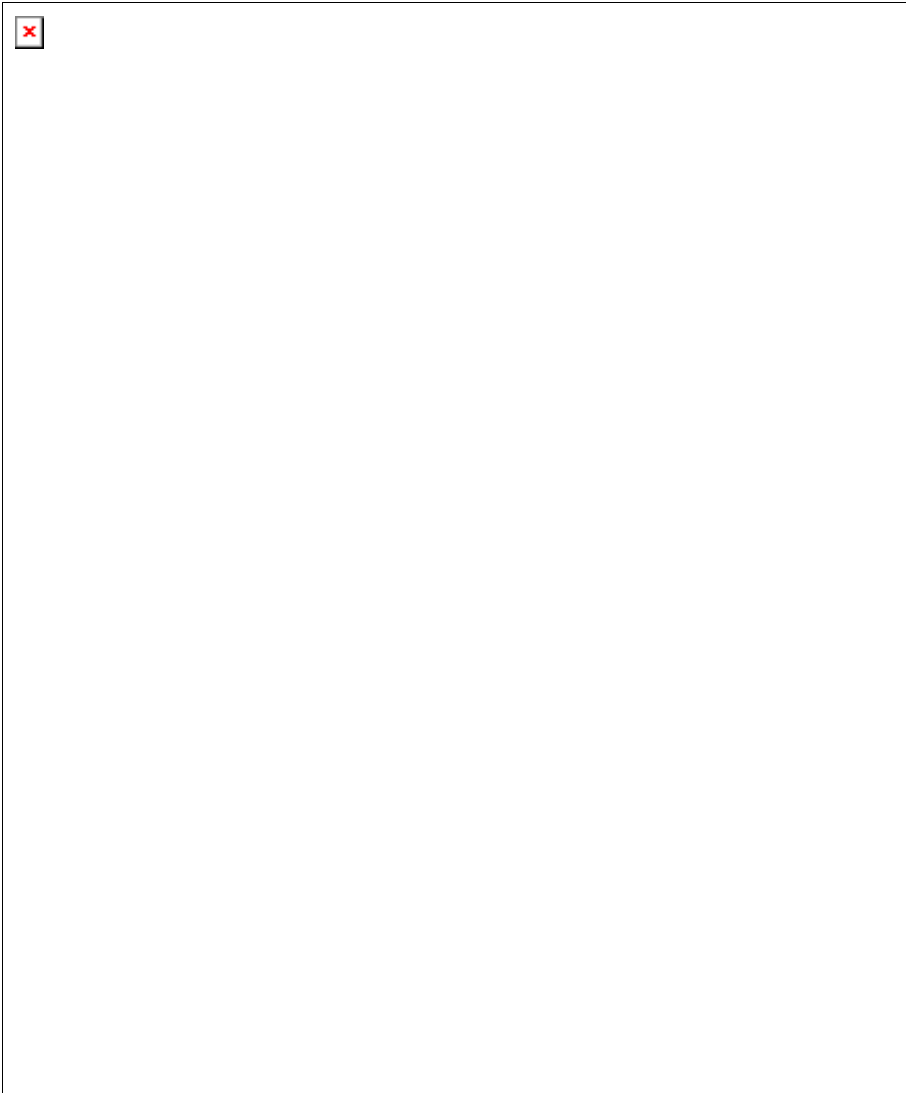
Vehicles with automatic headlight range control

- Install clamp for coupling rod for vehicle attitude sensor -G78- from track-control link.

During installation, observe installing position of clamp on track-control link ⇒ [Page 40-6](#) .

Continued for all vehicles

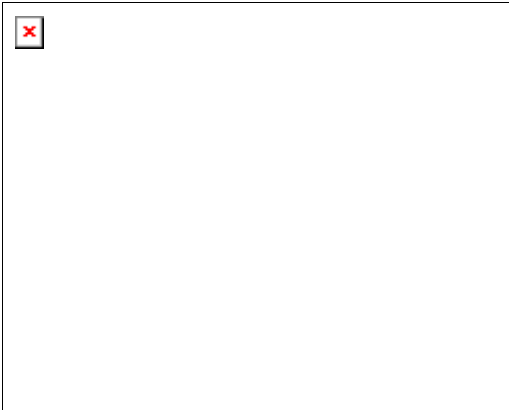
- Install wheel and tighten ⇒ [Page 44-1](#) .



Track-control mountings, replacing

Special tools, workshop equipment, test and measuring appliances and aux. items required

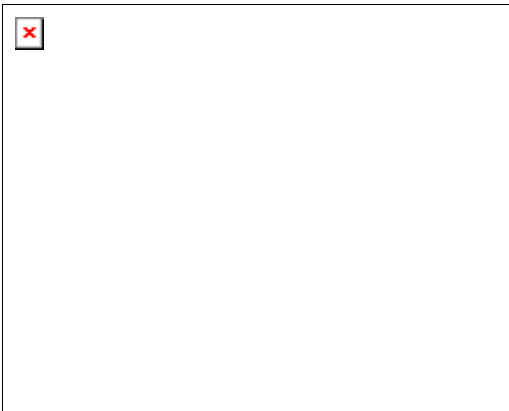
- ◆ 3301 Assembly tool
- ◆ 3346 Assembly tool
- ◆ 3350 Tube



A

Fig. 1 Remove rear mounting

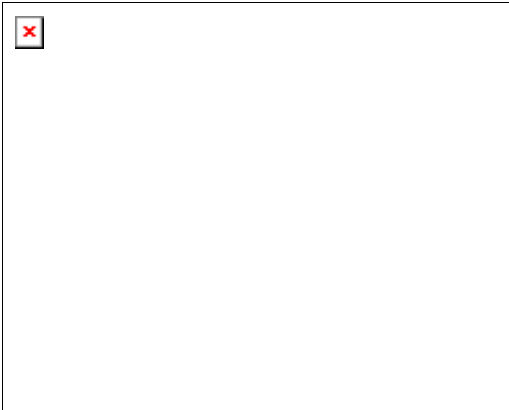
Aluminium links must only be clamped in a vice with protective clamps!



A

Fig. 2 Mounting installation position

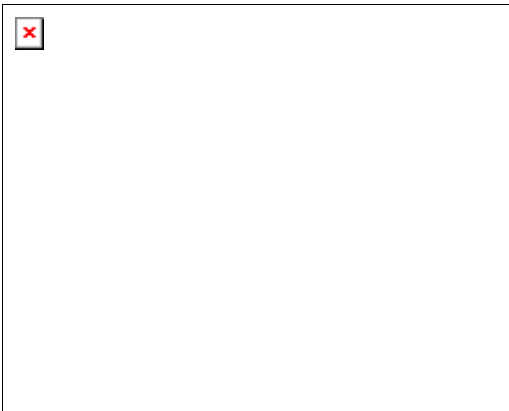
Dimension A; 6° + 3°



A

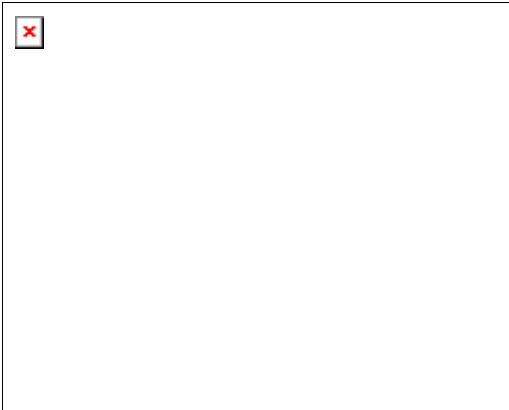
Fig. 3 Pulling in rear mounting

- Insert mounting -A- in 3.2 mm recess in thrust piece -3346/1-.
- Pull mounting in onto stop.



A

Fig. 4 Pulling out front mounting

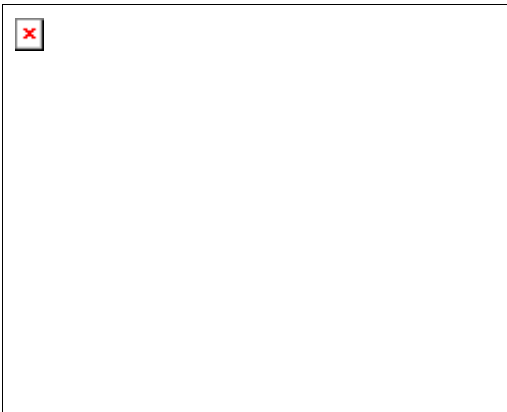
**A****Fig. 5 Pulling in front mounting**

- Insert mounting -A- in 8 mm recess in thrust piece -3346/1-.
- Pull mounting in onto stop.



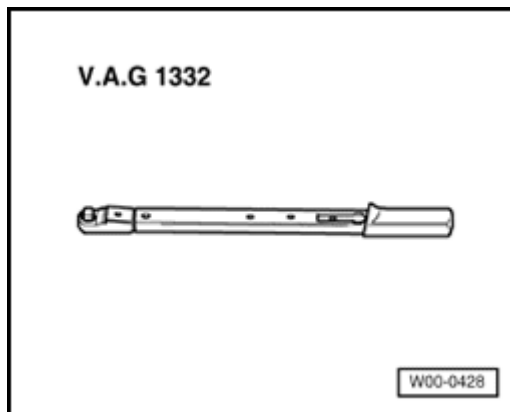
Guide link, removing and installing

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



A

- ◆ 3287A Ball joint puller



A

- ◆ VAG 1332 Torque wrench



Removing

- Remove wheel.

A

- Unscrew guide link joint pin nut and press off joint pin.

Vehicles with all-wheel-drive

- Unbolt propshaft from transmission.

⇒ *Repair Manual, 5 Spd. Manual Transmission 01A All Wheel Drive, Repair Group 39; Removing and installing propshaft; Assembly sequence*

⇒ *Repair Manual, 6 Spd. Manual Transmission 01E All Wheel Drive, Repair Group 39; Removing and installing propshaft; Assembly sequence*

⇒ [*Repair Manual, 5 Spd. Automatic Transmission 01V Front Wheel Drive, Repair Group 39; Removing and installing propshaft; Assembly sequence*](#)

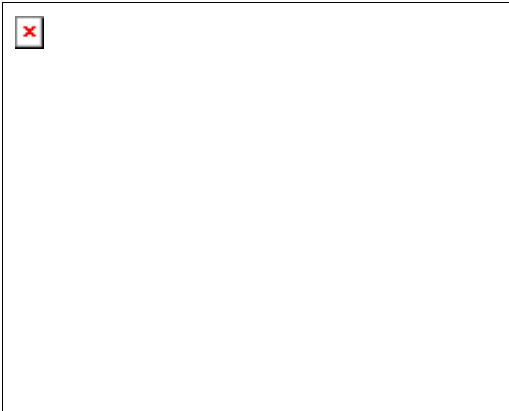
Continued for all vehicles

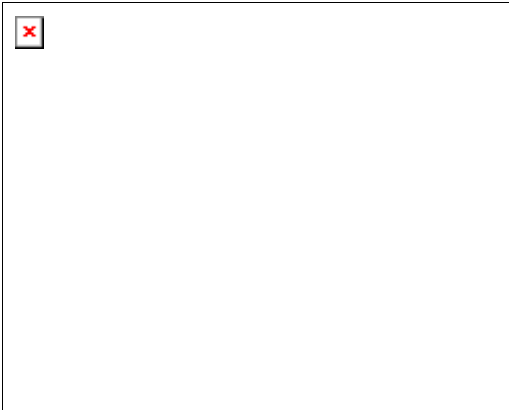
A

- Place transmission jack VAG 1383 A with 1359/2 under subframe and exert slight counter pressure.
- Unscrew bolts -1- and -2- at rear of subframe on both sides of vehicle.

A - Block of wood

- Using transmission jack VAG 1383A, lower subframe slightly.

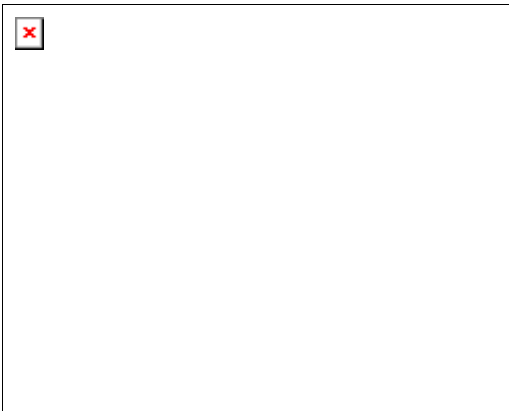




- A**
- Remove hex bolt -1-.
 - Remove guide link.

Installing

- Insert guide link.
- Using transmission jack VAG 1383A, raise subframe slightly.

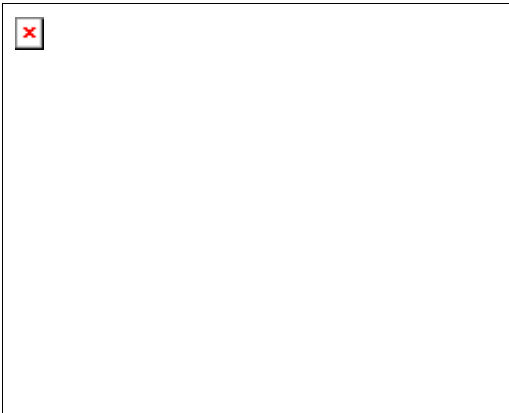


- A**
- Tighten bolts -1- and -2- at rear of subframe on both sides of vehicle ⇒ [Page 40-19](#) , item 31 and page ⇒ [Page 40-18](#) , item 28 .

A - Block of wood



- Tighten nut on joint pin ⇒ [Page 40-15](#) , item 14 .



A

- Install new hex bolt -1- and new hex nut and tighten ⇒ [Page 40-15](#) , item 34 .

Notes:

- ◆ *Only use inner holes -arrow-.*
- ◆ *Push guide link inward when tightening.*

Vehicles with all wheel drive

- Bolt propshaft onto transmission.

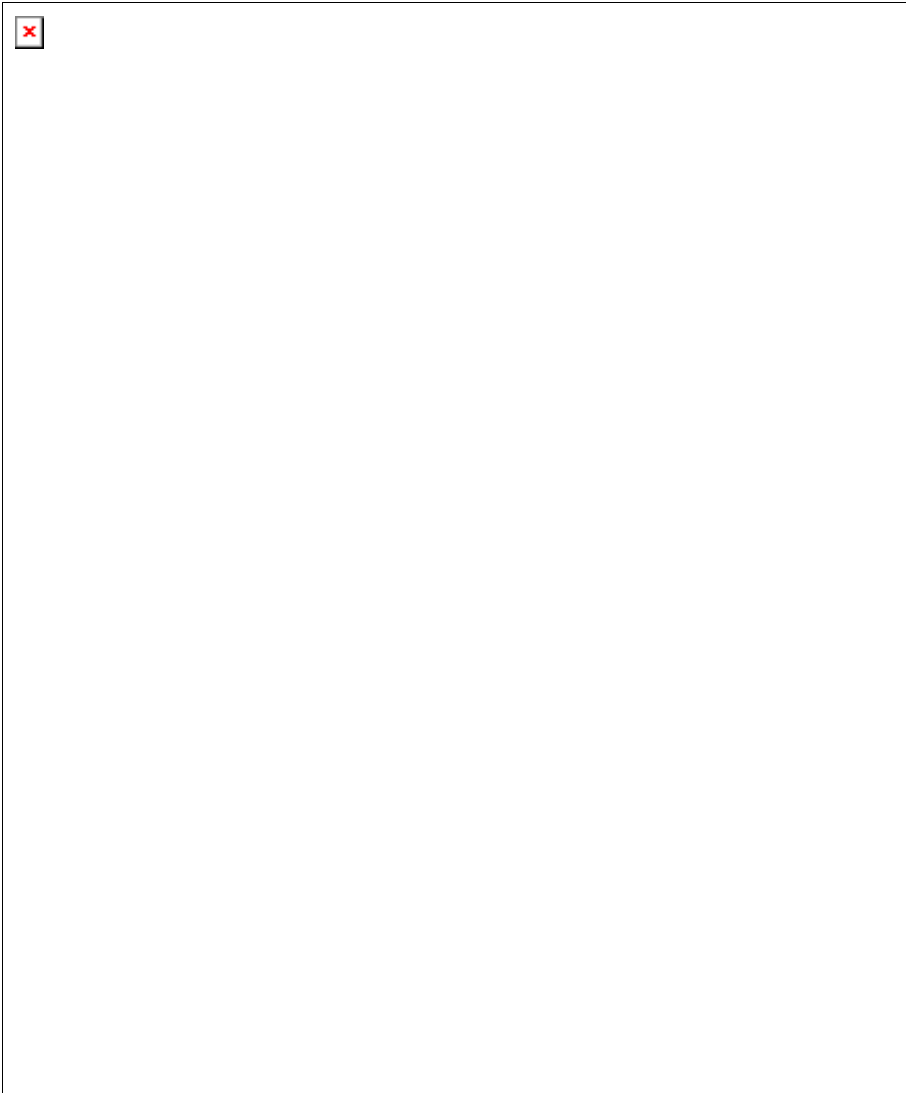
⇒ *Repair Manual, 5 Spd. Manual Transmission 01A All Wheel Drive, Repair Group 39; Removing and installing propshaft; Assembly sequence*

⇒ *Repair Manual, 6 Spd. Manual Transmission 01E All Wheel Drive, Repair Group 39; Removing and installing propshaft; Assembly sequence*

⇒ [Repair Manual, 5 Spd. Automatic Transmission 01V Front Wheel Drive, Repair Group 39; Removing and installing propshaft; Assembly sequence](#)

Continued for all vehicles

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



Guide link mounting, replacing

Special tools, workshop equipment, test and measuring appliances and aux. items required

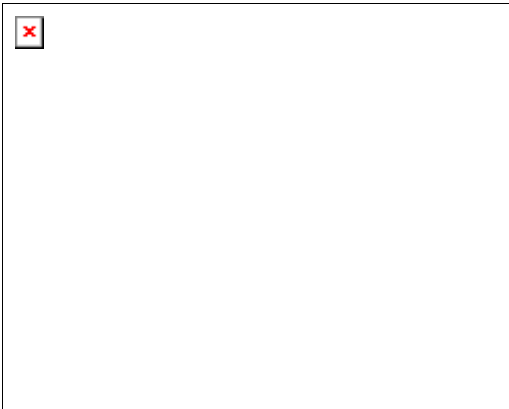
- ◆ 3301 Assembly tool
- ◆ 3346 Assembly tool
- ◆ 3347 Assembly tool



Aluminium guide links must be clamped in a vice only with protective clamps!



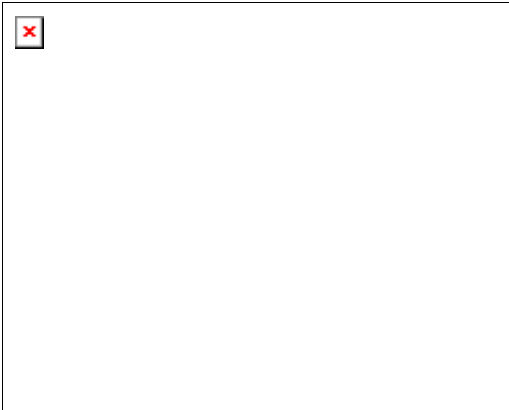
- ⚠ **Pulling hydro-mounting out from guide link**



- ⚠ **Hydro-mounting installation position**

The arrows on hydro-mounting -1- and groove -2- point toward the joint pin.

The maximum permissible deviation is $\square 5^\circ$.



A Pulling in hydro-mounting

- Insert hydro-mounting -A- in special tool -3347/2-.
- Tension sleeve -3347/1-, spindle -3346/2- and hex nut together.
- Pull in hydro-mounting -A- onto stop.



Anti-roll bar mounting, replacing

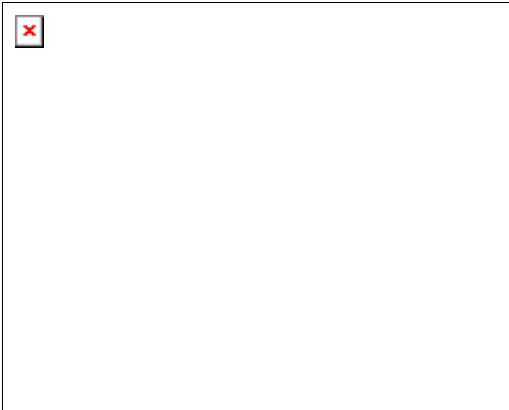
Removing

A

- Remove nut -1-.
- Take connecting link out of anti-roll bar.
- Unscrew hex nuts -2-.

Installing

- Tighten nut -1- ⇒ [Page 40-18](#) , item 30 .
- Tighten hex nuts -2- to 30 Nm.
- Install mounting and anti-roll bar free of grease.





Bearing bracket, removing and installing

Removing

- Remove wheels.
- Remove clip -1- with a pair of pliers.

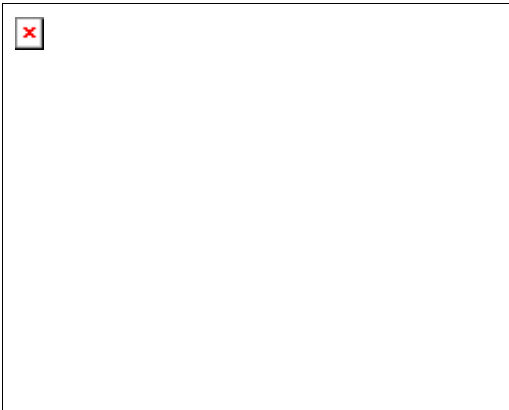
Note:

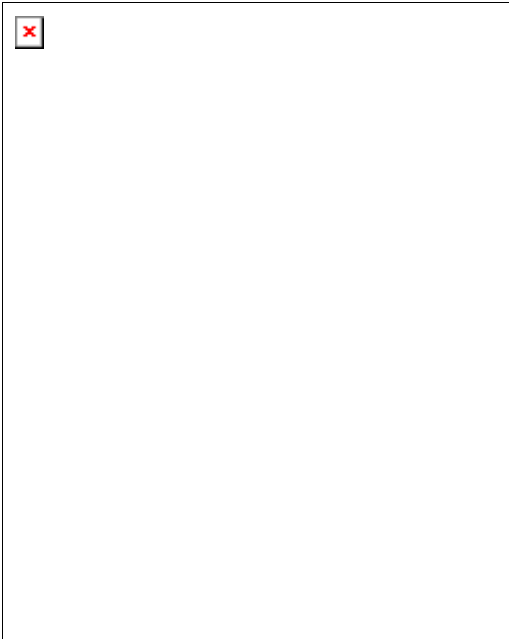
This clip need not be inserted again!

- Remove nut -2-, take out hex bolt and pull both links out upward.

The slits in the wheel bearing housing must not be widened using a chisel or similar tool!

If the hex bolt cannot be removed from the wheel bearing housing, then the hex bolt and the links -2- must be pressed out of the wheel bearing housing ⇒ [Page 40-29](#) .



**A**

- Protect steering gear boot from being damaged.

For clarity the illustration shows a steering gear that has been removed.

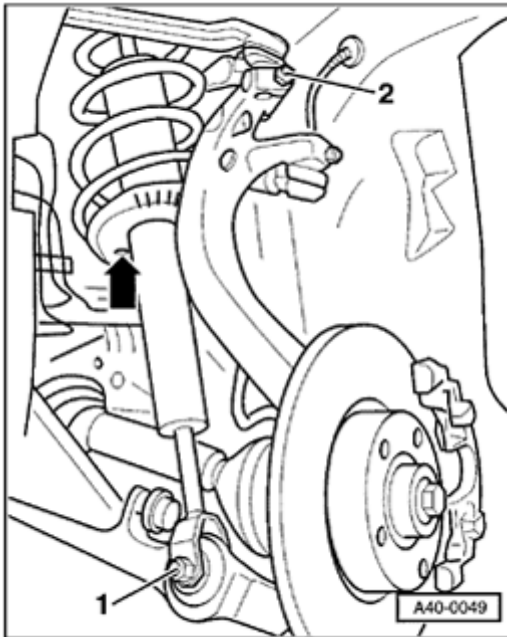
The protective sleeve -1- can be ordered with No. 893 512 137.

- A 20 . . . 25 mm strip, dimension A, must be cut out of the protective sleeve -1-.
- Carefully deburr the cut surfaces.
- Slide protective sleeve over the steering gear boot.

The open side of the sleeve must point downward.

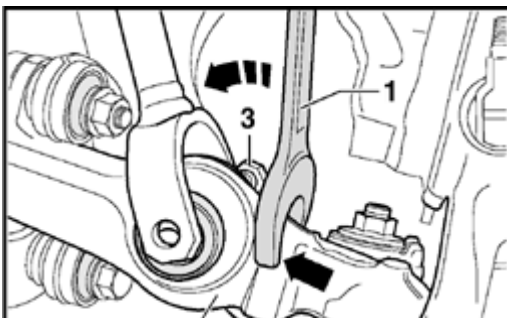


- Disconnect ABS vehicle speed sensor wiring out of retainer on brake caliper.



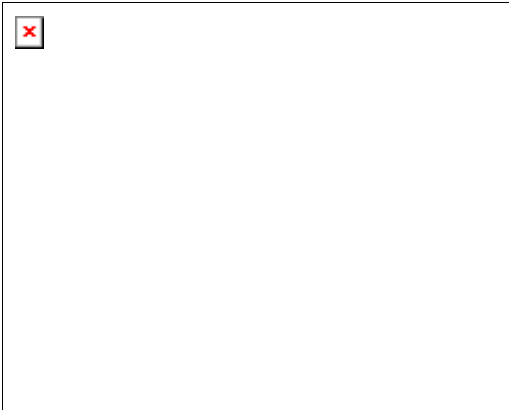
A

- Remove nut -1- .



A

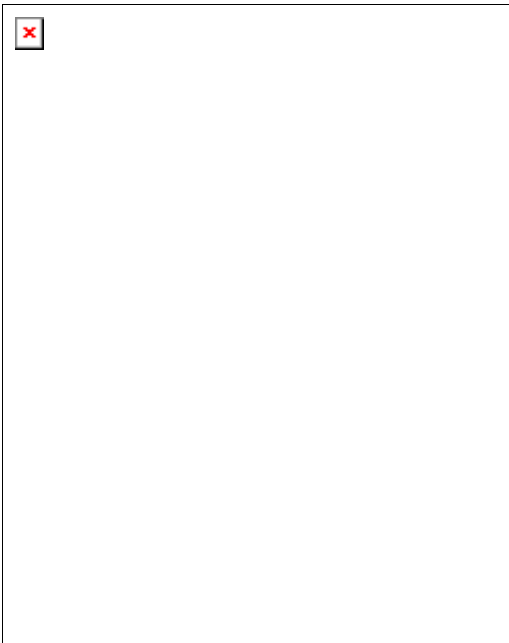
- To facilitate removal of suspension strut, apply an open-end wrench -1- to wrench surfaces -arrow- of track-control link -2-.
- Turn wrench in direction of arrow (direction of travel) and pull out bolt -3-.
- Swing wheel bearing housing to side.

**A**

- Unscrew hex bolts -1- in plenum chamber.
- Take out suspension strut with mounting bracket.

Note:

Do not damage joint protective boot when doing this!

Removing upper link from mounting bracket**A**

- Tension suspension strut in a vice (use protective clamps).
- Unscrew both links -arrows-.
- Unscrew nut -1- and take off mounting bracket.



Installing

A

- Holes in spring plate -arrows- of suspension strut -1- must point towards center of vehicle.
- Fit new nuts -2- for suspension strut and tighten ⇒ [Page 40-21](#) , item 43 .

F = Forward

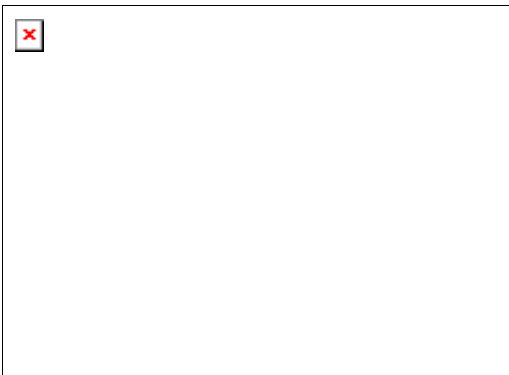
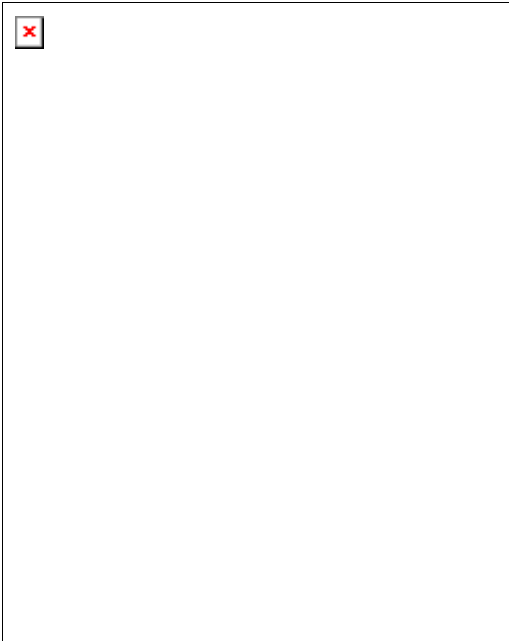
R = Right-hand mounting bracket

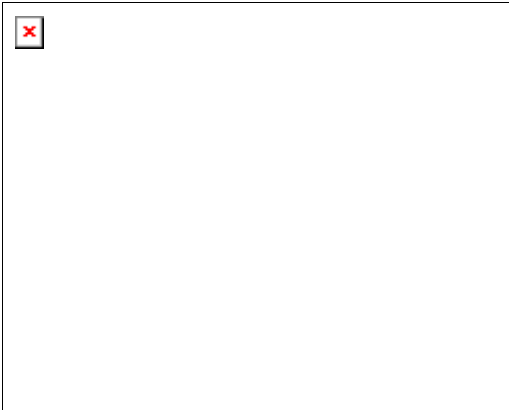
L = Left-hand mounting bracket

Installing upper links to mounting bracket

A

- Align upper links, dimension -A- = 47 " 2 mm.
- Tighten hex bolts -1- for both links ⇒ [Page 40-21](#) , item 42 .



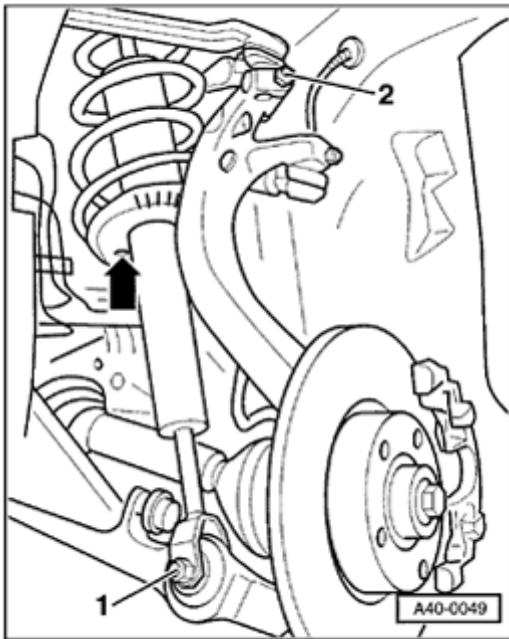


A

- Insert suspension strut with mounting bracket into suspension turret. Tighten hex bolts -1- ⇒ [Page 40-12](#) , item 1 .

Note:

Make sure that washers are seated correctly.



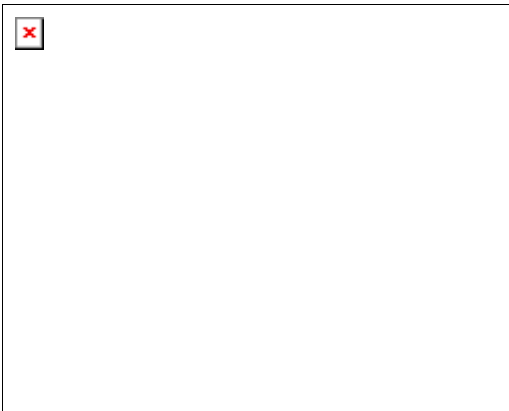
A

- Insert suspension strut forked head into link.
- Bolt suspension strut to lower link.
 - Tighten new nut -1- ⇒ [Page 40-16](#) , item 21 .
- Insert upper links into wheel bearing housing and tighten new nut -2- ⇒ [Page 40-16](#) , item 9 .
 - When tightening press upper links downward as far as possible!
- Connect ABS wiring into retainer on brake caliper.
- Install wheel and tighten ⇒ [Page 44-1](#) .



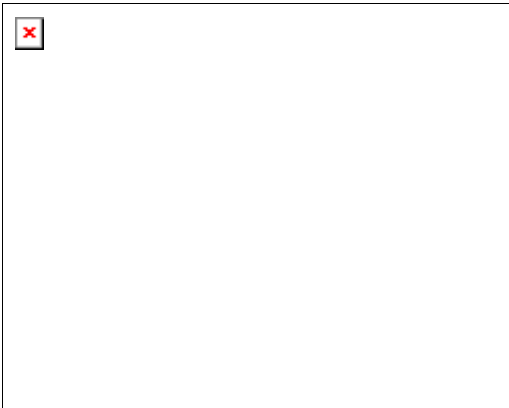
Mountings for upper front and rear links, replacing

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



A

◆ 3301 Assembly tool



A

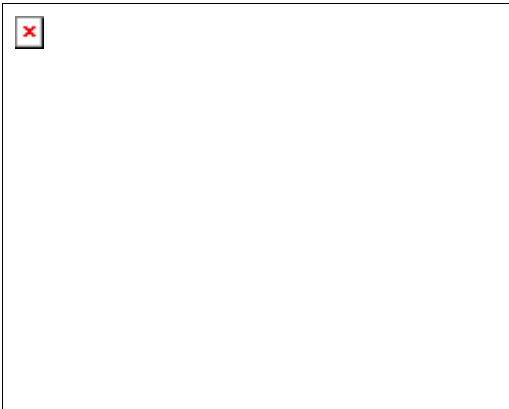
◆ 3348 Assembly tool



Aluminium links must only be clamped in a vice with protective clamps!

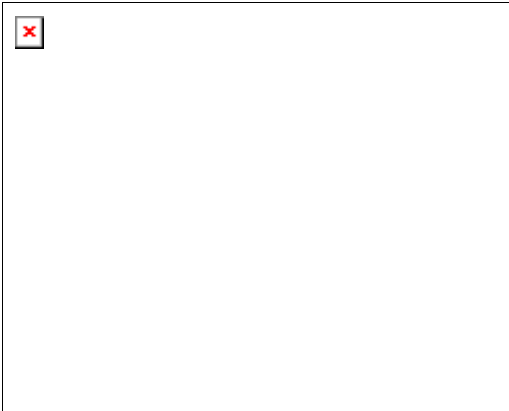


Pulling out mounting



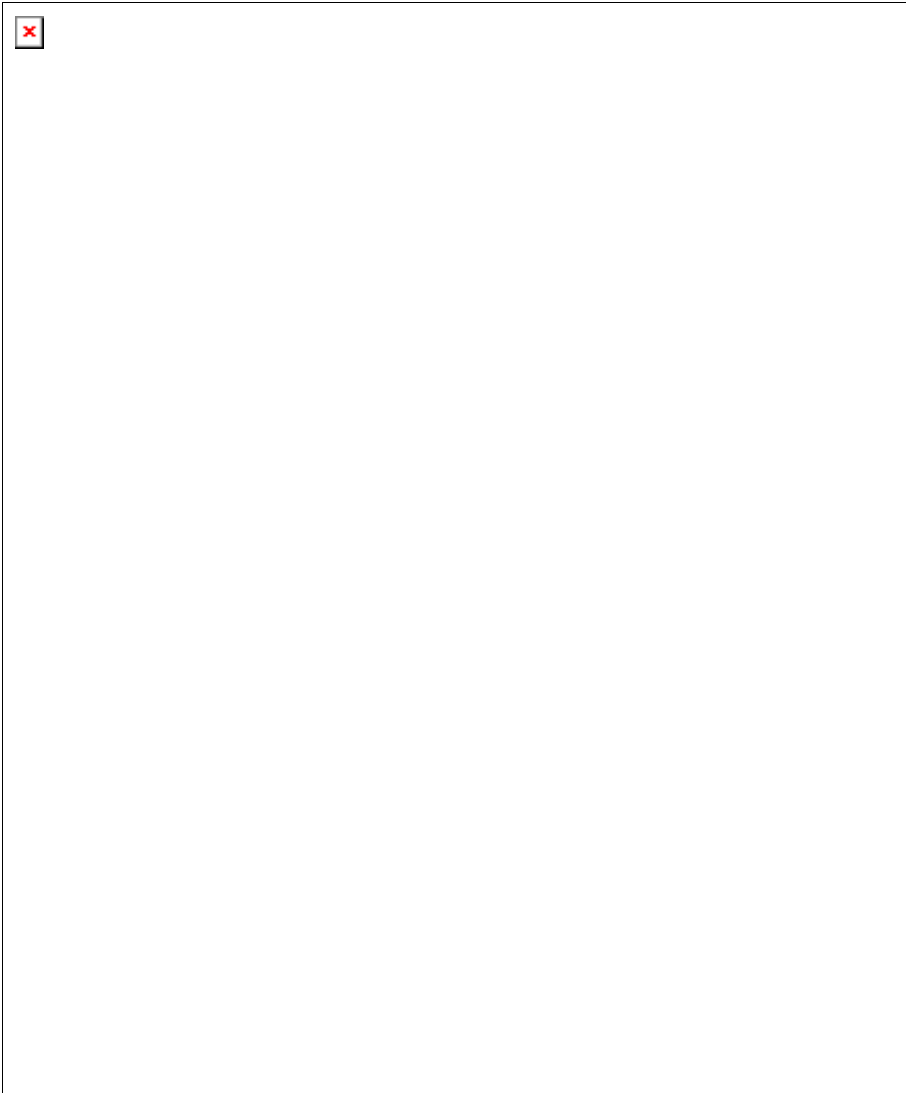
Mounting installation position

$$A = 90^{\circ} + 5^{\circ}$$



A Pulling in mounting

A - Mounting



Subframe, removing and installing

Special tools, workshop equipment, test and measuring appliances and aux. items required

- ◆ 10-222 A Support
- ◆ 10-222 A/10 Additional spindle
- ◆ 10-222 A/18 Adapter
- ◆ 3393 Test mandrel
- ◆ VAG 1332 Torque wrench
- ◆ VAG 1383 A Engine/transmission jack



Removing

A

- Install support bar 10-222A together with supports 10-222 A/1.

Vehicles with 8-cylinder engine

- Remove oil filler pipe from engine.

A

- Install support bar 10-222A together with legs 10-222 A/1 and adapter 10-222 A/18.

The longer side of adapter 10-222 A/18 faces forward.

- Secure third spindle 10-222 A/10 with additional hook 10-222 A/2 on lifting eye at rear left of engine.
- Hook second additional hook 10-222 A/2 on lifting eye at rear right of engine.



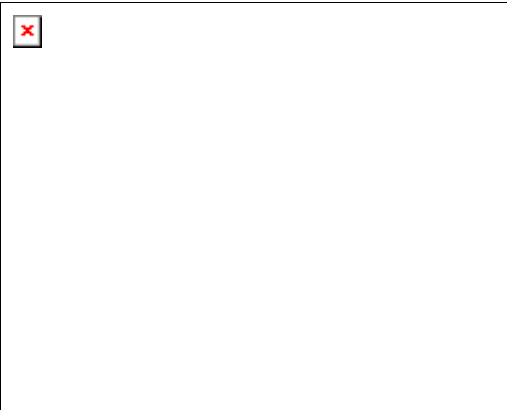
Continued for all vehicles

- Take weight of engine/transmission assembly on the spindles.
- Remove wheels.
- Remove noise insulation tray.

Vehicles with automatic headlight range control

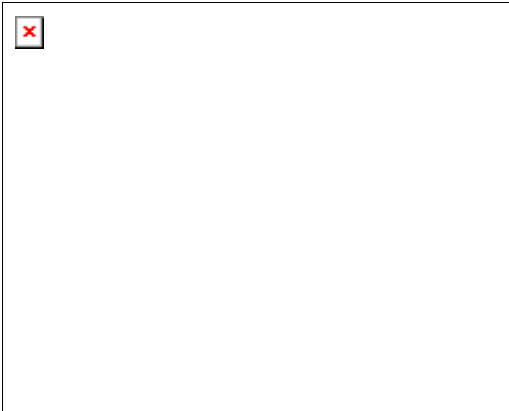
- Unclip clamp for coupling rod -1- for vehicle attitude sensor -G78- from track-control link -2-.

Continued for all vehicles

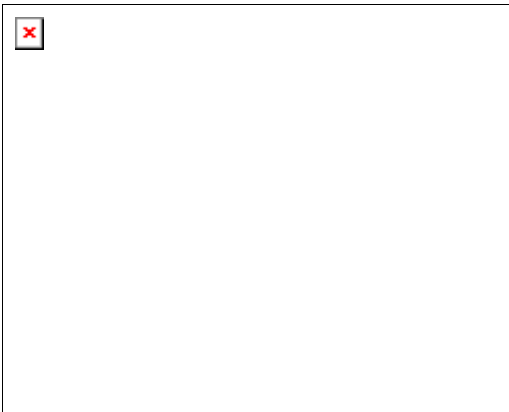
**A****A**

- Before loosening subframe, check that at least holes -1- and -2- align using special tool 3393.

If this is not the case, perform axle alignment measurements after installing the sub-frame!

**A**

- Unscrew hex bolt -5-.
- Unscrew hex nuts -3- and -4- and take out coupling link.
- Remove hex nut -2- for track-control link on subframe and take out hex bolt.
- Remove hex bolt -1-.

**A**

- Unscrew hex bolts -arrows- from transmission mounting -1-.



Vehicles with all wheel drive

- Unbolt propshaft from transmission.

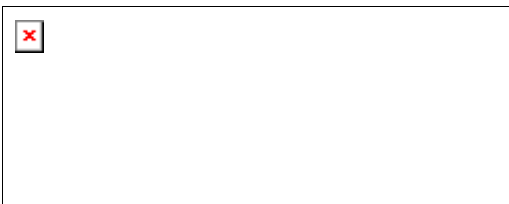
⇒ *Repair Manual, 5 Spd. Manual Transmission 01A All Wheel Drive, Repair Group 39; Removing and installing propshaft; Assembly sequence*

⇒ *Repair Manual, 6 Spd. Manual Transmission 01E All Wheel Drive, Repair Group 39; Removing and installing propshaft; Assembly sequence*

⇒ [Repair Manual, 5 Spd. Automatic Transmission 01V Front Wheel Drive, Repair Group 39; Removing and installing propshaft; Assembly sequence](#)

Continued for all vehicles

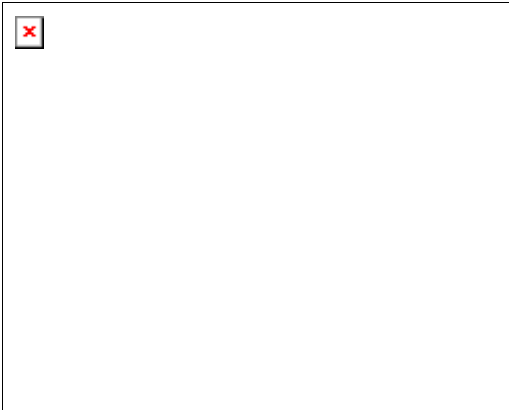
- Place transmission jack VAG 1383 A with 1359/2 under subframe and exert slight counter pressure.
- Unscrew bolts -1- and -2- at rear of subframe on both sides of vehicle.



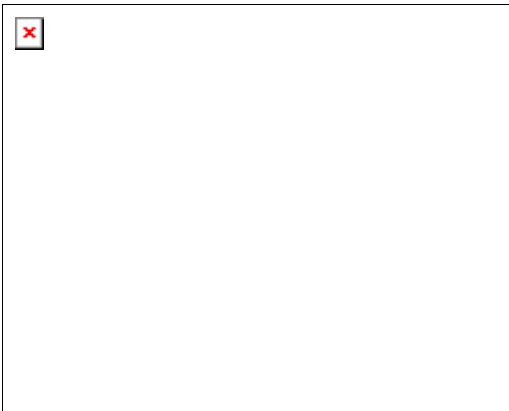
A

A - Block of wood

- Using transmission jack VAG 1383A, lower subframe slightly.
 - Remove hex bolts for track-control and guide links.
- Disconnect ABS vehicle speed sensor wiring out of retainer on brake caliper.

**A**

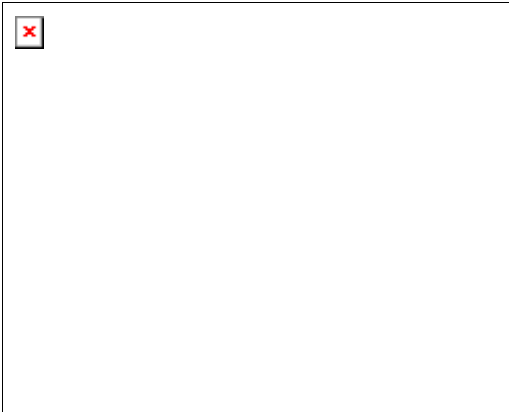
- Pull both track-control and guide links out of subframe.

**A**

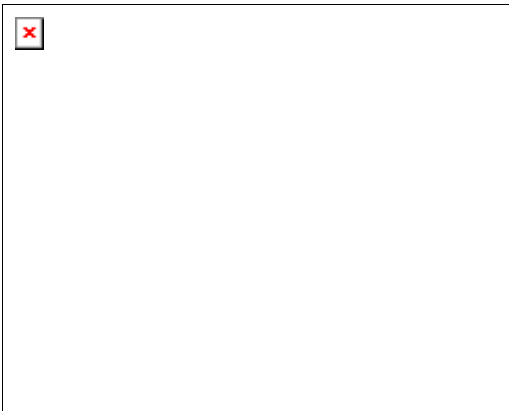
- Unscrew hex bolts -A-.
- Loosen hex bolts -B- until the subframe can be taken out.



Installing

**A**

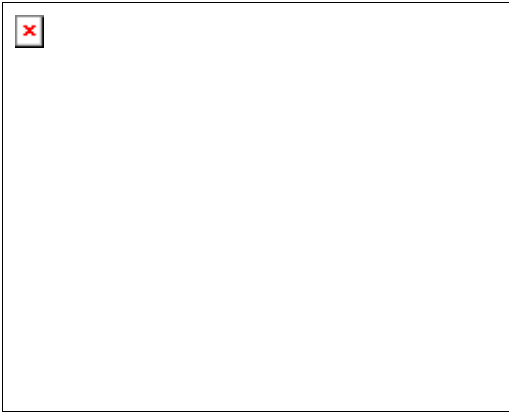
- Install subframe and start hex bolts -A- and -B-.

**A**

- Guide both track-control and guide links into subframe.
- Install bolts into the inner holes -arrows-.
- Using transmission jack VAG 1383A, raise back of subframe slightly.



The subframe must be attached to the body with the help of special tool 3393 before tightening.

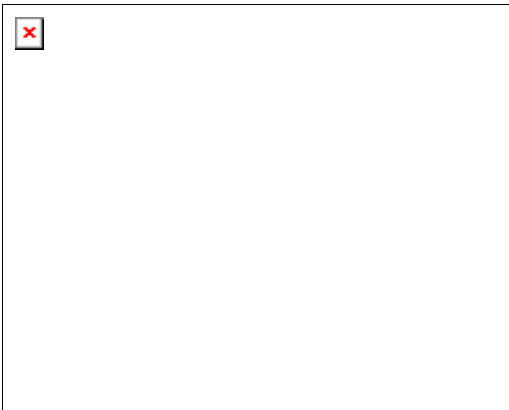
**A**

- Hole -1-, sub-frame hole -2- and aluminium console hole -3- must align on both sides.

Notes:

This attachment only replaces subsequent axle alignment measurements when:

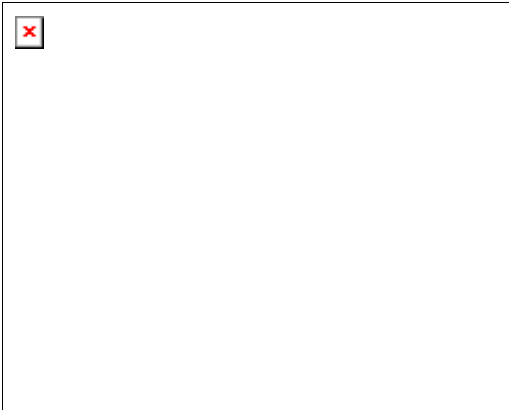
- ◆ *The sub-frame is removed completely and installed.*
- ◆ *Holes -1- and -2- align before repairs are made.*

**A**

- Tighten bolts -1- and -2- at rear of subframe on both sides of vehicle ⇒ [Page 40-19](#) , item 31 and page ⇒ [Page 40-18](#) , item 28 .

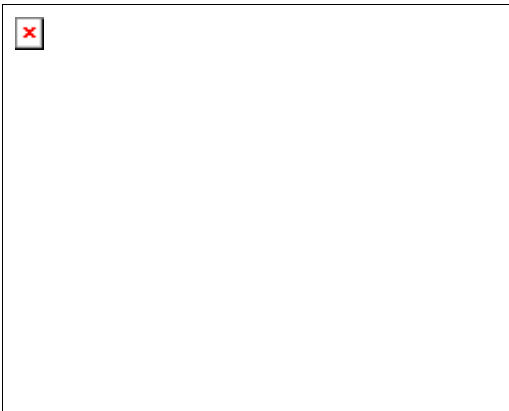
A - Block of wood

- Protect holes in body for mounting special tool 3393 against corrosion.



A

- Tighten hex bolts -A- and -B- ⇒ [Page 40-18](#) , item 28 and ⇒ [Page 40-17](#) , item 27 .

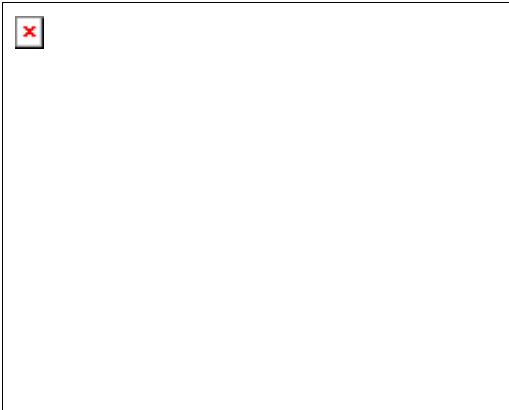


A

- Tighten hex bolts -arrows- at transmission mounting -1-.

⇒ *Repair Manual, Manual Transmission, Repair Group 34; Removing and installing transmission*

⇒ [Repair Manual, 5 Spd. Automatic Transmission 01V All Wheel Drive, Repair Group 37; Removing and installing transmission](#)

**A**

- Insert new hex bolts for guide link -1- and track-control link -2- and tighten new hex nuts ⇒ [Page 40-19](#) , item 33 and ⇒ [Page 40-19](#) , item 34 .

Note:

Press track-control and guide links inward when tightening.

- Tighten hex nuts -3- and -4- ⇒ [Page 40-16](#) , item 23 and page ⇒ [Page 40-18](#) , item 30 .
- Tighten hex bolt -5- ⇒ [Page 40-16](#) , item 21 .

Vehicles with automatic headlight range control

- Install clamp for coupling rod for vehicle left front level control system sensor - G78-.

During installation, observe installing position of clamp on track-control link ⇒ [Page 40-6](#) .

Continued for all vehicles

- Connect ABS vehicle speed sensor wiring into retainer on brake caliper.



Vehicles with all wheel drive

- Bolt propshaft onto transmission.

⇒ *Repair Manual, 5 Spd. Manual Transmission 01A All Wheel Drive, Repair Group 39; Removing and installing propshaft; Assembly sequence*

⇒ *Repair Manual, 6 Spd. Manual Transmission 01E All Wheel Drive, Repair Group 39; Removing and installing propshaft; Assembly sequence*

⇒ [Repair Manual, 5 Spd. Automatic Transmission 01V All Wheel Drive, Repair Group 39; Removing and installing propshaft; Assembly sequence](#)

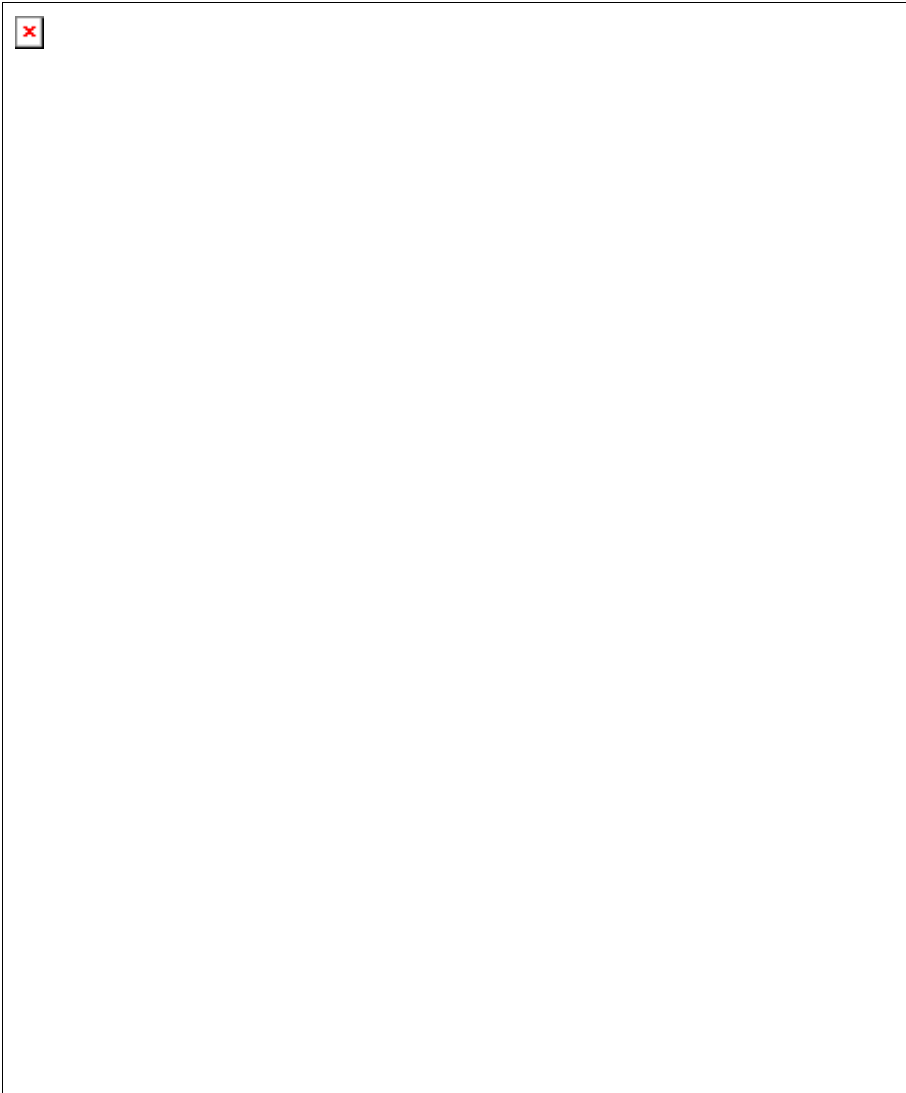
For vehicles with 8 cyl. engines

- Attach oil filler line to engine

⇒ *Repair Manual, 8-Cyl. Fuel Injection & Ignition,
Repair Group 15; Removing and installing
cylinder head.*

Continued for all vehicles

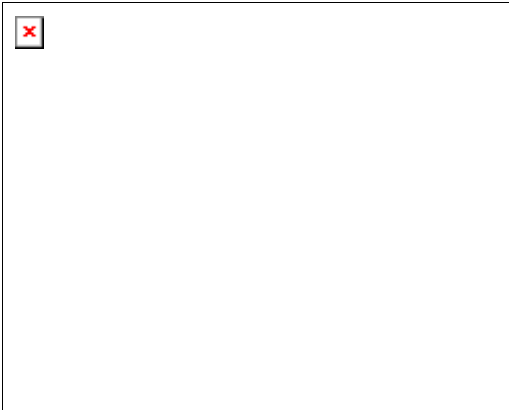
- Install wheel and tighten ⇒ [Page 44-1](#) .



Subframe mountings, replacing

Special tools, workshop equipment, test and measuring appliances and aux. items required

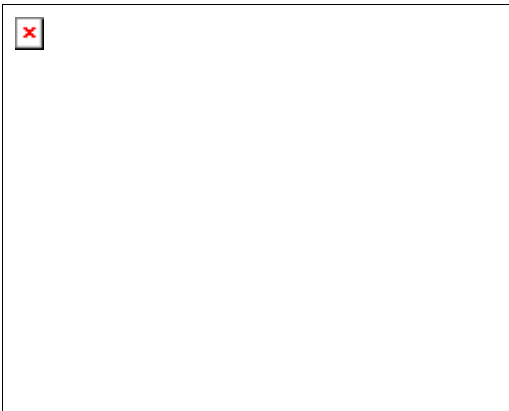
- ◆ 30-205 Thrust plate
- ◆ 3291 Assembly tool
- ◆ 3351 Puller
- ◆ 3372 Removal tool



A Pulling out bonded rubber mounting

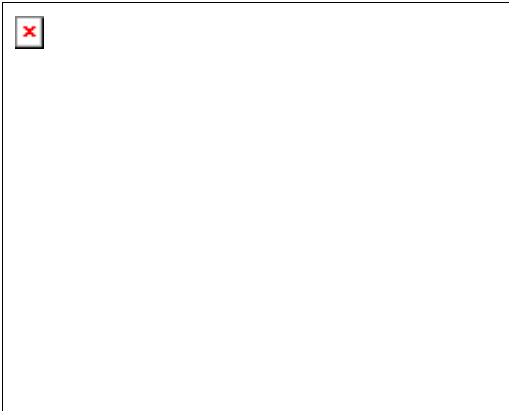
- Saw off/cut-off rubber shoulder on sub-frame mounting up to outer bearing bushing.

If paint surface on sub-frame is damaged, protect surface against corrosion.



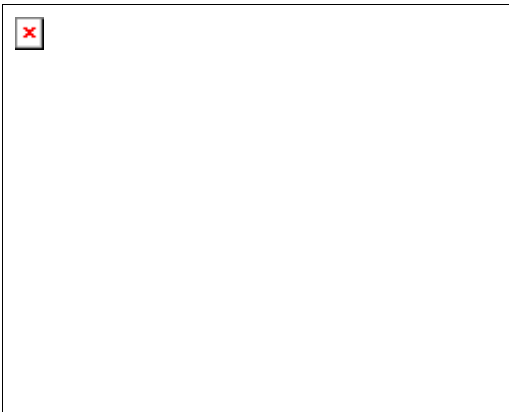
A Pulling out rear bonded rubber mounting

If the rubber shoulder is not completely removed tool -3372- cannot seat correctly and will fall off.



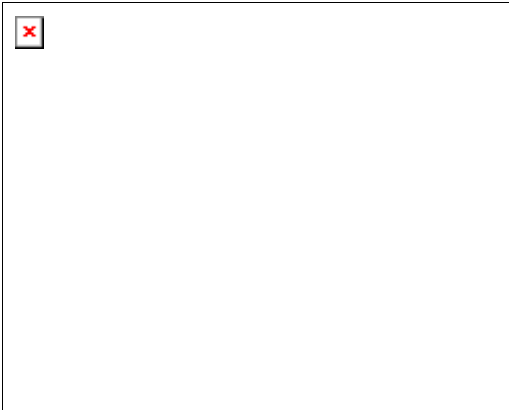
A Pulling out bonded rubber mounting

All bonded rubber mountings on sub-frame are pulled out with the same tool.



A Preparing to pull-in subframe mounting

- Install tube -3372- and insert segments -3372/2-.

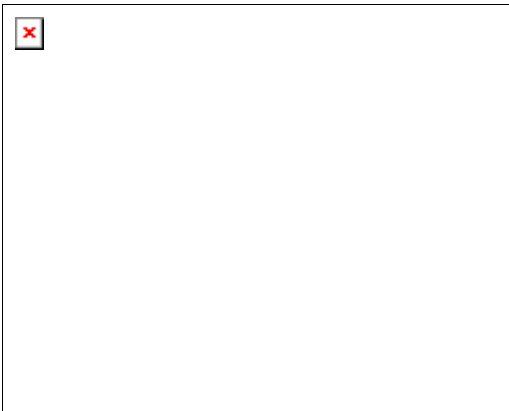


A Aligning bonded rubber mounting

The bonded rubber mountings must be aligned with a long square tube or a straight-edge.

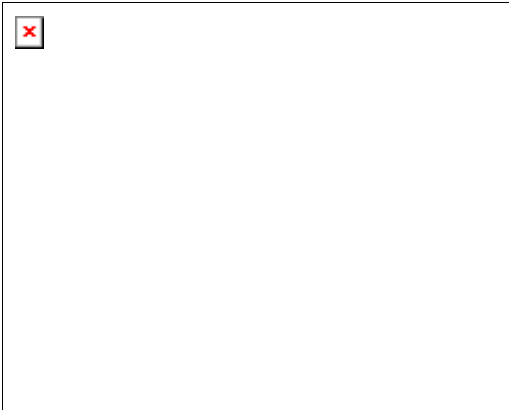
$$A = 90^\circ \square 5^\circ$$

Only tension sub-frame in a vice using protective clamps!



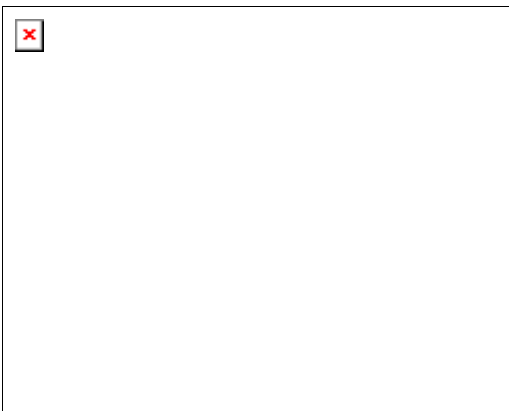
A Pulling in rear bonded rubber mounting

- Coat bonded rubber mounting with e.g. tire assembly paste.
- Pull in mounting -A- until the thrust piece -3372/1- aligns with the upper edge of tool -3372-.
- Take tool -3372- and segments -3372/2- off upward.



A Pulling in rear bonded rubber mounting

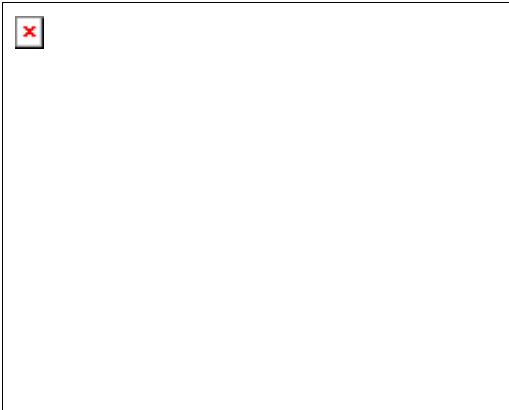
- Insert segments -3372/2- between bridge -3351/4- and sub-frame.
- Pull mounting -A- in onto stop.



A Pulling in front bonded rubber mounting

- Coat bonded rubber mounting with e.g. tyre assembly paste.
- Insert segments -3372/2- in tube -3372- ⇒ Fig. A40-0092 Page ⇒ [Page 40-111](#)
- Pull in mounting -A- until the thrust piece -3372/1- aligns with the upper edge of tool -3372-.

Continued ⇒ [Page 40-114](#)

**A**

- Lift tube -3372- and remove segments -3372/2-.
- Replace bridge -3351/4- with thrust piece -3351/1 and then push mounting in onto stop.